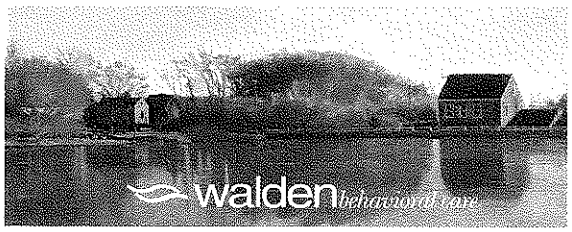

The Honorble Jewel Mullen, M.D.
Commissioner
Department of Public Health
Division of the Office of Health Care Access
410 Capitol Avenue, MS#13HCA
P.O. Box 340308
Hartford, CT 06134-0308

Re: CON Application to Establish an Eating Disorder Program in South Windsor

Date: October 31, 2011

Dear Commissioner Mullen,

Enclosed please find an original CON application submitted by Walden Behavioral Care, CT East, LLC as well as four copies of the application and two CDs with the complete document.

We are pleased to be submitting this application to your office for certificate of need approval to establish an eating disorder program in South Windsor which will be a resource for people within the State of Connecticut who suffer from anorexia nervosa, bulimia and binge eating disorders. We plan to treat men as well as women, and adolescents over the age of 14. Having been successful in the programs we have established in Massachusetts, it is our hope that we can bring the same type of outpatient services to Connecticut.

We look forward to working with your office, and thank you, in advance for your consideration of this application.

Respectfully submitted,

Suart Koman, CEO

cc: Kimberly Martone, Director of Operations
Office of Health Care Access

Please direct all correspondence on this docket to;

Charles R Rossignol
Walden Behavioral Care
880 Main Street
Waltham, MA 02451

and

Patricia A. Gerner
The Law Office of Patricia A. Gerner, LLC
240 Ramstein Road
P.O. Box 209
New Hartford, CT 06057

Application Checklist

Instructions:

1. **Please check each box below, as appropriate; and**
2. **The completed checklist *must* be submitted as the first page of the CON application.**

☒ **Attached is the CON application filing fee in the form of a certified, cashier or business check made out to the "Treasurer State of Connecticut" in the amount of $500.**

For OHCA Use Only:

Docket No.: 11-31731-CON **Check No.:** 22352
OHCA Verified by: [signature] **Date:** 11/2/11

☒ **Attached is evidence demonstrating that public notice has been published in a suitable newspaper that relates to the location of the proposal, 3 days in a row, at least 20 days prior to the submission of the CON application to OHCA. (*OHCA requests that the Applicant fax a courtesy copy to OHCA (860) 428-7053, at the time of the publication)***

☒ **Attached is a paginated hard copy of the CON application including a completed affidavit, signed and notarized by the appropriate individuals.**

☒ **Attached are completed Financial Attachments I and II.**

☒ **Submission includes one (1) original and four (4) hard copies with each set placed in 3-ring binders.**

Note: A CON application may be filed with OHCA electronically through email, if the total number of pages submitted is 50 pages or less. In this case, the CON Application must be emailed to ohca@ct.gov.

Important: For CON applications(less than 50 pages) filed electronically through email, the singed affidavit and the check in the amount of $500 must be delivered to OHCA in hardcopy.

☒ **The following have been submitted on a CD**

1. **A scanned copy of each submission in its entirety, including all attachments in Adobe (.pdf) format.**
2. **An electronic copy of the documents in MS Word and MS Excel as appropriate.**

AFFIDAVIT

Applicant: WBC Connecticut East LLC

Project Title: Outpatient Eating Disorder Service – PHP/IOP Programs

I, Stuart L. Koman, PhD, President and CEO of WBC Connecticut East LLC, being duly sworn, depose and state that WBC Connecticut East LLC 's information submitted in this Certificate of Need Application is accurate and correct to the best of my knowledge.

Signature _____ Date 10/28/2011

Subscribed and sworn to before me on October 28th, 2011

_____

Notary Public/Commissioner of Superior Court

My commission expires: 02/09/2018

JOSE R. RAMOS
MY COMMISSION EXPIRES FEBRUARY 9, 2018
NOTARY PUBLIC
COMMONWEALTH OF MASSACHUSETTS

Affidavit of Publication

State of Connecticut } ss. Manchester
County of Hartford }

I...Donna Chiapponi.....do solemnly swear that I am Classified Bookkeeper....of the Journal Inquirer printed and published at Manch. in the State of Connecticut and that from my own personal knowledge and reference to the files of said publication the advertisement of.....

.Legal Notice for WBC Connecticut East, LLC, Certificate of Need Public Notice.....

.....

.....Please see attached tearsheet(s)...

was inserted in the regular editions on dates as follows: 7/7/11, 7/8/11, 7/9/11

.....

.....

Donna Chiapponi
.....Billing Department.....

.....Donna Chiappo.....

.....

Subscribed and sworn to before me this ..8th....day of August, 2011

Seal

Karin E. Marsh
KARIN E. MARSH
NOTARY PUBLIC
MY COMMISSION EXPIRES OCT. 31, 2013

Notary Public.

Order #: 511672
Class: 4000 - GENERAL LEGALS
AdTaker: A10
Customer: MISC LEGAL

PUBLIC NOTICE
WBC CONNECTICUT EAST, LLC
Certificate of Need Public Notice

The applicant WBC Connecticut East, LLC (hereafter referred to as WBC) is applying for a Certificate of Need (CON) pursuant to section 19a-638 of the general statutes. WBC's application is to provide outpatient treatment programs for individuals diagnosed with anorexia nervosa, bulimia nervosa or EDNOS. The programs will include an Adult Partial Hospitalization Program (PHP) and Intensive Outpatient Program (IOP) will serve adult patients ages 18 and older, and an Adolescent Intensive After School Program (IOP) that will serve adolescents, ages 12-17. The programs will draw referrals primarily from the provider community, and educational systems located in Hartford, southern and northwestern CT communities and surrounding regions, as well as insurance companies.

WBC's programs will provide structured meals and snacks, and group treatment focused on building and reinforcing coping skills and developing strategies for relapse prevention. Patients will receive Dialectical Behavior Therapy (DBT), Cognitive Behavioral Therapy (CBT), Interpersonal Therapy, Expressive Therapy and Nutritional Therapy in a fully integrated manner. Hours of operation are Monday, Wednesday and Thursday: 8:30am-8:30pm, and Tuesday and Friday 8:30am-3pm.

The program will be located at 2400 Tamarack Drive, South Windsor, CT. The total capital expenditure for the project is expected to be approximately $155,000.
Journal Inquirer
July 7, 2011
July 8, 2011
July 9, 2011

22352

WALDEN BEHAVIORAL CARE, LLC
880 MAIN STREET, 2ND FLOOR
WALTHAM, MA 02451-8500

Citizens Bank®

5-7017-2110

10/27/2011

PAY
TO THE
ORDER OF Treasurer, State of Connecticut

$ **500.00

Five Hundred and 00/100********** DOLLARS

Treasurer, State of Connecticut

MEMO

AUTHORIZED SIGNATURE

⑈022352⑈ ⑆211070175⑆ 1315932080⑈

WALDEN BEHAVIORAL CARE, LLC

22352

Treasurer, State of Connecticut

10/27/2011

Date	Type	Reference	Original Amt.	Balance Due	Discount	Payment
10/27/2011	Bill	CT	500.00	500.00		500.00
					Check Amount	500.00

Citizens - Operating 500.00

V

Walden Behavioral Care Connecticut East, LLC
CON Application

Table of Contents

Exhibits

Tables

State of Connecticut
Office of Health Care Access
Certificate of Need Application

Instructions: Please complete all sections of the Certificate of Need ("CON") application. If any section or question is not relevant to your project, a response of "Not Applicable" may be deemed an acceptable answer. If there is more than one applicant, identify the name and all contact information for each applicant. OHCA will assign a Docket Number to the CON application once the application is received by OHCA.

Docket Number:

Applicant: WBC Connecticut East LLC

Contact Person: Charles R Rossignol

Contact Person's Title: Director of Business Development

Contact Person's Address: Walden Behavioral Care, 880 Main Street, Waltham, MA 02451

Contact Person's Phone Number: 781-647-2922

Contact Person's Fax Number: 781-647-6755

Contact Person's Email Address: CRossignol@waldenbehavioralcare.com

Project Town: South Windsor CT

Project Name: OP Eating Disorder Service – PHP/IOP Programs

Statute Reference: Section 19a-638, C.G.S.

Estimated Total Capital Expenditure: $50,000

Project Description: New Service (Behavioral Health/Substance Abuse)

a. Please provide a narrative detailing the proposal.

WBC Connecticut East LLC (hereafter referred to as 'Walden'), a subsidiary of Walden Behavioral Care (a Massachusetts provider of behavioral health services), plans to establish an outpatient clinic at 2400 Tamarack Avenue – Suite 203, South Windsor CT. We seek approval to treat adults and adolescents (ages 12-17) with eating disorders in two levels of care, Partial Hospital (PHP) and Intensive Outpatient (IOP). Additionally, we would provide aftercare support for adolescents and their families.

Walden Behavioral Care is an established health care provider with multiple service locations in Massachusetts. It is the only provider in New England that offers a full continuum of care for patients with eating disorders, including hospital, residential, partial hospitalization and intensive outpatient care. It is the only provider serving male patients. And it is also the only provider with a dedicated program for individuals with binge eating disorder.

Its inpatient hospital service is located in Waltham, Massachusetts, and is the only tertiary care inpatient service provider of eating disorders services in New England. Its Residential Service, Partial Hospital (PHP) and Intensive Outpatient (IOP) programs also in Waltham, are located a short distance from its inpatient campus. Walden Behavioral Care also has outpatient clinics providing PHP and IOP eating disorder services in Northampton and Worcester, MA. Walden Behavioral Care also has two specialized programs for adolescents and binge and night eating disorders.

Supporting the unmet demand for eating disorder services, 30% of Walden's patients come from New England states other than Massachusetts. The existing website for the services provided in Massachusetts receives over 15,000 web inquiries per month.

The programs rely upon the evidenced based practices summarized below:

Cognitive Behavioral Therapy (CBT) combining self monitoring, behavioral experimentation and the challenging of dysfunctional thoughts about eating and body image. (Pike, Carter & Olmstead, 2010, *See* Exhibit #1). In this model, Eating Disorder symptoms result from an interaction between cognitive disturbances and eating and weight control behavior. Often these cognitions function below conscious awareness. CBT helps patients learn to identify them and restructure these thoughts, promoting new approaches to problem solving and flexibility in thinking.

Dialectical Behavioral Therapy (DBT) helps participants learn new ways to manage painful emotions and interact with each other more effectively during this difficult time of their illness. DBT skills groups include mindfulness, distress

tolerance, emotion regulation, and interpersonal effectiveness (Linehan, M.,1993, *See* Exhibit #2).

Interpersonal Therapy (IT) –allows an individual to explore his/her interactions with others and consider how interpersonal distress may contribute to symptomatic behavior. Individuals build the self-confidence and self-esteem that will foster resilience and decrease eating disorder behavior (Tanosfsky-Kraff & Wilfley, 2010, *See* Exhibit #3).

Family Based Therapy (FBT) -- ***Maudsley Method*** -- emphasized in our work with adolescents, FBT helps restore a child's physical health by reestablishing parental authority in all areas of family life that relate to food (meal planning, shopping, and eating expectations). Research shows the Maudsley method highly effective with eating disordered adolescents (Loeb & le Grange et al., (2007), see Exhibit #4, page 243). Families are uniquely positioned to provide the support and supervision necessary to combat this life-threatening disease. Parents are temporarily put in charge of eating behaviors in order to combat the eating disorder that is controlling their child's behavior. The treatment seeks to respect the adolescent's opinions and experience, but refuses to let this devastating illness continue to control their lives. (See attached Walden study by Johnson & Xavier, "Effectiveness of Maudsley Therapy with Dialectical Behavioral Therapy in an Intensive Outpatient Program" attached as Exhibit #5).

Partial Hospital Programs

The Partial Hospital Programs meet five days per week, with an option for Saturday programming. The adult PHP will serve 10 patients, and the adolescent PHP will serve 10 adolescents. These patients require PHP treatment to avoid the progression of the eating disorder to the point where the patient would require admission to a more restrictive environment, (such as a residential or inpatient setting).

The PHP level of care offers the following:

- An integrated multidisciplinary treatment plan care including psychopharmacological evaluation and management. Assessment and treatment of co-morbid psychiatric diagnoses commonly associated with eating disorders.
- Coordination of care with other medical conditions treated by the patient's primary care provider and appropriate medical specialists.
- Structure and supervision (five days per week), needed to interrupt and contain eating disorder behaviors.
- Individual and group therapy using evidence-based practices.

Intensive Outpatient Programs

The Intensive Outpatient Programs will each meet three days per week, and serve twelve adults and twelve adolescents in distinct programs. The adolescent program will emphasize Family Based Therapy, using the Maudsley approach described above. This program will be provided after school, to avoid disrupting this aspect of the patient's natural support system.

At the IOP level of care, patients are able to actively engage in working towards eating disorder recovery. With guidance from our clinicians, IOP participants develop individualized recovery goals in the following domains:

- **Motivation** -- Increasing percent of time working on change towards recovery; maintaining belief in need for change and maintain desire for change.

- **CoMorbid Conditions** -- Work on personal weight goal; keeping labs normal, following through on treatment plan(s) for other presenting problems.

- **Physical Activity** -- Set and work on a personal activity goal.

- **Eating** – Increase the percent of time following meal plan; Expand variety of foods eaten/reduce avoidance; Know triggers of ED behavior, increase use of prevention and coping strategies; Maintain reduced body checking/weighing, reduce more if necessary; Practice eating in a variety of social situations, decrease avoidance; Monitor and increase awareness of hunger and fullness cues; Maintain abstinence from ED behaviors or reduce: specify behavior &

make specific goal; Avoid substituting self-injurious or substance use behaviors for ED ones; Avoid replacing one ED behavior with another.

- **Cognition** -- Create or update formulation of ED; Review cognitive strategies and pick two /week to try; Maintain reduced dietary rules, reduce if necessary; Reduce relative importance of weight and shape in self-image; Identify four positive qualities about self unrelated to eating/body; Review strategies to reduce preoccupation/obsessing.

- **Emotional** -- Increase appropriate expression of emotions in group treatment, Increase appropriate expression of emotions outside of treatment; Learn more/review emotion-regulation strategies: pick one or two to try for week; Follow up on any treatment plan specified for mood; Take all medications as prescribed.

- **Social/Interpersonal** -- Plan step towards increasing social support: specify 2 goals for week; Maintain participation in interpersonal components of group treatment; Practice communication skills in all areas of life: specify goal; Identify 1-2 links between interpersonal patterns and ED symptoms; Work on 1 interpersonal problem area (grief, role transitions, role disputes, deficits).

- **Education/Occupation** -- Create or review pie chart and identify possible new life interests, hobbies or activities; Continue working on developing other life interests, hobbies or activities; Begin to re-integrate back into work/school/hobbies; Reclaim life!

- **Relapse Prevention** -- Maintain or update relapse prevention plan, and increase the time between relapses, decrease the intensity and length of the relapse, and increase the ability to recover from relapses. Reframe relapse as part of the learning and recovery process, rather than failure.

Outpatient Aftercare Support

Once they complete the IOP program, adolescents and their families may continue in specialized eating disorder recovery treatment by participating in individual, group, and family treatment.

Binge Eating Disorder (BED) IOP

We also plan to provide a distinct IOP program for 12 adults with Binge Eating Disorder. The BED population is best served in a specialized IOP program where the peer group support of individuals struggling with similar issues related to controlling caloric intake and weight is available. The program integrates Fairburn's guided self-help CBT model with nutrition education and DBT skill building. A sample program is provided below:

Table 1: Sample Programs for Binge Eating Disorder Patients

CBT	Nutrition	DBT
Getting Started: -Self-Monitoring -Introduce diary -Commitment/Stages of Change/Motivations to change	**Nutrition Basics I:** -eating for health -food as fuel -functions of proteins, vitamins, minerals etc.	**Mindfulness/Awareness:** -developing awareness of experiences, thoughts and feelings (will help with self-monitoring) -focus on caring for oneself
Review Monitoring/daily diary - Introduce summary card **Why do we binge?** -Pros and Cons -What does it do for you? -What are you avoiding? -3x5 card for Motivation	**Structured/Regular Eating** -Why is this important and how will it help What to eat: —balanced meals --planning ahead and shopping	**More Mindfulness and Stress Reduction:** -role of stress in bingeing -stress reduction techniques (breathing, relaxation, guided imagery) -making time for self-care
Alternatives to Bingeing: -learn to spot urges early -generate list of alternate activities -preparing for triggering times/places/situations	**Dieting and Other forms of Avoidance: Why Diets Don't Work** -restricting consumption over time -restricting foods -restricting calories -effects of hunger on mind	**Emotion Regulation:** -observe &identify, describe, participate -myths about emotions -anger management -forgiveness, letting go of painful emotions
Problem Solving: -practice problem solving -behavior chain analysis -what strategies work/which don't -review progress: am I following programming?	**Nutrition Basics II:** -more facts about food groups, nutrients, -tips for meal planning -time for questions and trouble-shooting -sweets and treats?	**Emotion Regulation & Interpersonal Effectiveness:** -interpersonal triggers -self-respect, advocacy, -assertiveness -saying no, asking for help -prioritizing health needs
Distorted Cognitions: -common cognitive distortions -separating thoughts from emotions -evaluate assumptions -excessive concerns about weight and or appearance	**Focused Nutrition Education** - address special issues, ie, nutrition for diabetics, avoiding toxins, vegetarian, organic etc.	**Distress Tolerance:** -Improving the Moment -Turning the Mind
What's Next: Relapse Prevention -create relapse prevention plan -review progress -discharge planning	**Nutrition for Life** -weight reduction and weight maintenance -nutrition goals for health and balance	**Distress Tolerance** -Radical Acceptance -Willingness vs Willfulness

Staffing

The following table provides the staffing, by discipline and hours, which will be used to operate the programs.

Table 2: Staffing for Walden Behavioral Care Connecticut East

WBC Connecticut East	Year to Year Staffing

		YEAR 1		YEAR 2	YEAR 3
Employee	**Dept**	**Hrs. / Wk.**	**Notes**	**Hrs. / Wk.**	**Hrs. / Wk.**
Social Worker #1	SW - CT East	40		40	40
Social Worker #2	SW - CT East	24	Starts: Yr-01 / Mo-04	40	40
Social Worker #3	SW - CT East	20	Starts: Yr-01 / Mo-07	40	40
Psychologist	SW - CT East	30	Starts: Yr-01 / Mo-04	40	40
Mental Health Technician #1	MHT - CT East	40		40	40
Mental Health Technician #2	MHT - CT East	20	Starts: Y-01 / Mo-04	40	40
Nutritionist	Nutritionist - CT East	16		24	40
MD	MD - CT East	9		12	16
Program Director	Program Dir. - CT East	40		40	40
Administrator	Admin - ECT	40		40	40
Receptionist		20	Starts: Yr-01 / Mo-04	40	40
	Total Hrs:	299		396	416
	Total FTE's:	**7.5**		**9.9**	**10.4**

Please note the staggered staffing during Year 1, reflective of our ramping up of staffing during startup.
This staffing matrix correlates directly to the staffing expenses identified in Exhibit #21, Financial Attachment I.

From its opening in Year 1, Walden will have a program director, an administrator, a social worker and a mental health worker on site full time, 40 hours per week. Part time staff will also be involved from the beginning, with hours increased as appropriate for the volume of patients. The psychologist will work 30 hours per week in Year 1, but will quickly move to 40 hours by Year 2 as will additional social workers and one additional mental health worker.

2. Clear Public Need

a. Provide the following regarding the proposal's location:

i. The rationale for choosing the proposed service location;

Walden will be located in South Windsor, CT in space leased in the ECHN medical building. The proposed location is in close proximity to major highways (Interstate Highways 91 and 84 and Route 2), which provides convenient access to patients from the Greater Hartford area, and to those residing south of Hartford in Middlesex and New Haven Counties. The site is also within 10 miles of Eastern Connecticut Health Network's (ECHN) flagship hospital in Manchester CT, with which Walden is establishing a close relationship for mutual referrals and access to ECHN's more acute medical services for Walden patients as needed.

ii. The service area towns and the basis for their selection;

Due to the lack of comprehensive continuum of eating disorder treatment services in Connecticut, especially services for males, Walden will be a state-wide resource. The primary service area will consist of Hartford, Tolland, Middlesex and New Haven Counties. This service area delineation is based on an approximate drive time of one hour or less.

The secondary service area consists of the rest of Connecticut and consists of Fairfield, New London, Windham and Litchfield Counties. In addition, it is anticipated that Walden will receive referrals from contiguous states.

The referrals to the program will be from the provider community, educational systems and districts, as well as insurance companies. A list of the towns in the service area is included as Table 3.

Table 3: Proposed Service Area

Primary Service Area	
Hartford County	Avon, Berlin, Bloomfield, Bristol, Burlington, Canton, East Granby, East, Hartford, , East Windsor, Enfield, Farmington, Glastonbury, Granby, Hartford, Hartland, Manchester, Marlborough, New Britain, Newington, Plainville, Rocky Hill, Simsbury, Southington, South Windsor, Suffield, West Hartford, Wethersfield, Windsor, Windsor Locks
Tolland County	Andover, Bolton, Columbia, Coventry, Ellington, Hebron, Mansfield, Somers, Stafford, Tolland, Union, Vernon, Willington
Middlesex County	Chester, Clinton, Cromwell, Deep River, Durham, East Haddam, East Hampton, Essex, Haddam, Killingworth, Middlefield, Middletown, Old Saybrook, Portland, Westbrook
New Haven County	Ansonia, Beacon Falls, Bethany, Branford, Cheshire, Derby, East Haven, Guilford, Hamden, Madison, Meriden, Middlebury, Milford, Naugatuck, New Haven, North Branford, North Haven, Orange, Oxford, Prospect, Seymour, Southbury, Wallingford, Waterbury, West Haven, Wolcott, Woodbridge
Secondary Service Area	
Fairfield County	Bethel, Bridgeport, Brookfield, Danbury, Darien, Easton, Fairfield, Greenwich, Monroe, New Canaan, New Fairfield, Newtown, Norwalk, Shelton, Sherman, Stamford, Stratford, Redding, Ridgefield, Trumbull, Weston, Westport, Wilton
Litchfield County	Barkhamsted, Bethlehem, Bridgewater, Canaan, Colebrook, Cornwall, Goshen, Harwinton, Kent, Litchfield, Morris, New Hartford, New Milford, Norfolk, North Canaan, Plymouth, Roxbury, Salisbury, Sharon, Thomaston, Torrington, Warren, Washington, Watertown, Winchester, Woodbury
New London County	Bozrah, Colchester, East Lyme, Franklin, Griswold, Groton, Lebanon, Ledyard, Lisbon, Lyme, Montville, New London, North Stonington, Norwich, Old Lyme, Preston, Salem, Sprague, Stonington, Voluntown, Waterford
Windham County	Ashford, Brooklyn, Canterbury, Chaplin, Eastford, Hampton, Killingly, Plainfield, Pomfret, Putnam, Scotland, Sterling, Thompson, Windham, Woodstock

iii. The population to be served, including specific evidence such as incidence, prevalence, or other demographic data that demonstrates need;

Walden's programs will serve adults and adolescents (ages 12-17) with eating disorders. Patients diagnosed with Anorexia Nervosa, Bulimia Nervosa and Binge Eating Disorder will be treated through outpatient programs at the proposed facility. The population in the total service area is 2,402,596

persons, 1,400,832 reside in the primary service area and 1,001,764 reside in the secondary service area. (U.S. Census Bureau, 2010)

Table 4: Service Area Population Aged 15-64*

County	Total Population	Males	Females
Primary Service Area			
Hartford County	598,017	293,940	304,077
Tolland County	109,410	56,031	53,379
Middlesex County	111,679	55,339	56,340
New Haven County	581,726	283,838	297,888
Total	**1,400,832**	**689,148**	**711,684**
Secondary Service Area			
Fairfield County	606,342	297,996	308,346
Litchfield County	126,870	63,216	63,654
New London County	186,704	95,160	91,544
Windham County	81,848	41,118	40,730
Total	**1,001,764**	**497,490**	**504,274**
Total Service Area	**2,402,596**	**1,186,638**	**1,215,958**

Source: http://quickfacts.census.gov

**Walden will provide care to adolescents aged 12-17. Separate data for the population aged 12-14 is not available from the Census. Therefore the total population is understated.*

Literature pertaining to the prevalence of eating disorders within the population includes the following:

Anorexia Nervosa (AN)

- Anorexia impacts 1 in 200 females and 1 in 2,000 males during their lifetime. (American Psychiatric Association. (2000). Diagnostic and Statistical Manual of Mental Disorders (4th ed., text rev.) Washington, DC., p. 587, attached as Exhibit #6.
- Recent Studies suggest 0.9% lifetime AN prevalence among women in the U.S. (Hudson, Hiripi, Pope, & Kessler, 2007, Exhibit #7) and 2.2% in Finland (Keski-Rahkonen et al., 2007. *See* Exhibit #8, p. 1261).
- New AN cases per 100,000 increased over the 20th century (Keel & Klump, 2003, *See* Exhibit #9), suggesting that the disorder has become increasingly common.

Using the prevalence rates reported above, the incidence of AN in females in the primary service area ranges from 3,558 to 6,405 persons. The incidence of AN in males in the primary service area is 345, and in the total service area is 593. In the total service area the range is 6,080 to 10,944 persons.

Bulimia Nervosa (BN)

- Currently, there is consensus that BN, as defined by the DMS-IV-TR, impacts 2-3% of young women, (Crow & Brandenburg, 2010, Exhibit #10, p. 30).
- Based on surveys of a large, nationally representative sample of randomly chosen U.S. adults, the National Comorbidity Survey Replication study reported a lifetime prevalence of BN as 1.5% among females and 0.5% among males (Hudson, Hiripi, Pope, and Kessler, 2007, Exhibit #7, p.1).
- A review of the literature finds that a striking feature associated with BN is the high rate of co-occurring psychopathology -- unipolor and bipolar depression, OCD, and substance use disorders, and cluster B personality disorders. (Crow and Brandenburg, 2010, Exhibit #10, p. 30).

Using the prevalence rates reported above, the incidence of BN in females in the primary service area is 10,675 and in the total service area is 18,239. The incidence in males in the primary service area is 3,446 and in the total service area is 5,933

Binge Eating Disorder (BED)

- Recent studies indicates that BED is at least as common as AN and BN in the general population. (*See* Wildes & Marcus, 2010, Exhibit #11).
- Prevalence rate estimates among obese individuals are even higher, ranging from 4 to 8% in community samples, and up to 30% among patients seeking bariatric surgery or other weight loss interventions (Wildes & Marcus 2010, Exhibit #11, page 45).
- Using National Comorbidity Survey Replication data, Hudson and colleagues (2007) reported life time prevalence estimates for BED of 3.5% of women and 2.0% of men during their lifespan, nearly twice as high as those reported for AN and BN combined. (See Hudson, Hiripi, Pope and Kessler, 2007, Exhibit #7).

Using the prevalence rates reported above, the incidence of BED in females in the primary service area is 24,909 and in the total service area is 42,559. The incidence in males in the primary service area is 13,783 and in the total service area is 23,733.

These statistics more than justify the need for a program to assist persons suffering from eating disorders in the service area where Walden will be

located. The size of the program is relatively small in comparison to the need that exists. Table 5, below provides a summary of the incidence of eating disorders in the proposed service area in Connecticut

Table 5: Incidence of Eating Disorders in the Service Area

	Anorexia Nervosa	Bulimia Nervosa	Binge Eating Disorder
Primary Service Area	3,903- 6,750	14,121	38,692
Secondary Service Area	2,770 – 4,787	10,051	27,600
Total Service Area	6,673 – 11,537	24,172	66,292

3. Projected Volume

a. Complete the following table for the first three fiscal years ("FY") of the proposed service.

Table 6: Projected Volume: Patient Days

	Projected Volume in Days (First 3 Full Operational FYs)**		
Service type	FY2012	FY2013	FY2014
Adult PHP	825	1,432	1,820
Adult IOP	623	856	1,248
Binge IOP	354	620	776
Adolescent PHP	388	776	1,044
Adolescent IOP	352	856	1,248
Aftercare IOP	197	698	936
Total	**2,735**	**5,252**	**7,072**

FN/ The fiscal year is a calendar year : January 1 through December 31.

** If the first year of the proposal is only a partial year, provide the first partial year and then the first three full FYs. Add columns as necessary.
*** Identify each service/procedure type and add lines as necessary.
**** Fill in years. In a footnote, identify the period covered by the Applicant's FY (e.g. July 1-June 30, calendar year, etc.).

Table 7: Projected Number of Patients

	Projected Number of Patients (First 3 Full Operational FYs)**		
Service type	FY2012	FY2013	FY2014
Adult PHP	83	144	183
Adult IOP	73	100	145
Binge IOP	41	73	91
Adolescent PHP	25	50	66
Adolescent IOP	28	69	100
Aftercare IOP	16	56	75
Total	**265**	**491**	**660**

FN/ The fiscal year is a calendar year : January 1 through December 31.

** If the first year of the proposal is only a partial year, provide the first partial year and then the first three full FYs. Add columns as necessary.
*** Identify each service/procedure type and add lines as necessary.
**** Fill in years. In a footnote, identify the period covered by the Applicant's FY (e.g. July 1-June 30, calendar year, etc.).

b. Provide a detailed description of all assumptions used in the derivation/calculation of the projected volumes.

The service volume projections are based on Walden's experience setting up new programs in Northampton and Worchester, Massachusetts. Service volume projections are provided in Exhibit #12. Program projections reflect staggered launching of each of the services over the first several months of startup. Adult PHP and IOP services are projected to launch in month 1 of the service startup. Adolescent PHP and IOP services are projected to launch in month 4 of startup, and the Aftercare IOP program is projected to launch in month 7.

Specific volume projections for three full years of operations are summarized as follows:

- **Adult PHP**: ***Year 1***, the service is projected to begin with an ADC of 2.0 for months 1 and 2, and increase to 2.5 for months 3 and 4. It is projected to increase to 3.0 for months 5 and 6, then a further increase to 4 for the next 6 months. ***Year 2***, ADC is projected to increase to 5.0 for the first 6 months, and then to 6.0 for the next 6 months. In ***Year 3***, ADC is projected at 7.0 for the full 12 months.
- **Adult IOP**: ***Year 1***, the service is projected to begin with an ADC of 2.0 for months 1 and 2, increasing to 3.0 for months 3 and 4. It is projected to increase to 4.0 for months 5 and 6, then a further increase to 5.0 for the next 6 months. ***Year 2***, ADC is projected to remain at 5.0 for the first 6 months, and then increase to 6.0 for the next 6 months. In ***Year 3***, ADC is projected at 8.0 for the full 12 months.

- **Binge Eating Disorder**: ***Year 1***, the service is projected to begin with an ADC of 1.0 for months 1-3, increasing to 2.0 for months 4-6. It is projected to increases to 3.0 for the next 6 months. ***Year 2***, ADC is projected at 4.0 for the full 12 months. In ***Year 3***, ADC is projected at 5.0 for the full 12 months.
- **Adolescent PHP**: ***Year 1***, no census is projected for months 1-3. Launch of this service is projected to begin in month 4, with an ADC of 1.0 for months 4-6. ADC is projected to increase to 2.0 for months 7-9, and further increase to 3.0 for months 9-12. ***Year 2***, ADC is projected at remain at 3.0 for the full 12 months. In ***Year 3***, ADC is projected at 4.0 for the full 12 months.
- **Adolescent IOP**: ***Year 1***, no census is projected for months 1-3. Launch of this service is projected to begin in month 4, with an ADC of 2.0 for months 4-6. ADC is projected to increase to 3.0 for months 7-9, and further increase to 4.0 for months 9-12. ***Year 2***, ADC is projected at remain at 5.0 for months 1-6, and increase to 6.0 for months 7-12. In ***Year 3***, ADC is projected at 8.0 for the full 12 months.
- **Aftercare IOP**: ***Year 1***, no census is projected for months 1-6. Launch of this service is projected to begin in month 7, with an ADC of 2.0 for months 7-9. ADC is projected to increase to 3.0 for months 9-12. ***Year 2***, ADC is projected to increase to 4.0 for months 1-6, and increase further to 5.0 for months 7-12. In ***Year 3***, ADC is projected at 6.0 for the full 12 months.

c. Provide historical volumes for three full years and the current year to date for any of the Applicant's existing services that support the need to implement the proposed service. See table (below)

Table 8: Historical Volumes - Patient Days

Waltham Service Site

Service Type	FY2009	FY2010	FY2011 (8 mo)	FY2011 Projected
Adult PHP	2,095	2,422	1,594	2,391
Adult IOP	1,280	1,762	782	1,173
Binge IOP - 7 mo	-	-	182	286
Adolescent PHP - 3 mo	-	-	143	334
Adolescent IOP	815	948	655	983
TOTAL PATIENT DAYS =>	4,190	5,132	3,356	5,166

Northampton Service Site

Service Type	FY2009	FY2010	FY2011 (8 mo)	FY2011 * Projected
Adult PHP	963	1,212	736	1,104
Adult IOP	548	621	399	599
Binge IOP - 7 mo	-	-	361	567
Adolescent PHP - 7 mo	-	-	191	300
Adolescent IOP	-	40	50	75
TOTAL PATIENT DAYS =>	1,511	1,873	1,737	2,645
* Annualized based on 8 months of experience.				
Combined sites:	***5,701***	***7,005***	***5,093***	***7,811***

d. Provide a copy of any articles, studies, or reports that support the statements made in this application justifying need for the proposal, along with a brief explanation regarding the relevance of the selected articles.

1. BN/BE: *The Prevalence and Correlations of Eating Disorders in the National Comorbidity Survey Replication Survey*, Biological Psychiatry, Hudson, Hiripi, et. al. (2007). (http://www.biologicalpsychiatryjournal.com/article/S0006-3223(06)00474-4/abstract). See Exhibit #7 for complete article. This study, among other data, reveals the prevalence of eating disorders in the general population. *"Lifetime prevalence estimates of DSM-IV anorexia nervosa, bulimia nervosa, and binge eating disorder are .9%, 1.5%, and 3.5% among women, and .3% .5%, and 2.0% among men."*

2. NE: *A Randomized, Placebo-Controlled Trial of Sertraline in the Treatment of Night Eating Syndrome*, American Journal of Psychiatry, O'Reardon, Allison, et. al. (2006). Please see Exhibit #13 for the complete article. (http://ajp.psychiatryonline.org/cgi/content/full/ajp;163/5/893). This study identifies the prevalence of the population with Night Eating Syndrome. *"Night eating syndrome is of clinical importance because it is associated with both obesity and psychological distress. Its prevalence has been estimated at 1.5% in the general population with a reported range of*

8.9% to 14% in obesity clinics and rates of up to 27% in severely obese persons."

Note: The source of population statistics for 2007 (which is used in a number of articles published before the 2010 Census) is the U.S. government census website: http://www.census.gov/popest/states/NST-ann-est.html.

4. Quality Measures

a. Submit a list of all key professional, administrative, clinical, and direct service personnel related to the proposal.

The following is a list of the key professional, administrative, clinical and direct service personnel related to the proposal. A copy of their CVs is attached as Exhibit #14.

Stuart L Koman, PhD – President and CEO
Walter Henritze, Chief Financial Officer
Ronald Steingard, MD - Chief Medical Officer
Margaret Moran, RN, MHSA – Sr. Vice President, Marketing and Business Development
Colleen O'Brien, PsyD – Director of Compliance and Quality Improvement
Charles Rossignol, MBA – Director of Business Development
Jennifer Smith, LICSW – Program Director
Kelly Stellato, MS, RD, LDN, CLC – Nutritionist

b. Explain how the proposal contributes to the quality of health care delivery in the region.

Walden's programs deliver high quality care by experienced staff who are trained in eating disorders services. Its services are accredited by the Joint Commission. Its inpatient and residential services are licensed by the Massachusetts Department of Mental Health. Its clinics are licensed by the Massachusetts Department of Public Health.
Among all other providers offering Eating Disorder (ED) services in New England, Walden Behavioral Care is uniquely poised as the only provider offering a full continuum of services to patients needing ED treatment. These services include:

- Inpatient hospital care in a single-specialty, secure setting
- Residential care
- Partial Hospital treatment Program (PHP)
- Intensive Outpatient treatment Program (IOP)
- Adolescent After-School Program
- Binge Eating and Night Eating Disorders Program

Walden is the only tertiary care inpatient service provider of ED services in New England, and the only provider with both a locked, acute setting and fully dedicated program. It is the only provider serving male patients. It is also the only provider with a dedicated program for individuals with binge eating disorder. Supporting the unmet demand for ED services, 30% of Walden's patients come from NE states other than MA. Walden's website routinely receives over 15,000 web hits per month. The same high quality that exists in the Massachusetts programs will be utilized in the outpatient programs planned for WBC Connecticut East in South Windsor.

c. Identify the Standard of Practice Guidelines that will be utilized in relation to the proposal. Attach copies of relevant sections and briefly describe how the Applicant proposes to meet each of the guidelines.

Walden utilizes the American *Psychiatric Association's Practice Guidelines for the Treatment of Patients with Eating Disorders, Third Edition.* (Attached as Exhibit #15, pp. 2-30). These standards are the basis for the clinical guidelines utilized in our contracts with third-party payers, and provide detailed information on the formulation and implementation of a treatment plan. Specifically, they address:

- Establishing and maintaining a therapeutic alliance
- Coordination of care and collaboration with other clinicians
- Assessing and monitoring eating disorder symptoms and behaviors
- Assessing and monitoring the patient's general medication condition
- Assessing and monitoring the patient's psychiatric status and safety
- Family assessment and treatment
- Developing a Treatment Plan for the Individual Patient
    - Choosing a site of treatment (level of care – inpatient, residential, partial, intensive outpatient).
    - Choice of specific treatments for specific eating disorders
        - Nutritional rehabilitation
        - Psychosocial interventions
        - Medications

Compliance with these standards is managed through clinical supervision, medical record review, and concurrent utilization review.

Walden utilizes a Policy & Procedure Manual for its facilities in Massachusetts, which is attached as Exhibit #16. If approved, Walden will adapt this manual to be in compliance with Connecticut laws and regulations. Walden has already made plans with ECHN to address any emergency medical situation it may encounter with its patients at their South Windsor facility. A draft transfer agreement is attached as Exhibit # 17.

Walden Behavioral Care maintains accreditation under the Joint Commission Comprehensive Behavioral Healthcare standards, (See Exhibit #18 and attached summary - http://www.jointcommission.org/assets/1/18/Behavioral Health Care Accreditation.pdf).

These standards include guidelines which specifically focus on the assessment and provision of care, treatment, and services for individuals served who have eating disorders. Walden carefully integrates these standards into the organization's policies and procedures. Each year, we formally evaluate and report the results to the Joint Commission. We address any variation from those standards with a formal corrective action plan, including quantitative, verifiable measures of success as required by the Joint Commission.

5. Organizational and Financial Information

a. Identify the Applicant's ownership type(s) (e.g. Corporation, PC, LLC, etc.).
LLC

b. Does the Applicant have non-profit status?
☐ Yes (Provide documentation) ☒ No

c. Provide a copy of the State of Connecticut, Department of Public Health license(s) currently held by the Applicant and indicate any additional licensure categories being sought in relation to the proposal.

No Connecticut licenses are held by the applicant at this time. Walden has already made contact with the CT Department of Public Health's licensing division, and will be working with them to obtain the appropriate licensing.

d. Financial Statements

i. If the Applicant is a Connecticut hospital: Pursuant to Section 19a-644, C.G.S., each hospital licensed by the Department of Public Health is required to file with OHCA copies of the hospital's audited financial statements. If the hospital has filed its most recently completed fiscal year audited financial statements, the hospital may reference that filing for this proposal. This section is not applicable because the applicant is not a Connecticut hospital.

ii. If the Applicant is not a Connecticut hospital (other health care facilities): Audited financial statements for the most recently completed fiscal year. If audited financial statements do not exist, in lieu of audited financial statements, provide other financial documentation (e.g. unaudited balance sheet, statement of operations, tax return, or other set of books.)

See Exhibit #19 for Walden Behavioral Care's Audited Financial Statements for FY2010.

e. Submit a final version of all capital expenditures/costs as follows:

Table 9: Proposed Capital Expenditures/Costs

Medical Equipment Purchase	$ 2,500.00
Imaging Equipment Purchase	
Non-Medical Equipment Purchase	$ 17,500.00
Land/Building Purchase *	
Construction/Renovation **	
Other Non-Construction (Specify)	$ 30,000.00
Total Capital Expenditure (TCE)	**$ 50,000.00**
Medical Equipment Lease (Fair Market Value) ***	
Imaging Equipment Lease (Fair Market Value) ***	
Non-Medical Equipment Lease (Fair Market Value) ***	$ 6,700.00
Fair Market Value of Space ***	
Total Capital Cost (TCC)	**$ 6,700.00**
Total Project Cost (TCE + TCC)	**$ 56,700.00**
Capitalized Financing Costs (Informational Purpose Only)	
Total Capital Expenditure with Cap. Fin. Costs	$ 50,000.00

* If the proposal involves a land/building purchase, attach a real estate property appraisal including the amount; the useful life of the building; and a schedule of depreciation. N/A, as this proposal does not involve a land or building purchase.

** If the proposal involves construction/renovations, attach a description of the proposed building work, including the gross square feet; existing and proposed floor plans; commencement date for the construction/ renovation; completion date of the construction/renovation; and commencement of operations date.

*** If the proposal involves a capital or operating equipment lease and/or purchase, attach a vendor quote or invoice; schedule of depreciation; useful life of the equipment; and anticipated residual value at the end of the lease or loan term.

See Exhibit #20 for the Applicant's schematic drawings for the space to be leased in a medical office building in South Windsor. This exhibit also contains the draft lease to be signed with ECHN, the owner of the building. Construction of the building is complete. Commencement of operations can begin approximately one month after the CON application is approved. Vendor quotes for the larger pieces of equipment are also attached.

f. List all funding or financing sources for the proposal and the dollar amount of each. Provide applicable details such as interest rate; term; monthly payment; pledges and funds received to date; letter of interest or approval from a lending institution.

As indicated in Walden Behavioral Care's audited financial statements for FY2010, Walden has sufficient resources to satisfy the financial obligations of this proposal through to profitability. Please see Exhibit #19.

6. Patient Population Mix: Current and Projected

a. Provide the current and projected patient population mix (based on the number of patients, not based on revenue) with the CON proposal for the proposed program.

Table 10: Patient Population Mix

	Current** FY ***	Year 1 FY 2012	Year 2 FY 2013	Year 3 FY 2014
Medicare*		0.0%	0.0%	0.0%
Medicaid*		14.0%%	14.0%%	14.0%
CHAMPUS & TriCare		1.2%	1.2%	1.2%
Total Government		**15.2%**	**15.2%**	**15.2%**
Commercial Insurers*		84.2%	84.2%	84.2%
Uninsured		0.6%	0.6%	0.6%
Workers Compensation		0.0%	0.0%	0.0%
Total Non-Government		**84.8%**	**84.8%**	**84.8%**
Total Payer Mix		**100.0%**	**100.0%**	**100.0%**

* Includes managed care activity.
** New programs may leave the "current" column blank.
*** Fill in years. Ensure the period covered by this table corresponds to the period covered in the projections provided.

b. Provide the basis for/assumptions used to project the patient population mix.

The patient population mix provided above is based upon Walden's current population and payer mix experienced in its Massachusetts-based clinic sites. Walden expects to extend its regional / national insurer payer-contracts and rates to its Connecticut-based services. For this reason, we expect population mix patterns to be similar to its Massachusetts experience.

7. Financial Attachments I & II

a. Provide a summary of revenue, expense, and volume statistics, without the CON project, incremental to the CON project, and with the CON project. **Complete Financial Attachment I.** (Note that the actual results for the fiscal year reported in the first column must agree with the Applicant's audited financial statements.) The projections must include the first three full fiscal years of the project.

See Exhibit #21: Financial Attachment I.

b. Provide a three year projection of incremental revenue, expense, and volume statistics attributable to the proposal by payer. **Complete Financial Attachment II.** The projections must include the first three full fiscal years of the project.

See Exhibit # 22: Financial Attachment II.

c. Provide the assumptions utilized in developing **both Financial Attachments I and II** (e.g., full-time equivalents, volume statistics, other expenses, revenue and expense % increases, project commencement of operation date, etc.).

See Exhibit #23: Financial Assumptions for Financial Attachments I and II..

d. Provide documentation or the basis to support the proposed rates for each of the FYs as reported in Financial Attachment II. Provide a copy of the rate schedule for the proposed service(s).

The rates are based on those currently used at the Massachusetts facilities. It is anticipated that the current payer agreements and rates for services will be extended to the Connecticut facility. See Exhibit #24 – Rate Schedules.

e. Provide the minimum number of units required to show an incremental gain from operations for each fiscal year.

The minimum number of days required to show an incremental gain from operations is as follows:

FY 2012 – 2,894 days
FY 2013 – 5,026 days
FY 2014 – 5,926 days

Table 11, below provides the documentation for the derivation of the minimum number of days required to show an incremental gain from operations.

Table 11; Derivation of Minimum Number of Days to Demonstrate Gain

	FY 2012	FY 2013	FY 2014
Unit of service (days)	2,735	5,252	7,072
Net Income	$718,642	$1,333,868	$1,782,838
Net Income/Unit of Service	$263	$254	$252
Operating Expenses	$760,511	$1,276,472	$1,493,239
Break even (days)	2,894	5,026	5,926

Source: Financial Attachment I, Exhibit # 21.

f. Explain any projected incremental losses from operations contained in the financial projections that result from the implementation and operation of the CON proposal.

See Exhibit #21: Financial Attachment I. As presented in this attachment, an operating loss of $41,869 is anticipated for only the first year of operations. This is due to start up costs incurred from hiring a critical mass of staff sufficient to enable a startup initial volume of patient treatment. In fiscal year 2, an operating profit (net income) of $57,397 represents (approximately) a $100,000

improvement in financial performance. Fiscal year 3 represents net income of $289,599 before income taxes. Increases in profitability arise from the economy of servicing additional patient volume without substantial increases in staff capacity.

g. Describe how this proposal is cost effective.

The proposed facility is part of a larger organization that currently operates three facilities in Massachusetts. As a result it will be able to achieve economies of operation with respect to purchasing and administration.

Exhibit 1

CHAPTER 5

Cognitive-Behavioral Therapy for Anorexia Nervosa

Kathleen M. Pike, Jacqueline C. Carter, and Marion P. Olmsted

This chapter describes the cognitive-behavioral approach to the treatment of anorexia nervosa (AN). Originally developed by Aaron T. Beck and colleagues (e.g., Beck, 1976; Beck, Rush, Shaw, & Emery, 1979), cognitive-behavioral therapy (CBT) has become one of the most influential and well-validated models of psychotherapy available. CBT has demonstrated efficacy for a broad range of psychiatric disorders, including depression, anxiety disorders, substance abuse, and eating disorders (EDs) (see Nathan & Gorman, 2002; Wilson, Grilo, & Vitousek, 2007).

CBT for AN has been elaborated in recent years by several authors (Fairburn, Shafran, & Cooper, 1999; Pike, Carter, & Olmsted, 2004; Pike, Devlin, & Loeb, 2004; Pike, Loeb, & Vitousek, 1996). The model has expanded and evolved as our understanding of the psychopathology of AN has progressed. Current CBT models address cognitive and behavioral disturbances linked to the core features of AN as well as more encompassing issues of temperament, character, and motivation. In this chapter we review the empirical support of CBT for AN, describe our view on the cognitive-behavioral formulation of AN, and present an abbreviated version of the most recent CBT treatment manual for AN (Pike et al., 2001).

The Cognitive-Behavioral Formulation of AN

The treatment manual presented in this chapter is based on a CBT model that views overvalued ideas about the significance of control over eating, shape, and weight as the core maintaining mechanism in AN. A central premise of the CBT model of AN is that ED symptoms are maintained by the interaction between *cognitive disturbances* involving overconcern for eating, shape, and weight and *behavioral disturbances* that affect eating and weight control behavior. Certain personality characteristics and temperament, coupled with low self-esteem, appear to predispose some individuals to internal-

ize sociocultural ideals about the importance of thinness and the myth that achieving such ideals will mitigate feelings of low self-esteem and ineffectiveness. A dysfunctional schema that attaches primary value to control over eating, shape, and weight develops as individuals internalize these beliefs. This dysfunctional cognitive schema is expressed behaviorally by extreme weight control behaviors aimed at attaining unrealistic levels of thinness and control. For those individuals who are able to maintain the extreme dietary restriction, severe emaciation follows, resulting in AN-restricting subtype (AN-R). For many individuals, this vigilant dietary restriction is intermittently interrupted with episodes of loss of control, such that subjective overeating occurs. In response to the loss of control and the overeating, many individuals redouble their efforts and engage in various compensatory purging behaviors, resulting in AN-binge–purge subtype (AN-B-P) (or bulimia nervosa [BN]).

As the ED develops, the individual's self-concept and feelings of self-worth increasingly revolve almost exclusively around control over eating, shape, and weight. As the disorder becomes more entrenched, there is often a belief that food restriction and maintaining a low weight are the only way to experience any sense of self-esteem. The physiological and psychological effects of starvation reinforce the cognitive and behavioral disturbances. For example, the food preoccupation associated with starvation is experienced as a threat to maintaining control over eating and results in increased efforts to restrict food intake. Thus, the disorder becomes self-perpetuating.

One of the strengths of the CBT-AN model is its acknowledgment that EDs are multidetermined. Thus, in addition to the core components of the CBT-AN model described above, CBT-AN recognizes that various biological factors may contribute to increased vulnerability for the development of AN, and this possibility is addressed in the psychoeducational component of CBT-AN. Additional factors that can contribute to the etiology and maintenance of AN, such as problems with motivation for recovery, difficulties with emotion regulation, core negative beliefs, and interpersonal problems, are also often incorporated into CBT-AN, as needed.

Empirical Support of CBT for AN

The empirical database on CBT for AN is limited. However, several recent investigations provide preliminary support of the utility of CBT for AN, particularly for weight-restored individuals. Cooper and Fairburn (1984) published the first case-series report of CBT for AN with promising results. Since then only five randomized controlled studies of CBT for acute AN have been published. In the first study Channon and colleagues (1989) randomly assigned 24 adult patients with AN to either CBT, behavior therapy (BT), or an eclectic "treatment-as-usual" control condition. All treatments involved 18 sessions of individual therapy over 6 months, followed by six booster sessions over the next 6 months. Compliance with treatment was significantly better in CBT and BT as compared with the control condition. All randomized subjects were included in the analyses. No significant differences in outcome were found between the three treatment conditions. Overall, significant improvements were found in weight, nutritional status, and menstrual functioning, based on Morgan and Russell (1975) ratings in all three conditions.

In the second study, 35 adult patients with AN were randomized to either CBT or nutritional counseling for 6 months (Serfaty, Turkington, Heap, Ledsham, & Jolley, 1999). Unfortunately, the results of this study were uninterpretable because all of the participants in the nutritional counseling condition dropped out. In contrast, the attrition rate in the CBT condition was low (8%). A small but statistically significant increase in weight was observed among 87% of participants who received CBT (mean change = +1.6 body mass index [BMI] units). CBT participants also reported significant reductions on self-report measures of depression and ED attitudes.

A third study, conducted by Ball and Mitchell (2004), compared individual CBT with behavioral family therapy in a mixed sample of 25 adolescents and young adults (mean age = 18) with AN. Treatment involved 25 sessions over a 12-month period. No between-group differences were found at posttreatment or 6-month follow-up; approximately 78% of patients in both conditions were classified as having a "good outcome" in terms of weight and menstrual functioning at follow-up. "Good outcome" was defined as weight within 10% of average body weight, no bulimic symptoms, and resumption of menses. The relatively high rates of remission in this study may be related to the young age of the participants.

In the fourth study McIntosh and colleagues (2005) compared CBT with interpersonal psychotherapy (IPT) and nonspecific supportive clinical management (NSCM) for AN in 56 adult patients. Treatment involved 20 sessions over 20 weeks. The intent-to-treat results showed that IPT was significantly less effective than NSCM. The effectiveness of CBT fell between IPT and NSCM and was not significantly different from either. The dropout rate and degree of residual eating pathology were both high, and the effect sizes in terms of weight gain were small in all three treatment conditions.

Finally, Gowers and colleagues (2007) randomized 167 adolescent patients with AN to inpatient treatment, 24 sessions of outpatient therapy, or treatment as usual in the community. Treatment lasted up to 6 months. The outpatient therapy condition comprised elements of both CBT and family therapy. Adherence to treatment allocation was 65%. In the inpatient condition, 49% remained in treatment for at least 4 weeks, and the mean length of stay was 15 weeks. In the outpatient condition, 75% attended at least four therapy sessions. In the treatment-as-usual condition, 70% attended the usual first-line treatment appointments in community based clinics with no additional specialized treatment. At 1-year follow-up, there were no statistically significant differences among the three groups in terms of weight outcome, based on intent-to-treat analyses. It was found that patients in all three conditions had made substantial improvements in terms of weight and ED psychopathology. The researchers concluded that there is no advantage of specialized treatment over treatment as usual and no advantage of inpatient treatment over outpatient treatment for AN. Of note, the attrition rate in this study was substantial (i.e., >50% in the inpatient condition), and there was a significant rate of treatment nonadherence.

There have also been two studies of CBT for weight-restored patients with AN. Pike, Walsh, Vitousek, Wilson, and Bauer (2003) conducted a year-long posthospital study evaluating CBT for weight-restored adults with AN. In this study 77% of the CBT group (n = 18) reported an intermediate or better outcome according to modified Morgan–Russell criteria. The CBT group achieved a better recovery in terms of overall clinical pathology and dropout and relapse rates, compared to the comparison group

that received supportive nutritional counseling (n = 15). Although these findings are promising, the sample size was small. Also, this study established efficacy for CBT compared to supportive nutritional counseling, but it did not compare CBT to another psychotherapy intervention, so we do not know whether the reported efficacy is a CBT-specific effect or a psychotherapy-specific effect. A subsequent study comparing CBT to another psychotherapy intervention is necessary to provide further support and clarification of these findings.

In an attempt to further evaluate the role of CBT for weight-restored individuals, Carter, McFarlane, Bewell, and colleagues (2008) recently conducted a nonrandomized clinical trial comparing CBT (n = 46) and maintenance treatment as usual (MTAU) (n = 42) for weight-restored adults with AN. The MTAU condition was intended to mirror follow-up care as usual in the community. When relapse was defined as a BMI ≤ 17.5 for 3 months or the resumption of regular binge-eating and/or purging behavior for 3 months, time to relapse was significantly longer in the CBT condition as compared with MTAU. At 1 year, 65% of the CBT group and 34% of the MTAU group had not relapsed.

In summary, none of the five published randomized trials on CBT for *acute* AN provides evidence that CBT was superior to comparison treatments. However, these studies were limited by small sample sizes, high rates of attrition, short durations of treatment, and other methodological problems. The two studies of weight restored patients with AN provide promising preliminary evidence for the effectiveness of CBT in preventing relapse and improving recovery rates following weight restoration.

An Abbreviated CBT Manual for AN

This "mini-manual" represents an abbreviated version of the treatment approach employed in the clinical trial described by Pike and colleagues (2003) and Walsh and colleagues (2007). Originally developed by Pike, Vitousek, and Wilson (1995), it was revised in 1998 by the same authors and subsequently by Pike, Carter, and Olmsted (2004). In addition, this mini-manual draws on the supplemental relapse prevention modules for CBT developed by Carter and colleagues (2006), which focus on preventing early weight loss, enhancing self-efficacy, and addressing body image disturbances and excessive exercise.

Overview of CBT for AN

This treatment program includes four phases. Phase I outlines specific strategies for initiating treatment, orienting patients to CBT and assessing and enhancing motivation with the intent of promoting engagement in treatment. This phase draws on the "transtheoretical model of change" by Prochaska, DiClemente, and Norcross (1992), motivational interviewing strategies described by Miller and Rollnick (1991), and Vitousek, Watson, and Wilson's (1998) discussion of these issues specifically as they relate to treatment for AN. Phase II describes the weight gain protocol and interventions focused on the cognitive distortions and behavioral dysfunction pertaining to the patient's eating habits and weight. Phase III describes a schema-based approach that addresses relevant issues that extend beyond the specific domain of eating and weight.

Phase IV focuses on reviewing the course of treatment to consolidate gains and prepare to continue working independently after the therapy ends. Additionally, during the last phase of treatment, individuals prepare a personalized program of relapse prevention based on the course of therapy.

Clinical trials evaluating CBT-AN for weight-restored individuals with AN utilized treatment programs designed to include approximately 50 sessions over the course of 1 year. The treatment program evaluated in the McIntosh and colleagues (2005) study was comprised of only 20 sessions and targeted individuals with acute AN. As discussed above, the longer duration of treatment for individuals who had already achieved minimal weight restoration shows greater promise in terms of AN treatment than the shorter version of CBT-AN for those with acute AN.

Although the phases of the manual are presented in sequence, in practice, therapy rarely progresses exactly according to the nomothetic course outlined. Typically, interventions from Phases I, II, and III are utilized throughout the course of therapy, as needed, according to the particular issues and challenges of each patient. A hierarchy of symptoms serves to guide the clinician's judgment regarding the appropriate level of intervention. The first order of therapy is to engage patients in treatment and enhance motivation for recovery. Once goals are set, treatment focuses on normalization of eating behavior, achieving a healthy weight, and reducing the level of weight concern using the CBT interventions described in Phase II. However, in those cases when a patient is unable to progress in the work of normalizing her eating and gaining weight using the interventions described in Phase II, the focus of therapy shifts to issues of motivation (Phase I) as well as possible maladaptive schemas that are interfering with treatment (Phase III). Also, if at any point in treatment the patient begins to lose weight, therapy returns to an explicit focus on weight gain in the course of recovery and a review of issues raised and addressed in Phases I and II.

At the outset of treatment, it is important to discuss conditions for terminating outpatient treatment and recommending more intensive inpatient or day hospital programs. Specifically, dangerously low weight, serious medical complications, and suicidality may require termination of outpatient treatment. In addition to reviewing these parameters with the individual with AN, it can be helpful to conduct a session with the individual's family and/or spouse to provide information regarding AN and to discuss how best to support the therapeutic work for the individual with AN.

PHASE I: Getting Started—Orientation to CBT, Engagement, and Motivation

Phase I provides an introduction to the structure and rationale of CBT, assessment of motivation, and enhancing motivation for recovery.

Introduction to the Structure and Rationale of CBT

CBT begins with an explicit introduction to the structure and rationale of the treatment. This overview includes the theoretical underpinnings of CBT, structure of the sessions, therapeutic relationship, collaborative nature of CBT, focus on the here and now, self-monitoring, weight monitoring, and work between sessions.

The theoretical underpinnings of CBT, as described at the beginning of the chapter, are explicitly shared with patients once the initial assessment has been completed,

so that an individual case formulation of the theoretical model may be presented using the patient's own experience. This is often a powerful intervention in organizing what has heretofore been chaotic and only partially understood. Tailored to the individual's unique history, this theoretical framework provides the rationale for CBT and guides the remainder of treatment.

The Therapeutic Relationship

As with all forms of psychotherapy, the efficacy of CBT is mediated by the therapeutic relationship, and therapists need to attend to building a trusting therapeutic alliance from the start (Orlinsky, Grawe, & Parks, 1994; Pike, Devlin, & Loeb, 2001). The nonspecific therapist qualities of warmth, empathy, respect, and openness are as essential to CBT as they are to all others forms of psychotherapy (Thompson & Williams, 1987; Truax & Mitchell, 1971). In addition, CBT requires that therapists are comfortable being active in sessions, thinking strategically, and providing structure and direction, especially at the beginning of treatment. Given the higher level of activity from the start, it is important that CBT therapists find a therapeutic balance between this level of activity and suspending their own assumptions and judgments so that they can provide an empathic balance of promoting change and enhancing understanding as patients grapple with recovery (Young, Weinberger, & Beck, 2001).

CBT is a collaborative treatment; that is, therapist and patient work together toward a common goal, jointly articulate the focus of each session, and take responsibility for keeping the treatment session on track. The therapist emphasizes that one of the primary goals of CBT is for the patient to learn the skills necessary for her to become "her own therapist," so that she can continue to make changes after treatment terminates. Establishing personal control and normal eating is expected to take time, and patients are encouraged to anticipate difficulties and be persistent in their efforts.

Structure of the Session

Every CBT session has an explicit internal structure that includes weight assessment and discussion of weight status, review of self monitoring and between-session work, agenda setting, working on core issues of the agenda, setting goals for between-session work in the upcoming days, and summarizing the session. The structure of the session is maintained collaboratively. Although CBT therapists are active in treatment, this is not a therapist-led treatment; therapist and patient work together jointly on each component of the session.

Getting Started

CBT begins with a focus on the present by specifically targeting current eating pathology and its implications for current functioning. CBT approaches to treatment recognize that EDs are multidetermined and that different factors are involved in the development and maintenance of the disorder. By the time the individual presents for treatment, the ED has often taken on a life of its own. Thus, addressing the current issues and achieving resolution of symptoms are the most powerful starting points because they will bring some immediate relief and increase the patient's sense of self-

efficacy about recovering from the ED. Moreover, from a CBT perspective, resolution of the acute issues will bring clarity of vision in analyzing the more distal, developmental factors. Therapists explicitly share this approach to treatment with patients, so the information serves as both an orientation and a therapeutic intervention.

Weight Monitoring

It is important to establish a regular schedule for monitoring weight during treatment. Consistent weight monitoring can be achieved in a variety of ways—at the beginning of each session with the therapist, at home with a parent, at school with a nurse, etc. The essential elements are that the schedule is regular and that someone initially assists the patient in monitoring her weight. After weight gain is completed and the patient's weight is stable, it is healthy for her to assume this responsibility. At the outset of treatment, the concept of an optimal weight range is discussed with the patient, and as she seems ready to commit to a weight gain protocol, the therapist and patient explicitly discuss and design a personalized weight gain plan, as described in Phase II.

Working between Sessions

An essential part of CBT is the work that is done between sessions, and its importance is stressed from the start. Between-session tasks target particular behavior patterns that are problematic and offer the patient the opportunity to experiment with changes in the context of a supportive therapeutic environment. The therapist reviews carefully the patient's experience with doing this work between sessions and builds on it for subsequent steps. The amount of effort that a patient expends on between-session work will be influenced by the attention it receives from the therapist. Therefore, it is crucial that the therapist integrate these efforts into each session. If a patient does not complete between-session tasks, it is essential that the therapist explore with the patient to understand the resistance. Typically, when the therapist and patient set the goals collaboratively, the patient sees the value and is invested in the work, and the likelihood of compliance is much higher.

Self-Monitoring

Self-monitoring, an important component of CBT, is not limited to recording food intake but also includes recording social and emotional experiences and situations that contextualize the ED. Self-monitoring is frequently experienced as tedious by patients with AN, and therapists are encouraged to let patients adapt the self-monitoring procedures in ways that make the task valuable for them so that they actually are motivated to do it. Sometimes highly perfectionistic patients use the self-monitoring to provide obsessional levels of detail. The critical issue is to use the self-monitoring to constructively communicate about the patient's experience between sessions. Thus the clinician and patient need to adapt the procedures and personalize the process according to the specific therapeutic needs of the patient. As noted, in addition to addressing the core issues related to food intake (or lack thereof), therapists use the self-monitoring to help patients begin to reconnect their emotional and interpersonal worlds with their eating by exploring contextual factors. Where does the patient eat? With whom does she eat?

How is she feeling? What was she thinking right before a meal? How did she manage to skip a meal when she was visiting with a friend? What was she thinking and feeling before she binged?

A thorough review of the patient's self-monitoring will help her begin to identify eating situations that range from extremely difficult to extremely manageable. In this way, the therapist and patient can discuss what differentiates these situations and begin to expand the patient's ideas about the range of thoughts, feelings, and behaviors that accompanies eating. The purpose of this portion is to begin to point out the limitation and inaccuracy of labeling oneself solely as "anorexic." Pointing out cognitive distortions, such as "labeling" and "all-or-nothing thinking," lays the groundwork for cognitive work that will follow in subsequent sessions.

Assessing and Enhancing Motivation

One of the essential first steps in treatment is assessing whether and why an individual is motivated for treatment. Such work is the bedrock for establishing a trusting therapeutic alliance and for effectively engaging patients in committing to the difficult work of pursuing recovery. CBT for AN makes use of the "transtheoretical model" (Prochaska & DiClemente, 1983; Prochaska et al., 1992) and motivational interviewing (Miller & Rollnick, 1991) to provide a framework for assessing and enhancing motivation at multiple levels.

Vitousek and colleagues (1998) have addressed the issue of motivation from both a theoretical and practical perspective with specific regard to those with AN. Throughout the course of this treatment, therapists draw on the recommendations provided by Vitousek and colleagues. These authors emphasize the importance of acknowledging the ego syntonic nature of extreme thinness and self-control and the desperation that is associated with "choosing" AN as a solution. They encourage therapists to explicitly acknowledge the difficulties of making real changes in one's life and remind them not to "attach surplus meaning to resistance." By employing a Socratic style and using the patient's language to conceptualize and collaborate on making change, therapists are able to communicate respect and hope for patients. It is important to remain honest and curious with patients. Although certain aspects of the disorder are universal, it is constructive for therapists to also focus on and validate the individuality of each patient. In fact, recovery is strongly associated with the reemergence of the individuality of each person.

It can be very helpful early in treatment for the therapist to become familiar with the patient's values and life goals. This information provides the context for examining the impact the ED is likely to have on the patient's life and helps to identify competing goals as residing within the patient as opposed to between the patient and the therapist. Consider the following conversation:

THERAPIST: I understand that controlling your weight is very, very important to you, but I'm not sure whether it is more important to you than becoming a lawyer, as you have planned.

PATIENT: Well, I expect to do both.

THERAPIST: You mentioned the other day that you have had trouble concentrat-

ing on your work and that you aren't doing very well at school. What are the chances of your getting into law school if you aren't able to study effectively and pull up your grades?

PATIENT: Not very good; you need high grades to get in.

THERAPIST: And as we discussed before, poor concentration and reduced mental capabilities are a side effect of being poorly nourished and underweight.

PATIENT: I know you think I should eat more.

THERAPIST: You are right, that is my bias, but what you think is more important. If you focus on controlling your weight and ignore the impact of being poorly nourished on other areas of your life, there's a good chance you won't get into law school. It's really up to you; the decision is yours. My job is to help you sort through the options and make a thoughtful choice. Will working on your weight be enough to satisfy you for the rest of your life, or do you need other things in your life?

In addition to assessing motivation, psychoeducation is an important component of treatment in the early phase of CBT. This includes reviewing the multiple causes of AN, its associated biological risks and sequelae, the deleterious consequences of semistarvation (illustrated via the case study in the Minnesota Study of Semi-Starvation), the relationship of weight gain to menstrual functioning, normalization of eating behavior, and basic nutritional education regarding the consumption of fat, carbohydrates, and protein in a healthy diet. A summary of core psychoeducational components for AN treatment is provided by Treasure (1997). Therapists and patients are encouraged to make use of the wealth of psychoeducational information available to assist in treatment and recovery.

PHASE II: Core Cognitive and Behavioral Interventions for AN

Phase II employs CBT interventions that focus on identifying, understanding, and changing maladaptive cognitions and behaviors that serve to maintain the ED. The specific focus of Phase II depends on the patient's readiness and motivation for change, and therapists need to use judgment in choosing the most appropriate and effective CBT interventions in relation to the specific issues of each patient. The latitude to tailor treatment to the individual needs of the patient is essential for good therapy; however, therapists can also make use of the Hierarchy of Symptoms Guidelines (Figure 5.1) to help guide the focus of treatment.

Weight Gain Protocol and Meal Planning

During Phase II, it is important to establish a weight gain goal and meal plan. Therapists begin by reviewing the reasons why the patient needs to gain weight to reach a healthy level in order to overcome the ED (see Rock & Curran-Celentano, 1994) and integrate examples from the patient's own history. In addition, therapists present the rationale for thinking in terms of a weight *range* rather than a specific number. In negotiating a preliminary weight gain goal, it is important to take into account the patient's level of readiness to change. Although the ultimate goal is to achieve a healthy weight

Is Patient Motivated for Treatment?

If yes:	If no:
Proceed with core CBT interventions described in Phase II.	Focus on motivational enhancement strategies of Phase I.

Is Patient Participating In Weight Gain Protocol?

If yes:	If no:
Proceed with core CBT interventions described in Phase II and continue to challenge patient with behavioral exercises included in the weight gain protocol.	If she is losing weight but not in medical danger, return to motivational enhancement strategies If she describes being motivated but is behaviorally unable to implement weight gain strategies, adjust behavioral plans, enlist significant other, consider schema-based approaches. If she is not losing weight but also not gaining weight, utilize specific AN motivational enhancement strategies such as cost–benefit analysis, projecting forward, writing one's own obituary.

Is Patient Binge-Eating and/or Purging?

If yes:	If no:
Review dietary restraint model of binge–purge cycle (Fairburn, Wilson, & Marcus, 1993). Utilize CBT behavioral strategies outlined in Phase II for normalizing eating behaviors. Utilize CBT cognitive interventions for building alternative coping strategies for stressful situations. Discuss the possibility of increasing lab work medical monitoring of patient's clinical status if she is vomiting and/or using laxatives.	Continue to steadily challenge patient to normalize her eating behavior in terms of frequency, variety, and quantity of intake, as described in the weight gain protocol and in Phase II.

Is the Patient's Self-Schema Sabotaging Her Capacity to Successfully Engage in Treatment?

If yes:	If no:
Proceed with schema-based work described in Phase III	Stick with core cognitive and behavioral interventions described in Phase II.

FIGURE 5.1. Hierarchy of Symptoms Guidelines

(typically a minimum BMI of 20 kg/m^2), some patients may find this amount to be overwhelming initially. Instead, they may need to set weight gain goals in manageable steps. For example, it may be helpful to suggest an initial 2- to 3-kilogram weight gain goal and progress from there. The aim is to gradually increase caloric intake to achieve a 0.5- to 1.0-kilogram increase in weight per week.

A meal plan is a helpful tool for teaching patients when, what, and how much to eat. In some cases, it can be helpful to engage a nutritionist in establishing a meal plan. The initial focus is on helping patients meet their calorie goal with a subsequent focus on the quality and variety of food intake as weight gain progresses. Self-monitoring is an important tool for establishing normal eating habits and tracking progress.

Behavioral Experimentation

Behavioral experimentation between sessions is one of the pillars of CBT. Initially the behavioral experimentation for those with AN is largely focused on specific areas related to the weight gain protocol and normalization of food intake. As individuals progress in treatment, the behavioral experimentation may be focused more broadly to assist patients in the cognitive work of CBT as well. Stepwise behavioral experimentation in the interpersonal realm is an essential aspect of the integration of cognitive and behavioral interventions. (See Figure 5.2 for a Behavioral Experiment Worksheet.)

With each successive session, the therapist and patient build on the previous session. To the extent that cognitive distortions interfered with the patient's successful completion of the task, these are identified and examined. To the extent that the task was accomplished successfully, the therapist and patient decide on the next logical step in the normalization of the patient's eating patterns and establish that step as the behavioral challenge on which to focus between sessions. This work requires the construction of a hierarchy of behavioral challenges and includes addressing the issue of forbidden foods in a thoughtful manner to establish a stepwise sequence that steadily aids the individual in normalizing her eating.

It is extremely important that therapy focus not only on the elimination of symptoms but also on building strengths. As patients reconnect to strengths that help them function independently of the ED, they gain confidence about engaging in treatment, at which point resolution of the eating disorder usually gains momentum. Skill development might include relaxation training, stress management, problem solving, assertiveness training, social skills with an emphasis on building healthy friendships, and attention to emotional and physical self-care.

Identifying and Challenging Dysfunctional Thoughts

The concept of dysfunctional thoughts or cognitive distortions is a central component of CBT, and in Phase II, treatment focuses on identifying cognitive distortions and understanding their role in perpetuating the ED. Patients are encouraged to engage in testing the validity or evidence of cognitions, and therapists and patients work together to formulate functional or adaptive "challenges" or responses to the dysfunctional thoughts. One of the templates that can be useful in conducting this work is the Dysfunctional Thought Record (Figure 5.3).

PLAN

Data to be collected:

What I have to do

Is this task suitable for me at this time? (Or is it too hard?)

What can I do if I feel overwhelmed?

What maladaptive thoughts can I anticipate?

How will I cope with these?

Do I expect to have urges for any symptomatic behavior?

How will I cope with these?

Under what circumstances is it appropriate to delay or cancel the experiment?

Prediction or hypothesis:

OUTCOME

What happened?

What conclusion is supported by the data?

Is any follow-up experiment required?

FIGURE 5.2. Behavioral Experiment Worksheet.

SITUATION	FEELINGS	DYSFUNCTIONAL THOUGHT(S)	CHALLENGE DYSFUNCTIONAL THOUGHT(S)
Describe the problematic situation (specific situations will be linked to problems with eating; more general problematic situations may also be addressed).	Specify the feelings that you were aware of at this time.	Specify the thought(s) that preceded the problematic eating, response, or general behavior.	1. What is the evidence for and against these thoughts? 2. Is there an alternative way of viewing the event? 3. What is the effect of having this thought?

FIGURE 5.3. Dysfunctional Thought Record.

In practice, CBT often combines self-monitoring, behavioral experimentation, and the challenging of dysfunctional thoughts, as demonstrated in the following examples.

Example 1

THERAPIST: I see [from the patient's self monitoring food diary] that you have done an excellent job of sticking to the structure of your meal plan and having all your meals and snacks. How do you feel about this?

PATIENT: I'm feeling a lot better physically than I was before, and I know I needed to gain some weight. So I'm glad that I increased my eating even though it has been very difficult.

THERAPIST: What do you think a good next step would be?

PATIENT: If I eat more, I will gain too much weight.

THERAPIST: Is that the reason that you have been using nonfat yogurt and not using butter or salad dressing?

PATIENT: Yes. I know that people eat way too much fat and end up with too much fat on their body.

THERAPIST: If you were going to take your eating up a step, would it be easier to eat more food or to eat food that is more calorie-dense?

PATIENT: I don't want to do either. But theoretically I guess it would be easier to have larger portions at dinner and maybe have a granola bar some days.

THERAPIST: What do you think about making sure that you have a whole portion of chicken or fish for dinner each day and adding a granola bar to your afternoon snack? We will continue to monitor your weight carefully each week and adjust your eating plan if you are gaining weight too quickly. Do you think you could do that for 1 week and see what happens?

Note: The therapist makes a mental note that using added fats is more difficult for the patient and decides to return to this issue in a subsequent session.

Example 2

THERAPIST: I see from your eating diary that you missed dinner on Tuesday, and you noted that you were upset with Jill. What was going on?

PATIENT: Jill called at the last minute and said that she couldn't go to the movie with me because a friend had dropped in, but I'm over it now.

THERAPIST: Oh, how did you get over it?

PATIENT: Well, I just told myself that it isn't worth causing trouble over and that I should just forget it.

THERAPIST: So you don't plan to let Jill know that her behavior bothered you?

PATIENT: No, it's just not worth it to me.

THERAPIST: You've mentioned that before about other situations in which you

didn't want to speak to someone you were upset with or someone who borrowed something and didn't give it back. Have you noticed that?

PATIENT: It's true. I don't want to make trouble or push things.

THERAPIST: What is your worry? What might happen if you pushed things?

PATIENT: I don't want people to be mad at me and to dislike me.

Over the next few weeks, the patient and therapist address the patient's belief that people will dislike her if she asserts herself or asks for anything. Eventually they set up a behavioral experiment that involves the patient making a small assertive request to a friend and noting how the friend responds. They also develop strategies for following the meal plan even when the patient is stressed or distressed.

Preventing Weight Loss after Minimum Target Weight Has Been Achieved

For individuals recovering from AN, the transition from eating for weight *gain* to eating for weight *maintenance* is often challenging. Most are terrified that continuing to eat normally will cause further weight gain, and urges to shave calories, miss exchanges/supplements, skimp on portion size, increase exercise, skip added fats, and cut back on high energy foods may be intense at this stage. Due to the unavoidable repeated pairings between eating and weight gain during early stages of treatment, individuals with AN are scared that if they continue to eat normally, they will continue to gain weight. However, patients typically need to eat a lot more calories than they expect in order to maintain their target weight and prevent weight loss. When people cut back on their eating to avoid further weight gain, weight loss is the inevitable result. A recent research study found that even a small amount of weight loss following achievement of target weight is strongly associated with subsequent relapse in AN. Thus, it is essential that therapists educate patients about these issues. Therapists may find it therapeutic to share with patients the experience of one individual ("The Little Things that Grow," Figure 5.4). This individual had relapsed in the past partially due to early weight loss after discharge from inpatient treatment, and she now knows the importance of maintaining her weight to prevent relapse. The therapist can encourage the patient to take an experimental approach to recovery and gather evidence about what really does happen to her weight if she follows her maintenance meal plan. If necessary, ask her to try the experiment 1 week at a time. In terms of cognitive restructuring, it is useful to identify and challenge beliefs about weight maintenance and relapse.

Addressing Body Image Disturbance

Body dissatisfaction is a core feature of EDs. The repeated checking of body shape or weight ("body checking") and the avoidance of seeing actual body shape or weight ("body avoidance") have been hypothesized to maintain body image disturbance and contribute to increased dietary restraint (Farrell & Lee, 2005; Shafran, Fairburn, Nelson, & Robinson, 2003). There is a strong association between body checking and overevaluation of shape and weight. One of the goals of CBT is to assess and reduce body checking and body avoidance. The approach described in this regard is based on the work of Roz Shafran and colleagues.

Fighting through intensive treatment is an exhausting journey. Reaching the end of this portion of recovery is an incredible relief. I remember feeling overjoyed that the work was finally complete. After all, the weight had been gained and the meal plan was etched into my mind. I felt ready to face the world with my armor of coping strategies and had no intention of returning to my disordered ways. I have come to realize that there is danger in this time, and that the anorexic voice can sneak in undetected and take over faster than I would have ever believed. The truth is that leaving treatment marks the starting point of a new battle. Transitioning back into the real world is, as we are warned, an equally difficult and dangerous time. I've discovered that the "little things" that seem unimportant are my greatest threats for relapse.

Toward the end of treatment, the concept of maintenance is repeatedly stressed and restressed by professionals. The importance of maintaining above one's low end, maintaining the meal plan, maintaining the food choices and variety, and maintaining the separation from exercise is repeated time and time again. There are graphs, studies, and extensive pieces of data that prove the importance of holding onto all the changes. At the end of my first inpatient stay I remember thinking that all this sounded a bit paranoid. The reentry of the anorexic voice came in the form of a "What's the big deal?" attitude. The accompanying thoughts seemed innocent enough. I remember thinking "Who cares if I am 2 pounds below my goal weight? Why does it matter if I use diet products? Everyone does it! I don't want to go back to my illness, I just want to be healthy and fit!" Although these thoughts don't seem distorted, they represent a shifting definition of healthy that led me back into the throes of my disorder. Something that started as simply as switching to skim milk, landed me back in treatment within a matter of months. If there is one thing I have learned, it is that the little things grow.

Straying away from the maintenance meal plan fuels the disorder and keeps it alive and well. I've discovered that feeding the anorexia, whether it's in the form of a couple pounds or slumping on portions, leads me down the slippery path. Soon the little things grow in number and severity. If there is one piece of advice I could give somebody leaving treatment, it would be this: "Don't feed the voice." Maintaining seems arduous and overly cautious at times, but the anorexia only needs a little bit of fuel to start a fire. The shifting view of "healthy" that strays from what we were taught in treatment is likely the disorder trying to worm its way in.

Now having completed my second inpatient stay, I know the "little things" I have to watch out for. I am faced with all the familiar urges and annoying anorexic thoughts. I still find myself doubting and questioning the importance of maintaining all the little things. However, I know from experience that where my eating disorder is concerned, the smallest spark can restart the fire. Although it continues to be a struggle, I know that my path to freedom requires my continued efforts and vigilance. So in the name of recovery, I will continue to fight against all aspects of my disorder, including the "little things."

FIGURE 5.4. "The Little Things That Grow," written by a former patient.

Body checking typically involves excessive behaviors aimed at identifying any signs of weight gain or assessing one's shape (Shafran et al., 2003), whereas body avoidance is just the opposite—that is, refusal to be weighed, avoidance of mirrors or other reflective surfaces, and the wearing of baggy clothes to conceal one's shape. Both of these behaviors contribute to negative thoughts and feelings about body shape and weight. Therapists can make use of the Body Image Avoidance Questionnaire (Rosen, Srebnik, Saltzberg, & Wendt, 1991) and Body Checking Questionnaire (Reas, Whisenhunt, Netemeyer, & Williamson, 2002) to formally assess these aspects of patient functioning and measure progress in terms of body image satisfaction over the course of treatment. Treatment strategies directed at body image include psychoeducation about the negative impact of body checking and body avoidance, exercises that help individuals distance themselves from negative body image thoughts, body image exposure exercises, and cognitive work on developing other aspects of self-identity that enhance self-esteem, as described by Pike and colleagues (1996). In addition, it is useful to encourage patients to get rid of "sick" clothes that are too small for them and support them in obtaining comfortable

clothing in an appropriate size. Wearing clothes that are too small draws their attention to their body size and shape. Wearing clothes that are too big or baggy is another form of avoidance and tends to be associated with negative body image.

When addressing body image issues with the patient, it is especially important to validate her feelings and at the same time introduce doubt and distance about the associated beliefs:

PATIENT: I am really frightened of gaining weight because I already feel so huge and fat.

THERAPIST: I know it really bothers you to feel so fat, and it seems that you feel that way most of the time.

PATIENT: Yes, I do.

THERAPIST: If I recall correctly, your weight has changed over the last year and you have felt fat the whole time at a few different weights. Is that right?

PATIENT: Yes, it is, although I did feel even fatter when my weight was higher.

THERAPIST: What do you make of the fact that other people think your weight is too low?

PATIENT: I can see that too, if I try really hard, but it doesn't match at all with the way I feel.

THERAPIST: I wonder if this very heavy feeling that you have could be about something other than what you weigh. I know you feel very fat, but what if this feeling somehow means that you are distressed and this feeling somehow got tied to your body, and the details about other things that are happening somehow got lost along the way? What do you think about the idea of recording how fat you feel in your self-monitoring diary several times each day and also noting what else is going on at the time and whether you have any other feelings?

Combating Excessive Exercise

Many individuals with AN engage in excessive exercise. Typically, it is therapeutic for patients to refrain from all exercise until related issues have been discussed in therapy and patients have maintained a minimum target weight for at least 1 month. CBT therapists encourage the use of behavioral strategies (e.g., distraction, delay, self-talk), stimulus control (e.g., disassemble exercise equipment, put gym membership on hold, hide running shoes) and thought records to assist patients in resisting urges to exercise. In addition, it is helpful to encourage patients to assume an "experimental approach" to *not* exercising, so that they can gain actual experiential data on what it is like *not* to exercise. It is important to underscore the fact that refraining from exercise at this stage in treatment is a temporary measure, much like wearing a cast on a broken limb.

It can be helpful to encourage physical activity that cannot turn into excessive exercise and that is not aimed primarily at weight control (e.g., some types of yoga, crafts, social activities such as ice skating with friends). If sufficient time has passed during which the patient continues to maintain her weight and has remained symptom-free (e.g., 1 or 2 months), it may be reasonable to gradually implement moderate exercise with careful planning and testing. The emphasis should be placed on having fun,

socializing, developing a skill, and improving health rather than controlling weight and shape or burning calories.

PHASE III: Schema-Based Cognitive Therapy and Related Clinical Issues

General Outline of Schema-Based CBT

Vitousek and Hollon (1990) argue that the cognitive schema of AN can contribute to an understanding of both the "choice" and maintenance of the disorder. Unlike most other psychological disorders, one of the hallmark features of AN is the ego-syntonic nature of the disturbance. Individuals with AN choose to maintain an excessively low body weight, at least in part, via the cognitive schema that overvalues weight and thinness. Individuals with AN value and rely on their symptoms to simplify, organize, and manage the stresses and conflicts of life. Once established, this cognitive schema operates automatically. The automatic nature of such cognitive processing can account, at least in part, for the maintenance or stability of the psychopathology and its resistance to change (Bemis, 1983; Striegel-Moore & McAvay, 1986).

At this stage in treatment the therapist works with the patient on diversifying her self-schema to include a wider range of roles and activities that meaningfully enhance her sense of self. Although the exact details of the ED schema will vary, the core of the schema is typically of the form, "I am anorexic and must stay this way because it brings me control, mastery, and somehow makes me special." The therapist helps the patient separate the *goals* of achieving control, mastery, and importance from the *means*. It is essential that the therapist support the patient's needs and desires to have control, mastery, and self-importance in life, these goals are normative and healthy. The therapist emphasizes that the work of therapy is not to alter these goals but to work on how to achieve them more adaptively.

In addition to the ED schema that tends to be fairly explicit and within the patient's conscious awareness, additional maladaptive schemas may contribute significantly to the underlying issues related to the ED and therefore will need to be addressed in the course of treatment. For patients with AN, maladaptive schemas in the interpersonal realm appear to be intricately linked with the more conscious ED schema. Some examples of maladaptive interpersonal schemas include (1) feeling unable to take care of oneself and undeserving of nurturing by others; (2) believing that achieving nurturing, rewarding relationships will not be possible for oneself; (3) feeling worthless and undesirable to others in terms of appearance, social skills, inner worth, etc; (4) believing that to have any worth one must be loved by everyone, and therefore one must avoid conflict at all cost (e.g., "I dare not be rejected by others").

To the extent that patients are unable to participate successfully in the other components of this psychotherapy intervention or remain symptomatic, it can be useful to evaluate whether and which maladaptive schemas or core negative beliefs are interfering with making greater progress in treatment. The therapist and patient can identify the relevant maladaptive schemas that contribute to the core pathology of the ED. Given the rigid nature and chronic course that is characteristic of AN, this level of intervention is designed to address the deeper and probably more historical dysfunctional assumptions that contribute to the ED.

The primary focus of these sessions is to work with the patient on her specific maladaptive schemas with the goal of gaining awareness of the role that such schemas

play in the ED and challenging the schemas using the range of CBT techniques. The specific details of these sessions will need to be shaped by the particular maladaptive schemas of a given patient. The therapist remains active, and change techniques are implemented explicitly and systematically. In particular, the therapist continues to emphasize the importance of homework and experimenting with behavioral change. The therapist and patient continue to work collaboratively to evaluate the current data derived from such experimentation, and they continue to utilize an empirical approach to evaluating the validity and functionality of the maladaptive schemas.

Affect Regulation and Interpersonal Effectiveness Skills

Issues of affect regulation and difficulties in interpersonal relationships plague many individuals with AN. It is often the case that resolution of the behavioral symptoms of the ED results in greater clarity regarding these more global problems. This entire CBT intervention is designed to enhance our patients' ability to self-regulate and successfully manage interpersonal situations. In addition to the program outlined here, especially in the later phases of treatment, it may also be useful for therapists to incorporate Linehan's (1993) work, which was designed for individuals with borderline personality disorder. These interventions are based on sound cognitive-behavioral principles and may be effectively adapted for our patients with AN. In particular, Linehan provides clear and useful descriptions of interventions aimed at enhancing interpersonal effectiveness skills and affect regulation.

Treating Individuals with Binge Eating and Purging

A significant percentage of individuals with AN report binge eating and purging, and a significant minority of these individuals will go on to develop BN. Thus, it is important to assess and address these aspects of the eating disturbance carefully and employ CBT interventions that specifically target binge eating and purging, as needed. It is unusual for individuals with AN to report binge eating without purging; however, it is not unusual for individuals to report purging in the absence of binge eating. Treating patients who report binge eating, compared to those who do not, requires first determining the nature of the binge-eating episodes. To the extent that the subjective reports do not meet criteria for an objective bingeing, the primary thrust of the behavioral interventions will be consistent across all patients: The goal is not to alter the specific behavior that the patient describes as a binge but rather to focus on normalizing eating three meals per day, plus snacks, and increasing the variety of food with which the patient is comfortable. The cognitive interventions for these patients focus on identifying and challenging the distortions that make average meals and snacks "binges."

Individuals with AN who purge need to be monitored carefully, given their increased risk for medical complications. Vomiting and any other compensatory behaviors, such as laxative or diuretic abuse, are driven by the same core dysfunctional thoughts as the excessive restraint characteristic of all patients with AN. All of these behaviors are pursued to achieve the central aim of extreme thinness because individuals with AN believe that such efforts will provide a sense of control, mastery, and self-worth. Thus, the cognitive interventions directed at vomiting are the same as those used to address excessive restriction. These cognitive techniques elucidate and challenge the dysfunc-

tional thinking underlying these compensatory behaviors and restriction, since all of these behaviors are motivated by the same underlying core beliefs. Behavioral interventions such as the use of delay strategies and alternatives are designed to inhibit the purging behavior.

Using the Therapeutic Relationship to Address Maladaptive Thoughts and Schemas

The therapist can make use of the therapeutic relationship to explore the patient's general feelings and assumptions about interpersonal relationships. As mentioned above, patients with AN often have significant interpersonal problems. For example, many patients describe problems in balancing attachment and autonomy in relationships, feeling excessively dependent, vulnerable, and mistrustful. Also, many individuals with AN describe feeling worthless and unlovable. CBT therapists stay alert to any indications that the patient holds such dysfunctional schemas and use the Dysfunctional Thought Record (Figure 5.3) to explore and challenge such distortions with the patient. In addition, therapists can use the relationship to make explicit the maladaptive assumptions that the patient may hold regarding interpersonal relationships. In doing so, the goal is to articulate and challenge any maladaptive schemas that are identified.

PHASE IV: Ending Treatment and Relapse Prevention

In preparing for the termination of treatment, the therapist and patient review specific CBT tools and strategies that the patient has found most helpful. It should be emphasized to the patient that the goal of treatment is not to solve all potential problems while in treatment, but to learn the skills necessary to manage such problems adaptively in the future. This stage offers the patient the opportunity to describe an enhanced sense of self-efficacy as a result of the gains she has made in treatment. At this point, the therapist can reiterate that as long as the patient continues to employ what she has learned, she will be acting as her own therapist and thereby decrease her risk of relapse.

The therapist helps the patient think ahead to potentially stressful situations and challenges that lie in the near future. During these sessions, the therapist helps the patient practice and plan for particular challenges. Anticipation and planning are key elements in preventing relapse. However, the therapist also emphasizes that no one stays exactly on course 100% of the time. As much as possible, the therapist helps the patient learn to identify and monitor cues that she is "off course." The more attentive and responsive the patient is to such cues, the less likely she is to relapse. (See Figure 5.5, Self-Therapy Worksheet, and Figure 5.6, Relapse Prevention Plan.)

Specific End-of-Treatment Interventions

As described below, some key factors in making the ending therapeutic include letting up on perfectionism, acceptance, anticipating the loss, and recognizing that successful treatment does not always prevent relapse. A wide range of interventions can be used to assist with the consolidation of therapy and relapse prevention. Table 5.1 highlights some of the most common and useful strategies.

One way to maintain a watchful eye and ensure that you continue to work independently is to provide a time and a structure for regularly checking in with yourself. Consider setting up a very important appointment with yourself to work through items in a structured way. Remember to pick a time when you will have some privacy and be able to focus on yourself.

Date and time of appointment: _____

How is my eating going? Did I restrict at all? Do I need to change anything about my eating?

Have I had any eating-disordered symptoms of any kind? If so, what do I need to do about them?

How am I doing with my body image? Do I need to change anything related to this?

How am I doing with having feelings, being aware of them, and finding appropriate forms of expression?

Is any thought or feeling haunting me? What do I need to do about it?

How am I doing in my relationships? Do I need to address anything related to this area?

How am I doing with my job, schoolwork, or daily activities? Do I need to change anything related to these?

Am I aware of how hard I am working to maintain my recovery? Am I giving myself credit?

What am I most proud of this week?

What challenge am I setting for myself in the week to come?

FIGURE 5.5. Self-Therapy Worksheet.

Relapse can be triggered by any set of circumstances that makes it easy to slide off your meal plan, not eat regular meals, or diet. Examples include being physically ill with the flu or unable to eat for any reason, being very busy or stressed, skipping meals to save time, stressful events, negative emotions, and self-defeating thoughts. One critical strategy is to maintain a high level of vigilance: Be aware of what is going on!

What factors or situations might be likely to lead you to relapse (i.e., what do you need to watch out for)?

What do you have in place to keep yourself vigilant?

If you start to slip, what do you need to do in terms of your eating behavior and meal plan?

Other symptoms that might need attention:

What do you need to do about these?

What maladaptive thoughts can you expect?

What will you do about these?

What do you need in terms of social support?

What are the chances that your difficulties will go away on their own?

FIGURE 5.6. Relapse Prevention Plan.

TABLE 5.1. End-of-Treatment Interventions

Below is a list of possible interventions that may assist in the work around ending treatment.

1. Case summary: Ask your patient to write her own case summary, highlighting what was especially useful, what was difficult, etc.
2. Risks for relapse: Ask your patient to write about the risks that she sees on the horizon. In that regard it is also useful to have her identify cues that will tell her she is off course or at risk for relapsing and have her prepare a plan for how to minimize or avert such risk.
3. Goal Setting: Patients can prepare a list of goals for the coming month, 3 months, 1 year.
4. Encourage patients to review CBT materials from therapy and keep a folder of the materials that seem most relevant.
5. Have your patient project forward to when she is an old woman. As she reflects on the life she imagines, how does she want to be remembered (by the therapist, friends, or family)? What does she want her legacy to be? Throughout this discussion, you can link your patient's desires to the year's work of CBT.
6. Ask your patient to write about past relapses and to be as detailed as possible about the patterns that were central to relapsing; discuss with her how she can handle things differently this time.
7. Review specific processes of CBT interventions, such as food diaries, Dysfunctional Thought Record, and problem solving. Find out how the patient is using these instruments at the end of treatment and discuss how she can maximize their utility for transitioning out of treatment.
8. Role playing: Use this technique to anticipate and work through any anticipated difficult situations.
9. Explore what the patient thinks it would mean if she were to relapse. Does it mean that treatment didn't work? If so, it may make her less likely to seek help when she needs it. It may be useful to use the analogy of a shower here (e.g., "You get dirty after a shower, but that doesn't mean the shower didn't work; moreover, getting dirty isn't so scary when you know how to shower").
10. Emphasize growth potential of slips.

Letting Up on Perfectionism and Acceptance

Therapists' acceptance of patients facilitates patients' self-acceptance. In turn, this self-acceptance relieves the misery of feeling unworthy that many individuals with AN feel. Some individuals with AN will always be vulnerable to reengaging in eating pathology, but if they can accept this susceptibility and pay attention to markers of risk, they can achieve a higher and stabler level of functioning. Sometimes individuals expect too much from treatment, and helping them let go of mythical ideals can facilitate a more constructive ending. Assisting patients to identify ideals that empower and those that defeat their own growth can be very therapeutic—not only beauty ideals but ideals about the way they think they should live. Linking the perfectionism to demoralization and relapse is an important goal of treatment and its termination.

Anticipating the Loss

Throughout the treatment and with increasingly explicit reference, it may be helpful to discuss the possible feelings of loss that are associated with ending treatment. It is useful to help patients plan for how they will take care of themselves in the face of such loss. This aspect of treatment is important because it give patients a clear message of support from the therapist: They have the needed ability to take care of themselves.

Acceptance That a Successful Intervention Does Not Always Prevent Relapse

Many of our patients require multiple treatments. To the extent that the disorder will run its course, a particular intervention may be therapeutic in its capacity to reduce deleterious effects. Also, putting into practice all the components of CBT often takes time. Although a patient may not be able to successfully avert a relapse, she may have learned a lot during the course of treatment that will ultimately contribute to a more complete recovery.

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Exhibit 2

DBT Resources: What is DBT?

Quick Links and Downloads

- DBT Frequently Asked Questions

Dialectical Behavior Therapy at a Glance

In the late 1970s, Marsha M. Linehan (1993) attempted to apply standard Cognitive Behavior Therapy (CBT) to the problems of adult women with histories of chronic suicide attempts, suicidal ideation, urges to self-harm, and self-mutilation. Trained as a behaviorist, she was interested in treating discrete behaviors; however, through consultation with colleagues, she concluded that she was treating women who met criteria for Borderline Personality Disorder (BPD). In the late 1970s, CBT had gained prominence as an effective psychotherapy for a range of serious problems. Linehan was keenly interested in investigating whether or not it would prove helpful for individuals whose suicidality was in response to extremely painful problems. As she and her research team applied standard CBT, they encountered numerous problems with its use. Three were particularly troublesome:

1. Clients receiving CBT found the unrelenting focus on change inherent to CBT invalidating. Clients responded by withdrawing from treatment, by becoming angry, or by vacillating between the two. This resulted in a high drop out rate. And, obviously, if clients do not attend treatment, they cannot benefit from treatment.

2. Clients unintentionally positively reinforced their therapists for ineffective treatment while punishing their therapists for effective therapy. In other words, therapists were unwittingly under the control of consequences outside their awareness, just as all humans are. For example, the research team noticed through its review of audio taped sessions that therapists would "back off" pushing for change of behavior when the client's response was one of anger, or emotional withdrawal, or shame, or threatened self-harm. Similarly, clients would reward the therapist with interpersonal warmth or engagement if the therapist allowed them to change the topic of the session from one they didn't want to discuss to one they did want to discuss.

3. The sheer volume and severity of problems presented by clients made it impossible to use the standard CBT format. Individual therapists simply did not have time to both address the problems presented by clients – suicide attempts, urges to self-harm, urges to quit treatment, noncompliance with homework assignments, untreated depression, anxiety disorders, etc, -- AND have session time devoted to helping the client learn and apply more adaptive skills.

Adding Validation and Dialectics to CBT. In response to these key problems with standard CBT, Linehan and her research team made significant modifications to standard CBT. They added in new types of strategies and reformulated the structure of the treatment (see below, next section). In the case of new strategies, Acceptance-based interventions, frequently referred to as validation strategies, were added. Adding these communicated to the clients that they were both acceptable as they were and that their behaviors, including those that were self-harming, made real sense in some way. Further, therapists learned to highlight for clients when their thoughts, feelings, and behaviors were "perfectly normal", helping clients discover that they had sound judgment and that they were capable of learning how and when to trust themselves. The new emphasis on acceptance did not occur to the exclusion of the emphasis on change: Clients also must change if they want to build a life worth living. Thus, the focus on acceptance did not occur to the exclusion of change based strategies; rather, the two enhanced the use of one another. In the course of weaving in acceptance with change, Linehan noticed that a third set of strategies –Dialectics --came into play. Dialectical strategies gave the therapist a means to balance acceptance and change in each session and served to prevent both therapist and client from becoming stuck in the rigid thoughts, feelings, and behaviors that can occur when emotions run high, as they often do in the treatment of clients diagnosed with BPD. Dialectical strategies and a dialectical world view, with its emphasis on holism and synthesis, enable the therapist to blend acceptance and change in a manner that results in movement, speed, and flow in individual sessions and across the entire treatment. This counters the tendency, found in treatment with clients diagnosed with BPD, to become mired in arguments, polarizing positions, and extreme positions. Thus, these three sets of strategies and the theories on which they are based from are the three foundations of DBT.

Restructuring the Treatment. As noted above, very significant changes were also made to the structure of treatment in order to solve the problems encountered in the application of standard CBT. Below we discuss how DBT treatment is organized by Functions and Modes and by Stages and Targets The treatment we are describing is the treatment that is considered to be Standard and Comprehensive DBT. It is the form of DBT that has been subject to the most rigorous research in terms of randomized controlled trials (RCTs). The variations of DBT that differ from the structure described below is being researched but has not yet been subjected to as rigorous a test as standard DBT. Thus, the reader should keep in mind that this is how comprehensive DBT is defined and that variations from this structure are not considered comprehensive or standard.

Functions and Modes. Briefly, Linehan (1993) hypothesizes that any comprehensive psychotherapy must meet five critical functions.

The therapy must: a) enhance and maintain the client's motivation to change; b) enhance the client's capabilities; c) ensure that the client's new capabilities are generalized to all relevant environments; d) enhance the therapist's motivation to treat clients while also enhancing the therapist's capabilities; and, e) structure the environment so that treatment can take place. Due to space considerations, we will not review every possible mode (method) that can meet these functions. Rather, we offer the most common examples of how these functions are met in standard outpatient DBT. It is typically the individual therapist who maintains the client's motivation for treatment, since the individual therapist is the most salient individual for the client. Skills are acquired, strengthened, and generalized through the combination of skills groups, phone coaching (clients are instructed to call therapists for coaching prior to engaging in self harm), in vivo coaching, and homework assignments. Therapists' capabilities are enhanced and burnout prevented through weekly consultation team meetings. The consultation team helps the therapist stay balanced in his or her approach to the client, while supporting and cheerleading the therapist in applying effective interventions. (In DBT, a therapist is not considered to be meeting the requirements of the treatment unless he or she meets weekly in a DBT consultation team). Finally, the environment can be structured in a variety of ways, say by the client and therapist meeting with family members to ensure that the client is not being reinforced for maladaptive behaviors or punished for effective behaviors in the home.

Stages and Targets. DBT also organizes treatment into stages and targets and, with very few exceptions, adheres strictly to the order in which problems are addressed. The organization of the treatment into stages and targets prevents DBT being a treatment that, week after week, addresses the crisis of the moment. Further, it has a logical progression that first addresses behaviors that could lead to the client's death, then behaviors that could lead to premature termination, to behaviors that destroy the quality of life, to the need for alternative skills. In other words, the first goal is to insure the client stays alive, so that the second goal (staying in therapy), results in meeting the third goal (building a better quality of life), partly through the acquisition of new behaviors (skills). In short, we have just described the targets found in Stage I. To repeat, the first stage of treatment focuses, in order, on decreasing life threatening behaviors, behaviors that interfere with therapy, quality of life threatening behaviors and increasing skills that will replace ineffective coping behaviors. The goal of Stage I DBT is for the client to move from behavioral dyscontrol to behavioral control so that there is a normal life expectancy. In Stage II, DBT addresses the client's inhibited emotional experiencing. It is thought that the client's behavior is now under control but the client is suffering "in silence". The goal of Stage II is to help the client move from a state of quiet desperation to one of full emotional experiencing. This is the stage in which post-traumatic stress disorder (PTSD) would be treated. Stage III DBT focuses on problems in living, with the goal being that the client has a life of ordinary happiness and unhappiness. Linehan has posited a Stage IV specifically for those clients for whom a life of ordinary happiness and unhappiness fails to meet a further goal of spiritual fulfillment or a sense of connectedness of a greater whole. In this stage, the goal of treatment is for the client to move from a sense of incompleteness towards a life that involves an ongoing capacity for experiences of joy and freedom.

Research on DBT

Two randomized controlled trials (RCTs) of DBT, supported by grants from the National Institute of Mental Health and the National Institute of Drug Abuse, have indicated that DBT is more effective than Treatment-As-Usual (TAU) in treatment of BPD and treatment of BPD and co-morbid diagnosis of substance abuse (Linehan, Armstrong, Suarez, Allmon & Heard, 1991; Linehan, Schmidt, Dimeff, Craft, Kanter & Comtois, 1999). Clients receiving DBT, compared to TAU, were significantly less likely to drop out of therapy, were significantly less likely to engage in parasuicide, reported significantly fewer parasuicial behaviors and, when engaging in parasuicidal behaviors, had less medically severe behaviors. Further, clients receiving DBT were less likely to be hospitalized, had fewer days in hospital, and had higher scores on global and social adjustment. Likewise, in the RCT conducted on DBT for women with co-morbid substance abuse, in addition to similar findings to the original study regarding improvement in BPD criterion behaviors, DBT was more effective than TAU at reducing drug abuse. Follow up indicated that subjects who had received DBT also had greater gains in global and social adjustment. DBT has also been the subject of RCTs conducted independently of Linehan's research clinic at the University of Washington. Koons, Robins, Tweed & Lynch (2001) randomly assigned 20 women veterans diagnosed with BPD to either DBT or TAU. Unlike Linehan's, et al. (1991, 1993) original studies, subjects were not required to have a recent history of parasuicide. However, subjects enrolled in DBT showed statistically significant reductions in suicidal ideation, depression, hopelessness, and anger compared to subjects enrolled in TAU. Verheul, Van Den Bosch, Koeter, De Ridder, Stijnen & Van Den Brink (2003) conducted an RCT in the Netherlands, again comparing DBT to TAU. Their findings are consistent with the earlier studies: Subjects enrolled in DBT had greater treatment retention, reduced suicidality, reduced episodes of self harm and self-mutilation. DBT continues to be the subject of randomized controlled trials. At present, Linehan (personal communication, 2003) is completing a randomized controlled trial of DBT v. Treatment- By-Community-Expert (TBCE). Other studies are ongoing regarding the use of DBT with eating disorders, DBT with BPD and co-morbid substance abuse, as well as the utility of DBT in other than outpatient settings.

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Exhibit 3

CHAPTER 15

Interpersonal Psychotherapy for Bulimia Nervosa and Binge-Eating Disorder

Marian Tanofsky-Kraff and Denise E. Wilfley

Interpersonal psychotherapy (IPT) was originally developed in the late 1960s by Gerald Klerman and colleagues (Klerman, Weissman, Rounsaville, & Chevron, 1984) for the treatment of unipolar depression. IPT is a brief, time-limited therapy that focuses on improving interpersonal functioning and, in turn, psychiatric symptoms, by relating symptoms to interpersonal problem areas and developing strategies for dealing with these problems (Freeman & Gil, 2004; Klerman et al., 1984). In the late 1980s, IPT was successfully modified for patients with BN (Fairburn et al., 1991; Fairburn, Peveler, Jones, Hope, & Doll, 1993) and shortly thereafter adapted into a group format for individuals with BED (Wilfley, Frank, Welch, Spurrell, & Rounsaville, 1998; Wilfley, MacKenzie, Welch, Ayres, & Weissman, 2000; Wilfley et al., 1993, 2002). IPT has been found to be an effective treatment for bulimia nervosa (BN) and binge-eating disorder (BED).

The present chapter reviews interpersonal theory and how it provides the foundation for IPT. The central role that interpersonal functioning plays in the development and manifestation of eating disorders (EDs) is discussed. Empirical evidence supporting the efficaciousness of IPT for the treatment of EDs is reviewed. The delivery of IPT for BN and BED are also explained, along with a description of the major tenets of the treatment and a novel adaptation of IPT for the prevention of obesity. Finally, we discuss how the delivery of IPT has been improved, and future directions are proposed.

Interpersonal Theory

IPT is grounded in theories developed independently by Meyer (1957), Sullivan (1953), and Bowlby (1982), which hypothesize that interpersonal function is a critical component of psychological adjustment and well-being. Meyer postulated that psychopathology was rooted in maladjustment to one's social environment (Frank & Spanier, 1995,

Klerman et al., 1984; Meyer, 1957). Sullivan theorized that a patient's interpersonal relationships, rather than intrapsychic processes alone, established the relevant focus of therapeutic attention (Sullivan, 1953). He believed that individuals could not be understood in isolation from their interpersonal relationships and posited that existing patterns in these relationships could either encourage self-esteem or result in anxiety, hopelessness, and psychopathology. IPT is also associated with the work of John Bowlby (1982), the originator of attachment theory. Bowlby emphasized the importance of early attachment in the later development of interpersonal relationships and emotional well-being, hypothesizing that failures in attachment resulted in later psychopathology.

The interpersonal roles of major interest to IPT occur within the nuclear family, the extended family, the friendship group, the work situation, and the neighborhood or community. IPT acknowledges a two-way relationship between social functioning and psychopathology: Disturbances in social roles can serve as antecedents for psychopathology, and mental illness can produce impairments in one's capacity to perform social roles (Bowlby, 1982). IPT is, therefore, derived from a theory in which interpersonal functioning is recognized as a critical component of psychological adjustment and well-being. It should be noted that IPT makes no assumptions about the causes of psychiatric illness; however, IPT does assume that the development and maintenance of some psychiatric illnesses occur in a social and interpersonal context and that the onset, response to treatment, and outcomes are influenced by the interpersonal relations between the patient and significant others. The major tenets of IPT for BN and BED are described in this chapter. The extensive empirical background and theoretical foundation, as well as the strategies and techniques of IPT, are fully described in a comprehensive book by Weissman, Markowitz, and Klerman (2000).

Interpersonal Functioning and EDs

A wealth of research has linked poor interpersonal functioning to EDs (Wilfley, Sacco, & Welch, 2005). Individuals with BN and BED typically report past difficult social experiences, problematic family histories, and specific interpersonal stressors more often than non-eating-disordered individuals (Fairburn et al., 1997, 1998). Individuals with BN and BED also tend to experience a wide range of social problems, such as loneliness, lack of perceived social support, poor self-esteem and social adjustment, and difficulty with social problem-solving skills (Crow et al., 2002; Ghaderi & Scott, 1999; Grissett & Norvell, 1992; Gual et al., 2002; Johnson et al., 2001; O'Mahony & Hollwey, 1995; Rorty et al., 1999; Steiger et al., 1999; Troop et al., 1994; Wilfley et al., 2003). Heightened sensitivity to interpersonal interactions appears to be a common characteristic among individuals with bulimic tendencies (Evans & Wertheim, 1998; Humphrey, 1989; Steiger et al., 1999; Tasca et al., 2004; Troisi et al., 2005). Indeed, interactive paradigms suggest that interpersonal distress may trigger overeating (Steiger et al., 1999; Tanofsky-Kraff, Wilfley, & Spurrell, 2000) and potentially perpetuate binge eating. Furthermore, interpersonal difficulties, low self-esteem, and negative affect may be interconnected in a reciprocal fashion (Fairburn et al., 1997, 1998; Gual et al., 2002) and serve to perpetuate a cycle, each exacerbating the other and combining to precipitate and/or maintain dysfunctional bulimic or binge-eating patterns (Herzog, Keller, Lavori, & Ott, 1987). Therefore, the use of an interpersonally focused intervention appears to be especially

suitable for the treatment of BN and BED and those with similar manifestations of these disorders. IPT is designed to improve interpersonal functioning and self-esteem, reduce negative affect, and, in turn, decrease ED symptoms.

Review of Outcome Studies and Relevant Empirical Literature

IPT for BN

IPT has been shown to be effective for the treatment of BN. To date, cognitive-behavioral therapy (CBT) is currently the most researched, best established treatment for BN (Wilson, Grilo, & Vitousek, 2007). Nevertheless, IPT is the only psychological treatment for BN that has demonstrated long-term outcomes that are comparable to those of CBT (Wilson & Shafran, 2005). Currently, all *controlled* studies of IPT for BN have been comparison studies with CBT. Initially, similar short- and long-term outcomes for binge-eating remission between CBT and IPT were reported (Fairburn et al., 1993, 1995). In a subsequent multisite study (Agras, Walsh, Fairburn, Wilson, & Kraemer, 2000) comparing CBT and IPT as treatments for BN, in the short-term posttreatment, patients receiving CBT demonstrated higher rates of abstinence from binge eating and lower rates of purging. By 8- and 12-month follow-ups, however, patients receiving CBT tended to maintain their progress or slightly worsen, whereas patients receiving IPT experienced slight improvement such that the two treatments no longer differed significantly in their outcomes. The more impressive effect of CBT compared to IPT may be at least partially explained by a relative lack of focus on ED symptomatology in the research version of individual IPT for BN. Interestingly, IPT patients rated their treatment as more suitable and expected greater success than did CBT patients. Therefore, a potential advantage of IPT may be that many patients with BN perceive the interpersonal focus of IPT as particularly relevant to their ED and to their treatment needs, perhaps more so than a cognitive-behavioral focus on distortions related to weight and shape. Currently, IPT is considered an alternative to CBT for the treatment of BN (Wilson et al., 2007). Although, it has been recommended that clinicians inform patients of the slower response time for improvements compared to CBT (Wilson, 2005), our contention is that when IPT is delivered in a manner such that interpersonal problems are consistently linked to ED symptoms, response to treatment will likely occur more rapidly.

An emerging literature has provided some insight into predictors of success with IPT for the treatment of EDs. Chui, Safer, Bryson, Agras, and Wilson (2007) reported that although patients in the large multicenter trial responded with higher abstinence rates when randomized to CBT as opposed to IPT, African American participants showed greater reductions in binge-eating episode frequency when treated with IPT compared to CBT. This finding suggests that IPT may be particularly appropriate for African American women with BN, and speaks to the need for further study of IPT with different racial and ethnic groups. Since therapeutic alliance is associated with treatment outcome, researchers from this same study examined patient expectation of improvement (Constantino, Arnow, Blasey, & Agras, 2005). They found that expectation of improvement was positively associated with outcome for both CBT and IPT, emphasizing the important role of patient expectations in both treatments. Finally, in a

study of postremission predictors of relapse. Keel and colleagues found that for women with BN, worse psychosocial functioning was associated with a greater risk for relapse, which, the authors posited, may partly help to explain the long-term effectiveness of IPT for BN (Keel, Dorer, Franko, Jackson, & Herzog, 2005).

IPT for BED

Based upon the initial success of IPT in BN (Fairburn et al., 1991), IPT for BED was developed. Wilfley and colleagues first adapted IPT to a group format for patients with BED (Wilfley et al., 1993, 2000). During their work, they found that a number of patients presented with chronically unfulfilling relationships that were well suited to be addressed in the group format. Therefore, new strategies were adapted to specifically address such interpersonal deficits. For example, in the current format of group IPT for BED, group members with interpersonal deficits are strongly encouraged to use the group as a "live" social network. This social milieu is designed to decrease social isolation, support the formation of new social relationships, and serve as a model for initiating and sustaining social relationships outside of the therapeutic context (Wilfley et al., 1998). Shame and self-stigmatization are common among patients with BED and may contribute to the maintenance of the disorder. By its very nature, group therapy offers a radically altered social environment for patients with BED, who typically keep shameful eating behaviors hidden from others.

IPT has demonstrated effectiveness in the treatment of BED. As in the case of CBT for BN, CBT for BED has been shown to have specific and robust treatment effects (Devlin et al., 2005; Grilo, Masheb, & Wilson, 2005; Kenardy, Mensch, Bowen, Green, & Walton, 2002; Nauta, Hospers, Kok, & Jansen, 2000; Ricca et al., 2001; Telch, Agras, Rossiter, Wilfley, & Kenardy, 1990; Wilfley et al., 1993). Two randomized trials have compared IPT with CBT and found that IPT has similar effects to CBT in the management of BED. The first study, comparing group CBT and IPT, revealed that both treatments were more effective than a wait-list control group at reducing binge eating and had similar significant reductions in binge eating in both the short and long term (Wilfley et al., 1993). In the second study, which included a substantially larger sample size, both CBT and IPT demonstrated equivalent short- and long-term efficacy in reducing binge eating and associated specific and general psychopathology, with approximately 60% of the patients remaining abstinent from binge eating at 1-year follow-up (Wilfley et al., 2002). In contrast to the literature on IPT for BN, the time course of almost all outcomes with IPT was identical to that of CBT.

In a follow-up analysis of treatment predictors of long-term outcome of the 2002 study, patients with a greater extent of interpersonal problems at both baseline and midtreatment showed poorer treatment response to both treatments (Hilbert et al., 2007). An important caveat of this finding, however, is that, not surprisingly, those individuals with greater interpersonal problems were also those who had more Axis I and Axis II psychiatric disorders and lower self-esteem than those with less severe interpersonal problems. Such individuals are likely in need of augmented or extended treatment. Supporting this assertion, in IPT adapted for individuals with borderline personality disorder, many of whom present with comorbid depression, Markowitz and colleagues suggest that extending IPT effectively improves the disorder (Markowitz, Skodol, & Bleiberg, 2006). A preliminary examination of patients in the larger BED cohort at least 5 years posttreatment indicated that those in IPT maintained reductions

in binge eating and disordered eating cognitions (Bishop, Stein, Hilbert, Swenson, & Wilfley, 2007, October). These data may suggest evidence for good maintenance of change for patients with BED treated with IPT.

Results from a recently completed multisite trial that compared individual IPT to behavioral weight loss treatment or CBT guided self-help for the treatment of BED points to the importance of making a clear connection between interpersonal problems and binge-eating symptoms in the delivery of IPT. Similar to Wilfley and colleagues' 2002 trial, in this multisite study the clinicians linked interpersonal functioning to disordered-eating symptoms throughout the course of IPT. Findings from this study revealed that IPT was most acceptable to patients; the dropout rate was significantly lower in IPT compared to the other two interventions (Wilfley, Wilson, & Agras, 2008). IPT and CBT guided self-help were significantly more effective than behavioral weight loss in eliminating binge eating after 2 years. Furthermore, compared to the other two programs, IPT produced greater binge episode reductions for patients with low self-esteem and greater disordered eating behaviors and cognitions, whereas CBT guided self-help was generally effective only for those with low ED psychopathology. It is notable that in this trial, compared to the 2002 study (Hilbert et al., 2007; Wilfley et al., 2002), individuals with more psychopathology showed greater improvements in IPT than with CBT guided self-help. This is in concert with Hilbert and colleagues' follow-up data suggesting that greater disordered eating serves as a moderator in predicting poorer outcome in CBT (Hilbert et al., 2007).

In general, compared to European American participants, individuals of other ethnic minorities demonstrated less retention in the multisite study (Wilfley et al., 2008). Although there was no treatment by ethnicity effects in this regard, there was very low attrition for minority participants in IPT and very high dropout rates by minorities in CBT guided self-help. The small sample size of minority participants across sites precludes definitive conclusions. Nevertheless, this pattern is in concert with the finding that IPT was particularly effective for African American participants in the previously described multisite study for individuals with BN (Chui et al., 2007). It is possible that the personalized nature of IPT (e.g., problem areas and goals are developed based upon each individual's social environment) is modifiable to, and thus particularly acceptable to, persons of various cultures and backgrounds.

A number of recommendations can be drawn from the recent multisite study. It is possible that CBT guided self-help could be considered the first-line treatment for the majority of individuals with BED, and that IPT is recommended for patients with low self-esteem and high eating-disorder psychopathology. Alternatively, IPT may be considered a first-line treatment for BED. This recommendation is based upon a number of factors: IPT has been shown to be effective across multiple research sites, is associated with high retention across different patient profiles (e.g., high negative affect, minority groups), and demonstrated superior outcomes to behavioral weight loss overall, and to CBT guided self help among a subset of patients with high disordered-eating psychopathology and low-self-esteem. Clinicians and patients should consider these alternatives when deciding the best approach to treating their disorder. Finally, behavioral weight loss should not be considered as a first choice when treating individuals with BED.

In summary, the literature suggests that IPT represents an efficacious treatment alternative to CBT for BED. If delivering IPT for BED in a group format, as with all group therapies, developing member cohesion is paramount to the achievement of treatment success.

Additional Considerations When Choosing Treatment Modality

When determining the treatment approach for patients with EDs, the clinician and patient should together evaluate the advantages and disadvantages of utilizing IPT, CBT, or another therapeutic modality. Furthermore, as part of this determination, it is crucial for clinicians to also explore their own comfort level in terms of their expertise, theoretical knowledge, and propensity toward administering an interpersonally focused treatment. IPT, like CBT, is a specialty treatment and should be administered only by trained practitioners. It has been argued that experienced clinicians who have been trained in other treatment modalities tend to learn IPT quickly and are often able to implement IPT with a high degree of integrity despite minimal training (Birchall, 1999). Currently there are more data in support of the efficacy of CBT. Based on the evolving literature, IPT may be well suited for patients presenting with or without exacerbated difficulties in social functioning. Although greater problems were associated with poorer outcome for both CBT and IPT in the Hilbert and colleagues (2007) study, the moderator effect in the more recent multisite study—that patients presenting with greater psychopathology seem to respond well to IPT (Wilfley et al., 2008)—suggests that IPT (or another specialized treatment such as CBT) may be well suited for individuals with a broad range of disordered eating and general psychopathology. Moreover, IPT can be enhanced for individuals with exacerbated psychological problems (Markowitz et al., 2006). It is also possible that IPT may be especially fitting for some minority groups (e.g., African Americans) or specific age cohorts (e.g., adolescents, as described below). Finally, some patients may express discomfort or difficulties with elements of CBT (e.g., self-monitoring), and IPT should be considered for these individuals.

IPT for Eating Disorders

Basic IPT Concepts

A number of basic concepts are common across all adaptations of IPT, including treatment for EDs. Specifically, adaptations for IPT all focus on interpersonal problem areas and maintain a similar treatment structure. Given the time-limited nature of IPT, treatment success hinges on the clinician's rapid discernment of patterns in interpersonal relationships and the linking of these patterns to eating-disordered symptoms that may have precipitated and maintain the disorder. Thus, early identification of the problem area(s) and treatment goals by the clinician and patient is crucial. Throughout every session, interpersonal functioning should be linked to the onset and maintenance of the eating disorder.

Interpersonal Problem Areas

A primary aim of IPT is to help patients identify and address *current* interpersonal problems. By focusing on current as opposed to past relationships, IPT makes no assumptions about the etiology of an ED. Treatment focuses on the resolution of problems within four social domains that are associated with the onset and/or maintenance of the ED: interpersonal deficits, interpersonal role disputes, role transitions, and grief. *Interpersonal deficits* apply to those patients who are either socially isolated or who are involved in chronically unfulfilling relationships. For clients with this problem area

unsatisfying relationships and/or inadequate social support are frequently the result of poor social skills. *Interpersonal role disputes* refer to conflicts with a significant other (e.g., a partner, other family member, coworker, or close friend) that emerge from differences in expectations about the relationship. *Role transitions* include difficulties associated with a change in life status (e.g., graduation, leaving a job, moving, marriage/divorce, retirement, changes in health). The problem area of *grief* is identified when the onset of the patient's symptoms is associated with either the recent or past loss of a person or a relationship. Making use of this framework for defining one or more interpersonal problem areas, IPT for EDs focuses on identifying and changing the maladaptive interpersonal context in which the eating problem has developed and been maintained. The four problem areas are discussed in detail in the section describing the "Intermediate Phase."

Treatment Structure

IPT for EDs is a time-delineated treatment that typically includes 15–20 sessions over 4–5 months. Regardless of the exact number of sessions, IPT is delivered in three phases. The *initial phase* is dedicated to identifying the problem area(s) that will be the target for treatment. The *intermediate phase* is devoted to working on the target problem area(s). The *termination phase* is devoted to consolidating gains made during treatment and preparing patients for future work on their own.

Implementing IPT for EDs

The Initial Phase

The first five sessions typically constitute the initial phase of IPT for EDs. The patient's current ED symptoms are assessed and a history of these symptoms is obtained. The clinician provides the patient with a formal diagnosis, which they then discuss, along with what can be expected from treatment. An assignment of the "sick role" (described in further detail below) during this phase serves several functions, including granting the patient the permission to recover, delineating recovery as a responsibility of the patient, and allowing the patient to be relieved of other responsibilities in order to recover. The clinician explains the rationale of IPT, emphasizing that therapy will focus on identifying and altering current dysfunctional interpersonal patterns related to ED features. In order to determine the precise focus of treatment, the clinician conducts an "interpersonal inventory" with the patient and, in doing so, develops an interpersonal formulation that specifically relates to the patient's ED. In the interpersonal formulation the clinician links the patient's ED to at least one of the four interpersonal problem areas. The patient's concurrence with the clinician's identification of the problem area and agreement to work on this area are essential before beginning the intermediate phase of treatment. Indeed, a collaborative effort is promoted throughout the interpersonal inventory and the ensuing therapy sessions.

Diagnosis and Assignment of the Sick Role

Following a psychiatric assessment, the patient is formally diagnosed with an ED and assigned what is termed the "sick role." The assignment of the sick role is theoretical

and serves a practical purpose. Consistent with the medical model, receiving a formal diagnosis reinforces the understanding that the patient has a known condition that can be treated. Accurate diagnosis is essential to effective treatment. Providing a diagnosis also explicitly identifies the patient as in need of help. The sick role is assigned not to condescend to the patient but rather to temporarily exempt him/her from other responsibilities in order to devote full attention to recovery. This is particularly important for individuals with a tendency to set aside their own needs and desires in order to care for and please others. If appropriate, the IPT clinician might explicitly highlight the patient's excessive caretaking tendencies and encourage the patient to redirect this energy from others toward self-recovery.

The Interpersonal Inventory

An initial and critical component of IPT is the interpersonal inventory, which involves a thorough examination of the patient's interpersonal history. Although clinicians have historically taken up to three sessions to complete the interpersonal inventory, we have found that conducting a longer first session (approximately 2 hours) to complete the entire interpersonal inventory may increase the effectiveness of the treatment. This is likely because it allows patients to get "on board" early in terms of their understanding of IPT and how their ED fits into the IPT rationale (Wilfley et al., 2000). The interpersonal inventory is essential for adequate case formulation and the development of an optimal treatment plan. The clinical importance of investing the time to conduct a comprehensive interpersonal inventory cannot be overemphasized; accurate identification of the patient's primary problem area(s) is often complicated and is crucial to success in treatment.

The interpersonal inventory involves a review of the patient's current close relationships, social functioning, relationship patterns, and expectations of relationships. Interpersonal relationships—both patterns and changes—are explored and discussed with reference to the onset and maintenance of ED symptoms. For each significant relationship the following information is assessed: frequency of contact, activities shared, satisfactory and unsatisfactory aspects of the relationship, and ways in which the patient wishes to change the relationship. The clinician obtains a chronological history of significant life events, fluctuations in mood and self-esteem, interpersonal relationships, and ED symptoms. Throughout this process, the clinician works collaboratively with the patient to make connections between life experiences and ED development and symptoms. This exploration provides an opportunity for the patient to clearly understand the relationship between life events, social functioning, and the ED, and thereby clarifies the rationale behind IPT. Upon completion of the interpersonal inventory, the clinician and patient collaboratively identify a primary interpersonal problem area. In some cases, more than one problem area may be identified.

The Interpersonal Formulation

Following completion of the interpersonal inventory, the clinician develops an individualized interpersonal formulation that includes the identification of the patient's primary problem area. Although some patients may present for treatment with difficulties in several problem areas, the time-limited nature of the treatment necessitates

a focused approach. Therefore, the clinician should focus treatment on the problem area(s) that appears to not only impact the patient's interpersonal functioning most, but also those most closely linked to the ED. The clinician, with the agreement of the patient, should assign one, or at most two, problem area(s) for which to develop a treatment plan. We recommend that clinicians write out the agreed-upon goals and present this write-up to patients. The presentation of documented goals can be a very effective technique that serves as a treatment "contract" of sorts. This document becomes a collaborative work agreement that can be revisited and revised throughout treatment to assess and plan future progress. The goals developed at this stage will be referenced at each future session and will guide the day-to-day work of the treatment. If more than one problem area is identified, the patient may choose to work simultaneously on both or may decide to first address the problem area that seems most likely to be responsive to treatment. For example, when a patient has role disputes and interpersonal deficits, clinical attention might first be focused on role disputes, since interpersonal deficits reflect long term patterns that may require considerably more time and effort to change. Once the role dispute has been resolved, the clinician and patient would then decide how to best address the more entrenched interpersonal deficits. Once the primary problem area(s) has been identified and the treatment goals have been agreed upon, the initial phase of treatment is completed.

The Intermediate Phase

The intermediate phase typically contains a total of 8–10 sessions and constitutes the "work" stage of the therapy. As currently conceptualized, an essential task throughout the intermediate phase of IPT for EDs is to assist the patient in understanding the connection between difficulties in interpersonal functioning and the ED behaviors and symptoms. Therapeutic strategies and goals of this phase are shaped by the primary problem area targeted in the treatment. The following section describes the implementation of specific treatment strategies based upon the identified problem area.

Problem Areas

Grief. Grief is identified as the problem area when the onset of the patient's symptoms is associated with the death of a loved one, either recent or past. Grief is not seen as limited to the physical death of a loved one; it can also result from the loss of a significant relationship or the loss of an important aspect of one's identity. The goals for treating complicated bereavement include facilitating mourning and helping the patient find new activities and relationships to substitute for the loss. Reconstructing the relationship, both the positive and its negative aspects, is central to the assessment of not only what has been lost but also what is needed to counter the idealization that so commonly occurs. As patients become less focused on the past, they should be encouraged to consider new ways of becoming more involved with others and establishing new interests (Wilfley et al., 2005).

Role Transitions. Role transition includes any difficulties resulting from a change in life status. Common role transitions include a career change (promotion, firing, retirement, changing jobs), a family change (marriage, divorce, birth of a child, child

moving out), the beginning or end of an important relationship, a move, graduation, or diagnosis of a medical illness. The goals of therapy include mourning and accepting loss of the old role, recognizing the positive and negative aspects of both the old and new roles, and restoring the patient's self-esteem by developing a sense of mastery in the new role. Key strategies in achieving these goals include a thorough exploration of the patient's feelings related to the role change as well as encouraging the patient to develop new skills and adequate social support for the new role (Wilfley et al., 2005b).

Interpersonal Role Disputes. Such disputes involve conflicts with a significant other (e.g., a partner, other family member, employer, coworker, teacher, close friend) that emerge from differences in expectations about the relationship. The goals of treatment include clearly identifying the nature of the dispute and exploring options to resolve it. It is important to determine the stage of the dispute; once the stage of the dispute becomes clear, it may be important to modify the patient's expectations and remedy faulty communication in order to bring about adequate resolution. It may be particularly helpful to explore how nonreciprocal role expectations relate to the dispute. If resolution is impossible, the clinician assists the patient in dissolving the relationship and in mourning its loss (Wilfley et al., 2005b).

Interpersonal Deficits. Interpersonal deficits are typically seen in patients who are socially isolated or who are in chronically unfulfilling relationships. The goal is to reduce the patient's social isolation by helping enhance the quality of existing relationships and encouraging the formation of new ones. To help these patients, it is necessary to determine why they have difficulty in forming or maintaining relationships. Carefully reviewing past significant relationships is particularly useful in making this assessment. During this review, attention should be given to both the positive and negative aspects of the relationships, as well as an investigation of potentially recurrent patterns in these relationships. It may also be appropriate to examine the nature of the patient–clinician relationship, since this may be the patient's only close relationship and it can be observed firsthand by the therapist (Wilfley et al., 2005b).

The Termination Phase

By the end of the intermediate phase, patients are often acutely aware that treatment will soon be ending. The clinician should begin to discuss termination explicitly and address any anxiety the patient may be experiencing. In doing so, the patient should be prepared for emotions that may arise with termination, including grief related to the ending of treatment. At times, patients deny any emotion with regard to the end of treatment and appear to have little reaction to termination. Nevertheless, the clinician should clearly address termination, as the patient may be unaware of, or avoiding, affects related to the end of treatment.

The termination phase typically lasts four or five sessions. During this phase, the patient should be encouraged to reflect on the progress that has been made during therapy—both within sessions and outside of the therapeutic milieu—and to outline goals for remaining work. IPT does not assume that the work toward changes in interpersonal functioning is complete after the last session of the therapy. Rather, patients

and clinician collaboratively summarize the remaining work for the patient to continue outside of the therapeutic milieu. Patients are encouraged to identify early warning signs of relapse (e.g., binge eating, overeating or chaotic eating, excessive dietary restriction, negative mood) and to prepare plans of action. Patients are reminded that ED symptoms tend to arise in times of interpersonal stress and are encouraged to view such symptoms as important early warning signals. Identifying potential strategies to cope with such situations is designed to increase patients' sense of competence and security. Nevertheless, it is also essential to assist patients in identifying warning signs and symptoms that may indicate the need for professional intervention in the future.

Therapeutic Techniques

Therapeutic Stance

As with most therapies, IPT places importance on establishing a positive therapeutic alliance between clinician and patient. The IPT therapeutic stance is one of warmth, support, and empathy. Furthermore, throughout all phases of the treatment, the clinician is active and advocates for the patient rather than remaining neutral. Issues and discussions are framed positively so that the clinician can help the patient feel at ease throughout treatment. Such an approach promotes a safe and supportive working environment. Confrontations and clarifications are offered in a gentle and timely manner, and the clinician is careful to encourage the patient's positive expectations of the therapeutic relationship. Finally, the clinician conveys a hopeful and optimistic attitude about the patient's potential to recover.

Focusing on Goals

As a directed, goal-oriented therapy, IPT clinicians should maintain a focus each week on how the patient is working on his/her agreed-upon goals between sessions. Phrases such as "moving forward on your goals" and "making important changes" are used to encourage patients to be responsible for their treatment while also reminding them that altering interpersonal patterns requires attention and persistence. Sometimes during the course of therapy, unfocused discussions arise. The clinician should sensitively, but firmly, redirect the discussion to the key interpersonal issues. By explicitly addressing goals each week, the patient can work toward necessary changes. This goal-oriented focus has been supported by research on IPT maintenance treatment for recurrent depression, which has demonstrated that the clinician's ability to maintain focus on interpersonal themes is associated with better outcomes (Frank, Kupfer, Wagner, McEachran, & Cornes, 1991). In IPT for EDs, it is essential that the clinician facilitate and strengthen the recognition of connections between patients' problematic eating and difficulties in their interpersonal lives.

Making Connections

During the intermediate phase, it is crucial that the clinician assist patients in recognizing, and ultimately becoming more aware of, the connections between eating difficulties and interpersonal events during the week. As patients learn to make these connec-

tions, the clinician should guide them to develop strategies to alter the interpersonal context in which the disordered-eating symptoms occur. As a result, the cycle of the ED is interrupted. Patients are encouraged to make connections between interpersonal functioning and eating patterns that are positive as well. For example, an individual may recognize that communication improved with a significant other and, as a result, the patient did not engage in eating-disordered behaviors. To encourage positive and negative connections, clinicians should ask the patient about his/her eating patterns between sessions: if there were any changes and if the patient recognized any links between eating patterns and interpersonal functioning.

Redirecting Issues Related to ED Symptoms

During sessions, patients with EDs may raise issues relating to distressing eating behavior (e.g., binge episodes; overconcern about eating, shape, and weight) or want to engage in extended discussion related to these behaviors. These issues are relevant insofar as they reflect the clinical status of the patient's ED. The clinician must be cognizant of how these issues are being discussed during the sessions and vigilantly keep the session focused on the patient's treatment goals by gently, but firmly, redirecting discussion to work on the treatment goals. For example, a female patient who avoids intimacy with her husband may attribute her avoidance to body dissatisfaction related to her obesity. She may wish to discuss her body concerns at great length to circumvent actual difficulties in communication with her husband. Dialogue related to ED symptoms must be consistently and repeatedly linked to its functional role in the patient's interpersonal domain.

General Therapeutic Techniques

The IPT clinician differs from providers of other modalities in that throughout the course of treatment, a constant focus on the interpersonal context of the patient's life and its link to the ED symptoms is maintained. Although this approach is unique to IPT, a number of the therapeutic techniques utilized in IPT are similar to those used in other therapies. Such techniques include exploratory questions, encouragement of affect, clarification, communication analysis, and use of the therapeutic relationship.

Exploratory Questions. Use of general, open-ended questions or statements often facilitates the free discussion of material. This technique is especially useful during the beginning of a session. For example, the clinician might open a session with the statement "Tell me about your relationship with your husband." Progressively more specific questioning should follow, as the patient describes the relationship.

Encouraging Affect. IPT's focus throughout the therapeutic process involves affect evocation and exploration (Wilfley et al., 2000). This emphasis is particularly relevant for patients with EDs because problematic eating often serves to regulate negative affect. The IPT clinician should assist patients in (1) acknowledging and accepting painful emotions, (2) using affective experiences to facilitate desired interpersonal changes, and (3) experiencing suppressed affect (Wilfley, 2008; Wilfley et al., 2000).

1. *Encourage acceptance of painful affects.* Patients with BN and BED are often emotionally constricted in situations when others would typically experience strong emotions. These patients use food to cope with negative affect. Therapy provides an arena in which they can experience and express these feelings versus using food as an attempted coping mechanism. As the feelings are expressed, it is important for the IPT clinician to validate and help the patient accept them (Wilfley, 2008).

2. *Teach the patient how to use affect in interpersonal relationships.* Although the expression of strong feelings in the session is seen as an important starting point for much therapeutic work, the expression of feelings outside the session is not a goal in and of itself. The goal is to help the patient act more constructively (e.g., *not* binge eat or purge) in interpersonal relationships, and this may involve either expressing or suppressing affects, depending on the circumstances. A goal for the patient in IPT is to learn when his/her needs are met by expressing affect and when they are better met by suppressing affect. However, a primary goal is helping patients to identify, understand, and acknowledge their feelings whether or not they choose to verbalize them to others (Wilfley, 2008).

3. *Help the patient experience suppressed affects.* Many who struggle with BN or BED are emotionally constricted in situations where strong emotions are normally felt. An example might be the patient who is unassertive and does not feel anger when his/her rights are violated. On the other hand, the person may feel anger but may lack the courage to express it in an assertive manner. Sometimes patients deny being upset, when it is clear that an upsetting interaction has just occurred. The clinician might say, "Although you said you were not upset, it appears to me that you have shut down since you talked about the situation with your husband." In this way the clinician attempts to draw out affect when it is suppressed (Wilfley, 2008).

Clarification. Clarification is a useful technique that can serve to increase the patient's awareness about what he/she has actually communicated, and to draw awareness to contradictions that may have occurred in the patient's presentation of interactions or situations. An example might involve contradictions between the patient's affect and speech: "While you were telling me how upset you are about your father, you had a smile on your face. What do you think that's about?"

Communication Analysis. The technique of communication analysis is used to identify potential communication difficulties that the patient may be experiencing and to assist the patient in modifying these ineffective patterns. In using communication analysis, the clinician asks the patient to describe, in great detail, a recent interaction or argument with a significant other. The clinician and patient then work collaboratively to identify difficulties in the communication that may be impacting the process and outcome of the interaction and to find more effective strategies.

Use of the Therapeutic Relationship. The premise behind this technique is that all individuals have characteristic patterns of interacting with others. The technique is utilized by exploring the patient's thoughts, feelings, expectations, and behavior in the therapeutic relationship and relating these to the patient's characteristic way of behaving and/or feeling in other relationships. This technique is particularly relevant

to, and useful for, patients with interpersonal deficits and interpersonal role disputes. Use of this technique offers the patient the opportunity to understand the nature of his/her difficulties in interacting with others and provides the patient with helpful feedback on his/her interactional style.

Use of a Group. The group setting frequently provides an optimal modality for conducting IPT (Wilfley et al., 2000). Following an individual session to conduct a thorough interpersonal inventory, the group is an ideal milieu in which to work on interpersonal skills with other patients struggling with similar eating problems. It also offers the clinician an opportunity to observe and identify characteristic interpersonal patterns with other individuals. Furthermore, when another group member recognizes and verbally identifies a dysfunctional pattern of communication in a fellow patient, it can be powerful for the patient as well as the other group members. The group setting allows patients to experiment with different ways of communicating within the safe confines of the group. Members can use the sessions to discuss problems they are having in their significant relationships and how these problems relate to their eating patterns. This format often allows patients to recognize that they are not alone in their difficulties, thereby helping to reduce feelings of isolation.

IPT for the Prevention of Excessive Weight Gain

A recent and novel adaptation of IPT has been developed, and is currently being tested, for the prevention of excessive weight gain in adolescents who report loss of control (LOC) eating patterns. LOC refers to the sense that one cannot control what or how much one is eating, regardless of the reported amount of food consumed (Tanofsky-Kraff, 2008). Common among youths, LOC eating is associated with distress and overweight (Tanofsky-Kraff, 2008) and predicts excessive weight gain over time (Tanofsky-Kraff et al., 2009). This adaptation makes use of IPT for the prevention of depression in adolescents (IPT-Adolescent Skills Training, IPT-AST) (Young, Mufson, & Davies, 2006) and group IPT for BED (Wilfley et al., 2000), and evolved from the outcome data of psychotherapy trials for the treatment of BED. An unexpected finding of IPT and most psychological treatments for BED has been that individuals with BED who cease to binge-eat tend to maintain their body weight during and/or following treatment (Agras et al., 1995; Agras, Telch, Arnow, Eldredge, & Marnell, 1997; Devlin et al., 2007; Wilfley et al., 1993, 2002). Therefore, it has been hypothesized that treatment of binge eating in youths may reduce excessive weight gain and prevent full syndrome EDs during development (Tanofsky-Kraff, Wilfley, et al., 2007).

A number of factors suggest that IPT is particularly appropriate for the prevention of obesity in high-risk adolescents with LOC eating patterns. Specifically, adolescents frequently use peer relationships as a crucial measure of self-evaluation (Mufson, Dorta, Moreau, & Weissman, 2004; Mufson, Moreau, Weissman, & Klerman, 1993). A recent study revealed the import of perceived social interactions and social standing on body weight gain over time (Lemeshow et al., 2008). In this prospective cohort study, adolescent girls who rated themselves lower on a subjective social standing scale were 69% more likely to gain more weight over time, compared to girls who rated themselves

on the higher end of the scale (Lemeshow et al., 2008). Furthermore, overweight teens are more likely to experience negative feelings about themselves, particularly regarding their body shape and weight, compared to normal-weight adolescents (Fallon et al., 2005; Schwimmer, Burwinkle, & Varni, 2003; Striegel-Moore, Silberstein, & Rodin, 1986), perhaps because of their elevated rates of appearance-related teasing, rejection, and social isolation (Strauss & Pollack, 2003). The social isolation that overweight teens report can be directly targeted by IPT.

Several longitudinal studies have found depressive symptoms to predict weight gain and obesity onset in children and adolescents (Anderson, Cohen, Naumova, & Must, 2006; Goodman & Whitaker, 2002; Pine, Goldstein, Wolk, & Weissman, 2001; Stice, Presnell, Shaw, & Rohde, 2005). Thus, the proven efficacy of IPT in decreasing depressive symptoms in adolescents (Mufson, Dorta, Wickramaratne, et al., 2004) may serve to decrease an additional risk factor for inappropriate weight gain. In addition to ameliorating depressive symptomatology, IPT is posited to increase social support, which has been demonstrated to improve weight loss and weight maintenance in overweight adults (Wing & Jeffery, 1999) and children (Wilfley et al., 2007). Indeed, data suggest that low social problems predict better response to weight loss treatment in children (Wilfley et al., 2007).

IPT for the prevention of excessive weight gain (IPT-WG) in adolescents at high risk for adult obesity, delivered in a group format, maintains the key components of traditional IPT: (1) a focus on interpersonal problem areas that are related to the target behavior (LOC eating in the present adaptation); (2) the use of the interpersonal inventory at the outset of treatment to identify interpersonal problems that are contributing to the targeted behavior; and (3) the three-staged structure of the intervention (initial, middle, and termination). The primary activities of IPT-WG involve providing psychoeducation about risk factors for excessive weight gain and teaching general skill building to improve interpersonal problems. IPT-WG was founded on Young and Mufson's IPT-AST (Young & Mufson, 2003) and group IPT for the treatment of BED in adulthood (Wilfley et al., 2000). IPT-WG differs from other adaptations in that it was developed to specifically address the particular needs of adolescent girls at high risk for adult obesity due to their current body mass index (BMI) percentile and report of LOC eating behaviors.

Based on IPT-AST, IPT-WG is presented to teenagers as "Teen Talk" in order to be nonstigmatizing. As designed by Dr. Young, this preventive adaptation of IPT focuses on psychoeducation, communication analysis, and role playing (Young & Mufson, 2003). Specific interpersonal communications skills are taught, including "strike while the iron is cold," "use 'I' statements," "be specific" (when talking about a problem), and "put yourself in their shoes" (Young & Mufson, 2003). For IPT-WG, an additional skill, "what you don't say speaks volumes," has been added to teach adolescents how their body language has the ability to impact communication regardless of their words. During the interpersonal inventory, a "closeness circle" (Mufson, Dorta, Moreau, et al., 2004) is used to identify the close relationships of the participant. Sessions can be appropriately geared toward the adolescents' developmental level. For instance, younger adolescents, who may be uncomfortable talking about themselves, may respond better to hypothetical situations and games, whereas older teenagers may more readily discuss their own interpersonal issues from the outset.

Based on IPT for BED, IPT-WG focuses on linking negative affect to LOC eating, overeating, times when individuals eat in response to cues other than hunger, as well as overconcern about shape and weight. Furthermore, a timeline of personal eating and weight-related problems and life events is discussed individually with participants prior to the group program. Unlike IPT for BED, the problem area of grief is rarely relevant due to the young age of participants, but may be included on a case-by-case basis. Similar to both programs, IPT-WG is delivered in a group format. IPT-WG is 12 weeks in duration, longer than IPT-AST (8 sessions), but shorter than group IPT for BED (typically 20 sessions). Similar to IPT-AST, group size is smaller than in IPT-BED (five vs. nine members), enabling clinicians to keep adolescents engaged.

Progress in the Delivery of IPT for EDs

IPT interventions for major depression and associated disorders are uniform in that they include a consistent focus on the target symptoms of the respective disorders. By contrast, most research applications of IPT for EDs, especially BN, did not initially include a strong focus on ED symptoms. Initially, this lack of symptom focus was intentional in order to minimize procedural overlap with CBT and, in doing so, clearly distinguish IPT from CBT in comparative psychotherapy trials. Increasingly, however, in both clinical settings and research studies of IPT for BED and the prevention of adult obesity, consistent attention to the relationship between interpersonal functioning and disordered-eating symptoms is being utilized to achieve maximum therapeutic impact. Indeed, in each session of IPT for EDs, symptoms should be explicitly and repeatedly linked to problems in interpersonal functioning. In IPT-WG for adolescents at risk for adult obesity, linking LOC eating to interpersonal functioning is done consistently and frequently throughout the interpersonal inventory as well as the group sessions (Tanofsky-Kraff, Wilfley, et al., 2007). Indeed, preliminary findings suggest that IPT prevents excess weight gain among these high-risk adolescent girls (Tanofsky-Kraff, Wilfley, et al., 2008).

Future Directions for IPT in the Treatment of EDs

Several important areas require further study. An important next step is to determine whether IPT for EDs can be translated from specialty care centers to the primary care setting and other typically nonresearch clinical practice milieus where counselors are trained to deliver IPT. In an effort to continually improve IPT and broaden its utility, we propose other research directions in this section.

Enhancing IPT for BN and BED

As efforts to more frequently and consistently link ED symptoms to interpersonal functioning have evolved in the use of IPT for BED, clinical researchers involved in developing IPT for BN should also consider stressing this link during the delivery of IPT so that it offers the utmost potency. IPT, in its current form, already seamlessly incorporates aspects of other therapeutic modalities. For example, the collaborative, behavioral for-

mulation during the interpersonal inventory is one of the ways in which IPT more closely resembles the behavior therapies than it does the supportive or psychodynamic therapies. Therefore, some aspects of CBT may support the efficacy of IPT. For example, IPT clinicians might wish to use self-monitoring as a method for patients to become more aware of their negative affect surrounding ED symptoms. Such an approach is already being tested in other treatment modalities. Indeed, Fairburn and colleagues have found the inclusion of an interpersonal module effective when administering a recently modified version of CBT for EDs (Enhanced CBT for Eating Disorders; Fairburn, 2008).

Adolescent– and Child–Parent Adaptations

Given the robust efficacy of IPT for adolescents with depressive disorders, and the initial promise of IPT-WG, future research should involve additional adolescent adaptations. Adolescence is a key developmental period for cultivating social and interpersonal patterns, which may explain why adolescents appear to relate well to IPT. From its inception, Mufson and colleagues made important adolescent-relevant adaptations to the treatment (Mufson, Dorta, Moreau, et al., 2004), for example, the inclusion of a parent component and the assignment of a "*limited* sick role," since adolescents are required to attend school and reducing their activities is likely to exacerbate their interpersonal difficulties. Given that this foundation has been established, the use of IPT for adolescents with BN and BED warrants investigation.

Utilizing IPT for younger children may also be effective. A pilot study of family-based IPT for the treatment of depressive symptoms in 9- to 12-year-old children was found to be feasible and acceptable to families (Dietz, Mufson, Irvine, & Brent, 2008). Currently, an effectiveness trial is underway. The moderating influence of social problems on weight loss outcome in a family-based program (Wilfley et al., 2007) suggests that targeting interpersonal functioning in the nuclear family milieu may serve as a point of intervention for the treatment of eating- and weight-related problems during middle childhood.

Developing IPT for the Prevention of Eating- and Weight-Related Problems

Given the increasingly high rates of obesity in the United States (Ogden et al., 2006), it may be reasonably posited that the increases in disordered eating will continue as well, considering that overweight is a significant risk factor for the development of eating pathology (Fairburn et al., 1997, 1998). Therefore, the use of IPT to prevent obesity and full-syndrome EDs should be explored by targeting other behaviors that promote both conditions. Since not all overweight individuals report LOC eating, reducing emotional eating and eating in the absence of hunger may also be suitable for IPT modalities. Recent studies suggest that LOC eating in youths is associated with eating in response to negative affect (Goossens, Braet, & Decaluwe, 2006), including anger, frustration, depression, and anxiety (Tanofsky-Kraff, Wilfley, et al., 2007). In studies of adolescents, emotional eating is significantly correlated with constructs of disturbed eating (van Strien, 1996; van Strien, Engels, Van Leeuwe, & Snoek, 2005) and symptoms of depression and anxiety (van Strien et al., 2005). Data also suggest that emotional eating may be associated with overweight in youths (Braet & van Strien, 1997) and predict overeat-

ing in cross-sectional structural models (van Strien et al., 2005). Considering that IPT for BED effectively reduces eating in response to negative affect in adults (Wilfley et al., 1993, 2002), preventive adaptations targeting emotional eating require investigation.

Eating in the absence of hunger has been associated with overweight (Moens & Braet, 2007) and excessive weight gain over time (Shunk & Birch, 2004). Reports of eating in the absence of hunger has been shown to be associated with LOC eating, emotional eating, and elevations in general psychopathology (Tanofsky-Kraff, Ranzenhofer, et al., 2008). Of concern are data indicating that eating in the absence of hunger is a stable trait throughout adolescence (Birch, Fisher, & Davison, 2003; Fisher & Birch, 2002). Promising findings indicate that young children can be trained to better regulate food intake (Johnson, 2000), and a number of intervention studies targeting eating in the absence of hunger are currently underway. IPT may serve as a natural extension on this work; in particular, negative affect associated with interpersonal problems might be linked to eating in the absence of hunger. Then, recognition of internal physiological hunger cues can be taught so that patients learn to differentiate true hunger from when they are already sated.

Finally, there has been a growing interest in, and awareness of, the role that social and interpersonal factors may play in behavioral health problems (Glass & McAtee, 2006). Particularly for obesity, moving away from focusing solely on individual behavioral changes (e.g., diet and exercise) and toward the greater social context has not been the norm. IPT may be particularly well suited for developing new approaches to the prevention of obesity and EDs on a broader social level.

Conclusion

IPT for BN and BED is a focused, time-limited treatment that targets interpersonal problems associated with the onset and/or maintenance of the ED. The interpersonal focus is highly relevant to individuals with EDs, many of whom experience difficulties in interpersonal functioning. Depending on the individual's primary problem area, specific treatment strategies and goals are incorporated into the treatment plan. The primary problem area is determined by conducting a thorough interpersonal inventory, a unique aspect of IPT, and by devising an individualized interpersonal formulation for each patient. IPT has demonstrated significant and well-maintained improvements for the treatment of BN and BED. Preliminary data support the utility of IPT for the prevention of excess weight gain in adolescent girls. Adaptations of IPT should be explored for adolescent populations and the treatment of other eating- and weight-related problems.

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Exhibit 4

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Family-Based Treatment for Adolescent Eating Disorders: Current Status, New Applications and Future Directions

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Abstract

Family-based treatment (FBT) is emerging as a treatment of choice for adolescent anorexia nervosa (AN) and bulimia nervosa (BN). This paper reviews the history of FBT, core clinical and theoretical elements, and key findings from the FBT for AN and BN treatment outcome literature. In addition, we address clinical questions and controversies regarding FBT for eating disorders, including whether FBT is clinically appropriate for all adolescents (e.g., older adolescents, patients with comorbid conditions), and whether it indicated for all types of families (e.g., critical, enmeshed, and non-intact families). Finally, we outline recently manualized, innovative applications of FBT for new populations currently under early investigation, such as FBT as a preventive/early intervention for AN, FBT for young adults with eating disorders, and FBT for pediatric overweight.

Keywords

family-based treatment; eating disorders; adolescents

Introduction

While there are several schools of family therapy, Family-Based Treatment (FBT) specifically refers to a treatment modality originally developed in the late 1970s and early 1980s by a team of clinical researchers led by two family therapists, Christopher Dare and Ivan Eisler. This team was based at the Institute of Psychiatry and the Maudsley Hospital in London, England. Consequently, this treatment has come to be known as the "Maudsley Approach" or the "Maudsley Method" (1).

FBT is a novel therapy in that it is theoretically agnostic and emphasizes parents as a resource, and empowers families in their effort to bring about recovery in their adolescent with an eating disorder. However, the first effort to include families in the treatment of adolescents with anorexia nervosa (AN) was made by Minuchin and his colleagues at the Child Guidance Clinic in Philadelphia (2). While treatment was quite mixed, the primary intervention was family therapy and the authors reported successful outcome in about 86% of patients. Given this success rate, as well as the theoretical model of the "psychosomatic family" upon which much of their work was based, Minuchin's work ultimately exerted considerable influence on ensuing efforts by the Maudsley group to involve families in the treatment of adolescents with AN.

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The underlying theoretical principles and clinical application of Minuchin's structural family therapy, along with other school's of thought such as Palazzoli's (3) work from the Milan Group and Haley's (4) strategic therapy, served as the foundation for the development of FBT. This, in turn, gave rise to a number of controlled FBT studies which were pioneered at the Maudsley Hospital in London. FBT, as employed in these studies, contained several aspects of Minuchin's approach, but differed in significant ways.

Most important of these was that the Maudsley team, unlike Minuchin, encouraged parents to persist in their efforts until normal body weight had been achieved. In FBT, general adolescent and family issues are deferred until the eating disorder behavior was under control.

FBT remained limited to England from the time of its development until the mid 1990s. In 1994, Daniel le Grange, a member of the Maudsley team introduced FBT to his colleagues in the United States, when he trained at Stanford University. Through the relationships he established at Stanford University, he teamed up with James Lock to collaborate on manualizing (5) and studying this approach in clinical research trials targeting adolescents with eating disorders.

Much of their work, both collaboratively and independently, has led to the successful dissemination of FBT to other specialist centers in the United States, Canada and Australia.

The Foundation Approach

Core Clinical and Theoretical Elements

FBT for adolescent AN is the original application of this model and its protocol (5) represents the foundation approach. In addition, manualized adaptations exist for bulimia nervosa (BN) (6), for the prevention of AN in children and adolescents with clinically significant, prodromal presentations (7), for young adults with AN (8), and for pediatric overweight (9). These newer applications will be described in detail below. FBT for adolescent AN is a short-term treatment designed to mobilize parents in assisting their ill child reverse his/her state of starvation acutely and ultimately achieve remission from AN. Given the profound physical and psychosocial liabilities associated with AN, a primary goal of FBT is to facilitate a return to a normal developmental trajectory, consistent with chronological age. FBT challenges the practical factors maintaining the AN, such as allowing the ill adolescent to make his/her own food choices, and makes no assumptions about the cause of AN. The treatment does not presuppose a familial pathology and in fact works to reduce parental self-blame regarding etiology. Moreover, FBT externalizes the illness, thereby reducing blame toward the ill adolescent for the symptoms s/he is experiencing. This aids in correcting misperceptions often held by siblings, who may believe their sister/brother is orchestrating the AN for attention. Sibling relationships are further protected by assigning a supportive role in treatment to siblings, reserving all supervisory responsibilities exclusively for the parents (10).

In the first of three phases of treatment, parents fully take charge of their ill child's eating, assuming the functions typical of an inpatient staff. The therapist helps parents develop and refine their techniques in an in-session family meal, a goal of which is for parents to convince their child to consume at least one more bite than s/he was originally willing. It is important to emphasize that this parental stance is unique to Phase I of FBT; once a minimal level of weight restoration is achieved (i.e., the adolescent crosses back over the diagnostic weight threshold) and conflict around eating is significantly reduced, control over food consumption is transferred back to the adolescent in Phase II of treatment. Phase III of FBT focuses on termination and more general issues of adolescent development. In its manualized format (5), FBT encompasses 20 sessions, although recent research indicates that a shorter course is as efficacious and arguably more cost-effective (11).

As suggested above, FBT incorporates an amalgam of techniques from family systems therapy, structural family therapy, and eating disorders-specific interventions. Also, as the treatment does not align with a particular therapeutic approach, etiological theory of AN, or model regarding maintenance of illness, hypothesized mechanisms of action of FBT for AN include exposure to forbidden foods and feared weight ranges, restructuring of family authorities and coalitions, and hormonal re-regulation as a function of weight restoration. FBT for AN has not been directly compared to inpatient behavioral interventions; however, long-term data across clinical trials and naturalistic follow-up studies indicate that treatment effects are more durable and relapse rates are markedly lower in FBT (12–14). Since FBT does not directly target the psychological feature of AN, such as fear of weight gain and body image disturbance, it is unlikely that improvements in these domains account for the sustained good outcome several years after completing FBT (12–14). However, indirect effects in these symptoms via the mechanisms noted above (e.g., exposure to feared weights, hormonal correction following full and sustained weight restoration) cannot be ruled out. Another possibility is that since FBT for adolescent AN by definition targets younger patients with a more recent onset of illness than their adult counterparts, this population is more responsive to treatment and has a better prognosis. However, randomized controlled trials (RCTs) of FBT versus individual psychotherapy show that even within this restricted age range, FBT is superior (12,15–17). Finally, it is likely that by training parents to create a zero-tolerance environment for self-starvation in their home and teaching them to identify signs and symptoms of AN, they keep relapse at bay. In that respect, parents can prevent a kindling effect, with each relapse increasing the likelihood of a subsequent one and of a more chronic course of illness.

FBT for Adolescent Anorexia Nervosa

Key Findings from the Literature

The efficacy of FBT for adolescent AN has been tested in RCTs (11–19). The first RCT of FBT for AN included a population of adolescent and adult patients. The only significant finding from this study demonstrated that FBT was particularly efficacious for patients 18 and younger. That is, FBT delivered better results in absolute clinical outcome and relative to individual treatment, acutely (one-year post-hospitalization) (17) and at five-year follow-up (12). These seminal studies provided preliminary evidence of FBT's utility in preventing relapse and facilitating continued improvement following inpatient weight restoration.

Since then, FBT for adolescents with AN has been subjected to further study in several additional RCTs, open trials, and clinical case series. Taken together, this literature has demonstrated that FBT is effective for a full course of outpatient weight restoration thereby preventing hospitalization (11,18,19) and that such gains are maintained 4–5 years after treatment ends (12–14); a version of FBT in which parents are seen separately from their adolescent is superior to the traditional conjoint FBT format when families are critical of their adolescent (high levels of expressed emotion) (18,21); that FBT yields a better outcome than either supportive individual psychotherapy (17) or a more focused and manualized ego-oriented individual therapy (15,16); that an abbreviated, 10-session course of FBT is as efficacious as the manualized 20-session version (11); that FBT can be disseminated in that it is feasible and effective when administered by investigators other than its developers (22,23); and that it appears to be as effective for children as it is for adolescents (24).

FBT for Adolescent Bulimia Nervosa

Rationale for Adaptation

Family-Based Treatment for bulimia nervosa (FBT-BN) (6) has been adapted from FBT for AN and, like its predecessor, is designed for adolescents. Until the development of this manual, only a limited number of either case series or case studies have been conducted for adolescents

with BN. Most of these studies involve the patient's parents in the treatment. Moreover, AN - binge/purge subtype (about 20% of the samples studied) is typically responsive to FBT in terms of weight gain and reductions in binge and purge episodes. This suggests that parents are able to effectively decrease bulimic behaviors in addition to reversing severe dieting (11,18). Whereas AN and BN are distinct syndromes, considerable overlap in symptomatology is common. Therefore, the efficacy of FBT for adolescent AN might be extended to include adolescent BN.

As in FBT for AN, this treatment modality for adolescents with BN is an outpatient intervention typically conducted in 20 sessions over 6 months. In some instances a shorter course is sufficient while additional sessions may be necessary for others. FBT-BN consists of three phases. In Phase I parents are encouraged to assist their teen to reestablish healthy eating patterns and avoid engaging in binge eating and purging episodes. This process is collaborative in nature, however, parental authority is mobilized should this be required to manage the health crisis that the eating disorder poses. The adolescent's autonomy in other domains such as friendships and school is almost always kept intact at a level consistent with the patient's stage of development. In Phase II manages the return of control over eating to the adolescent at the time that acute symptoms have abated and regular eating patterns are established. Phase III addresses termination and issues of family structure and normal adolescent development.

In keeping with FBT for AN, FBT-BN also views the parents as a resource for resolving the eating disorder, and corrects misperceptions of blame directed to either the parents and their adolescent. Siblings are protected from the job assigned to the parents and are encouraged to play a supportive role in treatment. FBT-BN does not delve into what caused BN, instead, this treatment focuses on what can be done to resolve this serious disorder.

Key Findings from the Literature

The first of only two RCTs for adolescents with BN compared family therapy (n=41) (a form of FBT-BN) and cognitive-behavioral guided self-care (n=44) (CBT-GSC) (25). These authors found no statistical differences at six months follow-up between the two treatments on binge/purge abstinence rates (around 40% for both). Direct cost was lower for CBT-GSC compared to family therapy, however, there were no other differences in cost between these two treatments. In the second RCT, Le Grange and colleagues (26) assigned 41 patients to FBT-BN and 39 to supportive psychotherapy (SPT), and unlike the Schmidt et al. (25), significant differences between the treatments did emerge. Categorical outcomes at post-treatment demonstrated significantly more patients in FBT-BN (39%) were binge/purge abstinent compared to SPT (17.9%). Somewhat fewer patients were abstinent at 6-month follow-up, however, the difference was statistically in favor of FBT-BN (29.3% vs 10.3%). Secondary outcome assessment, based upon random regression analysis, revealed main effects in favor of FBT-BN on all measures of eating pathology. Therefore, FBT-BN showed a clinical and statistical advantage over IPT at post-treatment and at 6-month follow-up. Reduction in core bulimic symptoms was also more acute for patients in FBT-BN as opposed to SPT. But still it is the same results, when comparing FBT-BN to CBT-GSC. That is, FBT-BN and CBT-GSC are significantly favored treatments in comparison to SPT.

Clinical Questions and Controversies

Does FBT Work for All Adolescents with AN or BN?

Is FBT clinically appropriate across the child-adolescent age spectrum?—Eating disorders impose significant developmental constraints on adolescents in both physical and psychosocial domains, with AN rendering the most severe liabilities. As described above, FBT works to restore the adolescent to his/her chronologically expected developmental state. In

addition, FBT views the illness as directly responsible for impairing the adolescent's decision-making capabilities with regard to sensible food consumption and shape/weight standards. In that respect, the adolescent – even the older adolescent - is seen as functioning at a developmentally regressed level in his/her ability to appropriately self-feed. FBT asks parents to compensate for this discrepancy between chronological age and illness-influenced developmental state by temporarily taking charge of their child's eating until the eating disorder minimally recedes. In AN, this initial phase of treatment is characterized by parents assuming full responsibility for their child's eating; in BN, where the adolescent is typically less impaired and more on a par with her peers in terms of adolescent development, the process in Phase I is more collaborative between parents and child.

Given the equalizing force of the eating disorder in yielding a similarly regressed state across chronological age, FBT does not modulate its early techniques as a function of adolescent stage of development. However, Phase II, in which control is transferred back to the adolescent, and Phase III, in which broader issues of adolescence are addressed, are exquisitely sensitive to the subtle and gross differences between early, middle, and late adolescence. Importantly, even in Phase I, the therapist instructs the family to defer to actual stage of adolescent development in domains external to the eating disorder. For example, while parents may fully supervise meals, they would not supervise their adolescent's social encounters in the same manner. If parents do not afford sufficient respect to adolescent development in these other areas – whether pre-morbidly, as a function of general concern for their ill child, or based on a misunderstanding of their mission in FBT – the therapist actively corrects this.

Does the research support the application of FBT across the full child-adolescent age spectrum?—While not yet tested in an RCT, FBT for children has generated promising results in a clinical case series (24) Within adolescence, compared to younger adolescents with AN, the evidence for the efficacy of FBT for older adolescents is somewhat mixed. A case series of adolescents with AN (22) showed no difference in outcome for younger (9–14 years) versus older (15–18 years) patients. Recent FBT trials for adolescent AN (12 to 18 years) (11) or BN (12 to 19 years old) (26) found that age was not a moderator of treatment outcome. In contrast, younger age was a predictor of remission for AN in univariate (but not multivariate) analyses (20). However, it is difficult to disentangle age from other variables that might be a proxy for severity of illness, such duration of illness, number of previous hospitalizations, and BMI, all of which loaded with age on the principal component analysis in that study (20).

Is FBT clinically appropriate for adolescents with greater levels of specific and comorbid psychopathology?—In the only predictor analysis of adolescents with AN receiving FBT, Lock and colleagues (20) found that co-morbid psychiatric disorder predicted dropout and lower remission rates, and that the probability of remission increased with a reduction in child behavioral symptoms. Moderator analyses from the original trial (11) found that patients with higher levels of eating disorder-specific obsessions and compulsions fared better in a full course of treatment compared to an abbreviated course, but that that other severity indices (e.g., duration of illness, purging status) did not moderate outcome. In the only predictor analysis for adolescents with BN receiving FBT or SPT, findings indicated that participants with less severe Eating Disorder Examination (EDE) (27) eating concerns at baseline were more likely to be binge and purge abstinent (remitted) at post-treatment and follow-up, regardless of the treatment that they received (28). Participants with lower depression scores and fewer binge/purge episodes at baseline were more likely to be partly remitted (no longer meeting study entry criteria) at post-treatment and follow-up, respectively. In terms of moderators, participants with less severe eating disorder psychopathology (EDE global score), receiving FBT-BN, were more likely to meet criteria for partial remission at follow-up. Lower eating concerns are the best predictor of remission for adolescents with BN and FBT-BN may

be most effective in those cases with low levels of eating disorder psychopathology. It is noteworthy that some severity-related factors with prior support as predictive of outcome, such as duration of illness and diagnosis (17,29), turned out to be neither predictors nor moderators of outcome in the present study. (28).

Does FBT Work for All Families?

Critical Families—Expressed Emotion (EE) has been studied in the families of patients with eating disorders (21,30–35), and has become a useful way to tap into the quality of the 'emotional life' of families of children with eating disorders. For instance, Minuchin and his colleagues (2,36) suggested that families of children with AN have several characteristics in common, such as enmeshment, and lack of conflict resolution. EE allows us to reliably measure several aspects of functioning in families with an eating disorder offspring.

Studies have shown that patients with AN are more likely to drop out of treatment prematurely, or have a poor outcome should they remain in treatment, if their parents are overly critical toward them (high EE family) (21,33,34). This finding has recently also been replicated for adolescents with BN (31). Family interaction has important treatment implications. For instance, a version of FBT for AN in which parents are seen separately from their adolescent has shown to be superior to FBT in its conjoint format when families present with high levels of EE (high in terms of criticism) (18,21). This line of inquiry is still in its infancy and more work is clearly required.

Enmeshed Families: A traditional theory of eating disorders in adolescence, particularly AN, is that the illness represents a maladaptive attempt at separation and control in the context of an enmeshed family (36). Correspondingly, a prescription for recovery is often to afford more autonomy to the adolescent, especially with regard to eating, so as to prevent an exacerbation of symptoms. At its extreme, this recommendation excludes parents from treatment entirely, and has been labeled a "parentectomy" (37). In turn, a criticism that has been raised against FBT is that it prescribes, rather than proscribes enmeshment by virtue of Phase I techniques. This concern is predicated on four assumptions: first, that family enmeshment is implicated in the etiology of adolescent eating disorders; second, that FBT does not respect adolescent autonomy; third, that enmeshed parents would resist the transfer of control back to the adolescent in Phase II; and fourth, that FBT should ultimately worsen symptoms, even if it suppresses them in the short term. Each assumption is contradicted by or lacks support in research findings.

First, there are no longitudinal data to indicate enmeshment plays an etiological role in eating disorders. Even if large cross-sectional studies were to find an increased prevalence of enmeshment in eating disorder families relative to psychiatric and normal controls, it would be difficult to know whether this reflected cause of illness or the effect of having a child with a severe disorder, particularly one associated with a high mortality rate. Second, as noted above, FBT affords significant respect to adolescent autonomy, by maintaining domain specificity of parental control in Phase I, requiring transfer of control over food in Phase II, and directly addressing adolescent development, including issues pertaining to separation and individuation, in Phase III. In this respect, FBT can theoretically correct the expressions of an enmeshed family dynamic (while not directly treating the underlying family pathology) and would not be contraindicated for such a family. Third, there is no evidence to suggest that parents resist the transition to Phase II, which would be indicative of an enmeshed family process; in fact, clinical observations suggest a greater risk is parents' abrupt or rapid abdication of supervisory responsibilities once weight is minimally restored. Finally, follow up studies of FBT for AN (12–14) demonstrate sustained and robust improvement, without evidence of an

ultimate symptomatic backlash in response to Phase I techniques. In other words, it is the eating disorder, not FBT, which appears to pose an insult to adolescent development.

Non-Intact Families: Another concern that has been raised about FBT is whether it is appropriate for a variety of family structures (e.g., divorced, separated, single parent, grandparent-headed households, etc.) beyond the traditional intact family. The treatment manuals (5,6) have the latitude to accommodate atypical family configurations provided that at least one parent or guardian can be involved in treatment. Moderator analyses from the Lock et al (11) comparison of 6-month versus 12-month FBT for AN showed that non-intact family status fared better with a longer treatment duration. Predictor analyses (20) from this study did not find family status to predict dropout or remission. In the BN literature, FBT was equally effective for intact and non-intact families (28). Collectively, these findings support the use of FBT with both intact and non-intact families, with the latter benefiting from a full, 12-month (20-session) course of treatment, per the published manual (5).

New Applications under Investigation

FBT for Young Adults with AN

The absence of FBT studies for young adults (18–25 years) with AN is surprising for at least two reasons; there are similarities in terms of how financially dependent older adolescents and young adults are upon their parents, and there are significant challenges to engage and maintain adults in treatment. Young adults like older adolescents are substantially financially dependent on their parents, with nearly two-thirds of young adults in their early 20s receiving economic support from their parents (38). US census data from 1970–2000 suggest that the percentage of young adults living without financial dependence on family has declined significantly (39). Thus, dependence upon family resources continues later into the 20's for more young adults today than it did even a decade or two ago. Thus, it is surprising that we have not systematically used family treatment with young adults especially given the notorious difficulty in engaging and maintaining adults with AN in treatment (29). Involving family or other individuals who are concerned about the patient in treatment together with the AN patient may be a powerful way to maintain the patient's engagement. This is seen clearly in dropout rates for adult AN with the largest study reporting a dropout rate of 46% (29) and FBT treatment with adolescent AN showing dropout rates of 10–20% (11,40).

While young adults may still be substantially dependent upon parents, they also face different challenges than adolescents. It must also be noted that despite similarities, young adulthood has certain developmental differences from adolescence. For instance, young adults are legally regarded as adults, are more likely to be independent, and are more intellectually and socially experienced and skilled than adolescents. For instance, young adults are more likely to have moved out from home than adolescents with about half of the 27 million 18 to 24 years olds in the USA are not living with their parents (55.7%) (41). Due to this relative independence from family, young adults may struggle with new living situations, participation in the work-force or further educational challenges. Capitalizing on this ongoing leverage that parents may still have over their ill young adult offspring, FBT for this patient population is more collaborative. In other words, it is more in keeping with the model for BN as opposed to adolescent AN.

FBT for Subsyndromal Anorexia Nervosa in Children and Adolescents

Early identification and treatment of AN is considered to have a positive prognostic impact on the course of illness in AN (42,43), although duration of illness remains a potential confound in these analyses (44). Given that (a) children and adolescents often present atypically on a number of dimensions relative to strict DSM (45) diagnostic criteria (Workgroup for

Classification of Eating Disorders in Children and Adolescents (WCEDCA)), (46), (b) clinically significant but technically subthreshold presentations of AN (SAN) can reflect a disorder in evolution rather than a stable state or transient phase (e.g., 47,48,49) and (c) once the diagnostic threshold is crossed, AN is notoriously refractory to treatment, it is reasonable to target SAN at the intersect of prevention and intervention for AN. FBT is an excellent candidate preventive intervention for SAN in light of its efficacy for AN (50). In addition, an open feasibility/dissemination trial of FBT for AN-spectrum presentations found that FBT arrested and reversed AN symptoms in an SAN subset (23). An RCT is currently underway at Mount Sinai School of Medicine comparing FBT-SAN (7) to individual supportive psychotherapy in this potentially prodromal population.

While much of the core FBT for AN protocol (5) applies to clinically significant SAN patients, several important modifications are noted. First, the foundation approach is modified to address a wider range of developmental stages. While AN typically onsets in mid-late adolescence, prodromal AN by definition precedes this. Second, for SAN participants who have lost weight but do not yet meet the weight cutoff for AN, regulation of eating patterns and the incorporation of a full range of foods in the child or adolescent's diet may be as important goals as weight gain early in treatment. Third, the goals and language of the treatment re modified to incorporate the notion of risk of progression from SAN to AN, while at the same time emphasizing the clinical severity of the SAN in and of itself, and the need for reduction and resolution of presenting symptoms. While we cannot be certain that all such patients would eventually go on to develop AN (i.e., that they are truly prodromal), their symptoms are sufficiently clinically severe to warrant intervention. Fourth, the revisions for SAN stress the importance of regular family meals at home and the modeling of healthy, non-restrictive eating habits by parents.

FBT for Pediatric Overweight

Parent involvement is a crucial element in reducing pediatric overweight (PO) in light of parents' ability to control and modify the family's home environment to promote the child's healthy behaviors. Data from the PO literature highlight that the most efficacious PO interventions include parental involvement to some degree (51,52). However, a recent review of studies with differing degrees of parental involvement provides mixed evidence of a positive relationship between greater parental involvement and better weight loss outcomes (53). It is possible that the relationship between family involvement and successful weight loss, as well as the optimal level of parental involvement, may vary as a function of the child's age and psychosocial development. In particular, the literature has not adequately addressed the unique needs of adolescents and the ideal quality and quantity of parental involvement at this crucial stage of development. Treatment of adolescent overweight must adequately navigate the dual challenge of the adolescent's increasing need for independence in the context of sustained reliance on a parent-influenced home environment. To date, no PO treatment study has targeted overweight across the child-adolescent age spectrum, nor has attempted to modulate parental involvement from a transdevelopmental perspective. FBT is a logical foundation approach to begin to resolve these deficits in the literature.

Inherent in the FBT model is a mission to increase parental empowerment, competence, and efficacy in facilitating healthy behaviors and outcomes for children, and in unapologetically assuming appropriate parental influence. Beyond this, FBT provides a strong foundation for application to the significant problem of PO because of its attention to parental engagement strategies, its demonstrated efficacy in correcting maladaptive eating and related behaviors, its explicit agenda of blame reduction, its disease-based model, and its emphasis on promoting normal physical and psychosocial development for the child or adolescent. Loeb and colleagues (9) proposed an innovative adaptation of FBT to PO (FBT-PO) that maintains the underlying tenets of the original FBT protocol but modifies it for a non-psychiatric weight disorder, with

application to either psychiatric or primary care settings. FBT-PO is currently being piloted at two sites (Mount Sinai School of Medicine and the University of Chicago.) Importantly, FBT-PO recognizes that PO is not a psychiatric disorder and that children/adolescents are not developmentally regressed as they are in severe eating disorders. Therefore, FBT-PO modulates the quality and intensity of parental involvement as a function of developmental stage. It also recognizes specific challenges of socioeconomically diverse populations (e.g., built environment, reduction in school-based physical activity), the challenges of concordance of overweight across family members, and the need for parents to model attitudes and dietary/physical activity habits associated with healthy weight. Finally, FBT-PO addresses the multi-systemic toxic environment (54) that contributes to PO, and focuses on parent-driven, family-level change.

Conclusions

In conclusion, FBT is emerging as a treatment of choice for adolescent anorexia nervosa and bulimia nervosa, with promising adaptations for prevention of eating disorders in high risk children and adolescents, for young adult eating disorders, and for pediatric overweight. While the intervention continues to raise questions and controversies, it is gaining public and scientific acceptance in light of its demonstrated efficacy to date. However, additional and larger clinical trials are necessary to fully test its scientific merit. An NIMH five year two-site RCT (the University of Chicago and Stanford University) commenced in April 2004. In this study, adolescents with AN were randomly allocated to either FBT or Ego-oriented Individual Therapy (EOIT). This is the first large-scale treatment trial for adolescents with AN and should, upon completion, go some way toward verifying the relative efficacy of FBT for this clinical population. Another NIMH-funded multi-site study (with Stanford University as the Coordinating Center and 6 clinical sites) is examining FBT relative to family systems therapy as well as the adjunctive role of medication. Other studies underway involving FBT principles include a parent training treatment development study at Duke University; a study investigating the role of FBT in inpatient care at the University of Sydney; and a study of multi-family group FBT at the Institute of Psychiatry, London. Beyond these, future inquiries should focus on dismantling and step-care studies, as well as comparisons between FBT and treatment as usual, including inpatient and day treatment models. Larger trials for AN and BN, especially designs with two active treatments with hypothesized mediators, would permit investigation of mechanisms of FBT. It is also important to examine the relative moderating effect of symptom severity in terms of cognitions for a treatment that focuses on such symptoms, e.g., CBT, in order to determine whether these moderating effects would be similar between two specific treatments. Finally, the newly manualized and piloted adaptations of FBT described above require formal testing, as well as raise intriguing possibilities about the adaptation of FBT to other psychiatric disorders in adolescence, such as substance abuse.

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Exhibit 5

EFFECTIVENESS OF MAUDSLEY THERAPY WITH DIALECTICAL BEHAVIORAL THERAPY IN AN INTENSIVE OUTPATIENT PROGRAM

Jennifer A. Y. Johnston
Jesine S. Xavier

Walden Behavioral Care

Introduction

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In stark contrast to the gravity of eating disorders is the lack of empirically supported treatment options for adolescents (Lock & Gowers, 2005). No clear consensus has been reached as to which type of treatment is most effective, nor which treatment setting allows for the most successful delivery of interventions. There has been a recent trend away from in-patient services and a call for the development of outpatient and day treatment services for adolescents (Bryant-Waugh, 2006).

In response, research on outpatient treatment options for adolescents, most notably family therapy, has increased, but systemic data about residential or day treatment is more limited (Lock & Gowers, 2005). Thus, while there is recognition of the need to develop day treatment service options, as of yet there is little information to guide such development.

Some researchers have advocated flexibility in day treatment programs, and recommend combining different theoretical and clinical approaches in order to meet the unique and variable needs of each presenting patient (Schaffner & Buchanan, 2008). However, few investigations have assessed such multimodal interventions (Chavez & Insel, 2007).

It would seem that there is a need for programs that do combine clinical approaches to document and report their outcomes in order to provide direction to program development and additional research. Towards that end, we describe a possible model of intensive outpatient (IOP) therapy for adolescents and families combining the Maudsley approach to family therapy and Dialectical Behavior Therapy skills training.

Maudsley family therapy
Randomized controlled studies indicate that family therapy may be the most effective treatment yet studied for adolescent anorexia nervosa and bulimia nervosa (Lock & Gowers, 2005; Le Grange et al. 2007). The Maudsley approach, as described by Dare & Eisler (1997), focuses on family management of the symptoms and consequences of anorexia nervosa, and prioritizes behavioral change around eating and weight gain over development of insight into causes of the illness.

Dialectical Behavior Therapy (DBT)
DBT group therapy was chosen as an ancillary treatment approach to help parents and children tolerate distress, manage their emotions, and interact with each other more effectively during this difficult time of illness. DBT skills groups include mindfulness, distress tolerance, emotion regulation, and interpersonal effectiveness (Linehan, 1993).

Methods

Participants
47 female adolescents (*M*age = 14 7 years, Age Range: 12 -17.5 years) attended the Adolescent Intensive Outpatient (IOP) program at Walden Behavioral Care (WBC) for an average of 21.5 days (SD 4.3 days). Parents of these adolescents chose to be contacted three months, six months, and one year after discharge for follow up.

Program Description
The Adolescent IOP eating disorder program at WBC meets three evenings a week for three to four hours. The stated goals of the IOP program are weight restoration/healthy weight maintenance and the elimination of eating disorder behaviors. Each family meets once a week for forty-five minutes with a trained family therapist. These family sessions follow the format of Phase I treatment of the family based approach as described in the recently published treatment manuals for Anorexia Nervosa and Bulimia Nervosa (Lock et al., 2001; Le Grange & Lock, 2007). Multi-family coached family meals occur three nights a week, and parents and adolescents attend DBT skills groups weekly.

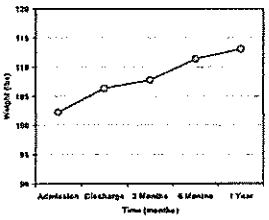
		5:00pm - 5:50pm		5:45pm - 6:00pm	6:00pm - 6:45pm
Monday	Snack	DBT Skills Integration	DBT for Parents**	Multi-Family Group**	Family Dinner**
Wednesday	Snack	DBT I		CBT-Body Image	Family Dinner**
Thursday	Snack	DBT II		Problem Solving	Family Dinner**

* One Maudsley family therapy session once a week before or after program
** Parent participation required

Measures
Program efficacy was evaluated by patient improvement in physiological and psychological indicators of eating disorder pathology. The physiological measures used were weight and menstruation status. Psychological improvement was measured by global scores from the eating disorder examination questionnaire (EDE-Q). Parents were contacted three months, six months, and one year after discharge and reported their child's weight, menstruation status, utilization of outpatient services, and frequency of eating disorder behaviors. Adolescents were sent an EDE-Q in the mail six months and one year after discharge. Paired samples T-Tests were performed for both weight and global EDE-Q scores to determine significance.

Results

Weight Change
Patients gained a significant amount of weight during the program ($t(46) = 5.57$, $p < .001$), and continued to make significant weight gains in the next three months ($t(36) = 2.97$, $p < .01$), six months ($t(23) = 3.31$, $p < .01$), and twelve months ($t(12) = 3.53$, $p < .01$). Difference scores were examined in relation to treatment services utilized post treatment with a 2 x 2 x 2 x 2 x 2 (individual therapist [y, n] x nutritionist [y, n] x family therapist [y, n] x physician [y, n] x psychiatrist [y, n]) analysis of variance (ANOVA). This ANOVA revealed no significant main effects for these variables.



Average Weight Gain

Admission

Average BMI = 17.89 (SD = 2.09)

Average % (IBW) = 89.43% (SD = 8.76%)

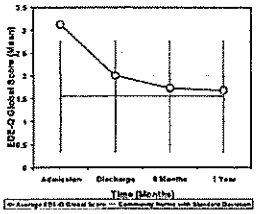
Discharge

Average BMI = 19.56 (SD = 1.59)

Average % IBW was 100.54% (SD = 8.06%)

EDE-Q scores
Upon admission, the average global EDE-Q score was 3.13 (SD = 1.52), outside the community norm of 1.25 (SD = 1.32). At discharge, the average global EDE-Q score ($M_{EDE\text{-}Q}$ = 2.01; SD = 1.4) had decreased significantly ($t(41) = 5.04$, $p < .001$) to within one standard deviation of the community norm. Scores continued to decline six months ($M_{EDE\text{-}Q}$ = 1.73; SD = 1.20) and one year ($M_{EDE\text{-}Q}$ = 1.68; SD = 1.69) after discharge. Difference scores were then examined with a 2 x 2 x 2 (individual therapist [y, n] x family therapist [y, n] x psychiatrist [y, n]) ANOVA which revealed no significant main effect.

Change in EDE-Q Scores



Morgan Russell Outcome Categories

	Weight Restoration	Menstrual Cycle
Good	⊕	⊕
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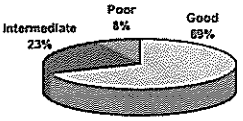

Conclusions

Results suggest that the combination of DBT and Maudsley therapy is effective at the intensive outpatient level of care. Patients completing the Adolescent IOP program at Walden Behavioral Care gained a significant amount of weight and experienced a decrease in eating disorder thoughts, attitudes, and behaviors as measured by the EDE-Q. Patients continued making significant gains in weight and maintained improvement in eating disorder psychopathology up to one year post-treatment. At the one year follow-up, sixty-nine percent of patients had fully weight restored and resumed normal menstrual cycles. These improvements occurred regardless of type of treatment services utilized after discharge.

Additional research is needed to determine whether other multi-modal approaches would result in similar improvements in weight and eating disorder psychopathology, or whether these results are particular to the combination of DBT and Maudsley. Moreover, it is possible that outpatient services alone, without an eight week IOP, could be equally effective, thus negating the need for more intensive programs.

References

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Attachment 1.a
Maudsley Method Effectiveness

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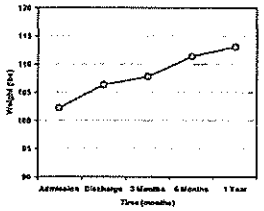

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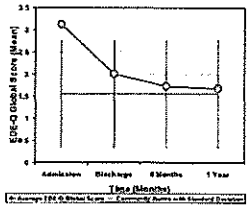

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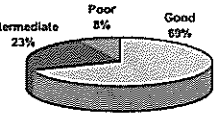

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Attachment 1.a

Maudsley Method and its use in the Adolescent IOP Program

Adolescent IOP

The focus of the Adolescent IOP is on the development of healthy coping skills through evidence-based behavioral treatments. Walden's treatment encompasses:

- Family Based Therapy (FBT)
- Dialectical Behavioral Therapy (DBT)
- Cognitive Behavioral Therapy (CBT)

Family Based Therapy (FBT) uses a the ***Maudsley Method*** and helps restore a child's physical health by reestablishing parental authority all areas of family life that relate to food (meal planning, shopping, and eating expectations). Research shows the Maudsley method to be the most effective treatment for adolescents with eating disorders (Lock & Gowers, Le Grange et al.). Families are uniquely positioned to provide the support and supervision necessary to combat this life-threatening disease. Parents are temporarily put in charge of eating behaviors in order to "combat" the eating disorder that is controlling their child's behavior. The treatment seeks to respect the adolescent's opinions and experience, but refuses to let this devastating illness continue to control their lives.

Dialectical Behavioral Therapy (DBT) helps parents and adolescents learn new ways to manage painful emotions and interact with each other more effectively during this difficult time of their illness. DBT skills groups include mindfulness, distress tolerance, emotion regulation, and interpersonal effectiveness (Linehan, 1993).

Cognitive Behavioral Therapy (CBT) helps the adolescent identify and restructure faulty thoughts or *cognitions* that allow the eating disorder to take root, and enable it to persist if not challenged or *restructured*. The Cognitive Behavioral Therapy (CBT) group is designed to help identify ways to challenge their eating disordered thinking, and dispute distorted body image thoughts. (For example, an adolescent may restrict because of a faulty belief such as *eating will make me ugly and I will be alone*. This can be challenged, and replaced with the cognition; *eating will nourish my body and spirit, and help me more fully participate in my relationships.*) Often these cognitions function below conscious awareness, but with professional and peer support, adolescents can learn to identify them and restructure them, promoting new approaches to problem solving and flexibility in thinking.

Exhibit 6

problems (severe hypotension, arrhythmias), dental problems, and osteoporosis (resulting from low calcium intake and absorption, reduced estrogen secretion, and increased cortisol secretion).

Specific Culture, Age, and Gender Features

Anorexia Nervosa appears to be far more prevalent in industrialized societies, in which there is an abundance of food and in which, especially for females, being considered attractive is linked to being thin. The disorder is probably most common in the United States, Canada, Europe, Australia, Japan, New Zealand, and South Africa, but little systematic work has examined prevalence in other cultures. Immigrants from cultures in which the disorder is rare who emigrate to cultures in which the disorder is more prevalent may develop Anorexia Nervosa as thin-body ideals are assimilated. Cultural factors may also influence the manifestations of the disorder. For example, in some cultures, disturbed perception of the body or fear of weight gain may not be prominent and the expressed motivation for food restriction may have a different content, such as epigastric discomfort or distaste for food.

Anorexia Nervosa rarely begins before puberty, but there are suggestions that the severity of associated mental disturbances may be greater among prepubertal individuals who develop the illness. However, data also suggest that when the illness begins during early adolescence (between ages 13 and 18 years), it may be associated with a better prognosis. More than 90% of cases of Anorexia Nervosa occur in females.

Prevalence

The lifetime prevalence of Anorexia Nervosa among females is approximately 0.5%. Individuals who are subthreshold for the disorder (i.e., with Eating Disorder Not Otherwise Specified) are more commonly encountered. The prevalence of Anorexia Nervosa among males is approximately one-tenth that among females. The incidence of Anorexia Nervosa appears to have increased in recent decades.

Course

Anorexia Nervosa typically begins in mid- to late adolescence (age 14–18 years). The onset of this disorder rarely occurs in females over age 40 years. The onset of illness may be associated with a stressful life event. The course and outcome of Anorexia Nervosa are highly variable. Some individuals with Anorexia Nervosa recover fully after a single episode, some exhibit a fluctuating pattern of weight gain followed by relapse, and others experience a chronically deteriorating course of the illness over many years. With time, particularly within the first 5 years of onset, a significant fraction of individuals with the Restricting Type of Anorexia Nervosa develop binge eating, indicating a change to the Binge Eating/Purging subtype. A sustained shift in clinical presentation (e.g., weight gain plus the presence of binge eating and purging) may eventually warrant a change in diagnosis to Bulimia Nervosa.

Hospitalization may be required to restore weight and to address fluid and electrolyte imbalances. Of individuals admitted to university hospitals, the long-term

Exhibit 7

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The Prevalence and Correlates of Eating Disorders in the National Comorbidity Survey Replication

James I. Hudson, Eva Hiripi, Harrison G. Pope, Jr., and Ronald C. Kessler

Abstract

Background

Little population-based data exist on the prevalence or correlates of eating disorders.

Methods

Prevalence and correlates of eating disorders from the National Comorbidity Replication, a nationally representative face-to-face household survey (n _ 9282), conducted in 2001–2003, were assessed using the WHO Composite International Diagnostic Interview.

Results

Lifetime prevalence estimates of DSM-IV anorexia nervosa, bulimia nervosa, and binge eating disorder are .9%, 1.5%, and 3.5% among women, and .3% .5%, and 2.0% among men. Survival analysis based on retrospective age-of-onset reports suggests that risk of bulimia nervosa and binge eating disorder increased with successive birth cohorts. All 3 disorders are significantly comorbid with many other DSM-IV disorders. Lifetime anorexia nervosa is significantly associated with low current weight (body-mass index18.5), whereas lifetime binge eating disorder is associated with current severe obesity (body-mass index < _ 40). Although most respondents with 12-month bulimia nervosa and binge eating disorder report some role impairment (data unavailable for anorexia nervosa since no respondents met criteria for 12-month prevalence), only a minority of cases ever sought treatment.

Conclusions

Eating disorders, although relatively uncommon, represent a public health concern because they are frequently associated with other psychopathology and role impairment, and are frequently under-treated.

Keywords: Anorexia nervosa, binge eating disorder, bulimia nervosa, eating disorders, epidemiology, national comorbidity survey replication (NCS-R)

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Two eating disorders—anorexia nervosa and bulimia nervosa—are recognized as diagnostic entities in the Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition (DSM-IV) (American Psychiatric Association 1994); a third category, binge eating disorder, is proposed in DSM-IV as a possible new diagnostic entity. However, data are incomplete on the prevalence of these 3 disorders in the general population. The prevalence of anorexia nervosa has been investigated mainly in samples of young women in Europe and North America, where the average point prevalence has been .3% (Hoek and van Hoeken 2003; Favaro et al 2004). The lifetime prevalence among adult women has been reported as .5%–.6% in 2 large population-based surveys in the United States (Walters and Kendler 1995) and Canada (Garfinkel et al 1996); the latter study found a prevalence of anorexia nervosa among adult men of .1%. The lifetime prevalence of bulimia nervosa in adult women has been estimated as 1.1%–2.8% in 3 large populationbased surveys in New Zealand (Bushnell et al 1990), the United States (Kendler et al 1991), and Canada (Garfinkel et al 1995). For men, the lifetime prevalence of bulimia nervosa was estimated at .1% in the Canadian study and .2% in the New Zealand study, but the point prevalence of bulimia nervosa in a study in Austria was reported as .5% (Kinzl et al 1999b). For the case of binge eating disorder, 2 population -based telephone interview surveys of adults in Austria estimated the point prevalence as 3.3% among women (Kinzl et al 1999a) and .8% among men (Kinzl et al 1999b). Other studies of binge eating disorder have been limited to specific populations (e.g., young women) or were based only on questionnaires, rather than personal interviews (Streigel-Moore and Franko 2003; Favaro et al 2004).

Population-based interview data are needed to ascertain the prevalence of the 3 eating disorders as well as to provide data on age-of-onset distributions, duration, and association with sociodemographics and body-mass index (BMI). Population data could also address the question of cohort effects—whether the incidence of eating disorders has changed in recent decades. Also of interest is the association of eating disorders with other mental disorders, with measures of disability, and with history of mental health treatment. Finally, population-based data may be useful in examining alternative definitions of eating disorder syndromes in order to determine which definitions are most meaningful as markers of psychopathology. To address these questions, we analyzed data from the recently completed National Comorbidity Survey Replication (NCS-R).

Methods and Materials

Sample

The NCS-R is a nationally representative survey of the US household population that was administered face-to-face to a sample of 9282 English-speaking adults ages 18 and older between February 2001 and December 2003 (Kessler and Merikangas 2004). The response rate was 70.9%. The sample was based on a multi-stage clustered area probability design. Recruitment featured an advance letter and Study Fact Brochure followed by in-person interviewer visits to obtain informed consent. Consent was verbal rather than written in order to parallel the consent procedures in the baseline NCS (Kessler et al 1994). Respondents were given a $50 financial incentive for participation. The Human Subjects Committees of both Harvard Medical School and the University of Michigan approved these recruitment and consent procedures.

The survey was administered in 2 parts. Part I included the core diagnostic assessment and was administered to all respondents. Part II assessed additional disorders and correlates of disorders. Part II was administered to a subset of 5692 respondents consisting of all those who met lifetime criteria for a Part I disorder plus a probability sample of other respondents. Disorders of secondary interest were

administered to probability sub-samples of the Part II sample. Eating disorders were among the latter disorders.

The analyses reported here were carried out in a sub-sample of 2980 Part II respondents who were randomly assigned to have an assessment of eating disorders. Data records in this subsample were weighted to adjust for the over-sampling of Part I respondents with a mental disorder, differential probabilities of selection within households, systematic non-response, and residual socio-demographic-geographic differences between the sample and the 2000 Census. NCS-R sampling and weighting are discussed in more detail elsewhere (Kessler et al 2004b).

Diagnostic Assessment

NCS-R diagnoses were based on Version 3.0 of the World Health Organization Composite International Diagnostic Interview (CIDI) (Kessler and Ustun 2004), a fully structured layadministered diagnostic interview that generates diagnoses according to both ICD-10 and DSM-IV criteria. DSM-IV criteria were used in the current report. Core disorders included the three broad classes of disorder assessed in previous CIDI surveys (anxiety disorders, mood disorders, and substance disorders) plus a group of disorders that share a common feature of difficulties with impulse control (e.g., intermittent explosive disorder, attention-deficit/hyperactivity disorder, retrospectively reported childhood oppositional-defiant disorder, and conduct disorder). Diagnostic hierarchy rules and organic exclusion rules were used in making all diagnoses. As detailed elsewhere (Kessler et al 2004a, 2005), good concordance was found between these core CIDI diagnoses and diagnoses based on the Structured Clinical Interview for DSM-IV (SCID) (First et al 2002) in a probability sub-sample of NCS-R respondents who were administered clinical reappraisal interviews. The area under the receiver operator characteristic curve was in the range of .65–.81 for anxiety disorders, .75 for major depressive episode, .62–.88 for substance disorders, and .76 for any anxiety, mood, or substance disorder. No clinical reappraisal interviews were carried out for the impulse-control disorders, as these were not core NCS-R disorders.

For the present study, questions from the CIDI were used to assign diagnoses of anorexia nervosa, bulimia nervosa, and binge eating disorder based on DSM-IV criteria. The full diagnostic algorithms for all 3 disorders, together with a sensitivity analysis using alternative, narrower definitions of bulimia nervosa and binge eating disorder, are presented as supplemental material available online with the electronic version of this article and at www.hcp.med.harvard.edu/ncs//eating.php; the corresponding CIDI questions used to operationalize the criteria are available at www.hcp.med.harvard.edu/ncs.

Most of the CIDI questions closely paralleled the DSM-IV criteria, but to meet criteria for binge eating disorder, DSM-IV requires a minimum of 6 months of regular eating binges, whereas the CIDI asked only whether the individual experienced 3 months of symptoms. Thus, individuals displaying more than 3 months, but less than 6 months, of regular binge eating would be classified as having binge eating disorder in our algorithm, but not in DSM-IV. Also of note is that for binge eating episodes in bulimia nervosa and binge eating disorder, DSM-IV requires assessment of loss of control, and for binge eating disorder requires marked distress regarding binge eating; these items were assessed in the CIDI by a series of questions about attitudes and behaviors that are indicators of loss of control and of distress, rather than by direct questions.

In addition to the 3 eating disorders, we also defined 2 provisional entities. The first was "subthreshold binge eating disorder," defined as a) binge eating episodes, b) occurring at least twice a week for at least 3 months, and c) not occurring solely during the course of anorexia nervosa, bulimia nervosa, or binge eating

disorder. Thus, subthreshold binge eating disorder did not require DSM-IV criterion B (3 of 5 features associated with binge eating) or C (marked distress regarding binge eating for binge eating disorder). The second was "any binge eating," also defined as a) binge eating episodes (again, not requiring DSM-IV criteria B and C), b) occurring at least twice a week for at least 3 months, but c) lacking the hierarchical exclusion criterion if the individual simultaneously exhibited another eating disorder. In other words, any binge eating was diagnosed regardless of whether or not the individual simultaneously met criteria for any of the other 3 eating disorders or for subthreshold binge eating disorder. This entity thus included all cases of bulimia nervosa, binge eating disorder, and subthreshold binge eating disorder, as well as cases of anorexia nervosa with binge eating. Full diagnostic algorithms for these 2 provisional entities, together with a sensitivity analysis parallel to that above, are presented as supplemental material available with the online version of this article and at www.hcp.med.harvard.edu/ncs//eating.php.

In summary, we examined a total of 5 conditions—2 official DSM-IV disorders (anorexia nervosa and bulimia nervosa), 1 proposed DSM-IV disorder (binge eating disorder), and 2 provisional entities that partially overlapped with 1 or more of the previous 3 disorders. Although in the following text we refer to these 5 conditions collectively as "disorders" for simplicity, the reader should bear in mind that they vary in terms of their level of general acceptance.

As indicated above, our criteria allowed that individuals could display more than one lifetime diagnosis of an eating disorder. We used data from the CIDI regarding time of onset and recency (i.e., the time when the disorder was last present) to apply diagnostic hierarchies, so that bulimia nervosa, binge eating disorder, and subthreshold binge eating disorder were not diagnosed in the presence of anorexia nervosa; and so that binge eating disorder and subthreshold binge eating disorder were not diagnosed in the presence of bulimia nervosa. Because the CIDI provides information only about onset and recency of a disorder, individuals with an episode of a given eating disorder occurring only in between two or more discrete episodes of a hierarchically exclusionary disorder (e.g., anorexia nervosa) would not have been diagnosed with that disorder.

For individuals meeting criteria for any of the 5 five disorders, the CIDI assessed age of onset, recency, years with the disorder, and professional help-seeking. Respondents with 12-month prevalence (that is, individuals who met criteria for the eating disorder at any time within the 12 months before interview) were additionally administered the Sheehan Disability Scales (Leon et al 1997) to assess the severity of recent episodes and were asked about treatment in the past 12 months.

Statistical Analyses

Cross-tabulations were used to estimate prevalence, disability, and treatment. The actuarial method (Wolter 1985) was used to estimate age-of-onset curves. Discrete-time survival analysis with the person-year as the unit of analysis (Willett and Singer 1993) using logistic regression (Hosmer and Lemeshow 2000) was used to estimate cohort effects. Logistic regression was also used to study socio-demographic correlates and comorbidity. Logits and their 95% confidence intervals were converted into odd ratios by exponentiation for ease of interpretation. Standard errors and significance tests were estimated using the Taylor series linearization method (Wolter 1985) implemented in the SUDAAN software system (Research Triangle Institute 2002) to adjust for the weighting and clustering of the NCS-R data. Multivariate significance of predictor sets was evaluated using Wald _ 2 tests based on design-corrected coefficient variance-covariance matrices. Statistical significance was evaluated using 2-tailed .05-level tests; it should

be noted that this level, which was pre-specified for all NCS-R analyses, does not correct for multiple comparisons and thus underestimates the overall type I error rate.

Results Prevalence

Lifetime prevalence estimates of anorexia nervosa, bulimia nervosa, binge eating disorder, subthreshold binge eating disorder, and any binge eating were .6%, 1.0%, 2.8%, 1.2%, and 4.5% (Table 1). Lifetime prevalence was consistently 1¾ to 3 times as high among women as men for the 3 eating disorders (z _ 2.2–2.8, P _ .029–.005), 3 times as high among men as women for subthreshold binge eating disorder (z _ 3.3, P _ .001), and approximately equal among women and men for any binge eating (z _ 1.2., P _ .219). No 12-month cases of anorexia nervosa were found in the sample. The 12-month prevalence estimates of the other 4 disorders were considerably lower than the lifetime estimates, although with similar sex ratios. Estimates of cumulative lifetime risk by age 80, based on retrospective age-of-onset reports (Figure 1), were 0.6% for anorexia nervosa, 1.1% for bulimia nervosa, 3.9% for binge eating disorder, 1.4% for subthreshold binge eating disorder, and 5.7% for any binge eating.

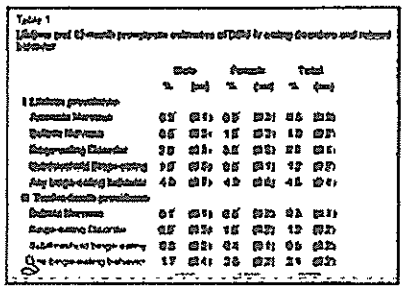


Table 1
Lifetime and 12-month prevalence estimates of DSM-IV eating disorders and related behavior

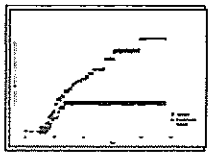


Figure 1
Age-of-onset distributions for DSM-IV eating disorders

Age of Onset and Persistence

Median age of onset of the five disorders ranged from 18–21 years (Table 2). The period of onset risk was shorter for anorexia nervosa than for the other disorders, with the earliest cases of the other disorders beginning about 5 years earlier than those of anorexia nervosa (ages 10 vs. 15), and no cases of anorexia nervosa beginning after the mid-20s—whereas some cases of the other disorders began at a much older age (Figures 1 and 2).

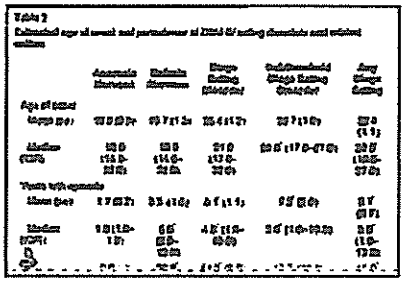


Table 2
Estimated age of onset and persistence of *DSM-IV* eating disorders and related entities

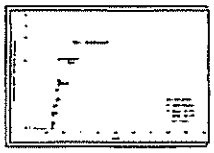


Figure 2
Cohort-specific age-of-onset distributions for DSM-IV Anorexia Nervosa

The mean number of years with anorexia nervosa (1.7 years) was significantly lower than for either bulimia nervosa (8.3; t _ 4.1, P _ .001), binge eating disorder (8.1; t _ 2.9, P _ .006), subthreshold binge eating disorder (7.2; t _ 2.6, P _ .013), or any binge eating (8.7; t _ 2.9, P _ .005) (Table 2). Consistent with these differences in duration, 12-month persistence, defined as 12-month prevalence among lifetime cases, was lowest for anorexia nervosa (.0%) and higher for bulimia nervosa (30.6%), binge eating disorder (44.2%), subthreshold binge eating (47.2%), and any binge eating (46.9%).

Cohort Effects

Consistent inverse associations between cohort (age at interview) and lifetime risk were found in survival analyses of all 5 disorders (Table 3). However, the odds ratios in younger (ages 18–29, 30–44) versus older (60_) cohorts were significantly higher for all comparisons only for bulimia nervosa, binge eating disorder, and any binge eating.

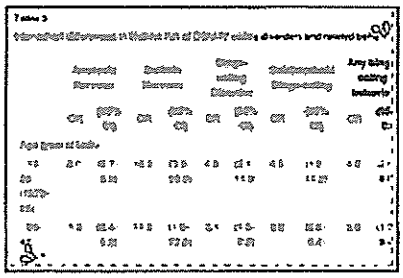


Table 3
Inter-cohort differences in lifetime risk of DSM-IV eating disorders and related behavior

Association with Body-Mass Index

Individuals with a lifetime diagnosis of anorexia nervosa displayed a significantly lower current BMI—with a greater prevalence of a current BMI of _ 18.5, and a lower prevalence of a current BMI _ 40—than respondents without any eating disorder (Table 4). The reverse pattern was found for binge eating disorder, with a significantly higher prevalence of BMI of _ 40 among individuals with binge eating disorder than respondents without any eating disorder. Any binge eating was also associated with severe obesity, but this finding was attributable entirely to cases of binge eating disorder.

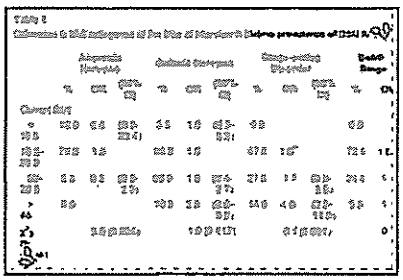


Table 4
Difference in BMI categories at the time of interview in lifetime prevalence of DSM-IV disorders and related behavior

Twelve-Month Role Impairment

Role impairment was assessed only for 12-month cases; since there were no 12-month cases of anorexia nervosa, our analysis was limited to the other 4 disorders. The majority of respondents with bulimia nervosa, binge eating disorder, or any binge eating reported at least some role impairment (mild, moderate, or severe) in at least 1 role domain (53.1%–78.0%), but only 21.8% of respondents with subthreshold binge eating disorder reported this degree of impairment (Table 5). Severe role impairment was much less common, and ranged from 3.4% in subthreshold binge eating to 16.3% in bulimia nervosa, with no significant differences in prevalence among groups.

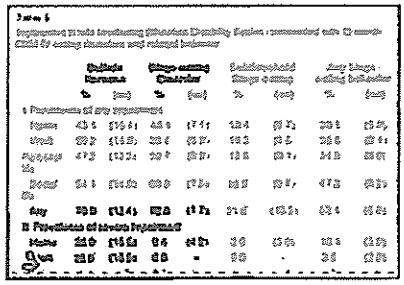


Table 5
Impairment in role functioning (Sheehan Disability Scales) associated with 12-month DSM-IV eating disorders and related behavior

Comorbidity

More than half (56.2%) of respondents with anorexia nervosa, 94.5% with bulimia nervosa, 78.9% with binge eating disorder, 63.6% with subthreshold binge eating disorder, and 76.5% with any binge eating met criteria for at least 1 of the core DSM-IV disorders assessed in the NCS-R (Table 6). Eating disorders were positively related to almost all of the core DSM-IV mood, anxiety, impulse-control, and substance use disorders after controlling for age, sex, and race-ethnicity, with 89% of the odds ratios for the association between individual eating disorders and individual comorbid conditions greater than 1.0 and 67% significant at the .05 level. The odds ratios were consistently largest, though, for bulimia nervosa, with a median (and inter-quartile range in parentheses) odds ratio of 4.7 (4.3–7.5), next highest for binge eating disorder (3.2 [2.6–3.7]) and any binge eating (3.2 [2.4–3.8]), and smaller for anorexia nervosa (2.1 [1.2–2.9]) and subthreshold binge eating disorder (2.2 [1.1–2.9]). No single class of disorders stood out as showing consistently or markedly higher comorbidity with eating disorders.

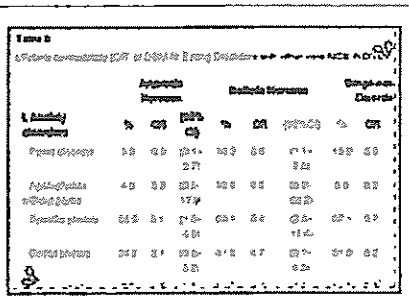


Table 6
Lifetime co-morbidity (OR) of DSM-IV Eating Disorders with other core NCS-R/DSM-IV disorders and related behaviors[1]

Treatment

A majority of respondents with anorexia nervosa, bulimia nervosa, and binge eating disorder (50.0%–63.2%) received treatment for emotional problems at some time in their lives, with the most common site of treatment being the general medical sector for anorexia nervosa (45.3%) and binge eating disorder (36.3%), and the mental health specialty sector for bulimia nervosa (48.2% for psychiatrist and 48.3% for

other mental health) (Table 7). However, smaller proportions sought treatment specifically for their bulimia nervosa (43.2%) or binge eating disorder (43.6%). Only 15.6% of respondents with 12-month bulimia nervosa and 28.5% with 12-month binge eating disorder received treatment for emotional problems in the 12 months before interview, with the most common site of treatment being the general medical sector, and similar proportions received 12-month treatment specifically for their bulimia nervosa or binge eating disorder.

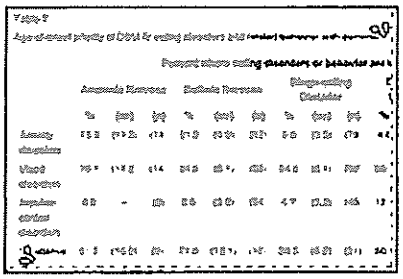


Table 7
Age-of-onset priority of DSM-IV eating disorders and related behavior with comorbid DSM-IV disorders

Supplemental data are available with the electronic version of this article and online at www.hcp.med.harvard.edu/ncs/eating.php.

Discussion

In a population-based survey of American households—the first nationally representative study of eating disorders in the United States—we found estimates of lifetime prevalence for eating disorders that are broadly consistent with earlier data. However, we found a surprisingly high proportion of men with anorexia nervosa and bulimia nervosa (representing approximately one-fourth of cases of each of these disorders). By contrast, clinical and case registry studies (Fairburn and Beglin 1990; Hoek and van Hoeken 2003) report that fewer than 10% men among cases of these disorders, and population-based studies report a 15% proportion of men for anorexia nervosa (Garfinkel et al 1996) and 8%–10% of men for bulimia nervosa (Bushnell et al 1990; Garfinkel et al 1995). Note, however, that estimates from population-based studies, including ours, are unstable because they involve small numbers of men with eating disorders (no more than 5 men with either disorder in any study).

Our findings provide unique data regarding the lifetime duration of eating disorders, and the onset and duration of binge eating disorder, together with extensive information on sociodemographic features of individuals with all 5 disorders. Also, our study provides support for the common impression that the incidence of bulimia nervosa has increased significantly in the second half of the twentieth century (Kendler et al 1991; Hoek and van Hoek 2003), and it provides the first data showing a similar trend for binge eating disorder. Nevertheless, there are some data suggesting that the incidence of bulimia nervosa may be leveling off in recent years (Currin et al 2005). Whether the incidence of anorexia nervosa has increased over time is unclear and subject to debate. We failed to find a significant increase, but had little power to detect such a trend; case registry study data have yielded conflicting findings and interpretations (Fombonne, 1995; Lucas et al 1999; Hoek and van Hoeken 2003; Currin et al 2005).

We found that lifetime anorexia nervosa is associated with a low current BMI, a finding consistent with follow-up studies of clinical samples of individuals with anorexia nervosa showing that low weight often persists after resolution of the disorder (Steinhausen 2002). By contrast, binge eating disorder was found to

be strongly associated with current severe obesity (BMI _ 40)—a finding also consistent with earlier reports (de Zwaan 2001; Streigel-Moore and Franko 2003; Hudson et al 2006). Although the causal pathways responsible for this latter association are unclear, shared familial factors (such as shared genes or shared family environmental exposures) are likely at least partly responsible (Hudson et al 2006).

We also assessed role impairment in all disorders except anorexia nervosa, where analysis was precluded because no 12-month cases were identified. While the majority of respondents with bulimia nervosa, binge eating disorder, or any binge eating reported at least some role impairment in at least 1 role domain, only 21.8% of respondents with subthreshold binge eating disorder reported any role impairment. Severe role impairment was uncommon in all conditions. It is important to note, though, that participants may possibly have under-reported role impairment due to factors such as minimization, shame, secrecy, or lack of insight stemming from the ego-syntonicity of symptoms.

Less than half of individuals with bulimia nervosa or binge eating disorder had ever sought treatment for their eating disorder (a measure not assessed for anorexia nervosa), although the majority of individuals with all 3 disorders had received treatment at some point for some emotional problem. This finding, coupled with the observation that physicians infrequently assess patients for binge eating (Crow et al 2004) and often fail to recognize bulimia nervosa and binge eating disorder (Johnson et al 2001), highlights the importance of querying patients about eating problems even when they do not include such problems among their presenting complaints.

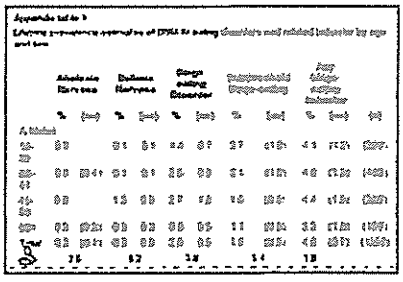
We found a high prevalence of lifetime comorbid psychiatric disorders in individuals with all disorders except subthreshold binge eating disorder, although this finding was less pronounced for anorexia nervosa. These results are again generally consistent with those reported in previous population-based studies for anorexia nervosa (Garfinkel et al 1996), bulimia nervosa (Kendler et al 1991; Bushnell et al 1994; Garfinkel et al 1995; Rowe et al 2002), binge eating behavior (Vollrath et al 1992; Angst 1988; Bulik et al 2002), and regular binge eating without compensatory behaviors (Reichborn-Kjennerud et al 2004b), as well as in previous studies of clinical populations for anorexia nervosa, bulimia nervosa, and binge eating disorder (Hudson et al 1987; Halmi et al 1991; Johnson et al 2001; Godart et al 2002; Kaye et al 2004; McElroy et al 2005). The cause for the high levels of comorbidity is not known, although there is evidence that the co-occurrence of eating disorders with mood disorders may be caused in part by common familial (Mangweth et al 2003) or genetic factors (Walters et al 1992; Wade et al 2000).

Several findings in this study are particularly noteworthy. First, we found that anorexia nervosa displayed a significantly shorter lifetime duration and lower 12-month persistence, as well as lower overall levels of comorbidity, than either bulimia nervosa or binge eating disorder. These findings contrast with previous studies (Steinhausen 2002) that have conceptualized anorexia nervosa as a chronic and malignant condition. This discrepancy may be due to the fact that our population-based method identified individuals with milder cases of anorexia nervosa who might have been missed in previous follow-up studies, which were based largely on clinical samples. Alternatively, our population-based method might have missed more severe cases of anorexia nervosa, either because they were unavailable, unreachable, hospitalized, or unwilling to participate in an interview about emotional problems. Parenthetically, we would note that while we found no cases of current anorexia nervosa in our study, 15.6% of the individuals with a lifetime diagnosis of anorexia nervosa still had a current BMI of less than 18.5 at the time of interview. Indeed, these individuals (3 cases) were all below 85% of ideal body weight, thus meeting our operationalization for DSM-IV criterion A for anorexia nervosa. However, all of these individuals failed to meet at least one of the

other criteria for anorexia nervosa currently—although our data did not permit an analysis of which specific criteria were lacking in individual cases. Nevertheless, these data suggest that a minority of individuals with past anorexia nervosa may continue to maintain an abnormally low body weight, even though they no longer meet full criteria for anorexia nervosa.

Our findings also provide further evidence for the clinical and public health importance of binge eating disorder. In contrast to some earlier studies suggesting that binge eating disorder might be a relatively transient condition (Cachelin et al 1999; Fairburn et al 2000), the present findings, together with those from another recent study (Pope et al, in press), suggest that this disorder is at least as chronic and stable as anorexia nervosa or bulimia nervosa. Binge eating disorder also appears more common than either of the other two eating disorders, exhibits substantial comorbidity with other psychiatric disorders, and is strongly associated with severe obesity. Collectively, these findings suggest that binge eating disorder represents a public health problem at least equal to that of the other 2 better-established eating disorders, adding support to the case for elevating binge eating disorder from a provisional entity to an official diagnosis in DSM-V.

Subthreshold binge eating disorder, by contrast, was found to be associated with such low impairment and comorbidity that it likely does not merit consideration for inclusion as a DSM disorder. It should be recalled, in this connection, that the main difference between subthreshold binge eating disorder and binge eating disorder is that the former lacks the criterion of distress (see Appendix Table 1 in Supplement 1). These findings suggest that the criterion of distress may be important for defining clinically meaningful forms of binge eating.



Appendix table 1
Lifetime prevalence estimates of DSM-IV eating disorders and related behavior by age and sex

Note that subthreshold binge eating disorder may be defined in different ways. For example, relaxing the frequency criteria to less than the average of 2 days per week for 6 months required by DSM-IV identifies groups with characteristics similar to the full disorder (Striegel-Moore et al 2000; Crow et al 2002). We were unable, however, to evaluate these definitions due the nature of the CIDI questions, and instead defined subthreshold binge eating disorder by relaxing criteria other than frequency of binges. Thus, while our definition of subthreshold binge eating disorder does not appear to identify a clinically meaningful entity, other definitions may well do so.

Unlike subthreshold binge eating disorder, the entity "any binge eating" is associated with severe obesity, modest levels of impairment, and high levels of comorbidity with other mental disorders. These features appear to be accounted for cases of bulimia nervosa or binge eating disorder within the "any binge eating" group, given that such features are not shared by those with subthreshold binge eating disorder, and individuals with anorexia nervosa contribute only a small number of cases. The findings for any binge eating are interesting to consider in the light of findings from twin studies of binge eating. These studies

for a short (15-min) telephone interview that assessed diagnostic stem questions. Very little evidence was found that survey respondents and non-respondents differed on stem question endorsement for the NCS-R core anxiety, mood, impulsecontrol, or substance use disorders (Kessler et al 2004b). Thus, it is likely that non-response bias for eating disorders was minimal.

Sixth, while we examined 2 provisional entities in addition to those for which criteria were provided in DSM-IV, we did not examine many other possible entities that lie within the category of Eating Disorder Not Otherwise Specified (Fairburn and Bohn, 2005)—such as subthreshold forms of anorexia nervosa and bulimia nervosa, alternative definitions for subthreshold binge eating disorder (discussed above), purging without either bulimia nervosa or anorexia nervosa (Keel et al 2005), and night eating syndrome (Stunkard et al 2005)— because the questions in the CIDI did not permit evaluation of these conditions.

In conclusion, the lifetime prevalence of the individual eating disorders ranged from 0.6–4.5%; these disorders displayed substantial comorbidity with other DSM-IV disorders and were frequently associated with role impairment. These patterns raise concerns that such a low proportion of individuals with these disorders obtain treatment for their eating problems. As it turns out, though, a high proportion of cases did receive treatment for comorbid conditions. Thus, detection and treatment of eating disorders might be increased substantially if treatment providers queried patients about possible eating problems, even if the patients did not include such problems among their presenting complaints.

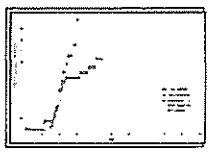


Figure 3
Cohort-specific age-of-onset distributions for DSM-IV Bulimia Nervosa

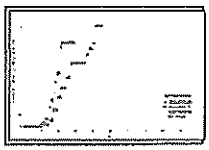
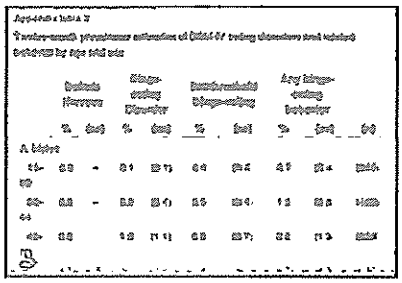


Figure 4
Cohort-specific age-of-onset distributions for DSM-IV Binge-Eating Disorder



Appendix table 2
Twelve-month prevalence estimates of DSM-IV eating disorders and related behavior by age and sex

Appendix table 3
Estimated age-of-onset and persistence of DSM-IV eating disorders by lifetime treatment status

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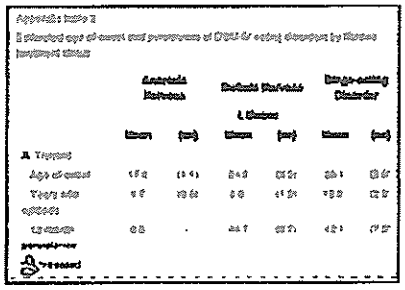

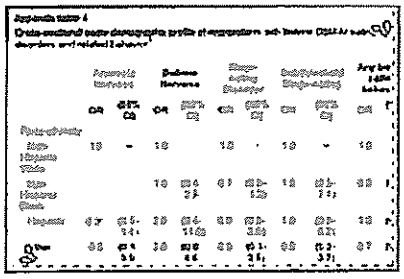

Appendix table 4

Cross-sectional socio-demographic profile of respondents with lifetime DSM-IV eating disorders and related behavior[1]

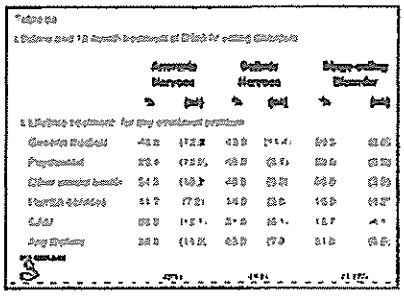

Table 8a

Lifetime and 12-month treatment of DSM-IV eating disorders

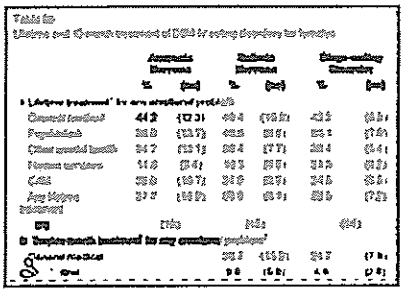

Table 8b

Lifetime and 12-month treatment of DSM-IV eating disorders for females

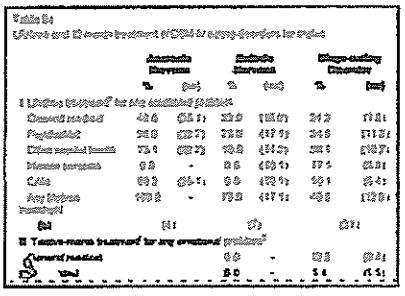

Table 8c

Lifetime and 12-month treatment of DSM-IV eating disorders for males

Acknowledgments

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Exhibit 8

Epidemiology and Course of Anorexia Nervosa in the Community

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Objective: Most previous studies of the prevalence, incidence, and outcome of anorexia nervosa have been limited to cases detected through the health care system, which may bias our understanding of the disorder's incidence and natural course. The authors sought to describe the onset and outcomes of anorexia nervosa in the general population.

Method: Lifetime prevalences, incidence rates, and 5-year recovery rates of anorexia nervosa were calculated on the basis of data from 2,881 women from the 1975–1979 birth cohorts of Finnish twins. Women who screened positive for eating disorder symptoms (N=292), their screen-negative female co-twins (N=134), and 210 randomly selected screen-negative women were assessed for lifetime eating disorders by telephone by experienced clinicians. To assess outcomes after clinical recovery and to detect residua of illness, women who had recovered were compared with their unaffected co-twins and healthy unrelated women on multiple outcome measures.

Results: The lifetime prevalence of DSM-IV anorexia nervosa was 2.2%, and half of the cases had not been detected in the health care system. The incidence of anorexia nervosa in women between 15 and 19 years of age was 270 per 100,000 person-years. The 5-year clinical recovery rate was 66.8%. Outcomes did not differ between detected and undetected cases. After clinical recovery, the residua of illness steadily receded. By 5 years after clinical recovery, most probands had reached complete or nearly complete psychological recovery and closely resembled their unaffected co-twins and healthy women in weight and most psychological and social measures.

Conclusions: The authors found a substantially higher lifetime prevalence and incidence of anorexia nervosa than reported in previous studies, most of which were based on treated cases. Most women recovered clinically within 5 years, and thereafter usually progressed toward full recovery.

(Am J Psychiatry 2007; 164:1259–1265)

Anorexia nervosa is a severe psychiatric disorder that mainly affects adolescent girls and young women (1–3). Although the disorder was first described centuries ago, its risk factors, etiology, and course remain poorly understood (1–3).

Numerous studies have assessed the prevalence of anorexia nervosa (4, 5). Estimates of prevalence are influenced by the number of new-onset cases, but also by duration of illness, methods of case detection, and the age of study participants (6). Counting new-onset cases only, that is, calculating the incidence, is a more accurate approach to comparing rates of illness across communities and time periods and is essential for rigorous investigations of the etiology and course of illness (6). Despite this, few studies have examined the incidence of anorexia nervosa. Those that have been reported (7–9) reflect the difficulty of addressing relatively rare disorders: either they are limited to cases detected in health care settings or they lack statistical power because of small sample sizes. Nevertheless, they document a steady increase in the incidence of anorexia nervosa among 15- to 19-year-old women since the 1930s (9–11).

Long-term follow-up studies of anorexia nervosa are few and primarily reflect clinical case series or studies based on clinical catchment areas (12–14). They suggest that anorexia nervosa tends to have a chronic course and carries a high risk of mortality (about 5.6% per decade) (15–17). However, as it has been estimated that only half of cases of anorexia nervosa are detected in primary care settings (18) and only one-third of the community cases are treated in mental health care settings (5), the natural course of the illness remains poorly understood.

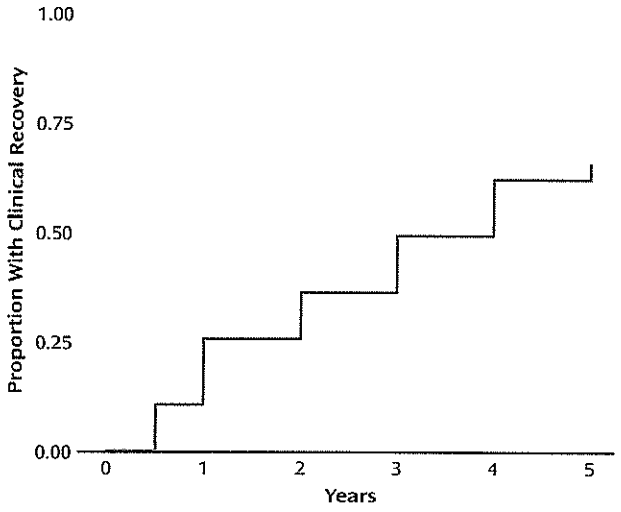
Our aim was to describe the onset and outcomes of anorexia nervosa in the general population. Using the nationwide population-based 1975–1979 birth cohorts of Finland, we examined the incidence and lifetime prevalence of anorexia nervosa among twins. To better understand the impact of anorexia on young women's lives, we also compared the behavioral, psychological, and social outcomes of women with anorexia nervosa with those of their unaffected co-twins and unrelated healthy women.

Method

The "FinnTwin 16" Birth Cohorts

Study subjects were Finnish twins participating in "FinnTwin 16," a nationwide longitudinal cohort study of health behaviors in twins and their families (19) that identified virtually all live twin

FIGURE 1. Five-Year Clinical Recovery Rates From DSM-IV Anorexia Nervosa[a]



[a] Results of Kaplan-Meier survival analysis. The 5-year clinical recovery rate was defined as the proportion who reached clinical recovery within 5 years after onset of illness. Clinical recovery was defined as restoration of weight and menstruation and the absence of bingeing and purging for at least 1 year prior to assessment.

births from 1975 through 1979 from the central population registry of Finland. The twins and their parents were sent baseline self-report questionnaires when the twins were 16 years old (wave 1), and follow-up questionnaires were mailed to the twins at age 17, age 18, and between ages 22 and 28 (waves 2, 3, and 4, respectively). Data collection and analysis were approved by the ethics committee of the Department of Public Health of the University of Helsinki.

Questionnaire Screening for Eating Disorders

The wave 4 questionnaire included a self-report screen for eating disorder symptoms that assessed current height and weight, ideal weight, minimum and maximum weight at current height, purging, and weight loss behaviors. Body image was assessed by use of three subscales of the Eating Disorder Inventory (20)—body dissatisfaction, drive for thinness, and bulimia. All screen-positive women (N=292), their screen-negative female co-twins (N=134), and 210 randomly selected screen-negative women were invited to participate in diagnostic telephone interviews. A total of 2,881 participants responded to the wave 4 questionnaire (response rate, 90.4%), and the mean age of respondents was 24.4 years (SD=0.9). Details of the screening process are provided elsewhere (21).

Diagnostic Interviews

Five experienced clinicians (four M.D.'s and one R.N. at the Eating Disorder Unit of Helsinki University Central Hospital) received detailed training in administering the short version of the Structured Clinical Interview for DSM-IV (SCID) (22). The interviews were conducted by telephone to obtain current and lifetime diagnoses of anorexia nervosa, bulimia nervosa, and binge eating disorder, to define the age of participants at the first and last manifestations of these illnesses, and to establish the temporal sequence of these diagnoses and their respective time courses. Interrater agreement for diagnosis was good (mean kappa=0.87, range=0.64–1.00) (21). Drs. Keski-Rahkonen and Sihvola supervised interviewers throughout the study and helped solve diagnostic problems, such as concerns about diagnostic threshold and differential diagnosis.

The interview participation rate was 85.2% overall (90.1% for screen-positive women, 76.2% for screen-negative female co-twins, and 84.8% for the random sample of screen-negative women). Only 12 individuals (1.9%) declined to be interviewed; the others who did not participate could not be reached because their current telephone numbers could not be obtained.

Definition of Disorder

Because the diagnostic criteria and the boundaries of anorexia nervosa have changed over time and remain contentious, we used two definitions of the disorder: DSM-IV anorexia nervosa and broad anorexia nervosa. Broad anorexia nervosa includes DSM-IV anorexia nervosa and ICD-10 atypical anorexia, here defined as anorexia nervosa without amenorrhea or weight loss of at least 15% that led to a body mass index (BMI) ≤19, coupled with undue influence of body weight on self-evaluation or intense fear of weight gain.

Many of the cases identified in this study were in subjects who reported that they had never received an eating disorder diagnosis from a health professional. We refer to these cases as undetected by the health care system, and we refer to all other cases as detected by the health care system, whether or not the individuals received treatment for their disorder.

Prevalent and Incident Cases

We defined lifetime prevalent cases of DSM-IV or broad anorexia nervosa to include all cases identified in this study, regardless of age at onset, age at interview, or recovery status. Lifetime prevalent cases of DSM-IV anorexia nervosa comprised 55 probands in 53 twin pairs (51 discordant and two concordant pairs; both concordant pairs were monozygotic); broad anorexia nervosa comprised 107 probands in 100 twin pairs (93 discordant and seven concordant pairs, of which six were monozygotic and one dizygotic).

We defined incident cases for the age interval from 15 to 19 years as those in which the first manifestation of anorexia nervosa occurred during that age interval as reported in the diagnostic interview. For 10 individuals who could not clearly recall their age at illness onset, age at minimum BMI was substituted.

Five-Year Clinical Recovery Rates

For each case of DSM-IV or broad anorexia nervosa, the interviewers determined the last age at which any eating disorder symptoms occurred. We defined clinical recovery as restoration of weight and menstruation and the absence of bingeing and purging for at least 1 year prior to assessment. The 5-year clinical recovery rate was defined as the proportion of women with anorexia nervosa who reached clinical recovery within 5 years after onset.

Outcomes After Clinical Recovery

The possible residua of illness after clinical recovery were measured in three domains. First, physical characteristics were measured by BMI. We calculated current BMI from self-reported weight and height; agreement between self-reported and measured BMI in the women from this birth cohort was 0.92 (23). Second, social characteristics were measured by occupation, education, parity, and marriage or cohabitation. Third, psychological characteristics were measured by eight scales with well-established psychometric properties: four scales of the Eating Disorder Inventory (drive for thinness, bulimia, body dissatisfaction, and perfectionism) (20); the state anxiety and trait anxiety subscales from the Spielberger State-Trait Anxiety Inventory (24); the Rosenberg Self-Esteem Scale (25); and the Psychosomatic Symptom Scale (26).

TABLE 1. Clinical Characteristics and Psychosocial Outcome Measures of Currently Ill and Recovered (>5 years) DSM-IV Anorexia Probands, Their Unaffected Co-Twins, and Healthy Comparison Women

	Probands				Unaffected Comparison Women			
	Currently Ill (N=16)		Recovered >5 Years (N=24)		Co-Twins (N=24)		Healthy Women (N=134)	
Measure	Mean	95% CI	Mean	95% CI	Mean	95% CI	Mean	95% CI
Age at onset of eating disorder	17.3	15.3–19.3	15.0	14.2–15.9				
Age at interview	25.0	24.3–25.7	25.2	24.7–25.8	25.7	24.9–26.4	26.6	26.2–26.9
Minimum body mass index	15.9	15.0–16.7	15.6	14.5–16.6	19.2	18.5–20.0	19.7	19.2–20.1
Current body mass index	19.9	18.5–21.3	22.1	21.1–23.0	21.7	20.7–22.7	22.3	21.6–23.0
Eating Disorder Inventory								
Drive for thinness subscale	28.5	24.8–32.3	22.7	19.1–26.2	17.8	15.6–20.0	17.2	16.0–18.5
Body dissatisfaction subscale	32.3	29.0–35.6	29.8	25.9–33.7	25.9	23.3–28.4	23.1	21.3–25.0
Bulimia subscale	18.9	15.1–22.8	13.9	12.1–15.7	11.0	9.5–12.4	10.6	10.1–11.1
Perfectionism subscale	20.9	16.7–25.0	15.4	13.6–17.1	15.3	13.7–17.0	15.0	14.2–15.9
State-Trait Anxiety Inventory								
Trait anxiety	51.1	47.6–54.7	41.5	38.0–45.0	39.0	35.9–42.1	37.9	36.7–39.2
State anxiety	45.5	40.5–50.5	34.9	30.6–39.1	35.9	31.3–40.4	33.2	31.6–34.8
Psychosomatic Symptom Scale	5.4	4.0–6.8	5.4	4.1–6.6	5.0	4.0–6.1	4.7	4.2–5.2
Rosenberg Self-Esteem Scale	14.6	11.8–17.3	22.9	20.2–25.6	23.1	21.3–25.0	22.5	21.7–23.6

In the evaluation of outcomes after clinical recovery, we compared probands with DSM-IV and broad anorexia nervosa with their unaffected female co-twins. "Unaffected" was defined as screening negative for eating disorder symptoms in the wave 4 questionnaire (21) and not having a lifetime diagnosis of DSM-IV anorexia nervosa, bulimia nervosa, binge eating disorder, or eating disorder not otherwise specified in the SCID interview. Of the 93 co-twins in pairs discordant for broad anorexia nervosa, seven women had lifetime eating disorders, 13 were female co-twins who did not participate in the interview, and 26 were male co-twins from opposite-sex dizygotic twin pairs. After these individuals were excluded, 47 unaffected female co-twins remained.

Although unaffected co-twins are in many respects an ideal comparison group, they may differ from women in the general population. In order to detect any such differences that might be relevant to our conclusions, we drew a random sample of 105 female-female twin pairs (210 women) from the screen-negative women in these birth cohorts. Those who were also negative for all eating disorders in the SCID interview were termed "healthy women" (N=134).

Statistical Analysis

Lifetime prevalences of DSM-IV and of broad anorexia nervosa were calculated by dividing the number of lifetime prevalent cases by the total number of women who responded to the eating disorder screen material in the wave 4 questionnaire (N=2,545).

We computed the incidence rates of DSM-IV and of broad anorexia nervosa for the peak 5-year interval of risk (ages 15–19 years), as has been done in previous studies (5). For later age groups, the data would be less reliable because of the small number of cases and varying ages at assessment. The numerator was the number of incident cases detected in the given age interval, and the denominator was the number of person-years at risk.

We used the Kaplan-Meier survival method to compute 5-year clinical recovery rates for DSM-IV and broad anorexia nervosa, and we used the log-rank test to compare survival curves across groups.

Psychological outcomes after clinical recovery were analyzed in two ways. To examine trends toward full recovery, we calculated mean psychological outcome scores for women with DSM-IV anorexia nervosa who were currently ill, those who had been in clinical recovery for >5 years, and the two comparison groups (unaffected co-twins and healthy women). These results do not account for age at illness onset and illness duration. Next, to examine the trends toward full recovery after clinical recovery and to assess their statistical significance while also accounting for age at illness onset and illness duration, we designed a model that compared the probands and their unaffected co-twins as a function of time on the eight psychological outcome scales. We predicted each outcome variable using a random intercept linear regression model and the following predictors: disorder status (we used only broad anorexia nervosa because of power constraints), age at illness onset, illness duration, time from recovery to interview for the proband (with linear and quadratic terms), and the same time variables for the co-twin. The random intercepts were included to account for dependence between twins. Age at onset, illness duration, and the time-dependent predictors for the unaffected co-twins were found not to be significant and were dropped from the final model.

For comparisons of physical and social characteristics between cases and comparison groups, we used analysis of variance for continuous outcome measures and logistic regression for categorical outcome measures. To account for clustered sampling within the twin pair, p values and confidence intervals in all analyses were adjusted using standard procedures for survey data (27). We used the statistical software Stata 9.2 (Stata Corp, College Station, Tex.) for all analyses.

Results

Prevalence and Incidence

The lifetime prevalence was 2.2% (95% confidence interval [CI]=1.6–2.7) for DSM-IV anorexia nervosa (55 cases out of 2,545 women) and 4.2% (95% CI=3.4–5.0) for broad anorexia nervosa (107 cases out of 2,545 women). The incidence of DSM-IV anorexia nervosa for ages 15–19 years was 270 per 100,000 person-years (95% CI=180–360), and the incidence of broad anorexia nervosa was 490 per 100,000 person-years (95% CI=370–610).

Five-Year Clinical Recovery Rate

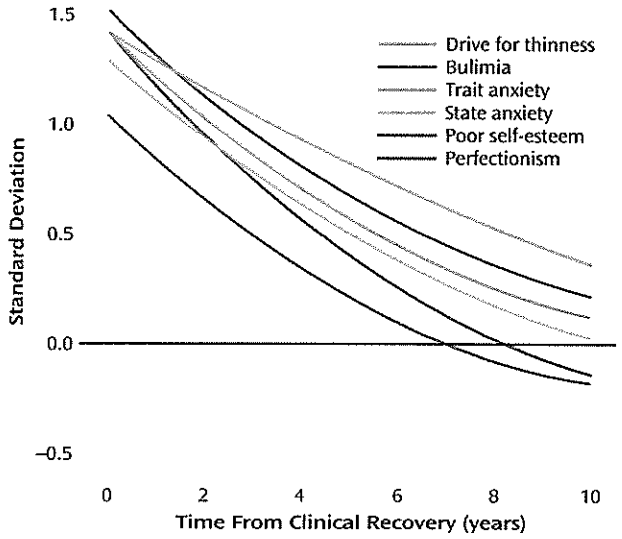
The 5-year clinical recovery rates were 66.8% and 69.1% for DSM-IV and broad anorexia nervosa, respectively (Figure 1). Overall, 70.9% women with DSM-IV anorexia nervosa and 76.6% with broad anorexia nervosa had reached clinical recovery by the time of the interview.

TABLE 2. Clinical Characteristics and Psychosocial Outcome Measures of Women With Detected and Undetected Broad Anorexia Nervosa[a]

	Currently Ill (N=23)				Recovered ≤5 Years (N=29)			
	Detected (N=11)		Undetected (N=12)		Detected (N=12)		Undetected (N=17)	
Measure	Mean	95% CI	Mean	95% CI	Mean	95% CI	Mean	95% CI
Age at onset of eating disorder	16.6	14.2–19.1	18.7	16.6–20.5	18.3	16.6–19.9	19.0	17.4–20.6
Age at interview	25.6	24.5–26.6	24.6	23.8–25.5	25.3	24.5–26.2	25.2	24.6–25.7
Minimum body mass index	15.9	15.0–16.9	17.2	16.2–18.3	16.3	15.1–17.6	16.5	15.9–17.2
Current body mass index	20.1	18.9–21.3	21.9	19.7–24.0	22.6	19.7–25.5	20.2	19.1–21.4
Eating Disorder Inventory								
Drive for thinness subscale	30.8	25.5–36.1	30.3	26.3–34.2	27.1	21.3–32.8	26.5	22.0–31.0
Body dissatisfaction subscale	33.2	29.1–37.3	33.7	29.4–38.1	34.3	28.4–40.2	32.4	27.0–37.8
Bulimia subscale	22.2	17.2–27.2	19.1	14.9–23.3	18.5	14.5–22.6	18.2	13.9–22.4
Perfectionism subscale	20.4	15.3–25.4	23.8	20.2–27.5	19.5	14.8–24.1	19.2	15.5–22.9
State-Trait Anxiety Inventory								
Trait anxiety	52.5	48.3–56.8	54.3	48.9–59.6	46.8	40.1–53.4	44.8	39.9–49.6
State anxiety	47.6	40.4–54.8	51.8	43.9–59.6	40.9	31.9–49.9	39.2	32.4–46.0
Psychosomatic Symptom Scale	6.9	4.3–9.5	7.4	5.3–9.6	6.9	5.0–8.7	7.3	5.8–8.8
Rosenberg Self-Esteem Scale	13.2	9.9–16.5	15.2	11.5–18.9	16.2	12.4–19.9	17.7	15.0–20.4

[a] Broad anorexia nervosa includes DSM-IV anorexia nervosa and ICD-10 atypical anorexia, here defined as anorexia nervosa without amenorrhea or weight loss of at least 15% that led to a BMI ≤19, coupled with undue influence of body weight on self-evaluation or intense fear of weight gain. Detected cases are those in which the individual reported having received an eating disorder diagnosis from a health professional prior to this study; undetected cases are those that did not receive such a diagnosis. Diagnostic status prior to this study was unknown for 14 women. The means were not adjusted for age of illness onset or illness duration.

FIGURE 2. Time-Dependent Psychological Outcomes of Broad Anorexia Nervosa Probands in Clinical Recovery Compared With Their Unaffected Co-Twins[a]



[a] State and trait anxiety are from the State-Trait Anxiety Inventory, poor self-esteem is from the Rosenberg Self-Esteem Scale, and the other three measures are subscales of the Eating Disorder Inventory. These outcome measures were standardized: for each one, the curved lines represent broad anorexia nervosa probands, and the line at SD=0 represents the level of unaffected co-twins. Age at illness onset and illness duration were not statistically significantly associated with psychological outcomes after clinical recovery.

Outcomes After Clinical Recovery

The mean current BMI of DSM-IV anorexia probands in clinical recovery (mean BMI=21.7, SD=3.0, 95% CI=21.0–22.4) did not significantly differ from that of their unaffected co-twins (mean BMI=21.8, SD=2.7, 95% CI=21.0–22.6).

Over time in clinical recovery, the mean psychological outcome scores of DSM-IV anorexia nervosa probands generally improved (Table 1). Using the broad definition of anorexia nervosa to maximize statistical power, we formally tested these observed trends. The null hypothesis was that outcomes of probands and co-twins do not converge, that is, that probands remain more symptomatic than their co-twins. We could reject the null hypothesis for six of the eight outcome measures: drive for thinness ($z=-2.30$, $p=0.021$), bulimia ($z=-3.23$, $p<0.001$), perfectionism ($z=-3.01$, $p=0.003$), state anxiety ($z=-2.49$, $p=0.013$), trait anxiety ($z=-2.53$, $p=0.011$), and self-esteem ($z=4.02$, $p<0.0001$). For the other two measures, there was no detectable convergence of proband and co-twin outcomes (body dissatisfaction, $z=-1.35$, $p=0.18$; psychosomatic symptoms, $z=-1.42$, $p=0.16$). In other words, we found that the residua of illness receded steadily and statistically significantly over time for six of the eight psychological outcome measures, converging over time with their healthy co-twins' outcomes (Figure 2).

Neither the women who were currently ill with broad anorexia nervosa nor the probands who were in clinical recovery differed from their unaffected co-twins on education, occupation, or parity. The currently ill probands did differ from their unaffected co-twins in the proportion married or cohabiting with a partner (26.9% versus 53.1%, $p=0.04$); the probands in clinical recovery showed a smaller and statistically nonsignificant difference from their unaffected co-twins on this measure (43.9% versus 52.1%).

Detected Versus Undetected Cases

Approximately half of the cases ascertained in this study had been detected in the health care system. Detected cases constituted 53% (29 of 55) of all DSM-IV anorexia nervosa cases and 41% (44 of 107) of all broad anorexia

Recovered >5 Years (N=41)			
Detected (N=21)		Undetected (N=20)	
Mean	95% CI	Mean	95% CI
15.2	14.1–16.3	16.1	15.6–16.5
25.2	24.6–25.7	25.9	25.0–26.7
15.8	14.9–16.7	17.1	16.7–17.6
21.5	20.4–22.7	21.5	20.6–22.4
22.0	17.8–26.2	24.1	20.1–28.0
26.3	22.0–30.6	29.2	25.3–33.0
13.6	11.5–15.7	13.0	10.8–15.2
17.0	15.4–18.7	14.8	12.8–16.7
41.8	39.1–44.4	42.5	37.4–47.7
35.3	31.8–38.9	36.4	30.5–42.2
5.9	4.5–7.2	5.8	4.4–7.2
22.1	19.9–24.4	22.3	18.7–25.9

nervosa cases. The 5-year clinical recovery rates were similar for the detected and undetected cases: 61.8% versus 68.4%, respectively, for DSM-IV anorexia nervosa, and 60.1% versus 69.5%, for broad anorexia nervosa.

For broad anorexia nervosa, we had a sufficient number of cases to compare the detected and undetected cases on numerous measures, including age at onset, minimum BMI, and psychological symptoms (Table 2). There were few differences between the detected and undetected cases, none statistically significant.

Unaffected Co-Twins Versus Healthy Women

The unaffected co-twins of broad anorexia nervosa probands were also compared with the healthy women from the same birth cohorts (Table 2), and the differences were neither statistically nor clinically significant. The frequency of marriage or cohabitation was similar in unaffected co-twins (52.1%) and healthy women (50.0%).

Discussion

In this population cohort of young women, there were three main findings. First, the incidence rate of anorexia nervosa was about twice as high as rates reported in prior studies. Second, the great majority of women who developed anorexia nervosa achieved clinical recovery within 5 years. Third, 5 years after clinical recovery, most women reached complete or nearly complete psychological recovery, closely resembling their unaffected co-twins and healthy women in weight and psychosocial measures.

Incidence Rates

The incidence rate of DSM-IV anorexia nervosa at ages 15–19 years was 270 per 100,000 person-years in this study, compared with previous reports of 136 per 100,000 person-years in the United States (4) and 109 per 100,000 person-years in the Netherlands (11). We propose five competing explanations for the high incidence rate: first, that anorexia nervosa was underascertained in prior studies, most of which were restricted to cases detected in the health care system; second, that anorexia nervosa was overascertained in this study; third, that anorexia nervosa is more common among twin than nontwin individuals because of unknown twin-specific exposures not shared by the general population; fourth, that the incidence rate of anorexia nervosa in Finland may be higher than in other countries; and fifth, that high incidence rates of anorexia nervosa were observed because of a cohort effect.

The first explanation predicts that our results should be similar to those of prior studies when we compute our incidence rates only on the basis of cases detected in the health care system. This prediction was borne out: the incidence of DSM-IV anorexia nervosa, based only on the detected cases, was 140 per 100,000 person-years at ages 15–19 years, which is similar to the figures cited above from the United States and the Netherlands. Also, our lifetime prevalences are well in line with earlier community-based observations from the United States (28) and Australia (29).

The second explanation predicts that noncases misclassified as cases of anorexia nervosa (undetected cases) should have a less severe and clear-cut illness than true (detected) cases. This prediction was not borne out: the undetected and the detected cases exhibited similar psychopathology and recovery rates.

The third explanation predicts that anorexia is more common among twin than nontwin individuals. However, previous research has found that rates of psychiatric disorders in twin and nontwin populations are comparable (30). In this study, we found no differences in the diagnostic distribution and outcomes of broad anorexia nervosa by zygosity, and most cases were from discordant twin pairs. We also observed no appreciable differences in marriage and cohabitation frequency, body dissatisfaction, or psychosomatic symptoms between monozygotic and dizygotic healthy women (data available from first author).

Our data thus suggest that the incidence of anorexia nervosa has been substantially underestimated in previous studies, because a large proportion of true cases of anorexia nervosa remain undetected (5, 18), even in countries with highly developed and universal health care systems, such as Finland. More research on the patterns of help-seeking behavior in women with anorexia nervosa is warranted.

The other two possible explanations cannot be directly tested by our study. The first is that the incidence rate of anorexia nervosa in Finland may be higher than in other countries. However, several recent studies have found lifetime prevalences of anorexia nervosa comparable to ours, although they did not assess incidences of anorexia nervosa (4, 28, 29). The second is that the high incidences of anorexia nervosa we detected may in part reflect a secular

trend that is specific to recent birth cohorts. Bulik et al. (4) recently demonstrated that the prevalence of anorexia nervosa is greater among Swedes born after 1945 than among those born earlier. The incidence of anorexia nervosa also has risen linearly in the United States and in the Netherlands in recent past decades (9–11).

Clinical Recovery Rates

The 5-year clinical recovery rate of anorexia nervosa in our study was higher than rates reported by most, though not all, previous studies. A recent review of 119 clinical outcome studies found that 47% of participants with anorexia nervosa reached clinical recovery (14). Recovery rates increased significantly with follow-up time. In studies that recorded 5- or 6-year recovery rates from anorexia nervosa, the proportion achieving clinical recovery ranged from 35% to 80% of participants; the use of different definitions of clinical recovery probably contributed to the variability of the recovery rates (31–36). In this study, more than two-thirds of the women with DSM-IV anorexia nervosa achieved clinical recovery within 5 years. Despite this, the burden of illness was considerable: in almost two-thirds of the cases, the illness duration was ≥2 years, and in half, it was ≥3 years.

Outcomes After Recovery

Rather than simply relying on our evaluation of clinical recovery, we were able to compare broad anorexia probands with their unaffected co-twins and healthy women on multiple measures. Probands with broad anorexia nervosa in clinical recovery could not be distinguished from their unaffected co-twins and healthy women in self-reported BMI, nor on measures of social function. They still differed from their unaffected co-twins on eight measures designed to capture psychological characteristics. Over time, however, these residua of illness receded. On six of the eight measures, the probands progressed to full recovery. The pattern was less clear for the other two measures of psychological characteristics: body dissatisfaction and psychosomatic symptoms appeared to be more persistent in the probands. Future follow-up waves will establish whether these differences diminish over time.

Limitations

Selection bias due to differential participation of cases and noncases of anorexia nervosa in the telephone interviews is possible but likely minimal. Telephone numbers were obtained by letters sent to addresses updated from the Finnish population registry (response rate, 90.4%). The telephone interview participation rate of women with self-reported eating disorders was 90.1%, while that of healthy women was 84.8%.

The impact of treatment on outcome could not be directly assessed in this study. We found that the detection of broad anorexia nervosa by the health care system had no association with prognosis in this study. This result does not, however, demonstrate that treatment had no effect, because case detection does not necessarily imply treatment (or proper treatment).

We did not assess mortality, because the number of cases was small and the follow-up did not extend beyond ages 22–28 years. Previous studies have shown that the risk of mortality increases as a function of illness duration (16). Only a third of women with broad anorexia nervosa (N=38) in our study had eating disorder symptoms for more than 5 years, and only 8.4% (N=19) had them for more than 10 years. Thus, estimates of anorexia nervosa-related mortality in this birth cohort will be more meaningful when linkage with mortality and cause-of-death registries is conducted. It is worth noting, nonetheless, that the overall mortality in this cohort was very low; only eight deaths were recorded in the population registry between the first assessment wave at age 16 and the fourth wave at ages 22–28. In the worst-case scenario, if all the deaths in the cohort were due to anorexia nervosa, the crude mortality rate of 0.3% per decade would be markedly lower than those recorded in follow-up studies of anorexia nervosa in clinical settings (37, 15–17), although they would be in line with community-based and national registry-based observations (38–40).

Conclusion

In this population study, the incidences of DSM-IV and broad anorexia nervosa were much higher than rates reported previously. The 5-year clinical recovery rates were higher than those reported in most previous studies. Nonetheless, the burden of illness was remarkable. After clinical recovery, the residua of illness steadily receded: women closely resembled their unaffected co-twins on most measures after 5 years in clinical recovery, which demonstrates that full psychological recovery is both possible and likely.

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All authors report no competing interests.

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Exhibit 9

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Are Eating Disorders Culture-Bound Syndromes? Implications for Conceptualizing Their Etiology

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The authors explore the extent to which eating disorders, specifically anorexia nervosa (AN) and bulimia nervosa (BN), represent culture-bound syndromes and discuss implications for conceptualizing the role genes play in their etiology. The examination is divided into 3 sections: a quantitative meta-analysis of changes in incidence rates since the formal recognition of AN and BN, a qualitative summary of historical evidence of eating disorders before their formal recognition, and an evaluation of the presence of these disorders in non-Western cultures. Findings suggest that BN is a culture-bound syndrome and AN is not. Thus, heritability estimates for BN may show greater variability cross-culturally than heritability estimates for AN, and the genetic bases of these disorders may be associated with differential pathoplasticity.

The influence of culture on the development of eating disorders such as anorexia nervosa (AN) and bulimia nervosa (BN) has been long appreciated. These syndromes are more prevalent in industrialized and often Western cultures and are far more common among females than males, mirroring cross-cultural differences in the importance of thinness for women (Miller & Pumariega, 2001; Pate, Pumariega, Hester, & Garner, 1992). Furthermore, eating disorders seem to have become more common among younger females during the latter half of the twentieth century, during a period when icons of American beauty (Miss America contestants and *Playboy* centerfolds) have become thinner and women's magazines have published significantly more articles on methods for weight loss (Garner, Garfinkel, Schwartz, & Thompson, 1980; Owen & Laurel-Seller, 2000; Rubinstein & Caballero, 2000; Wiseman, Gray, Mosimann, & Ahrens, 1992). Patients with eating disorders often describe intense preoccupation with weight and dieting as the first stages of their illness, and the American Psychiatric Association's (2000) diagnostic criteria for AN and BN require body image disturbance. The cognitive–behavioral theory of eating disorders places weight concerns and dieting at the center of their etiology (Fairburn, Cooper, & Shafran, 2002). These patterns indict current cultural beauty ideals in the etiology and maintenance of eating disorders.

Yet, a recent trend in eating disorders research has been to focus on their genetic bases and deemphasize the role of culture (cf. DeAngelis, 2002). Briefly, data from community-based twin studies have suggested that the heritability of eating disorders is greater than 50% (Bulik, Sullivan, & Kendler, 1998; Bulik, Sullivan, Wade, & Kendler, 2000; Kendler et al., 1991, 1995; Klump, Miller, Keel, McGue, & Iacono, 2001; Kortegaard, Hoerder, Joergensen, Gillberg, & Kyvik, 2001; Wade, Bulik, Neale, & Kendler, 2000), and several recent reports have emerged indicating specific genetic loci for susceptibility to eating disorders (Grice et al., 2002; Koronyo-Hamaoui et al., 2002; Ricca et al., 2002; Westberg et al., 2002). Indeed, one eating disorders researcher has equated the shift from psychosocial to biological theories of etiology in eating disorders to the shift that occurred within schizophrenia research (DeAngelis, 2002). However, unlike schizophrenia, eating disorders have been characterized as culture-bound syndromes.

Prince (1985) defined a culture-bound syndrome as "a collection of signs and symptoms (excluding notions of cause) which is restricted to a limited number of cultures primarily by reason of certain of their psychosocial features" (p. 201). With this definition, he proposed that AN might represent a culture-bound syndrome. However, he cautioned that "the decision hinges on the empirical question of whether or not the syndrome occurs in non-Western cultures or segments of them which are not markedly influenced by Western cultures" (Prince, 1985, p. 201). In contrast, Swartz (1985) argued that evidence of AN in non-Western cultures would not decrease the extent to which it represents a culture-bound syndrome because AN cannot be understood separated from its cultural context:

> The identical symptoms now may mean different things from what they may have meant in the late 19th century when the disorder was first documented in the form we now recognize. This implies that it may be valid to relate symptoms now occurring to social factors which may not have existed in the same form years ago. (p. 727)

Thus, the same disorder could be attributed to different social factors (the aspect of the syndrome that is culture bound) despite having existed in different cultural contexts. Swartz's distinction between disorder and culturally embedded syndrome resembles

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Kleinman's (1987) distinction between disease and illness. According to Kleinman, *disease* represents the biological entity for which the pathophysiology is known, and *illness* represents the culturally shaped manifestation of the disease.

Because research into the genetic diathesis of eating disorders represents a search for their underlying disease, this search would benefit from an examination of whether or not core features of these syndromes exist outside of modern Western influences. We begin by evaluating whether rates of eating disorders have increased significantly over recent decades because evidence of a secular increase has been used as the cornerstone of arguments that they are caused by the recent emphasis on thinness (Garner et al., 1980; Russell, 1985). However, this evidence has been challenged by several investigators (Fombonne, 1995, 1996; Lucas, 1992; Pawluck & Gorey, 1998; Van't Hof & Nicolson, 1996), sparking considerable debate on this point. We then examine the cross-historical and cross-cultural evidence for eating disorders. The purpose of this article is to explore the extent to which eating disorders, specifically AN and BN, represent culture-bound syndromes and to discuss the implications of these findings for understanding the role genes play in their etiology.

Method

In order to examine the extent to which eating disorders are represented outside of their current sociohistorical context, this review was subdivided into three sections: epidemiology since the recognition of the modern syndromes, historical evidence of the syndromes prior to their formal recognition, and cross-cultural evidence of the syndromes.

Meta-analyses were conducted to investigate whether AN and BN have become more common during the twentieth century by examining secular trends in incidence rates (newly identified cases per 100,000 population per year) according to the methods described in Rosenthal and Rosnow (1991). Specific details of this method are described within the *Epidemiology of AN in the Twentieth Century* section in the *Data coding* subsection. As noted by Hoek (1993; Hoek, Van Hoeken, & Katzman, 2003), epidemiological studies of AN tend to use incidence, and epidemiological studies of BN tend to use prevalence (percentage of individuals who currently [point] or have ever [lifetime] met criteria for a disorder regardless of when the disorder first emerged). Because incidence rates track when cases are first identified, only incidence rates are considered in the meta-analyses. Both the cross-historical and cross-cultural sections represent a qualitative review, as they necessarily relied more on specific case histories for sufficient detail to evaluate the presence of eating disorders.

We restricted our review to published works. Benefits of this approach include the increased scientific rigor of published (particularly peer-reviewed) work compared with unpublished work and permanent availability of published work within the public domain for independent evaluation by others. Because restriction to published articles has the potential to be biased by the "file-drawer phenomenon" (Rosenthal & Rosnow, 1991), we have included information concerning the number of studies with nonsignificant results that would alter meta-analytic findings and interpretations within the *Epidemiology of AN in the Twentieth Century* and *Epidemiology of BN in the Twentieth Century* sections.

Definitions

We sought information for the diagnostic entities of AN and BN as they are conceptualized in the *Diagnostic and Statistical Manual of Mental Disorders* (4th ed.; *DSM–IV*; American Psychiatric Association, 1994; 4th ed., text rev.; *DSM–IV–TR*; American Psychiatric Association, 2000). We did not attempt to limit our review to cases meeting full *DSM–IV* criteria for AN and BN. Rather the *DSM–IV* was used to define boundaries that separate these as distinct syndromes. Although a great deal of recent attention has been paid to binge-eating disorder in the literature, less emphasis has been placed on the role of culture in the etiology of this proposed syndrome, and significant findings on its genetic bases remain limited (Burnet, Smith, Cowen, Fairburn, & Harrison, 1999; Branson et al., 2003; Ricca et al., 2002). We therefore restricted our review to AN and BN.

Using the *DSM–IV* conceptualization of AN and BN to organize our search introduces a sociohistorical bias. Thus, a brief discussion of both our rationale and our attempts to recognize these biases is warranted. The first issue concerns the overlap of AN and BN. In the *Diagnostic and Statistical Manual of Mental Disorders* (3rd ed.; *DSM–III*; American Psychiatric Association, 1980), a diagnosis of AN trumped a diagnosis of bulimia. In the *Diagnostic and Statistical Manual of Mental Disorders* (3rd ed., rev.; *DSM–III–R*; American Psychiatric Association, 1987), both diagnoses could be given concurrently. In the *DSM–IV*, a diagnosis of AN again trumps a diagnosis of BN. Based on data concerning age of onset, naturalistic course, treatment response, and mortality, the *DSM–IV* conceptualization has considerable empirical support (Keel & Mitchell, 1997; Keel, 2003). Moreover, women with concurrent symptoms of AN and BN do not differ from women with the restricting subtype of AN, and all women with AN differ significantly from women with BN alone on naturalistic course, treatment response, and mortality (Herzog et al., 1999; Keel et al., 2003). The second issue concerns the combination of binge eating with inappropriate compensatory behavior in defining BN. In the *DSM–III*, inappropriate compensatory behavior in the form of self-induced vomiting was included as a possible, but not necessary, feature of bulimia. Subsequent work comparing individuals with binge eating alone versus binge eating and inappropriate compensatory behavior, most often purging, shows significant differences in gender ratios, etiologic factors, clinical correlates, and course (Halmi, 2003; Keel, 2003). Moreover, the *DSM–IV* definition of BN has demonstrated predictive validity in being distinguished from both AN and binge-eating disorder (Keel, Mitchell, Miller, Davis, & Crow, 2000). Despite evidence supporting the validity of the *DSM–IV* conceptualizations of AN and BN, there remain several definitional shortcomings. The impact of these shortcomings on evidence of these disorders outside of their current sociohistorical context is considered and discussed throughout the review. Particular attention is given to the cognitive features of body image disturbance that define these disorders.

One aspect of this review that became challenging was the need to define the construct of a "non-Western" culture. In reading other reviews, it became clear that what was considered non-Western varied considerably. Indeed, the *Cassell Dictionary of Modern Politics* (East & Joseph, 1994) describes *the West* as "a misleading term in a variety of usages" (p. 319). For the purposes of this article, we selected the definition for *non-Western* used by Karan (in press):

> The area whose cultures developed essentially apart from the Greco–Judaic–Christian tradition of the Western culture. Thus, it includes East Asia (China, Japan, and Korea), Southeast Asia, the Indian subcontinent, the Middle East, and Sub-Saharan Africa. Latin America, Russian Asia, and Oceania are excluded. The indigenous cultures of Latin America and Oceania are not western, but they are also not non-Western . . . the contemporary cultural pattern in Latin America and Oceania, unlike the non-Western cultures of Asia and Africa, is based dominantly on western traditions and values. (p. 1)

Although clear cultural differences exist among countries such as Bulgaria, Portugal, and the United States and may seem greater than cultural differences among Hong Kong, Japan, and the United States, Karan's (in press) definition of *non-Western* is influenced less by recent political and economic changes that essentially coincide with the recognition of eating disorders within Western cultures. Further, this definition acknowledges aspects of culture that are derived from historically unique evolutions of civilization.

Literature Search

Literature reviews were conducted using computer databases (PsycINFO, 1887–June 2002; MEDLINE, 1966–June 2002; RLG's Eureka Anthropological Literature, 1900–June 2002; and ABC-CLIO Historical Abstracts, 1954–June 2002) and hand searches of the reference sections of all articles, books, and book chapters retrieved by computer and hand search. The following search terms were used: *eating disorder, anorexia nervosa, bulimia, epidemiology, incidence, prevalence, history, culture, cross-cultural,* and the names of every nation and continent in the world with the explode option to detect relevant permutations of terms. For the historical search, the terms *binge, purge, vomit,* and *starvation* were also included using the explode option. Pamela K. Keel reviewed references for the epidemiology and cross-historical sections. Titles and abstracts retrieved for non-Western nations (n " 1,190) were evaluated by Kelly L. Klump for potential relevance, and articles were obtained to determine whether cases of AN or BN were reported in non-Western nations. Although several articles provided evidence of elevated levels of disordered eating behaviors and attitudes in non-Western cultures as assessed by standardized questionnaires (Al-Subaie, 2000; Al-Subaie et al., 1996; Hooper & Garner, 1986; A. M. Lee & Lee, 1996; S. Lee, 1993; S. Lee & Lee, 2000; S. Lee, Lee, & Leung, 1998; S. Lee, Lee, Leung, & Yu, 1997; S. Lee, Leung, Lee, Yu, & Leung, 1996), we sought specific instances of clinical eating disorders in these regions. Because we were specifically interested in evidence of eating disorders outside of our current sociohistorical context, an attempt was made to include information from articles regardless of language. Thus, some information is from English translations of work originally published in another language and abstracts written in English for articles written in non-English languages, as well as reviews of these non-English works by other authors. Much of the historical information prior to the mid-seventeenth century was collected through secondary sources because English translations were unavailable for many original sources. Although this section of the review is vulnerable to the interpretations of the secondary source, many of the cases were reviewed by multiple authors with differing theses, thus allowing a reasonably comprehensive presentation.

Anorexia Nervosa

According to the *DSM–IV–TR*, AN is defined by the following diagnostic criteria:

> A. Refusal to maintain body weight at or above a minimally normal weight for age and height (e.g., weight loss leading to maintenance of body weight less than 85% of that expected; or failure to make expected weight gain during period of growth, leading to body weight less than 85% of that expected).
>
> B. Intense fear of gaining weight or becoming fat, even though underweight.
>
> C. Disturbance in the way in which one's body weight or shape is experienced, undue influence of body weight or shape on self-evaluation, or denial of the seriousness of the current low body weight.
>
> D. In postmenarcheal females, amenorrhea, i.e., the absence of at least three consecutive menstrual cycles. (A woman is considered to have amenorrhea if her periods occur only following hormone, e.g., estrogen, administration.) (American Psychiatric Association, 2000, p. 589)

Attempts to characterize the presence of AN across time or across cultures have been marked by debates concerning the core features of the disorder. Although there is universal agreement that AN represents a disorder marked by starvation, some (Banks, 1992, 1997; Katzman & Lee, 1997; S. Lee, 1995; Palmer, 1993) have argued that weight phobia (Criterion B) represents an aspect of the culturally bound illness that is not necessarily related to the disease that underlies AN. Others (Beumont, 1988; Habermas, 1989) have argued that weight phobia is a necessary motivating force behind food refusal to distinguish AN from "other social (deprivation), physical or psychiatric causes of undernutrition" (Beumont, 1988, p. 171). Similarly, there have been debates over whether or not amenorrhea (Criterion D) should be retained as a diagnostic criterion or viewed as a consequence of malnutrition (Cachelin & Maher, 1998). Because the definition of AN continues to be contested, we included studies using various definitions of AN and noted how these definitions differed from that presented in the *DSM–IV–TR*.

Epidemiology of AN in the Twentieth Century

Table 1 provides reported incidence rates for AN from studies evaluating secular trends, organized by study cohort and presented in ascending order of year (r values and probability values were calculated by Pamela K. Keel as described below). Attempts to determine changes in incidence rates of AN have been plagued by the low base rate associated with the disorder and diagnostic uncertainty (Fombonne, 1995). Indeed, differences in diagnostic criteria have contributed to incidence rates differing more across studies than across time (see Table 1). Further, the definition of AN has changed over recent decades. Thus, studies relying solely on diagnoses recorded in case registers (e.g., Jones, Fox, Babigian, & Hutton, 1980; Kendell, Hall, Hailey, & Babigian, 1973; Møller-Madsen & Nystrup, 1992; Nielsen, 1990; Shinkwin & Standen, 2001; Williams & King, 1987) may be tracking decreasing stringency of diagnostic criteria for AN as well as secular trends for true incidence. To guard against this particular confound, several investigators (e.g., Eagles, Johnston, Hunter, Lobban, & Millar, 1995; Hall & Hay, 1991; Hoek et al., 1995; Joergensen 1992; Lucas, Beard, O'Fallon, & Kurland, 1988, 1991; Lucas, Crowson, O'Fallon, & Melton, 1999; Pagsberg & Wang, 1994; Szmukler, McCance, McCrone, & Hunter, 1986; Willi & Grossmann, 1983; Willi, Giacometti, & Limacher, 1990) have ensured application of uniform diagnostic criteria across years by directly evaluating medical records, interviewing clinicians and patients, or training clinicians to assess eating disorders.

Data coding. Across the epidemiological studies included in Table 1, 10 articles reported a statistically significant secular increase in AN incidence, 9 reported a failure to find a significant increase, and one reported a significant decrease. There was a clear relationship between study finding and inclusion of statistics required for meta-analyses. Only 2 studies (Lucas et al., 1988; Turnbull, Ward, Treasure, Jick, & Derby, 1996) that failed to find a significant secular increase provided specific data concerning either effect size or probability value. Thus, findings from 7 studies (Hall & Hay, 1991; Hoek et al., 1995; Joergensen, 1992; Nielsen, 1990; Szmukler et al., 1986; Willi et al., 1990; Williams & King, 1987) indicating at least one nonsignificant secular trend would be excluded from a meta-analysis of reported statistics. To avoid this bias, original data concerning annual incidence per 100,000 were recorded from each study from a combination of tables and figures. Tabulations of these raw data are available on request from Pamela K. Keel. For articles reporting annual incidence based on averaged data over a period of several years, this

Table 1
Anorexia Nervosa Incidence

Midpoint	Range	Location	Criteria	Reported incidence	*r*	*p*	Study
1945	1931–1960	Sweden	—	0.24	.948	.002	Theander (1970)
1962	1935–1979	Rochester, Minnesota	*DSM–III*, *DSM–III–R*	7.3[a]	.404	.109	Lucas et al. (1988)[b]
	1935–1984			8.2[a]			Lucas et al. (1991)[c]
	1985–1989			8.3[a]			Lucas et al. (1999)[c]
1968	1960–1969	New York	—	0.37	.501	.058	Kendell et al. (1973)[c]
	1960–1976			0.47			Jones et al. (1980)[c]
1968	1965–1971	London	—	0.66	.886	.004	Kendell et al. (1973)[c]
1970	1956–1975	Zurich, Switzerland	—	0.38–1.12	.822	.0005	Willi & Grossmann (1983)[c]
	1983–1985			1.43			Willi et al. (1990)[b]
1974	1966–1969	Scotland	Russell (1970)	1.6	.804	.000004	Kendell et al. (1973)[c]
	1965–1982			4.06			Szmukler et al. (1986)[b]
1977	1972–1981	England	—	—	.648	.0215	Williams & King (1987)[b]
1978	1965–1991	Northeast Scotland	ICD 8	—	.708	.00001	Eagles et al. (1995)[c]
1980	1970–1989	Bornholm County, Denmark	ICD 10	1.6–6.8	.815	.0925	Pagsberg & Wang (1994)[c]
1981	1977–1985	Ireland	ICD 8, ICD 9	4.18	# .935	.0001	Shinkwin & Standen (2001)[d]
1982	1970–1989	Denmark	ICD 8	0.42–1.17	.179	.087	Møller-Madsen & Nystrup (1992)[c]
	1973–1987			1.04			Nielsen (1990)[b]
	1970–1993			—			Munk-Jørgensen et al. (1995)[c]
1982	1977–1986	Fyn County, Denmark	*DSM–III–R*	11.0[e]	.004	.496	Joergensen (1992)[b]
1982	1977–1986	Wellington, New Zealand	*DSM–III*	5.0	# .230	.261	Hall & Hay (1991)[b]
1987	1985–1989	The Netherlands	*DSM–III–R*	8.1	.674	.212	Hoek et al. (1995)[b]
1989	1978–1992	Yamagata Prefecture, Japan	*DSM–III–R*	—	.805	.202	Nadaoka et al. (1996)
1991	1988–1993	England and Wales	*DSM–IV*	4.2[a]	.128	.405	Turnbull et al. (1996)[b]

Note. *DSM–III* " *Diagnostic and Statistical Manual of Mental Disorders* (3rd ed.); *DSM–III–R* " *Diagnostic and Statistical Manual of Mental Disorders* (3rd ed., rev.); ICD 8 " *International Classification of Diseases* (8th ed.); ICD 10 " *International Classification of Diseases* (10th ed.); ICD 9 " *International Classification of Diseases* (9th ed.); *DSM–IV* " *Diagnostic and Statistical Manual of Mental Disorders* (4th ed.).
[a] Age- and sex-adjusted incidence rate. [b] Reported no significant change. [c] Reported significant increase in incidence. [d] Reported significant decrease in incidence. [e] Incidence for females ages 10–24 years.

annual incidence was assigned to the year representing the midpoint of that period.

Pearson product–moment correlation coefficients were then calculated between incidence rates and years of observation within each cohort. These correlations along with their associated one-tailed probability values appear in Table 1. Cohorts rather than articles were selected as the unit of analysis because one article (Kendell et al., 1973) included three separate cohorts, two of which were followed later in subsequent articles (Jones et al., 1980; Szmukler et al., 1986). Similarly, continued follow-up has been reported in subsequent articles for two other cohorts (e.g., Hoek, 1991, Hoek et al., 1995; Lucas et al., 1988, 1991, 1999). Finally, incidences for overlapping periods have been reported for one cohort in three separate articles (Møller-Madsen & Nystrup, 1992; Munk-Jørgensen, Møller-Madsen, Nielsen, & Nystrup, 1995; Nielsen, 1990). Thus, conducting analyses by cohort rather than article ensured independence of observations.

One challenge in conducting the meta-analysis was variations across studies in how incidence was calculated. Williams and King (1987) demonstrated that the increased incidence for AN over time observed in their study was due to an increase in the proportion of the population comprising adolescent and young adult women. After age and sex were controlled for, no significant trend was found. Thus, age- and sex-adjusted incidence rates provide the best measure of secular trends, and studies were weighted according to their method of calculating incidence. A coefficient of 3 was given to studies that controlled for both sex and age. Studies controlling only for sex were given a coefficient of 2, and studies reporting incidence without controlling for age or sex were given a coefficient of 1. Because the significance of correlation values was influenced by the number of years of observation (which improves reliability of observed time trends) and not by the size of the population from which data were drawn, population size was used to weight values in the meta-analysis on the following scale: 1 " a population of 10,001 to 100,000; 2 " 100,001 to 1,000,000; and 3 " greater than 1,000,000. Thus, the meta-analysis favored findings from larger populations because they are less vulnerable to minor fluctuations in numbers of cases.

Results. Combining effect sizes across cohorts according to the equations presented in Rosenthal and Rosnow (1991) resulted in a medium effect for increased AN incidence across cohorts over time (r " .35). Combining probability values across cohorts according to the equations presented by Rosenthal and Rosnow indicated a significant increase in incidence over time (p " .00005, one-tailed). According to a formula presented in Rosenthal and Rosnow, approximately 205 nonsignificant studies would be required to alter the result of this meta-analysis.

Theander (1970) was the first author to publish evidence of increased incidence rates for AN; however, he noted many methodological reasons his findings might not reflect an increase in the true incidence of AN. These included "above all, increasing tendency to arrange medical care and hospitalisation for patients with anorexia nervosa" (Theander, 1970, p. 30). Of interest, during the period in which a significant increase in AN incidence was observed in Monroe County, New York (Jones et al., 1980; Kendell et al., 1973), a significant increase was observed for the number of

adolescents receiving psychiatric treatment in this region. Specifically, the incidence of AN rose from 0.35 to 0.64 per 100,000 population per year from 1960–1969 to 1970–1976 (Jones et al., 1980). Similarly, the incidence of children and adolescents using psychiatric services rose from 348 to 662 per 100,000 population per year from 1960 to 1976 (Roghmann, Babigian, Goldberg, & Zastowny, 1982). This suggests that cases of AN represented approximately 0.1% of children and adolescents receiving treatment from 1960 to 1976 with the apparent increase in AN incidence potentially reflecting the increase in adolescents being entered into the psychiatric case register. Supporting this possibility, Willi and Grossmann (1983) found that the percentage of those diagnosed with AN first hospitalized in psychiatry versus pediatrics or internal medicine increased steadily from 0% to 31.6% between 1956 and 1975. These authors attributed this trend to changes in how emaciation was interpreted in adolescent girls: "In the past, the cause of the disease was more frequently assumed to be organic (hypopituitarism), whereas in recent years, the diagnostic view of anorexia nervosa has changed from somatic to psychic causes" (Willi & Grossmann, 1983, p. 565). Secular increases in psychiatric contact for patients with AN have been reported by others (George, Weiss, Gwirtsman, & Blazer, 1987; Lucas et al., 1999). These patterns may explain why Szmukler et al. (1986) observed a secular increase in AN incidence ascertained through the Aberdeen Psychiatric Case Register in Scotland but observed no significant change in AN incidence ascertained through the general hospital register. Restricting our meta-analysis to just those investigations using general medical records indicates a small effect size (r " .25) that is statistically significant (p " .03) for an increase in AN incidence over the 20th century. Approximately 23 nonsignificant studies would be required to alter the results of this meta-analysis. Thus, a modest increase in AN incidence has coincided with increasing idealization of thinness (Garner et al., 1980; Owen & Laurel-Seller, 2000; Rubinstein & Caballero, 2000; Wiseman et al., 1992).

Introduction of AN to the medical nomenclature. Although popular and professional attention to AN has increased dramatically over recent decades (perhaps out of proportion with the actual increase in AN incidence), AN is not a "new" disorder that first appeared when Western culture emphasized the thin ideal. The term *anorexia nervosa* was first introduced in the medical literature by William Gull in 1874 to describe four cases of adolescent girls with deliberate weight loss, among whom three went on to achieve full weight recovery (Gull, 1874). Independent descriptions of a similar syndrome appeared under the labels *l'anorexie hysterique* (Laségue, 1873) and *anoressia* (Brugnoli, 1875, as cited in Habermas, 1992b; Ruggerio, Prandin, & Mantero, 2001) throughout Europe at that time. Similarly, at the end of the nineteenth century, American physicians were beginning to differentiate anorexia as a syndrome distinct from the larger category of hysteria (Vandereycken & Lowenkopf, 1990), and German physicians were differentiating AN from the larger category of neurasthenic disorders (Vandereycken, Habermas, Van Deth, & Meermann, 1991). A paper presented at a meeting of the South Australian Branch of the British Medical Association in 1882 documented two cases of anorexia in young women in Australia (Vandereycken & Beumont, 1990), and Kissyel reported a case of severe hysterical anorexia in an 11-year-old girl in Russia in 1894 (as cited in DiNicola, 1990b).

Both Gull (1868, 1874, 1888) and Laségue (1873) acknowledged the presence of several cases of anorexia prior to their providing the syndrome with a specific name. Laségue (1873) commented, "I wish to treat of a symptomatic complexus *too often observed* [italics added] to be a mere exceptional occurrence" (p. 265). Similarly, Gull (1888) stated his case was "an illustration of most of these cases" (p. 517) and in an earlier article referred to "young women emaciated to the last degree through hysteric apepsia" (Gull, 1868, p. 175). Thus, both the language used in these articles and the widespread attention and confirmation these works received from other physicians support that the condition was a familiar entity, although previously known by other names or viewed within a larger category of mental disorders.

The features of Gull's (1888) AN included significant weight loss, slow pulse rate, skin changes, and loss of menstruation with "perversions of the 'ego' being the cause and determining the course of the malady" (p. 517). Gull (1874) specifically noted the following: "The want of appetite is, I believe, due to a morbid mental state. I have not observed in these cases any gastric disorder to which the want of appetite could be referred" (p. 25). In a similar vein, Gull (1874) advised physicians to treat the illness with feeding despite the likely protests of the patient. Laségue (1873) viewed l'anorexie hysterique as a form of hysteria in which psychological distress was converted into food refusal motivated by "disgust" or "uneasiness after food, vague sensations of fullness, suffering, and gastralgia *post-prandium*" that "although hypothetical, is dreaded in advance" (p. 265). Laségue's description, based on eight cases, resembled present-day AN in that his patients were primarily women between the ages of 15 and 20 years. Both Gull's (1874) and Laségue's formulations of the syndrome focused on the food refusal itself; emaciation (Criterion A) and amenorrhea (Criterion D) were viewed as consequences of the syndrome. This resembles the current view of bradycardia and constipation as sequelae of AN rather than core features of the syndrome. Another distinction between the formulation of the illness by both Gull (1888) and Laségue versus present-day AN was the absence of mention of weight or shape concern.

Cross-Historical Evidence of AN

Historical cases of anorexia. Prior to the formal recognition of AN as a distinct syndrome, several reports in the medical literature suggest the presence of AN throughout the nineteenth century. Marce (1860) described a form of hypochondria in which "young girls, who at the period of puberty and after a precocious physical development, become subject to inappetency carried to the utmost limits" (p. 264). He noted that patients actively refused to eat in the absence of true gastric incapacity ("the stomach is well able to digest, and suffers only from want of food"; Marce, 1860, p. 265) and that the result is that "all trace of adipose tissue had disappeared, and the patients were reduced to skeletons" (p. 264). Marce emphasized that deliberate food refusal and resistance to treatment could lead to death in some cases; however, he also reported that patients could be cured if forcibly refed. From 1812 to 1917, W. L. L. Parry-Jones (1985) found evidence of 40 cases of AN among 36,000 hospital admissions in England, suggesting that 0.1% of psychiatric inpatients may have suffered from AN (similar to the rate reported from 1960 to 1976 in Monroe County, New York). Two cases were described in greater detail. One involved a young woman who was admitted to the Warneford

Asylum in 1831 who was emaciated from chronic food refusal. She was noted to be "delirious from debility rather than insane" (W. L. L. Parry-Jones, 1985, p. 97), and she died after 12 days from starvation. The second case involved a 26-year-old woman admitted in 1862 who was emaciated from food refusal. She was described as "sensible of all that is said to her" (W. L. L. Parry-Jones, 1985, p. 99), and she was ultimately discharged following a 7-month treatment of refeeding. In an 1840 text on women's diseases, Imbert characterized *anorexie nerveuse* by loss of appetite, refusal to eat, and emaciation (as cited in Vandereycken & Van Deth, 1994). Chipley (1860) described cases of extreme emaciation among females who actively refused to eat (*sitomania*) despite pangs of hunger and attributed the deliberate self-starvation to a desire for attention and notoriety.

Chipley's (1860) conclusion concerning the motivation behind sitomania overlaps with the motivations attributed to so-called fasting girls of the eighteenth and nineteenth centuries. Throughout this period, cases of fasting girls gained great attention in the popular media throughout America and Europe (Bemporad, 1996; Brumberg, 1989; Vandereycken & Van Deth, 1994). Typically, these cases involved adolescent girls who abruptly refused to eat. The cases drew a mixture of medical concern and religious awe. Particularly notorious cases attracted national and international attention with details of the fast reported in newspapers and skepticism about the miraculous fasts expressed by medical professionals in scholarly journals. Thus, in all recorded cases, food refusal leading to emaciation was associated with the secondary gain of fame. And, for some, continued food refusal was a lucrative occupation. Not surprisingly, this secondary gain attracted fraud. Cases involving proven deception include Anne Moore, Margaretha Weiss, Barbara Kremers, and Eva Vliegen (Bemporad, 1996; Brumberg, 1989; Vandereyeken & Van Deth, 1994). Some fasting girls were acclaimed as miracles for their ability to eat nothing yet remain completely healthy (including maintaining a healthy weight). Conversely, other fasting girls became extremely emaciated, in some cases leading to their deaths. Among these were Lina Finch (1886), Kate Smulsey (1885), and Lenora Eaton (1881), who all reportedly died of starvation before the age of 22 as a result of their food refusal (Brumberg, 1989).

Sarah Jacobs (1869), the "Welsh Fasting Girl," represents a particularly tragic case of self-starvation leading to death in a fasting girl (Bemporad, 1996; Brumberg, 1989; Vandereycken & Van Deth, 1994). She began to fast in 1867 at the age of 12. Her parents publicized her behavior with the support of a local reverend who confirmed the authenticity of the claims. She became a tourist attraction for the curious and a source of inspiration for religious pilgrims. Sarah Jacobs's fame attracted concern and skepticism from the medical profession. To resolve ongoing debate over her case, nurses from Guy's Hospital were dispatched to keep watch on the girl. As a condition of the watch, her parents insisted that she not be offered unsolicited food. Over the course of the week, Sarah Jacobs grew feeble and lost the ability to regulate her own body temperature. The nurses and supervising doctors attempted to end the watch and recommended refeeding, but her parents refused to end or modify the conditions of the test, and Sarah never requested food. After 10 days, she died of starvation (Brumberg, 1989; Vandereycken & Van Deth, 1994).

According to Brumberg (1989), Anglo American girls during the Victorian era were well-acquainted with the religious fasting of medieval saints, and St. Catherine of Siena's biography was included in inspirational books for girls. Indeed, the actions of Sarah Jacobs's parents seem to reflect a deep faith in a divine source of their daughter's food refusal. However, the growing field of psychiatry viewed these individuals as suffering from "nervous" conditions. Thus, fasting girls of the eighteenth and nineteenth centuries embraced the continuity between the religious medieval fasting of saints and their own behaviors. Meanwhile, psychiatrists endorsed the continuity between the extreme fasts leading to death among adolescent girls in the United States, England, France, and Germany and the newly identified syndrome of AN.

Between the seventeenth and eighteenth centuries, "miraculous maids" were girls between the ages of 14 and 20 who engaged in self-starvation, modeling themselves explicitly after ascetic medieval saints (Bemporad, 1996). From 1685 to 1710, Bliss and Branch (1960) found seven medical doctoral theses on anorexia, including one authored by Hardenus in 1703 that attributed the disorder to dysfunction of the gastric nerves as well as disturbances in the spirit and feelings (p. 8). Morton (1689) described *nervous atrophy* or a *nervous consumption* characterized by loss of appetite, extreme emaciation, amenorrhea, overactivity, and indifference to the condition (as cited in Morton, 1694, English translation). Morton (1694) detailed two cases in the first chapter of his thesis on consumption. Mr. Duke's 18-year-old daughter experienced amenorrhea and significant weight loss "like a Skeleton only clad with skin" (Morton, 1694, p. 9) that could not be attributed to tuberculosis or chlorosis. The patient engaged in "continual poring upon Books, to expose her self both Day and Night to the injuries of the Air" (Morton, 1694, p. 8). After initial compliance with treatment she "quickly tired with Medicines, she beg'd that the whole Affair might be committed again to Nature, whereupon consuming every day more and more, she was after three Months taken with a Fainting Fit and dyed" (Morton, 1694, p. 9). The cause of death is unclear; however, refeeding syndrome seems to be one plausible explanation (see Walsh, Wheat, & Freund, 2000, for a review of treatment complications in AN). The second case involved a 16-year-old boy whose loss of appetite was also attributed to "studying too hard," although he responded to treatment with a "Milk Diet," "Riding," and "Country Air" (Morton, 1694, p. 10).

For possible cases of AN in the sixteenth century, McSherry (1985) suggested that Mary, Queen of Scots (1542–1587), suffered from AN. However, too little information is included in the short report to examine the supposition. Conversely, a great deal has been written of fasting medieval religious ascetics (Bell, 1985; Bynum, 1987; Carroll, 1998; Rampling, 1985), and cases of self-starvation were recorded by hagiographers from the eighteenth century back to the twelfth century.

Bell (1985) reviewed the vitae of 261 saints who lived in the Italian peninsula from A.D. 1200 on for evidence of what he termed *holy anorexia.* Holy anorexia, like AN, involved food refusal resulting in emaciation overtly motivated by the belief that this reflected divine intervention. Of the 261 saints, approximately 170 had adequate information for determination of eating pathology, and Bell argued that over half of these 170 individuals demonstrated a pattern of holy anorexia, such as that presented by St. Catherine of Siena and St. Veronica.

St. Catherine of Siena entered a pattern of self-starvation at around 16 years of age that continued until her death in 1380 (at age 32 or 33). Her death was brought on by her refusal to consume food or water. Because St. Catherine was a prolific writer, more is

known about her internal experience of self-starvation than about any other historical case. She portrayed herself as feeling unable to eat and claimed that "I prayed continually and I pray to God and will pray that he will grace me in this matter of eating so that I may live like other creatures" (St. Catherine, as cited in Bell, 1985, p. 23). As with patients treated by Gull, (1874), Laségue (1873), and Marce (1860) St. Catherine refused to eat because she viewed herself as afflicted by an inability to eat. St. Veronica (Veronica Giuliani) began a pattern of self-starvation at age 18 that may have represented a relapse from a previous episode at age 15. Fellow nuns reported seeing St. Veronica sneaking into the kitchen and gorging herself on food when she thought no one else was around, and she was placed repeatedly in the infirmary where she was forced to eat and prevented from binge eating. Although St. Veronica wrote several diaries, little information is given concerning the motivation behind her food refusal. The closest revelation on this point is that she felt she was "in a race against all the other novices to show who loved God the most" (Bell, 1985, p. 71). In contrast to St. Catherine, St. Veronica ultimately achieved recovery sometime between her 30s and 50s and lived until the age of 67 (death 1727).

Despite the acceptance of divine intervention as the reason for self-starvation in these cases, Bell (1985) described in detail the repeated attempts of peers and superiors to induce eating in the fasting saints to help them avoid the sin of vainglory, an inability to engage in holy responsibilities, or the sin of suicide. According to Bell, the Reformation functionally removed self-starvation as a means of achieving holiness for women such that St. Clare of Assisi (death 1253) and St. Catherine of Siena (death 1380) were revered for their self-starvation whereas Sister Domenica (death 1553) and Catherine Vannini (death 1606) were viewed with significantly greater suspicion. Bynum (1987) argued for a plurality of meaning for self-starvation among the fasting saints throughout this period such that extreme asceticism was alternately viewed as a mark of God's grace, demonic possession, fraud, and illness within the lifetimes of all fasting saints, not just those following the Reformation. Bynum's (1987) text includes the following quote from St. Catherine's confessor: "If food was ever forced down her throat, intense pain followed, no digestion took place, and all that had been violently forced down was violently forced back again" (p. 168). The use of forced feeding emphasizes the ambivalence that St. Catherine's fasting met. According to Ruggiero et al. (2001), psychiatric interpretations of self-starvation in young women were published in Italy by Pietro di Abano (1270–1316), Alessandro Benedetti (1533), Simone Porta (1551), and Becarri (1745). Thus, self-starvation in pursuit of a religious ideal was not unambiguously sanctioned in medieval times any more than self-starvation in pursuit of a thin ideal is sanctioned in modern times.

Purported cases of AN prior to the twelfth century include St. Wilgefortis, who allegedly engaged in self-starvation resulting in emaciation and lanugo (fine, downy body hair usually restricted to the fetal stage of development) sometime between A.D. 700 to 1000 (Lacey, 1982). Lacey (1982) argued that the popularity of this legend reflected the presence of AN throughout the European countries in which the bearded saint was known by various names (St. Ontkommena, St. Kummernis, St. Livrade, St. Leberata, and St. Uncumber). Hajal (1982) reviewed the case of self-starvation in al-Mut'tazz billah, son of Khalifah, as a case of AN successfully treated by Bukhtishu'ibn Jibrail (870). Cases of self-starvation attributed to demonic possession or cured by exorcism were documented during the 5th and 8th centuries, and early Christianity offers a possible case of AN from the late 4th century in Blessila in which an individual died from self-starvation at the age of 20 (Bemporad, 1996; Lacey, 1982). However, these earliest cases are not without controversy. For example, Bynum (1987) characterized the description of St. Wilgefortis as having AN as a "bizarre communication to a British medical journal" (p. 194). Indeed, the story of St. Wilgefortis recounted by Lacey is open to numerous interpretations, among which AN is one possibility. Moreover, prior to the twelfth century, details become sparse, increasing the difficulty of interpreting these potential cases.

Interpretation of historical cases of anorexia. Although all of the above cases have been included in reviews of the history of AN, controversy exists concerning the validity of retrospectively diagnosing these women with AN. Much of the debate centers on the motivation behind food refusal, and limited information on this point is the greatest challenge to interpretation. Habermas (1989, 1996) has argued that modern-day AN extends to historical cases presented in the latter half of the nineteenth century by Gull (1874, 1888), Laségue (1873), and Marce (1860) but not to fasting found among medieval religious ascetics or Victorian-era females with hysteria or fasting girls. He argued that fasting among religious ascetics and Victorian females with hysteria was not AN because (a) fasting was used to heighten spirituality along with other forms of self-mortification, (b) fasting was associated with convalescence and paralysis, and (c) fasting was interpreted in religious terms both by the fasting women and by the clergymen and doctors who wrote of these cases: "if some of the fasting women had been worried about their body weight, it would have been a concept accessible also to the reporting clergymen and doctors" (Habermas, 1989, p. 261). Conversely, Habermas (1989) interpreted early cases of AN (Gull, 1888) and l'anorexie hysterique (Laségue, 1873) as being motivated by weight phobia despite a lack of documentation of this feature. He concluded that "it is plausible that weight concerns have been present in AN from its beginning on but have been overlooked by most German and British medical men" (Habermas, 1989, p. 269) because early accounts of AN provided no "plausible motivation" (p. 269) for self-starvation and patients with AN tend to hide their goal of losing weight and give other explanations for their refusal to eat such as loss of appetite, inability to eat, and stomachache. According to Habermas (1989), weight loss was the "secret motivation" (p. 269), allowing it to be a necessary, if hidden, feature for defining the presence of the disorder since its introduction in the latter half of the nineteenth century. The absence of this motivation in earlier cases makes them invalid in his view. However, Habermas's (1989) discussion leaves unclear why the presence of religious motivation would negate the presence of weight phobia (or vice versa) or why weight concerns would be a more accessible concept for medieval clergymen and doctors than it was for Gull (1874) or Laségue.

The presence of religious motivation does not preclude the presence of weight concerns as evidenced by modern cases of "spiritual starvation" (Banks, 1992, 1997; Bynum, 1988; Katzman & Lee, 1997; Morgan, Marsden, & Lacey, 2000). Cases presented by Banks (1992, 1997) involve women who fasted to engender spiritual purity and thus bear a striking resemblance to historical cases of fasting performed by medieval religious ascetics. In one case, the syndrome resulted in death despite numerous hospitalizations. In the second case, the syndrome remitted and full recov-

ery was achieved. In terms of outcome, these cases are not unlike those of St. Catherine and St. Veronica, respectively. Morgan et al. (2000) reported on three cases of spiritual starvation. Although the authors indicated that *DSM–IV* AN was diagnosed in two of these cases, religious themes appeared to provide primary motivation for deliberate self-starvation in all three cases (Morgan et al., 2000).

It seems unlikely that Gull (1874) and Lasègue (1873) overlooked weight concerns as a motivation for food refusal because contemporary authors noted these features in fasting girls. Winslow (1880) provided the following quote attributed to Erasmus Darwin from the end of the eighteenth century:

> Some young ladies I have observed to fall into this general debility but so as but just to be able to walk about, which I have sometimes ascribed to their voluntary fasting, when they believed themselves too plump; and who have thus lost both health and beauty by too great abstinence, which could never be restored. (p. 281)

Similarly, Charcot emphasized the role of weight phobia in the etiology of self-starvation among his patients (as cited in Habermas, 1989; Vandereycken & Van Deth, 1994). The work of both Winslow and Charcot would have been available to Gull and Lasègue, suggesting that both men could be aware of this possible explanation for self-starvation. However, neither seemed to regard this information as a compelling explanation for food refusal in their patients. In a later publication, Habermas (1996) elaborated his argument that weight phobia represents the central feature of AN on the basis that diagnostic criteria have to differentiate syndromes in such a way that a syndrome represents a homogeneous group distinct from other syndromes. Although weight phobia achieves this end, it does not appear to be the only means to this end.

Given both current (as well as historical) plurality in motivations behind self-starvation, Rieger, Touyz, Swain, and Beumont (2001) recommended requiring ego-syntonic emaciation rather than weight phobia to differentiate AN from other conditions that lead to weight loss. The authors noted that cases of AN are uniform in the extent to which self-starvation is deliberate and the responses to resulting emaciation range from indifference to pride. Their proposition offers a solution to differentiating fasting to convey religious devotion that is common to most religions (Bliss & Branch, 1960) and that displayed in holy anorexia. Moreover, ritualistic religious fasting is time-limited and tends to focus on avoiding specific foods entirely or not eating during specific time intervals and thus does not typically result in emaciation. It lacks the persistent and pervasive nature of food refusal that characterizes the form of fasting observed in medieval religious ascetics or modern-day AN. In addition, weight loss that results from other physical and psychological conditions is often distressing to the affected individual (Rieger et al., 2001).

Despite the utility of Rieger et al.'s (2001) recommendation, there are other contemporary cases in which ego-syntonic emaciation would not represent an eating disorder or any other form of psychopathology. For example, deliberate self-starvation may be used as an effective means of protest. Although women with AN can be seen as using self-starvation as a means of protest (Brumberg, 1989), this can be differentiated from nonpathological forms of deliberate self-starvation. Individuals who engage in hunger strikes do so as a means to an end. When the end is reached, the self-imposed starvation ceases. Mogul (1980) wrote, "What distinguishes adaptive asceticism from pathological states is not so much its extent, or even the subjective experience of gratification from it, but the degree to which the asceticism becomes an end in itself" (pp. 159–160). Food refusal has been used as a means to different ends in different periods (moral purity, fame, attention, thinness), but in all periods it also becomes an end in itself. What seems to unite fasting saints and women with AN is the paradox that the starvation is both deliberate and nonvolitional. That is, across historical contexts women deliberately refuse to eat food that they require for sustenance. Yet, they do not appear to be able to stop their pattern of food refusal in response to reward or punishment. This characterization resembles Shafran, Cooper, and Fairburn's (2002) depiction of clinical perfectionism as the core pathology of AN. The internal motivation to avoid eating overrides all internal and external drives to eat, and for many adolescent girls throughout history this means becomes their ultimate end.

Although motivations for food refusal may have differed across periods (in many cases this information is simply lacking), purported motivations may not represent the true causes of self-starvation. Instead, they may represent culturally meaningful attempts to understand an affliction that leaves women feeling unable and unwilling to eat. The extent to which fear of fat is viewed as causing AN may be, in part, an illusion (Wegner, 2002). Thus, if the core feature of AN is taken to be an intentional yet nonvolitional self-starvation, then evidence of AN appears to trace back to early medieval times. Furthermore, across the various historical contexts in which AN has emerged, this disorder demonstrates a particular affinity for affecting females beginning in their adolescence and thus satisfies Habermas's (1996) call for defining the core features of a syndrome such that they retain descriptive specificity.

Cross-Cultural Evidence of AN

Although several reports have suggested that AN was nonexistent in non-Western regions such as sub-Saharan Africa (German, 1972), Northern Sudan (Elsarrag, 1968), and Southeast Asia (Neki, 1973), our review of the literature indicated that AN has been observed in every non-Western region of the world. Table 2 summarizes features of reports of AN in non-Western nations, including the country, diagnostic criteria, number or prevalence of cases, presence of weight concern among these cases, and level of Western influence. These publications included case reports, letters to journal editors, and clinical and epidemiological investigations.

Data coding. Presence of weight concerns was evaluated because of the evidence reviewed above that this symptom varies both across and within historical periods. For studies indicating that all cases met diagnostic criteria that require weight concerns and for which details for specific case histories were not provided, we concluded that all cases (e.g., 100%) must have reported weight concern. Unfortunately, this did not preclude an inconsistent or idiosyncratic application of diagnostic criteria in those studies. By contrast, for cases in which weight concerns were explicitly denied by the patient but were perceived by the author to be the secret motivation, we considered the feature to be absent. Some of these cases may resemble patients with AN who have denied fears of becoming fat only for the fears to emerge as weight restoration begins. However, inferring the presence of weight concerns in the absence of any confirming evidence prevents awareness of cases in which this feature is genuinely absent. Further, it runs the risk of

relying on an ethnocentric conception of the core features of AN (S. Lee, Ho, & Hsu, 1993).

For characterization of Western influence, we took authors' estimation of the degree of Western influence when possible. When authors made no comment on this issue, we used all available information to code the study appropriately. We developed six categorizations in this regard: (a) No—at least one reported case where the author specifically noted that the case lacked exposure to Western influence (e.g., Abou-Saleh, Younis, & Karim, 1998, described a case of AN in an 18-year-old nomadic woman from the Empty Quarter in the United Arab Emirates and specifically noted the absence of Western influence in this case); (b) Unlikely—at least one case likely meets all of the following criteria: comes from a nonurban region, is of low socioeconomic status, resides within a traditional family, has not surpassed secondary education, *and* is non-English speaking; (c) Probable—all cases likely meet at least one of the following criteria: reside in an urban setting, are of high socioeconomic status, are English-speaking, *or* have higher educational attainment (i.e., baccalaureate or higher); (d) Definite—all cases spent considerable time in a Western nation before developing eating pathology (e.g., Ford, 1992, reported a case of BN in an Egyptian individual who developed the disorder after spending ages 5–17 in Canada); (e) Indeterminable—not enough information was provided to determine the degree of Western influence (e.g., data come from patients treated in an urban medical center; however, it is not possible to determine if any patients would fit above criteria for unlikely or no Western influence); and (f) Unknown—the original article was not written in English and information on Western influence was not included in the English abstract or English review article from which data were taken. Both the presence of weight concerns and Western influence were coded by consensus between Pamela K. Keel and Kelly L. Klump.

Results. Although food refusal leading to emaciation was reported for all cases in Table 2, the presence of weight concerns as a motivating factor for food refusal does not appear to be universal. S. Lee et al. (1993) described 70 cases of AN in Hong Kong among whom 59% did not report weight concerns. As with the cases described by Laségue (1873) and Gull (1874), digestive discomfort was the most frequent reason for not eating. These data suggest that Westernization and industrialization bring about certain aspects of AN (weight concerns) but are not necessary for producing a self-starvation syndrome. Alternatively, as has been argued for historical cases, weight concerns may have been present but denied by some patients. S. Lee et al. (1993) predicted that Western influence in China would result in increased presentation of weight-phobic AN. Consistent with this hypothesis S. Lee (2000) and Lai (2000) have both described an increasing prevalence of AN characterized by body dissatisfaction in the East. Further, S. Lee and Lee (2000) found that weight concerns were greatest in Hong Kong and least prominent in Hunan, suggesting an association between Westernization and body image disturbance.

Although some authors have indicated that AN cases were limited to the social elite or higher socioeconomic classes (Buchan & Gregory, 1984; Chadda, Malhotra, Asad, & Bambery, 1987), several reports suggested the presence of AN in the absence of Western influence (Abou-Saleh et al., 1998; Chandra et al., 1995; Fahy, Robinson, Russell, & Sheinman, 1988; Gandhi, Appaya, & Machado, 1991). When Western exposure could be determined, 42% (8/19) of articles reported at least one case with no or unlikely exposure to Western ideals.

Epidemiological data not only support the existence of AN in non-Western countries but suggest that its prevalence may be similar to that in Western nations. The lifetime prevalence of *DSM–III* AN in Korea did not differ from estimates produced by the Epidemiological Catchment Area study for lifetime prevalence of AN in New Haven or St. Louis (C. K. Lee et al., 1987, 1990). A recent study (Nobakht & Dezhkam, 2000) reported the lifetime prevalence of AN to be 0.9% in Iranian schoolgirls, a value that is higher than the lifetime prevalence reported in the *DSM–IV–TR*, and the incidence and prevalence of AN in Hong Kong (Chen et al., 1993; S. Lee, Chiu, & Chen, 1989) and Japan (Azuma & Henmi, 1982; Kuboki, Nomura, Ide, Suematsu, & Araki, 1996) are similar to those reported in Western nations (e.g., Kendell et al., 1973; C. K. Lee et al., 1987; Møller-Madsen & Nystrup, 1992; Theander, 1970, Willi & Grossmann, 1983). According to reports from Malaysia (Buhrich, 1981; Goh, Ong, & Subramaniam, 1993) and Egypt (Okasha, Kamel, Sadek, Lotaif, & Bishry, 1977), AN constituted between 0.05% and 0.19% of psychiatric cases. These figures are roughly comparable to those reported for Norway from 1990–1994 (Götestam, Eriksen, Heggestad, & Nielsen, 1998). Thus, excluding the criterion of weight concerns, AN appears to represent a similar proportion of the general and psychiatric populations in several Western and non-Western nations.

Summary of Findings for AN

It does not appear to be the case that AN is a culture-bound syndrome. Although cultural factors such as the increasing idealization of thinness may influence rates of AN, such factors seem neither sufficient nor necessary. Moreover, evidence of a secular increase in AN incidence is modest after controlling for factors such as changes in population distribution, population size, and ascertainment of cases through psychiatric registers. Cases of deliberate yet nonvolitional self-starvation, sometimes resulting in recovery, sometimes resulting in death, and primarily affecting young adolescent girls, exist in numerous historical periods. Similarly, specific cases of AN that cannot be attributed to the influence of Western ideals have been reported in the Middle East, the Indian subcontinent, and East Asia. Like historical cases that emerged in the absence of the "modern 'cult of thinness' " (Russell, 1997, p. 23), many of these non-Western cases lack weight concerns. Our results suggest that weight concerns may be a culturally bound phenomenon, restricted to sociohistorical contexts that idealize thinness and denigrate fatness. However, this is not entirely accurate either because a plurality of motivations for food refusal has been described both across and within sociohistorical contexts.

Bulimia Nervosa

The most recent edition of the *DSM* (*DSM–IV–TR*) defines BN with the following diagnostic criteria:

> A. Recurrent episodes of binge eating. An episode of binge eating is characterized by both of the following:
>
> (1) eating, in a discrete period of time (e.g., within any 2-hour period), an amount of food that is definitely larger than most people would eat during a similar period of time and under similar circumstances

Table 2
Studies of Anorexia Nervosa (AN) in Non-Western Nations

Article	Place	Diagnostic criteria	% weight concern	Number–prevalence	Western influence?
			Africa		
Norris (1979)	Johannesburg, South Africa	Study specific	100	54 patients with AN; 8 Afrikaans-speaking and 4 other non-English-speaking patients	Indeterminable
Nwaefuna (1981)	Nigeria	Not given	100	1 case described in a Black Nigerian woman	Indeterminable
Famuyiwa (1988)	Nigeria	Not given	0	2 suspected cases reported; symptoms were loss of $ 30% body weight, denial of seriousness of low weight, and amenorrhea	Case 1: definite; Case 2: indeterminable
Buchan & Gregory (1984)	Zimbabwe	Feighner	Questionable case[a]	1 case reported in Black Zimbabwean	Definite
Fahy et al. (1988)	Ethiopia	Not given	100	1 case reported in Ethiopian torture victim	Probable
			Middle Eastern–Arab cultures		
Okasha et al. (1977)	Cairo, Egypt	Not given	Not given	2 cases of AN; 0.19% of psychiatric cases	Probable
Abou-Saleh et al. (1998)	United Arab Emirates	*DSM–III–R* for 3 of 5 patients	80	5 cases reported, among which diagnoses of *DSM–III–R* AN were confirmed by interview for 3 cases; 1 case (20%) lacked exposure to Western influences	No
Nobakht & Dezhkam (2000)	Iran	*DSM–IV*	100	0.9% of 3,100 female high school students age 15–18	Probable
Yager & Smith (1993)	Pakistan	Not given	100	1 case reported	No
			Indian subcontinent		
Neki, Mohan & Sood (1977)	India	Study specific	Not given	2 cases who were monozygotic twins	Indeterminable
Chakraborty (1985)	India	Not given	Absent in 8–10 cases	15–17 cases reported	Indeterminable
Chadda et al. (1987)	India	*DSM–III*	100	1 case of AN from the upper social class in India	Probable
Gandhi et al. (1991)	India	Not given	60	5 cases reported	No
Khandelwal et al. (1995)	India	Modified Feighner	20	5 cases reported	Unlikely
Chandra et al. (1995)	India	Modified *DSM–III–R*	33	3 cases reported	No
			Southeast Asia		
Ong et al. (1982)	Malaysia	Not given	71	7 cases reported—1 case with no formal education from lowest social class	Unlikely
Buhrich (1981)	Malaysia	Study specific	Not given	30 cases reported; 19 Chinese, 8 Indian, 1 Malaysian, 2 Eurasian; no change reported in prevalence over 15- to 20-year period; 0.05% of psychiatric referrals	Indeterminable
Krahl et al. (1981)	Malaysia	Unknown	Unknown	2.5% of cases presenting to a community child guidance clinic	Unknown
Krahl (1983)[b]	Malaysia	Unknown	Unknown	2 cases reported	Unknown
Goh et al (1993)	West Malaysia	Study specific	60	15 cases of partial AN in 9,000 female patients from 1970–1988; 0.16% of female patients	Indeterminable
Ung, Lee, & Kua (1997)	Malaysia	Not given		33 patients with AN; 36% partial syndrome patients with "lack of amenorrhea in anorexic range" (p. 334)	Indeterminable
			East Asia		
S. Lee, Chiu, & Chen (1989)	Hong Kong	Modified *DSM–III–R*	67	Reported % 10 cases treated during 5 years (incidence % 0.4 per 100,000 person years); 3 cases described in detail	Indeterminable
Chiu (1989)	Hong Kong	*DSM–III*	100	1 case reported	No
S. Lee (1991)	Hong Kong	Modified Feighner	19	16 cases reported	Unlikely
S. Lee, Leung et al. (1991)	Hong Kong	Study specific	0	2 cases reported	Indeterminable
S. Lee, Ho, & Hsu (1993)[c]	Hong Kong	Study specific	41	70 cases reported	Indeterminable

Table 2 (*continued*)

Article	Place	Diagnostic criteria	% weight concern	Number–prevalence	Western influence?
			East Asia (*continued*)		
Chen et al. (1993)	Hong Kong	*DSM–III*	100	0.03 lifetime prevalence of AN in 7,229 males and females surveyed	Probable
Lai, Pang, & Wong (1995)	Hong Kong	Not given	100	1 case reported	Probable
Kam & Lee (1998)	Hong Kong	Study specific	50	1 case reported	Indeterminable
S. Lee, Lee, & Leung (1998)	Hong Kong	"Broadly diagnosed"	58	26 cases of AN from case series treated from 1990–1996	Probable
Lai (2000)	Hong Kong	Lask (1992)	88	16 cases reported	Probable
S. Lee (2001)	Hong Kong	Modified *DSM–IV*	67	48 cases reported	Indeterminable
Song & Fang (1990)[d]	China	*DSM–III*	Unknown	9 cases reported	Unknown
Tseng et al. (1989)[e]	Taiwan	*DSM–III*	Unknown	7 cases reported	Unknown
Hung & Cheng (1992)[f]	Taipei, Taiwan	*DSM–III–R*	100	2 cases of AN reported among 12,435 females ages 12–25	Indeterminable
Sonoda et al. (1974)[e]	Japan	Unknown	Unknown	1 case reported in a 10-year-old girl	Unknown
Nogami & Yabana (1977)[g]	Japan	Not given	Not given	9 cases reported	Indeterminable
Azuma & Henmi (1982)[h]	Japan	Unknown	Unknown	0.2% urban areas; 0.05% rural areas	Unknown
Mizushima & Ishii (1983)	Japan	Study specific	100	16 girls and 1 boy with AN among 36,403 girls and 37,520 boys in secondary school	Unknown
Suematsu et al. (1985)	Japan	Study specific	75% of 1,011	2,392 patients treated in 1980–1981; detailed data collected from 1,011 cases	Indeterminable
Suematsu et al. (1986)	Japan	Study specific	100	7 cases reported	Indeterminable
Kuboki et al. (1996)	Japan	Modified *DSM–III–R*	100	2.9–3.7/100,000 general population 1985; 3.6–4.5/100,000 general population 1992	Indeterminable
Nadaoka et al. (1996)	Japan	*DSM–III–R*	100	59 cases of AN treated at Yamagata University Hospital between 1978 and 1992	Probable
Nakamura et al. (2000)	Japan	*DSM–IV*	100	0.005% of female population; 0.003% of general population	Indeterminable
Takei et al (2000)[e]	Japan	*DSM–IV*	100	223 students with AN from 335 college health administration centers across Japan	Unknown
C. K. Lee et al. (1987)	Korea	*DSM–III*	100	0.02% of general population	Indeterminable
C. K. Lee et al. (1990)	Korea	*DSM–III*	100	0.03% of general population	Indeterminable

Note. Not given " authors did not provide the information in the article; Unknown " authors may have provided information in the non-English publication, but the information was not provided in the English abstract or the English review article summarizing it; Study specific " diagnostic criteria were specific to the study indicated; Indeterminable " exposure to Western influence could not be determined from article; *DSM–III–R* " *Diagnostic and Statistical Manual of Mental Disorders* (3rd ed., rev.); *DSM–IV* " *Diagnostic and Statistical Manual of Mental Disorders* (4th ed.); *DSM–III* " *Diagnostic and Statistical Manual of Mental Disorders* (3rd ed.).

[a] Report states "score on the Eating Attitudes Test (Garner & Garfinkel, 1979) was 78 — clear evidence of her terror of becoming overweight" (Buchan & Gregory, 1984, pp. 328–329). However, initial weight loss does not seem intentional, and case was characterized by many psychotic and dissociative symptoms. [b] As reported in DiNicola (1990b). [c] 16 (23%) participants also took part in the S. Lee (1991) study. [d] As reported in S. Lee, Ho, and Hsu (1993). [e] Data were taken from an English abstract of a non-English publication. Overlap of cases across reports from a single country is unknown. [f] As reported in Tsai (2000). [g] As reported in Davis and Yager (1992). [h] As reported in Dolan (1991).

(2) a sense of lack of control over eating during the episode (e.g., a feeling that one cannot stop eating or control what or how much one is eating)

B. Recurrent inappropriate compensatory behavior in order to prevent weight gain, such as self-induced vomiting; misuse of laxatives, diuretics, enemas, or other medications; fasting; or excessive exercise.

C. The binge eating and inappropriate compensatory behaviors both occur, on average, at least twice a week for 3 months.

D. Self-evaluation is unduly influenced by body shape and weight.

E. The disturbance does not occur exclusively during episodes of Anorexia Nervosa. (American Psychiatric Association, 2000, p. 594)

Although the definition of BN has been revised since its introduction to the psychiatric nomenclature, the above definition bears a striking resemblance to that given by Russell (1979) in his seminal description of the disorder. Slightly earlier, independent reports of a binge–purge syndrome in normal-weight young women were published in German and Spanish (Ziolko, 1996) and have since been translated into English by the original authors (Doerr-Zegers, 1994; Ziolko, 1994). Notably, among these first descriptions of BN (Doerr-Zegers, 1994; Russell, 1979; Ziolko, 1994), no author described a large awareness of this syndrome before 1960. Based on BN's recent appearance and dramatically increasing incidence, Russell (1997) concluded, "Bulimia nervosa is a new disorder" (p. 23).

Epidemiology of BN in the Twentieth Century

Table 3 provides incidence rates for BN from studies evaluating secular trends, organized by study cohort and presented in ascend-

Table 3
Bulimia Nervosa Incidence

Midpoint	Range	Location	Criteria	Reported incidence	*r*	*p*	Study
1980	1970–1989	Bornholm County, Denmark	ICD 10	0.7–3.0	.905	.0475	Pagsberg & Wang (1994)
1982	1977–1986	Fyn County, Denmark	*DSM–III*	5.5[a]	.618	.0285	Joergensen (1992)
1982	1977–1986	Wellington, New Zealand	*DSM–III*	6.0–44.0	.869	.0005	Hall & Hay (1991)
1985	1980–1990	Rochester, Minnesota	*DSM–III–R*	13.5[b]	.347	.1475	Soundy et al. (1995)
1987	1985–1989	The Netherlands	*DSM–III–R*	11.5	.828	.042	Hoek et al. (1995)
1989	1978–1992	Yamagata Prefecture, Japan	*DSM–III–R*	—	.863	.1685	Nadaoka et al. (1996)
1991	1988–1993	England and Wales	*DSM–IV*	12.2	.968	.001	Turnbull et al. (1996)

Note. ICD 10 " *International Classification of Diseases* (10th ed.); *DSM–III* " *Diagnostic and Statistical Manual of Mental Disorders* (3rd ed.); *DSM–III–R* " *Diagnostic and Statistical Manual of Mental Disorders* (3rd ed., rev.); *DSM–IV* " *Diagnostic and Statistical Manual of Mental Disorders* (4th ed.).
[a] Incidence for females ages 10–24 years. [b] Age- and sex-adjusted incidence rate.

ing order of year. Among these studies, all reported a significant rise in cases over time (Hall & Hay, 1991; Hoek et al., 1995; Joergensen, 1992; Nadaoka et al., 1996; Pagsberg & Wang, 1994; Soundy, Lucas, Suman, & Melton, 1995; Turnbull et al., 1996). Of interest, several of these studies found a significant increase in BN incidence despite finding no significant change in AN incidence (Hall & Hay, 1991; Hoek et al., 1995; Turnbull et al., 1996). Combining results across the seven studies that provide BN incidence data over time (Hall & Hay, 1991; Hoek et al., 1995; Joergensen, 1992; Nadaoka et al., 1996; Pagsberg & Wang, 1994; Soundy et al., 1995; Turnbull et al., 1996) weighted by method of calculating incidence and population size (as described above for the meta-analysis of AN incidence data), we found a large effect size (r " .89) for a secular trend of increasing BN incidence that is statistically significant (p " .0000001). Approximately 62 nonsignificant studies would be required to alter the results of this meta-analysis. Restricting our meta-analysis to include only those studies that used general medical records also results in a large effect size (r " .90) that is statistically significant (p " .00002). Approximately 28 nonsignificant results would be required to alter the results of this meta-analysis. Thus, studies tracking a secular trend in BN incidence from 1970 to 1993 suggest a significant increase.

Fombonne (1996) argued that the patterns seen for BN frequency follow that expected for a newly defined disorder but do not necessarily represent the emergence of a previously nonexistent syndrome. Specifically, one would expect to see a significant increase in incidence immediately following official recognition of a disorder because incidence rates often reflect when individuals first seek treatment for a disorder. Thus, incidence rates are inflated initially by the combination of new onset cases and cases with onset prior to disorder recognition. This description matches changes in incidence rates reported by Soundy et al. (1995). Incidence of BN increased steeply from 7.4 to 49.7 per 100,000 females from 1980 to 1983 and then remained relatively stable around 30 per 100,000 females from 1984 to 1990. According to Fombonne (1996), the decline from 49.7 to 30 cases per 100,000 females per year reflected a decline in cases with onset before the disorder had been defined rather than a true decrease in disorder incidence. Conversely, Soundy et al. noted that the particularly high rate in 1983 was inflated by a BN treatment study that year for which participants were being actively recruited from the community. Unfortunately, there are no incidence data for BN prior to 1970. Thus, one cannot use incidence rates to determine how the frequency of this disorder changed in relation to the current cultural idealization of thinness as was possible for AN.

Despite the ever-present cultural ideal of thinness, BN prevalence estimates were reduced from the *DSM–III* to the *DSM–III–R*. Early studies of BN point prevalence suggested that the disorder affected 8% (Pyle, Halvorson, Neuman, & Mitchell, 1986; Zuckerman, Colby, Ware, & Lazerson, 1986) to 19% (Halmi, Falk, & Schwartz, 1981) of university women whereas later studies suggested a lower point prevalence of BN among college women with estimates ranging from approximately 1% (Schotte & Stunkard, 1987) to 3% (Drewnowski, Yee, & Krahn, 1988). Although these results suggest a decline in the point prevalence of BN running counter to the continued idealization of thinness for this time (Wiseman et al., 1992), several methodological factors, unrelated to changing prevalence, may account for the observed differences.

First, earlier studies used the *DSM–III* criteria (Halmi et al., 1981; Pyle et al., 1986; Zuckerman et al., 1986) whereas later studies used *DSM–III–R* criteria (Drewnowski et al., 1988; Schotte & Stunkard, 1987). Between the *DSM–III* and *DSM–III–R*, the diagnostic criteria for BN grew more stringent. For example, recurrent inappropriate compensatory behavior was required in the *DSM–III–R* but was not strictly required in the *DSM–III*. In addition to being generally less stringent, the *DSM–III* was also less specific. For example, although the *DSM–III* criteria required "recurrent" binge-eating episodes, it did not specify a minimum frequency required for the episodes to be considered recurrent. Zuckerman et al. (1986) demonstrated that the simple stipulation of bingeing more than once per week versus just once per week reduced the point prevalence estimate of bulimia from 8% to 4% for college women in 1982. Similarly, Pyle et al. (1986) reported that the point prevalence of *DSM–III* bulimia in college women was approximately 8% in both 1980 and 1983; however, when weekly binge eating and purging were required, the point prevalence dropped to 1% in 1980 and 3% in 1983. Of interest, the stricter definition resulted in a threefold increase in the point prevalence of bulimia among college women from 1980 to 1983—mirroring results of incidence studies for this period. Thus, had *DSM–III–R* criteria been used in the earliest studies, prevalence estimates might have ranged from 1% to 4%.

Second, different methods of assessment across studies over time may have contributed to the perceived decrease in prevalence rates. Early prevalence studies (Halmi et al., 1981; Pyle et al., 1986; Zuckerman et al., 1986) more often used survey assessments, and later studies more often used interview assessments

(Bushnell, Wells, Hornblow, Oakley-Browne, & Joyce, 1990; Schotte & Stunkard, 1987). Self-report surveys tend to produce higher estimates of BN prevalence than structured clinical interviews (Keel, Crow, Davis, & Mitchell, 2002). Bulimic symptoms such as binge eating are particularly vulnerable to high false-positive rates on self-report surveys compared with interviews because lay definitions tend to be more inclusive than clinical definitions (Whitehouse, Cooper, Vize, Hill, & Vogel, 1992). In addition, women appear to be more willing to admit to bulimic symptoms on self-report surveys compared with interviews because the increased anonymity of questionnaires increases candor (Keel et al., 2002). Both patterns could contribute to an artificial decline in BN prevalence over time.

Third, differences in the samples evaluated have led to varying prevalence rates (Fairburn & Beglin, 1990). Few studies have used random sampling, and inconsistent sampling strategies across studies could influence the extent to which individuals with eating disorders are over- or underrepresented in study groups. Moreover, epidemiological samples have varied in response rates, socioeconomic status, geographic location, ethnic representation, and age. Thus attempts to determine time-related changes in prevalence could be confounded by any of these differences. For example, women ages 18 to 24 (approximately college-aged) have rates of BN that are 2 to 10 times greater than those reported for women ages 25 to 64 (Bushnell et al., 1990).

An alternative to examining prevalence rates over different time periods is to measure lifetime prevalence rates across birth cohorts at one time. If a disorder has a stable incidence and onset occurs throughout life, then lifetime prevalence rates increase as birth cohorts age. If a disorder has a stable incidence but onset is limited to early ages (as it is for eating disorders), then lifetime prevalence rates would remain stable across birth cohorts that had passed through the period of risk. However, as noted above, lifetime BN prevalence rates are actually higher among younger birth cohorts compared with older birth cohorts (Bushnell et al., 1990; Kendler et al., 1991). These findings suggest either that the risk of BN has increased over recent years or that recall of past episodes of BN diminishes with age. Of interest, lifetime prevalence of AN has not differed significantly across birth cohorts (Robins et al., 1984; Wade, Heath, Abraham, & Treloar, 1996). Similarly, in an examination of eating disorders among relatives of AN probands, rates of BN were higher among sisters compared with mothers (4.1% vs. 1.0%), consistent with lifetime prevalence rates for a disorder with increasing incidence rates (Strober, Lampert, Morrell, Burroughs, & Jacobs, 1990). Conversely, rates of AN were 3 times lower in sisters than in mothers (2.0% vs. 6.2%), consistent with lifetime prevalence rates for a disorder with stable incidence rates (Strober et al., 1990). Unfortunately, data on lifetime prevalence rates do not inform us regarding when the disorder developed relative to the cultural ideal of thinness.

There is evidence of changing rates of BN during the latter half of the 20th century; however, the causes of these changes are unclear. Incidence data suggest a significant increase in BN incidence from 1970 to 1990 but do not allow evaluation of BN incidence prior to 1970. Prevalence studies in college and primary care samples suggest a decreasing prevalence from the 1980s to the 1990s; however, inconsistent methods across prevalence studies obfuscate the meaning of this observation. Finally, lifetime prevalence data across birth cohorts support an increasing incidence. Taken together, these data suggest that BN emerged as a new syndrome during the latter half of the twentieth century. However, it is possible that perceived trends resulted from the formal recognition of a disorder that had existed as a hidden form of psychiatric morbidity in earlier periods.

Cross-Historical Evidence of BN

Historical cases of bulimia. Several authors have reviewed historical cases of BN prior to its formal recognition (Habermas, 1989; B. Parry-Jones, 1991; B. Parry-Jones & Parry-Jones, 1991; Pope, Hudson, & Mialet, 1985; Stein & Laakso, 1988; Ziolko, 1996). The case histories of Ellen West (Binswanger, 1994, as cited in Stein & Laakso, 1988; Binswanger, 1958, as cited in Pope & Hudson, 1988) and Laura (Lindner, 1954, as cited in Stein & Laakso, 1988) have been interpreted as examples of BN in the earlier half of the twentieth century. However, several experts in the field of eating disorders have reviewed Ellen West as representing AN, and it is unclear that binge eating and purging ever occurred at normal weight in her case (DiNicola, 1990a; Habermas, 1992a). Cases described by Wulff (1932, as cited in Habermas, 1989 and Stunkard, 1990), Bergmann, (1932, as cited in Habermas, 1992a), and Feuchtinger (1942, as cited in Habermas, 1992a) in the German psychiatric literature have been characterized by binge eating and purging. According to Habermas (1989), Wulff's cases included four women and one man, all of whom experienced periods of compulsive eating at normal weight. In three cases, age of onset was during puberty. In two cases, vomiting was present in addition to dieting. Finally, in three cases, body image disturbance was recorded. However, a different picture emerges from Stunkard's (1990) translation of Wulff's work. First, Wulff described marked obesity in two of four cases (Cases A and C). Further, in three of the four cases (Cases A, B, and C), binge eating and fasting or purging occurred in distinct phases. In Case A, for example, the periods of binge eating, hypersomnia, and lack of personal hygiene would persist for months without attempts to counteract the episodes of overeating. These periods are contrasted with periods in which Patient A would eat very little and experience improved mood and increased energy (Stunkard, 1990). Stunkard agreed with Habermas's (1989) conclusion that these cases represent early instances of "bulimia," but his use of the term *bulimia* rather than *bulimia nervosa* appears to be a deliberate distinction between the syndrome defined in the *DSM–III* versus that defined in the *DSM–III–R*. Given that the *DSM–III* category encompassed what are currently recognized as BN and binge-eating disorder, it is unclear whether Wulff's cases better represent binge-eating disorder. Echoing this diagnostic uncertainty, Habermas (1992a) commented, "Stunkard's (1990) hypothesis of a historical continuity of bulimia probably is not true if it is restricted to bulimia nervosa" (p. 357). Only Patient D was characterized by a pattern in which she experienced a binge–purge cycle within one period; these periods alternated with short periods of abstinence and fasting (Wulff, 1932, as translated by Stunkard, 1990).

Pope et al. (1985) reviewed four individuals presented by Pierre Janet in 1903 who appeared to satisfy *DSM–III* criteria for bulimia on the basis of recurrent binge-eating episodes. However, of these four cases, the combination of binge eating with purging is presented in only one case. This case involved a 17-year-old man, "Ron," who experienced episodes of "voracious appetite," "never felt satiety," (Pope et al., 1985, p. 741) and engaged in self-induced

vomiting after the periods of heavy food consumption. The remaining three cases provide inadequate information to make a differential diagnosis of present-day BN versus AN— binge–purge subtype or binge-eating disorder. Habermas (1991) presented Ludwig Binswanger's description of Irma, published in 1909, as "the first known report on a case of bulimia nervosa at normal body weight" (p. 361). The 22-year-old patient engaged in recurrent binge eating and fasting and experienced fear of becoming overweight. Thus, according to Habermas's (1989, 1991, 1992a) reviews, cases of BN existed during the first half of the 20th century.

Following their review of Janet's cases, Pope et al. (1985) concluded that the major psychiatric texts of the nineteenth century, including those of Esquirol (1838), Briquet (1859), and Lasègue (1871; all as cited in Pope et al., 1985), included no apparent cases of *DSM–III* bulimia. Conversely, Habermas's (1989) review of Briquet revealed a case of apparent BN in a woman who "ate well" but vomited everything she had eaten and maintained a normal weight (Habermas, 1989, p. 267). Van Deth and Vandereycken (1995) reviewed cases of hysterical vomiting and noted that some cases occurred in individuals of normal weight who also engaged in binge eating and fasting behaviors. Notably, most of these cases occurred in female adolescents. However, the authors equated these cases more with a modern-day conversion disorder, psychogenic vomiting, or AN rather than BN (Van Deth & Vandereycken, 1995). Rosenvinge and Vandereycken (1994) reviewed a case of "hysteria" described by Selmer in 1892 in which a 12-year-old girl refused to eat but maintained normal weight. This apparent contradiction was explained one night when the girl's mother observed her "eating butter, herrings, potatoes and all the food she was able to find in the house" (Selmer as cited in Rosenvinge & Vandereycken, 1994, p. 280). Thus, this girl appeared to fast during the day and binge eat at night (Rosenvinge & Vandereycken, 1994), although it remains unclear how the parents failed to notice the disappearance of so much food earlier in the course of their daughter's illness. One 1870 report described a 14-year-old girl who would fast for 18 days and then enter a period during which she ate voraciously (B. Parry-Jones & Parry-Jones, 1991). This case resembles those presented by Wulff (Stunkard, 1990) in that extended periods of binge eating alternate with extended periods of fasting rather than there being a cycle of binge eating coupled with inappropriate compensatory behavior. Remaining cases of purported bulimia in the nineteenth century include one 30-year-old man in 1897 who consumed large quantities of food day and night and 2 men whose voracious consumption included living animals and human flesh, but none engaged in purging or other forms of inappropriate compensatory behavior (B. Parry-Jones & Parry-Jones, 1991).

For the eighteenth century, B. Parry-Jones (1992) detailed the case of Samuel Johnson from 1784 as meeting *DSM–III–R* criteria for BN. Johnson engaged in binge-eating episodes as they are defined in the *DSM–IV*, and these caused him to be significantly overweight. To control his weight, he engaged in fasting and used senna as a purging agent. As in cases reported by Wulff (1932, as cited in Stankard, 1990), Johnson's use of fasting and purging seemed quite time limited compared with his long-standing pattern of compulsive overeating. In 1764, a 16-year-old boy developed a voracious appetite during the course of illness with typhus fever; however, no inappropriate compensatory behavior was noted (B. Parry-Jones & Parry-Jones, 1993; Silverman, 1987).

For the seventeenth century, a 50-year-old man (1678) experienced uncontrollable eating followed by vomiting 20 days each year, and, following the 20-day binge–purge cycle, the man fasted for 20 days and then resumed normal eating throughout the remainder of the year (B. Parry-Jones & Parry-Jones, 1991; Ziolko, 1996). Robert Whytt (1714–1766) provided a description of *fames canina* originally observed by Richard Lower (1631–1691) in the seventeenth century (Silverman, 1987). According to Whytt (1764), Lower observed "an uncommon hunger" among patients with hypochondria and hysteria that produced "a great craving for food" (as cited in Silverman, 1987, p. 145). "In other cases, however, the morbid matter affecting the nerves of the stomach in hypochondriac and hysteric patients, sometimes occasions a want of appetite and a *nausea*" (Silverman, 1987, p. 145). Although fames canina is supposed to be a disorder characterized by large food intake followed by vomiting (Stein & Laakso, 1988), Whytt's review of Lower's observations does not make a clear connection between the presence of "uncommon hunger" and "want of appetite and a nausea" in the same patients (Silverman, 1987). B. Parry-Jones and Parry-Jones (1991) reviewed 12 potential cases of BN from the seventeenth to nineteenth centuries. Five of these cases were described above. Among the remaining 7 cases, none were associated with inappropriate compensatory behavior, and parasitic worms were found in 4 cases. As cited in Ziolko (1996), Forestus (1602) described a nun afflicted with canine appetite (fames canina or kynorexia) who was miraculously cured after several unsuccessful medicinal treatments by physicians. Like fames canina, kynorexia was defined by insatiable appetite, eating that is out of control, and then compulsive vomiting as a result of excessive food intake (Stein & Laakso, 1988; Ziolko, 1996).

From the twelfth to the seventeenth centuries, many of the fasting saints were reported to engage in binge eating (e.g., St. Veronica) and self-induced vomiting (e.g., St. Catherine; Bell, 1985; Rampling, 1985). However, these cases appear to fall within the diagnosis of AN— binge–purge subtype (*DSM–IV–TR*). It is unclear whether there were cases of binge eating and purging among normal-weight women seeking spiritual purification through fasting. If these cases were common in convents, there is little reason to think that they would go unnoticed given the religious significance of women's eating during medieval times (Bynum, 1987).

In the eighth century A.D., Avicenna prescribed self-induced vomiting to undo the ill effects of overeating; however, he warned,

> To procure vomiting to an undue degree is injurious for the stomach, it is also prejudicial to the thorax and the teeth . . . and may lead to consumption. The custom of some people who eat to excess and then procure vomiting, is one of the things that end in a chronic disorder. (Gruner, 1930, as cited in Nasser, 1993, p. 130)

This suggests awareness of the morbidity associated with chronic self-induced vomiting and that a disorder characterized by overeating and self-induced vomiting was known in Arabic medicine. However, no further information was provided concerning the individuals with this disorder or whether the disorder was maintained at normal weight.

For cases prior to the second century A.D., Crichton (1996) speculated as to whether the Roman emperors Claudius (A.D. 41–54) and Vitellius (circa A.D. 69) suffered from BN. Notably, Ziolko (1996) rejected these cases on the basis that excessive food intake appeared to be based in intentional gluttony with self-

induced vomiting used as a means to allow continued consumption. However, excerpts from Suetonius's description of Vitellius suggest that the emperor's excessive food intake may not have been under his control: "He was a man of not only such extreme and impulsive, but also disgusting, gluttony that he could not even curb it during a sacrifice or on a journey" (translated in Crichton, 1996, p. 204). Crichton noted that vomiting distinguished Claudius and Vitellius from their historical peers; however, Seneca is known to have commented, "vomunt ut edant, edunt ut vomant [they vomit that they may eat, they eat that they may vomit]" (as cited in Crichton, 1996, p. 206). This suggests that binge eating and purging may have represented a common behavioral pattern among the elite in the Roman Empire, and, in the case of Vitellius, a not entirely volitional pattern of eating.

Interpretation of historical cases of bulimia. In our review of historical cases of AN, we found numerous examples of young women engaging in self-starvation. The overt behaviors, consequences, course, and affected population resembled that for modern-day AN. Thus, the debate centered mostly on the motivation behind food refusal. In contrast, evidence of a binge–purge syndrome outside of its present historical context is quite sparse. Historical accounts of bulimia do not seem to preponderate in adolescent or young adult females. In fact, prior to the nineteenth century, cases involved mostly adult men. Further, most historical cases of bulimia represented the syndrome defined in the *DSM–III* that did not require inappropriate compensatory behavior. Thus, in our attempt to find historical accounts of BN, we seemed to find numerous examples of binge-eating disorder.

According to the restraint hypothesis (Polivy & Herman, 1985), one would expect that the fasting evident throughout the twelfth to the nineteenth centuries would result in binge eating for a number of young women. Consistent with this hypothesis, there were isolated cases in which individuals seemed to engage in binge eating after a period of restricted food intake. However, the use of purging (or other forms of inappropriate compensatory behaviors) to counteract or undo such episodes was lacking in most reported cases of binge eating. This difference may be explained by the motivation behind food restriction. In modern times, food restriction often is intended to achieve weight loss. When a binge episode occurs, purging is motivated by the belief that it will prevent weight gain. Conversely, if fasting is interpreted in a religious framework, then purging cannot prevent the sin of gluttony once the binge episode has occurred (Bynum, 1987). Bynum (1987) related the story of Friderade, who suffered from voracious appetite and "grew enormous" (p. 89). After confessing, she was cured and did not eat for the following 3 years (Bynum, 1987). This story provides a template for most of the historical cases of bulimic syndromes—a period of recurrent binge eating is followed by a period of abstinence. However, this behavioral pattern resembles that of a person with binge-eating disorder in which extended periods of binge eating alternate with periods of dieting.

Our review of AN suggested that specific motivations related to weight concerns did not seem to be necessary to produce the syndrome. We raised the question of whether weight concerns truly cause AN or represent an attempt to understand the disorder by both the individual suffering from AN (Wegner, 2002) and her culture. Conversely, our review suggests that a binge–purge syndrome predominantly affecting normal-weight women may not emerge in the absence of weight concerns.

Cross-Cultural Evidence for BN

Characterizing the actual prevalence of BN outside of a Western context has proven challenging. For example, across several reviews of eating disorders cross-culturally (Davis & Yager, 1992; Dolan, 1991; Miller & Pumariega, 2001; Pate, Pumariega, Hester, & Garner, 1992; Tsai, 2000), references to AN far outnumbered references to BN. This difference is also reflected in the range of countries reporting BN among their citizens; in our review, we found reports of AN in five of five non-Western regions of the world (see Table 2), whereas BN was reported in only three of five non-Western regions (see Table 4). Similar to the construction of Table 2, Table 4 indicates the country in which cases were found, diagnostic criteria used, number or prevalence of cases, and degree of Western influence. We eliminated the column concerning presence of weight concerns because our review of cases indicated that BN was accompanied by weight concerns in *all* cases. As in the analysis shown in Table 2, weight concern and Western influence were established by consensus.

We found no studies reporting the presence of BN in an individual with no exposure to Western ideals. All of the BN cases that could be categorized involved individuals who were probably or definitely exposed to Western ideals and values through urbanization, English-medium schools, previous residence in Western nations, and/or higher socioeconomic status or educational attainment. If BN only emerges in non-Western countries as a result of Western influences, then this may explain why there does not appear to be a non-weight-concerned form of BN.

With the exceptions of Japan and a recent study in Iran, prevalence estimates of full BN in non-Western nations were below the range reported for Western nations in the *DSM–IV–TR*. Degree of Western influence may account for a good deal of variance in BN prevalence estimates. For example, following World War II, Japan has emulated some of the ideals of the United States. Indeed, the *Cassell Dictionary of Modern Politics* (East & Joseph, 1994) indicates that Japan is sometimes included in the definition of the West. Thus, it is not surprising that BN prevalence is the most similar between the United States and this non-Western nation. Epidemiological data for BN in non-Western nations suggest that BN has a lower prevalence than AN in these countries, a pattern that is the opposite of that observed in Western nations. The point prevalence of AN has been found to be four to five times greater than full-syndromal BN in Japan (Nakamura et al., 2000), and it has been noted that AN is more prevalent than BN in Hong Kong (Chen et al., 1993; S. Lee, Hsu, & Wing, 1992). Thus, even when BN is found in non-Western nations, it is not found in the absence of Western influence, and it seems to be less common than AN.

Summary of Findings for BN

It appears to be the case that BN is a culture-bound syndrome. Although epidemiological data for BN are limited, they support a large and significant increase in BN incidence during the latter half of the twentieth century. Our attempts to find evidence of BN in earlier historical periods were largely unsuccessful. Most historical cases of recurrent binge eating seem to represent binge-eating disorder (because of a lack of inappropriate compensatory behavior) or AN— binge–purge subtype (because of the presence of low weight). Finally, although BN does exist in non-Western nations, we were unable to find evidence of the disorder arising in the absence of Western influence.

Table 4
Studies of Bulimia Nervosa (BN) in Non-Western Nations

Article	Place	Diagnostic criteria	Number–prevalence	Cases without Western influence?
		Middle Eastern–Arab Cultures		
Ford (1992)	Egypt	*DSM–III–R*	1 case reported; developed BN upon returning to Egypt after living in Canada for 12 years	No
Nasser (1994)	Cairo, Egypt	Russell (1979)	0.9% full BN; 3.4% partial syndrome BN in 351 high school students	Unlikely
Nobakht & Dezhkam (2000)	Tehran, Iran	*DSM–IV*	3.2% of 3,100 female high school students ages 15–18	Unlikely
Choudry & Mumford (1992)	Pakistan	*DSM–III–R*	0.4% full BN in 271 Urdu medium school girls ages 12–16	Unlikely
Mumford et al. (1992)	Pakistan	*DSM–III–R*	0.002% full BN, and 0.01% subthreshold BN in 369 English-medium school girls ages 14–16	Unlikely
		Southeast Asia		
Ong et al. (1982)	Malaysia	Not given	1 case of nonpurging BN reported in a woman during recovery from AN	Unlikely
Schmidt (1993)	Malaysia	*DSM–III–R*	1 case in a male; vomiting–weight concerns began in Malaysia, binge eating in England	Unlikely
Goh et al. (1993)	West Malaysia	Study specific	1 case reported	Indeterminable
Ung et al. (1997)	Malaysia	Not given	16 cases of "bingeing and/or purging behavior in subjects of normal or above normal weight" (p. 332)	Indeterminable
		East Asia		
Nogami et al. (1984)	Japan	Unknown	17 individuals with both binge eating and purging of 846 university students ages 18–30	Unlikely
Kiriike et al. (1988)	Japan	*DSM–III* and Russell (1979)	2.9% of 456 college women report bingeing and purging at least twice per week	Unlikely
Takeda et al. (1993)[a]	Japan	*DSM–III–R*	1.9% high school girls	Unlikely
Kuboki et al. (1996)	Japan	Not given	1.3–2.5 per 100,000 general population in 1992	Indeterminable
Nadaoka et al. (1996)	Japan	*DSM–III–R*	38 cases treated at Yamagata University Hospital between 1978 and 1992	Unlikely
Nakamura et al. (2000)	Japan	*DSM–IV*	1.02 per 100,000 females	Indeterminable
Takei et al. (2000)[b]	Japan	*DSM–IV*	321 students with BN from 335 college health administration centers across Japan	Unknown
Chun et al. (1992)	China	*DSM–III–R*	1.1% of 509 freshman medical college students (401 female)	Unlikely
S. Lee, Hsu, & Wing (1992)	Hong Kong	*DSM–III–R*	4 cases treated at Department of Psychiatry, University of Hong Kong, between 1980 and 1988	Unlikely
S. Lee (1993)	Hong Kong	*DSM–III–R*	0.3% partial BN syndromes in 1,020 bilingual university students	Unlikely
S. Lee, Lee, & Leung (1998)	Hong Kong	*DSM–III–R*	17 consecutive series of patients treated from 1990–1996	Unlikely
Lam & Lee (2000)	Hong Kong	*DSM–IV*	Report on 30 cases of BN between 1984 and 1998; provided detailed case histories of 3 patients among whom only 1 seemed to have *DSM–IV* BN	Indeterminable; unlikely for 3 detailed cases
Tseng et al (1989)[b]	Taiwan	*DSM–III*	5 patients reported	Unknown
Hung & Cheng (1992)[a]	Taipei, Taiwan	*DSM–III–R*	5.6% in 12,435 females ages 12–25	Indeterminable

Note. Not given " authors did not provide the information in the article; Unknown " authors may have provided indicated information in the non-English publication, but the information was not provided in the English abstract or the English review article summarizing it; Study specific " diagnostic criteria were specific to the study indicated; Indeterminable " exposure to Western influence could not be determined from article; *DSM–III–R* " *Diagnostic and Statistical Manual of Mental Disorders* (3rd ed., rev.); *DSM–IV* " *Diagnostic and Statistical Manual of Mental Disorders* (4th ed.); *DSM–III* " *Diagnostic and Statistical Manual of Mental Disorders* (3rd ed.).
[a] As reported in Tsai (2000). [b] Data were taken from an English abstract of a non-English publication.

Discussion

Divergent patterns emerged in our examination of epidemiological, cross-historical, and cross-cultural evidence of AN and BN as culture-bound syndromes. Unlike previous conclusions that eating disorders either are culture bound or are not culture bound (Habermas, 1989; S. Lee et al., 1993), our findings suggest that BN is culture bound and that AN is not.

Reasons for the differences in findings between AN and BN could be attributed to our definition of the phenotypes. We sought evidence of AN and BN according to their conceptualization within the *DSM–IV*. However, the *DSM–IV* does not represent "nature carved at its joints." If we had allowed a more generous definition of BN to include all syndromes characterized by recurrent binge eating, the conclusions of our review would be significantly altered as the symptom of binge eating appeared in more historical and culture contexts than the syndrome of BN. We chose to follow the *DSM–IV* conceptualization of these syndromes because it has the greatest empirical support. Of interest, the results of our review seem to add support for distinguishing between the

two syndromes. Further support comes from a recent study of the influence of Western media exposure on rates of disordered eating in Fiji (Becker, Burwell, Gilman, Herzog, & Hamburg, 2002). In 1995 (within a month of the introduction of television), 7.9% of Fijian girls reported binge eating. In 1998 (3 years after the introduction of television), the percentage had decreased nonsignificantly to 4.6%. Conversely, the percentage of girls who reported self-induced vomiting increased significantly from 0% to 11.3% over the same period (Becker et al., 2002). Prior to study initiation, one case of AN had been reported in Fiji (Becker et al., 2002). These data suggest that AN and binge eating in the absence of inappropriate compensatory behavior may not be particularly dependent on exposure to Western ideals. However, a syndrome characterized by the combination of binge eating and purging at normal weight may be more culture bound.

Although the evidence leads us to a strong conclusion that AN has existed outside of its current sociohistorical context, the conclusion for BN is necessarily weaker as there were fewer articles concerning BN than AN. This may represent the relatively longer recognition of AN as a syndrome (and thus greater time to accumulate publications on AN); however, the majority of the articles reviewed have been published since the introduction of BN to the psychiatric nomenclature. Further, this publication pattern is the inverse of that observed for the treatment literature in AN versus BN (Peterson & Mitchell, 1999). Thus, it remains unclear whether the recent recognition of BN is the cause or result of limited data concerning its existence. The limited data for BN may not reflect the absence of the disorder because BN may have existed but eluded detection. This seems plausible because there is no overt sign of BN such as the emaciation that characterizes AN. Indeed, Whitehouse et al. (1992) found that 50% of cases of BN determined in the community were unknown to their general practitioners, despite referrals made for complications of bulimic pathology in half of these "hidden" cases. No such hidden cases of AN were found, suggesting that the low weight of AN likely makes AN easier to detect outside of the confines of a recognized syndrome. However, there are reasons why concerns about detection of BN may be overstated. Further, these reasons contribute to the understanding of why BN may represent a more culturally bound syndrome than AN.

Although self-starvation can occur in any context, binge eating requires large stores of readily edible food. Thus, cases may be validly limited to places and periods with abundant food, such as the palaces of the Roman Empire, places of communal living with shared kitchens, or affluent households in Victorian England. In earlier historical contexts, food consumed a greater proportion of household budgets, and distribution was closely monitored with greater portions going to men who were engaging in manual labor (Bailey & Earle, 1999). Indeed, gender differences in access to food may explain why cases of binge eating prior to the nineteenth century more commonly involved men (B. Parry-Jones & Parry-Jones, 1991). Thus, whereas individuals can deliberately starve themselves regardless of access to food—in some cases refusing even the meager portions allotted to them—individuals cannot binge eat without free access to large quantities of food. If large amounts of food were obtainable, it is difficult to believe that recurrent binge episodes would go unnoticed because food was not obtained in anonymity as it is today. Certainly, the food intake of Samuel Johnson was not only noticed but recorded by several individuals during and following his lifetime (B. Parry-Jones, 1992) as were the binge-eating episodes of St. Veronica (Bell, 1985). Indeed, the presence of binge eating as a symptom has been recorded both cross-historically and cross-culturally with the primary constraint being one of access to food. Similar to difficulties in attempting to binge eat without detection, purging would be a difficult behavior to hide prior to the wide availability of modern plumbing. The ability to flush away evidence of self-induced vomiting, or laxative or diuretic abuse, from the privacy of one's indoor bathroom would greatly facilitate secretive purging. Chamber pots and outhouses would not. Further, accounts of fasting and excessive exercise are plentiful among historical cases of fasting girls, even those of normal weight, suggesting that nonpurging forms of inappropriate compensatory behavior would not remain hidden for long. Although no obvious sign characterizes BN, it seems unlikely that BN would go unnoticed in earlier historical periods. Thus, the relative dearth of evidence of BN outside of its sociohistorical cultural context may reflect its lack of existence. Of interest, an ability to obtain large amounts of food inconspicuously may explain why BN, but not AN, is more common in urban than rural areas (Hoek et al., 1995; Robins et al., 1984).

Binge eating may be constrained by access to large quantities of food, and purging may be relatively limited to a context in which prevention of weight gain is culturally meaningful. Thus, unlike AN, which can occur in numerous contexts, the specific combination of binge eating and purging may be limited by two factors specific to modern Western cultures—access to food and use of purging to prevent weight gain. This would suggest greater cross-historical and cross-cultural representation of the restricting subtype of AN compared with the binge–purge subtype. Of interest, a clinical difference between S. Lee et al.'s (1993) patients with fat phobic and non-fat phobic AN was the increased presence of binge–purge symptoms in the patients with fat phobia.

Conceptualizing the Genetic Bases of Eating Disorders

Sociocultural and cognitive–behavioral models of eating disorders emphasize the role of weight concerns in their etiology, whereas behavioral genetic research emphasizes the role of genes. As we stated in the introduction, the purpose of our research was to understand the extent to which eating disorders represent culture-bound syndromes and the implications of our findings for conceptualizing their genetic bases. Our review suggests that BN may be a culture-bound syndrome, influenced by weight concerns, anonymous access to large quantities of food, and a motivation to prevent the effects of binge eating on weight through the use of inappropriate compensatory behavior. Conversely, our review suggests that weight concerns can influence the incidence of AN but that whatever cultural influences contribute to the etiology of AN, they are not particularly limited in their distribution across history or cultures.

Although recent behavioral genetic research has provided substantial evidence of genetic influences on the development of both AN (Klump et al., 2001; Kortegaard et al., 2001; Wade et al., 2000) and BN (Bulik et al., 1998, 2000; Kendler et al., 1991, 1995), heritability estimates are constrained to the cultures from which study samples are drawn. In cultures in which the thin ideal is ubiquitous, these kinds of environmental factors are held relatively constant across individuals and thus cannot account for individual differences in eating disorder development. In cultures in which relevant environmental factors vary across individuals,

cultural pressures to be thin have the potential to play a much larger role in individual differences in the development of eating pathology. As such, heritability estimates of BN are more likely to vary across cultures. Within a culture in which there is large variability in exposure to the thin ideal and access to food, genetic estimates may be quite low for BN. Conversely, heritability estimates of AN are likely to be more stable. Current data do not allow us to examine this hypothesis directly because twin studies of AN and BN have been conducted within industrialized Western nations. Future research should seek to examine this question more closely using, whenever possible, twins from non-Western countries or combining samples from Western and non-Western countries.

Because heritability estimates are statistical entities that gauge the extent to which individual differences within a population can be explained by genetic influences, they do not directly index the action of genes. Although these statistical estimates can vary depending on environmental contexts (with the potential for BN to have low heritability in some contexts), this variation does not mean that genes do not influence BN or that they influence BN less than AN. The genetic diathesis for BN may exhibit more pathoplasticity cross-culturally than the genetic diathesis for AN. When the diathesis for a disorder is general or has high pathoplasticity, the disorder may not be evident cross-culturally or cross-historically. That is, although the genetic diathesis may exist throughout history and cross-culturally, when tapped, it presents as a different form of pathology conforming to its current sociohistorical context. In contrast, when the genetic diathesis for a disorder is specific or has low pathoplasticity, evidence of the disorder should be available cross-culturally and cross-historically. The disorder may be less common in different sociohistorical periods, but whenever the diathesis is tapped, it should produce the same narrow syndrome.

In past historical periods, the genetic predisposition for what is now BN may have produced different forms of psychopathology, such as hysteria in the Victorian era. The demographic features of those afflicted with these two illnesses are quite similar, and the abrupt emergence of these syndromes is also quite similar. Pope and Hudson (1988) have long viewed eating disorders as lying along an etiologic spectrum with numerous other syndromes. The extent to which BN represents a culturally shaped manifestation of a general genetic diathesis may explain why this disorder, but not AN, responds to the same medications and psychosocial treatments that are used to treat major depressive disorder (MDD) and obsessive–compulsive disorder (OCD; Peterson & Mitchell, 1999). Specifically, both antidepressant medications and cognitive–behavioral therapy have demonstrated efficacy in treating BN but not AN (Peterson & Mitchell, 1999). Possibly the genetic diathesis to BN can be expressed as hysteria, BN, MDD, OCD, or any combination of these depending on a variety of environmental factors. Twin studies have the ability to examine this question indirectly by investigating whether disorders share genetic transmission. If there is a high degree of shared transmission among disorders, then the disorders may represent different expressions of a genetic diathesis with high pathoplasticity. An early twin investigation of BN found shared genetic transmission between this disorder and major depression (Walters et al., 1992). However, when examined with a larger, more powerful multivariate model including six psychiatric disorders (BN, phobias, generalized anxiety disorder, panic disorder, major depression, and alcoholism), BN loaded on a single genetic factor with phobias and panic disorder (Kendler et al., 1995). Findings from this study suggest that BN may indeed share genetic transmission with other forms of "neuroses" and that this shared transmission may be indicative of greater pathoplasticity of the disorder. To date, no study has examined AN using multivariate, genetic analyses. Although one study found some common genetic risk factors between AN and major depression (Wade et al., 2000), findings were limited by the inclusion of only one comorbid disorder. Thus, future twin research can evaluate the pathoplasticity associated with the genetic diatheses for AN and BN.

Conclusion

Previous work has posed modern Western idealization of thinness as a common etiologic factor for AN and BN. However, our review reveals that the epidemiology, history, and cultural distribution of these disorders are distinct. Researchers interested in revealing the pathophysiology of these disorders would do well to attend to these patterns, as they suggest distinct hypotheses concerning variability of heritability estimates and pathoplasticity. If our hypotheses are supported in future behavior genetic research, then two lines of evidence would suggest that some or all of the genes contributing to the development of BN differ from those contributing to the development of AN. This would provide the greatest evidence, thus far, for etiologic validity in distinguishing between these two syndromes. The extent to which AN and BN are linked in the medical, academic, and popular press may represent a historical coincidence more than a true relationship between these disorders.

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Exhibit 10

CHAPTER 2

Diagnosis, Assessment, and Treatment Planning for Bulimia Nervosa

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Bulimia nervosa (BN) was initially described as distinct from anorexia nervosa (AN) by Russell in 1979. Since that time, BN has emerged as an important diagnostic entity with well-recognized medical, psychological, and social comorbidities and complications. Much is now known about its associated features, complications, and course. Risk factors and appropriate treatments are also increasingly well understood. This chapter provides a broad overview of BN, discusses appropriate assessment approaches, and describes a basic approach to treatment planning.

Diagnostic Criteria for and Differential Diagnosis of BN

Two sets of diagnostic criteria for BN currently exist. The diagnostic criteria included in the text revision of the fourth edition of the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-IV-TR; American Psychiatric Association [APA], 2000) are as follows:

A. Recurrent episodes of binge eating. An episode of binge eating is characterized by both of the following:
   1. Eating, in a discrete period of time (e.g., within any 2-hour period), an amount of food that is definitely larger than most people would eat during a similar period of time and under similar circumstances.
   2. A sense of lack of control over eating during the episode (e.g., a feeling that one cannot stop eating or control what or how much one is eating).

B. Recurrent inappropriate compensatory behavior in order to prevent weight gain, such as self-induced vomiting; misuse of laxatives, diuretics, enemas, or other medications; fasting or excessive exercise.

C. The binge eating and inappropriate compensatory behaviors both occur, on average, at least twice a week for 3 months.

D. Self-evaluation is unduly influenced by body shape and weight.

E. The disturbance does not occur exclusively during episodes of AN.

Specify type:

1. **Purging Type:** During the current episode of BN, the person has regularly engaged in self-induced vomiting or the misuse of laxatives, diuretics, or enemas.
2. **Nonpurging Type:** During the current episode of BN, the person has used other inappropriate compensatory behaviors, such as fasting or excessive exercise, but has not engaged in self-induced vomiting or the misuse of laxatives, diuretics, or enemas. (p. 550)

The ICD-10 classification of mental and behavioral disorders (World Health Organization, 1992) lays out similar diagnostic guidelines, though the focus of the cognitive criterion is "morbid fear of fatness," not self-evaluation as per DSM-IV-TR. In addition, purging and nonpurging types are not recognized in ICD-10.

These two sets of diagnostic criteria, if rigorously applied, will lead to some diagnostic discrepancy for certain individuals, but each criterion set captures the broad concept of disordered eating characterized by binge eating, compensatory behaviors, and a disturbance in attitudes about weight, shape, and eating. A substantial number of individuals with disordered eating have symptoms reminiscent of BN but do not meet either DSM-IV-TR or ICD-10 criteria for BN, often because they lack the required frequency of binge eating, compensatory behaviors, or both. Under current diagnostic guidelines, such individuals would likely receive a diagnosis of eating disorder not otherwise specified (EDNOS). At this writing the DSM criteria for eating disorder (ED) diagnoses are being critically examined in anticipation of a new DSM to be published in 2012. In light of these efforts, these diagnostic criteria for BN (and the corresponding differential diagnosis for those not meeting full criteria for BN) may be subject to change. Another differential diagnostic consideration is AN: Individuals with AN can present with binge-eating and purging behavior and typically have similar disturbances regarding body shape, weight, and eating. The DSM-IV-TR stipulates that if someone has such symptoms but is at sufficiently low weight to meet diagnostic criteria for AN, then that diagnosis would supersede BN, with the AN binge–purge subtype specification.

On rare occasion, other medical entities should be considered in the differential diagnosis. For example, some types of upper gastrointestinal pathology can be associated with recurrent vomiting. Similarly, other gastrointestinal pathology (e.g., celiac sprue) can be associated with weight loss and persistent diarrhea, thus mimicking purging by laxative abuse.

Brief Overview of BN

Epidemiology

Estimates of the prevalence of BN have varied widely since it was introduced as a diagnostic category in 1980. This variation has been attributed to changing definitions of the illness, differences in the populations studied, and possible changes in illness prevalence over time. DSM-III did not include a frequency requirement for binge-eating episodes. Prevalence estimates based on DSM-III were therefore quite high, as the diagnostic criteria did not distinguish occasional binge episodes from a more serious disorder. DSM-III-R established a minimum number of weekly eating binges, resulting

in lower prevalence estimates. Currently, the general consensus is that approximately 2–3% of young women meet criteria for BN as defined in DSM-IV-TR. However, most of the epidemiological studies of BN have been conducted on school- or college-age populations. Based on surveys of a large, nationally representative sample of randomly chosen U.S. adults, the National Comorbidity Survey Replication study reported a lifetime prevalence of BN as 1.5% among females and 0.5% among males (Hudson, Hiripi, Pope, & Kessler, 2007). The median age of onset reported was 18, which is consistent with previous studies.

It is unclear whether the prevalence of BN has changed over time; evidence exists for decreased, increased, and stable prevalence. Keel, Heatherton, Dorer, Joiner, and Zalta (2006) found that the point prevalence of BN (based on DSM-III criteria) among college females decreased significantly from 4.2% in 1982 to 1.3% in 1992, then stabilized to 1.7% in 2002. A survey of adolescent girls conducted at a suburban high school in 1981 and again in 1986 showed a significant decrease in point prevalence of BN from 4.1 to 2.0% (Johnson, Tobin, & Lipkin, 1989). Heatherton, Nichols, Mahamedi, and Keel (1995) conducted a survey of college students in 1982 and again in 1992. They found that the point prevalence of BN (based on DSM-III criteria) had decreased from 7.2 to 5.1% in women and from 1.1 to 0.4% in men. Several more recent studies found no significant change in the prevalence of BN (Crowther, Armey, Luce, Dalton, & Leahey, 2008; van Son, van Hoeken, Bartelds, van Furth, & Hoek, 2006; Zachrisson, Vedul-Kjelsas, Gotestam, & Mykletun, 2008). Still other studies have argued for increased risk with successive birth cohorts (e.g., Hudson et al., 2007; Kendler et al., 1991). Interpretation of these various studies is limited by changes in diagnostic criteria over time and between studies. Possible explanations for any changes observed might include true changes in prevalence, growing awareness of the disease after it was described, changes in media portrayal of eating disorders since that time, or recall bias.

Associated Features/Comorbidity

A striking feature associated with BN is the high rate of co-occurring psychopathology. Most prominent is depression, which occurs in the majority of patients with BN at some point during the illness (Herzog, Keller, Sacks, Yeh, & Lavori, 1992; Hudson et al., 2007); studies suggest rates of 50–70% or more. At one time, BN was hypothesized to be a variant of depression (Hudson, Pope, Jonas, & Yurgelun-Todd, 1983; Hudson, Pope, Yurgelun-Todd, Jonas, & Frankenburg, 1987; Kassett et al., 1989), although this hypothesis seems no longer tenable. Whether this comorbidity with mood disorders is confined to unipolar mood disorder is somewhat unclear. Historically, the focus has been mostly on major depression, but recent reports suggest that rates of bipolar illness may be elevated as well (Baldassano et al., 2005; Hudson et al., 2007; Ramacciotti et al., 2005). Mood disorders have their own, independent clinical significance, of course. The presence of comorbid mood problems portends a less favorable outcome in some studies (Keel, Mitchell, Miller, Davis, & Crow, 1999) but not others (e.g., Fichter, Quadflieg, & Hedlund, 2008).

A wide variety of anxiety disorders is also quite common (Kaye, Bulik, Thornton, Barbarich, & Masters, 2004). Obsessive–compulsive disorder (OCD) is sometimes viewed as being more strongly related to AN (Swinbourne & Touyz, 2007), although in some samples rates in AN and BN are similar (e.g., Kaye et al., 2004). OCD symptoms

may persist long after recovery from BN (von Ranson, Kaye, Weltzin, Rao, & Matsunaga, 1999). Substance use disorders are also quite common. Alcohol and other types of substance dependence appear to impact a substantial minority of patients with BN (Bulik et al., 2004; Holderness, Brooks-Gunn, & Warren, 1994), and tobacco dependence is also quite common (Anzengruber et al., 2006; Welch & Fairburn, 1998). The relationship between BN and personality disorders also has been widely explored. A number of reports have cited elevated rates of personality disorders, including particularly those in Cluster B (for a review, see Grilo, 2002).

Cultural Factors

Cultural factors are thought to play an important role in BN, as in other EDs (Keel & Klump, 2003). Prevailing cultural attitudes regarding thinness, the importance of shape, and the high positive value placed on low weight are widely prevalent in Western societies at this time. Many observers have commented on the fact that the seeming appearance of BN as an important diagnostic entity in the latter half of the 20th century coincides with a growing cultural emphasis on thinness. This seems evident from a casual examination of the evolution of popular culture over several decades, whether reflected in popular media, in advertising and fashion, or in the depiction of ideal body types in art. Some investigators have also provided objective evidence for this change (e.g., in the form of changes in the body mass index (BMI) of beauty contest winners; Rubinstein & Caballero, 2000). One might interpret the birth cohort effects on BN prevalence (found in some BN prevalence studies, reviewed above) as supporting the role of culture in BN.

There is also growing evidence supporting the impact of cultural change on the prevalence of both disordered-eating attitudes and EDs. One example comes from studies conducted by Becker and colleagues in Fiji, both prior to, and shortly following, the introduction of Western TV broadcasting (Becker, Burwell, Navara, & Gilman, 2003). This work has documented very low rates of disordered eating prior to the introduction of Westernized TV and the rapid development of attitudes toward weight and shape similar to those found in Western culture within just a few years of the introduction of Western media. This natural experiment vividly highlights the potent role of culture in the development of BN and other EDs.

Gender

BN primarily affects women. This fact has been known from the earliest descriptive samples (Fairburn, Cooper, Doll, Norman, & O'Connor, 2000), and historically, gender ratios of 10:1 or greater have been cited (e.g., see DSM-IV). On the other hand, more recent samples (e.g., from the National Comorbidity Survey; Hudson et al., 2007) have found that although in community samples BN is still more prevalent in women than men, the ratio may be closer to 3:1. One possibility is that this finding reflects a radical shift in prevalence, but it seems more likely that it results from a higher prevalence of treatment seeking among women with BN than among men.

This gender disparity raises the interesting question as to the reason for such a divergence. The answer remains somewhat unclear, and a number of hypotheses have been advanced. Certainly, cultural messages about weight and shape are focused mostly

(though not entirely) on females, which might account for part of the discrepancy. Biological factors might also help to explain this difference. There is evidence to suggest that changes in gonadal hormone status with puberty may impact eating behavior (Klump, Keel, Culbert, & Edler, 2008). Furthermore, there is now evidence to suggest that the impact of familial, presumably genetic, variables on eating behavior may be highly dependent on changes in gonadal hormone status associated with the onset of puberty (Klump, Burt, McGue, & Iacono, 2007). Intrauterine hormonal exposure (assessed using co-twin gender in twin studies) influences disordered eating in adulthood (Culbert, Breedlove, Burt, & Klump, 2008). These results raise the possibility that biological factors may play a far greater role in the gender disparity and prevalence of BN than was previously thought.

Course

The course of BN is increasingly well understood. A wide variety of studies has now described this course, though many have been of relatively short duration (Keel & Mitchell, 1997). One study examined outcome in a cohort 10–15 years after participants initially presented for treatment (Keel et al., 1999). In this study of 222 women (80.5%) agreed to participate. At a mean follow-up of 11.5 years, only 11% still had full BN and about 70% were in full remission. Other studies using somewhat smaller samples have also described outcomes using repeated assessments (rather than a single time point). Examples include studies of 4 years' duration (Agras, in press), 5 years' duration (Grilo et al., 2007), 7.5 years' duration (Herzog et al., 1999), and 12 years' duration (Fichter et al., 2008). All these studies found partial remission or full recovery at follow-up in the majority of participants. At the same time the pattern observed en route to recovery involves remission and relapse for many people, and frequent diagnostic crossover (most often to EDNOS or binge-eating disorder, but rarely to AN). Thus, it appears that the overall course of BN is more favorable than that seen in AN, and this appears to be true both in clinical (Keel et al., 1999) and community (Fairburn et al., 2000) samples.

One important aspect is mortality, and here the data are somewhat surprising. For example, in the Keel et al. study, mortality was 0.5%. In this and other studies, mortality rates have been low and standardized mortality ratios (i.e., the mortality reported in the population divided by the expected mortality rate, based on age, gender, and ethnicity) have generally not been elevated. This finding is surprising for two reasons: (1) the medical complications known to be associated with BN, and (2) the strong association of BN with other psychiatric illnesses known to confer increased risk for suicide. Whether this finding accurately represents mortality in BN or is due to a variety of confounding factors (e.g., the secretive nature of the illness, the inadequacy of mortality reporting, methods used to ascertain vital status) is unknown.

Psychobiology

Efforts to understand the psychobiology of BN have evolved along several lines. First, a variety of studies has attempted to examine neurotransmitters and neuromodulators known to be involved in the control of feeding, mood, or anxiety. A main focus of this work has been serotonin (Kaye, 2008). In brief, there is evidence for diminished serotonergic neurotransmission, reflected by diminished serotonin metabolite levels in acutely ill women with BN (Jimerson, Lesem, Kaye, & Brewerton, 1992), which appears,

conversely, high in recovered women (Kaye et al., 1998). Platelet paroxetine binding, another measure of serotonin function, is also altered in BN (Steiger et al., 2005), and response to serotonergic probes is blunted (Brewerton, Lydiard, Laraia, Shook, & Ballenger, 1992; Jimerson et al., 1997). These findings intersect with positron emission tomography (PET) studies that have shown altered serotonin receptor 1A and 2A activity after recovery from BN (Kaye, 2008; Kaye et al., 2001) and diminished serotonin transporter levels in ill individuals (Tauscher et al., 2001).

Functional magnetic resonance imaging (fMRI) studies have also been conducted, examining patterns of brain activation and response to salient stimuli. The stimuli have included drawings of varying body shapes (Schienle, Schafer, Hermann, & Vaitl, 2008; Uher et al., 2005), visual images of food (Schienle et al., 2008; Uher, 2004), and ingestion of glucose (Frank et al., 2006). Increased activation of structures such as the anterior cingulate cortex (ACC) and insula, in conjunction with diminished activity in other cortical regions, has been frequently observed in acutely ill participants, with persistent diminished ACC activities in recovered participants. PET studies have also pointed to alterations in regional cerebral blood flow (rCBF) (Andreason et al., 1992) which may normalize with recovery (Frank, Kaye, Greer, Meltzer, & Price, 2000).

Taken together, this work suggests state-dependent alterations in brain function at neurochemical and circuitry levels. Whether these represent an underlying predisposition to BN, the acute effects of BN symptoms, or aftereffects of the illness (in recovered individuals) is unclear, and the implications for treatment or prevention are not known. Of potential importance, it is not known whether alterations observed in recovered women are associated with risk for relapse.

Genetics/Familial Issues

A wide variety of studies has now examined the familial and genetic bases for BN. This work has evolved as follows. First, there is clear evidence that BN is a familial entity, as are other EDs. For example, the risk of having BN, if one has a female relative with an ED, has been reported to be 4.4 times the risk in the general population (Strober, Freeman, Lampert, Diamond, & Kaye, 2000). The results of twin registry studies comparing monozygotic and dizygotic twins have also shown that disordered eating appears to be not merely familial but in fact genetic; that is, symptoms occur more commonly in the sibling of an affected identical cotwin than in the sibling of an affected fraternal cotwin. Different analyses have yielded different heritability estimates, often in the range of 50–80% (Kendler et al., 1991). Examination of behaviors seen in BN separately has shown both binge eating and vomiting to be heritable (Sullivan, Bulik, & Kendler, 1998). More recently, Wade et al. have reported both common and distinct risk factors for these two BN symptoms (Wade, Treloar, & Martin, 2008). At this point, active work is underway to understand the specific genetic bases for this heritable risk (Kaye, Devlin, et al., 2004). Linkage analyses and candidate gene studies are now beginning to identify potential target regions for consideration for a variety of quantitative traits observed in EDs (Bacanu et al., 2005).

Etiology

The forgoing provides a complex but potentially somewhat contradictory series of factors to be considered when thinking about the etiology of BN. Evidence of a genetic

basis for BN is strong, consistent, and, at this point, widely accepted. On the other hand, studies suggest an important role for cultural factors. Furthermore, it is difficult to reconcile a simple genetic basis for BN with the apparent emergence of this diagnostic entity over the last half century (during which time the genome could not have changed sufficiently to account for the rise of a new, purely genetic illness). The most likely explanation of the etiology of BN, which addresses all of these conflicting factors, is one in which gene–environment interactions are posited. Specifically, genes of importance in BN may code for behavioral traits important in, but probably not specific to, BN. These likely include anxiety, perfectionism, impulsivity, and food obsessions. In the absence of the critically necessary environment, these genes may have a different behavioral presentation or may have very little observable behavioral impact. When provided with a critically important environment—in this case, an environment that places extreme salience on weight, shape, and appearance—many of those carrying these genes develop BN. This appealingly parsimonious explanation is consistent with a number of observations, including the relatively recent appearance of BN; the important contributions of both genetic and environmental factors; the development of disordered-eating attitudes in substantial numbers of individuals after relatively brief exposure to Westernized culture; and the fact that, although disordered attitudes toward eating, weight, and shape are relatively common in a society that exposes everyone to messages about weight and shape, full-blown eating disorders do not occur in most individuals. This conceptualization also fits well with existing literature that has examined factors that provide risk for the onset of disordered eating (including BN). These include a variety of prospective studies (Bearman, Martinez, & Stice, 2006; Fairburn, Cooper, Doll, & Davies, 2005; McKnight Investigators, 2003; Neumark-Sztainer et al., 2007; Wade, Bulik, Prescott, & Kendler, 2004). From this literature, a number of important factors, particularly risk factors for onset, has emerged, including constructs such as thin ideal internalization, higher BMI, neuroticism, weight teasing, social pressure, and negative life events. Most would be consistent with the forgoing model of etiology.

Maintenance Factors

BN symptoms typically persist for years, raising the question: What factors maintain these symptoms? Generally, work in this area has focused on psychological mechanisms. A limited amount of work has hypothesized potential biological maintenance mechanisms, such as vagal nerve dysfunction (Faris et al., 2003); other psychobiological changes (discussed elsewhere in this chapter) might also play an important maintaining role. None of these potential biological changes has yet been incorporated into a well-developed maintenance model that has been formally tested, however.

The best developed model for the maintenance of BN symptoms has been described by Fairburn and has received some empirical support (Fairburn et al., 2003). In this model a critical factor is extreme concern about weight and shape, which results in severely restrictive eating behavior, in turn leading to binge eating followed by compensatory purging behavior. Binge eating and purging tend to lead to one another in a cyclical fashion. In addition, both are thought to increase concern about weight and shape, leading to further restrictive eating, further binge eating and purging, and so on.

Fairburn and colleagues (2003) examined this potential model in a 5-year longitudinal study. Predictors of persistent BN symptoms were overvaluation of shape and weight, a history of childhood obesity, poor social adjustment, and duration of eating disturbance. Also in keeping with the model, persistent binge eating and persistent purging predicted one another.

Thus, it appears that cognitive symptoms of the eating disorder lead to behavioral symptoms, which in turn reinforce the cognitive symptoms. There is every possibility that biological maintenance factors also tend to perpetuate this cycle, although this hypothesis remains untested.

Assessment

Initial Interview and Data Gathering

Aspects of effective interview techniques are directly applicable to the assessment of individuals with BN. This disorder is frequently a secretive illness in which most individuals have symptoms for a number of years prior to acknowledging the problem and first seeking assessment and treatment. Some individuals present in an open fashion, eager to receive treatment, but others are more guarded and reluctant to divulge BN symptoms unless specifically asked. Traditional, open-ended initial questioning often yields little information regarding BN symptoms, about which many patients feel much shame. More directed, focused questions are then useful. Conveying an open, accepting, nonjudgmental, and knowledgeable attitude is particularly useful. It is often necessary to ask about BN symptoms at repeat visits because patients may only gradually become willing to reveal some symptoms.

A number of ED-specific factors should be addressed as they help to inform treatment, predict course, and assess for possible complications. For example, understanding the time course of symptoms leading up to presentation is quite useful. A specific evaluation of the severity of symptoms (including the size of eating binges and their frequency, the nature and frequency of compensatory behaviors, eating patterns, dietary restraint, and body image/body dissatisfaction) is also needed. A careful assessment of laxative and ipecac use is important, as the presence of these factors influence risk of medical complications and helps inform management. The use of diuretics, diet pills, and over-the-counter weight loss medications is not uncommon, but their use is not often volunteered. It is important to inquire about a history of AN in the past, as this information will help to clarify the risk for osteoporosis. Finally, a critical part of initial data gathering involves the measurement of weight. Careful information about the frequency of self-weighing by subjects should also be collected.

Psychological Assessment

Because other psychiatric problems frequently co-occur with BN, a thorough assessment for comorbid psychopathology is also indicated. Most prominent among the comorbid problems are mood disorders, particularly unipolar depression. Clinical assessment for unipolar depression can be aided by the use of an instrument that quantifies severity of depressive symptoms, such as the Beck Depression Inventory (BDI; Beck, Ward, Mendelson, Mock, & Erbaugh, 1961). Repeated use of such measures will allow the clinician

to track the severity of depression throughout treatment. Moreover, there is increased interest in subtyping those with BN based on the presence of even subdiagnostic levels of depression symptoms (Stice & Fairburn, 2003), and the BDI allows for this. Of note, ED treatment is often associated with improvement in mood symptoms, independent of using medications or psychotherapies that directly target depressed mood. Thus, monitoring mood is helpful for identifying those instances in which adding definitive treatment for mood disorder is necessary.

Anxiety disorders are similarly very common in people with BN; these too should be evaluated in everyone presenting for BN treatment. As with depression, treatments for BN can improve anxiety, and some BN treatments are treatments for anxiety in their own right, such as selective serotonin reuptake inhibitors (SSRIs). Conversely, improvements in eating behavior are sometimes associated with the short-term exacerbation of anxiety symptoms. Finally, comorbid substance abuse and dependence should be assessed at intake.

Medical Evaluation

Because medical complications are common in BN, a physical examination is often indicated. BN occurs most frequently at an age when contacts with the medical system are relatively uncommon, so such contact typically must be specifically recommended. Early in the course of treatment when symptom levels are high, medical monitoring is appropriate and useful. In many treatment settings individuals are referred to their regular medical provider when they first present for BN treatment.

One of the most common complications is electrolyte disturbance, particularly hypokalemia, which is a fairly specific but not particularly sensitive method for detecting the presence of purging (Crow, Salisbury, Crosby, & Mitchell, 1997). Electrolytes should be measured at intake and then intermittently when they are abnormal at intake, or when purging symptoms persist during treatment. Dental evaluation is often overlooked but can be quite helpful, because dental complications are common in BN. Also, clear identification of any existing dental complications can form an important part of the rationale for change for some patients. Finally, osteoporosis evaluation should be considered in those with a prior history of AN. There is evidence to suggest that a history of depression may also increase osteoporosis risk (Konstantynowicz et al., 2005).

Nutritional Assessment

The major measure used to inform nutritional assessment in most patients with BN is that of weight. This measure is vital for ascertaining a patient's overall level of physical and nutritional health, and it serves as critically important information for providing feedback that addresses eating disorder–related cognitions, in particular, as they may worsen with the resumption of standard patterned eating. Usually, an assessment of meal patterning is obtained through self-monitoring. For some individuals, this occurs as an independent aspect of treatment; for others, this may be an integral part of psychotherapy. In particular, empirically supported therapies for the treatment of BN, such as cognitive-behavioral therapy (CBT) (Fairburn, Marcus, & Wilson, 1993), target self-monitoring of both weight and meal pattern. For patients at relatively "normal"

body weights, further nutritional assessment beyond that described above is typically not indicated.

Treatment Planning

Treatment should provide the patient with sufficient structure and support to resume normal meal patterning and cease binge eating and purging. Most often, these goals can be effectively accomplished in outpatient treatment. There is evidence to suggest that an early treatment focus on symptom interruption may provide a greater chance of eventual abstinence (Mitchell, et al., 1993). In turn, symptom interruption may be facilitated by a higher frequency of sessions early in treatment; in fact, many specialized outpatient treatments for BN now include a greater frequency of treatment visits (often twice per week) in the first several weeks.

For patients who require more intensive treatment, partial hospitalization or day programming may be a useful alternative. Most often such programs involve living at home and attending treatment several hours a day, several days per week. Many patients struggle most with urges to binge-eat and purge later in the day, so these programs often meet later in the day and provide structured meal interventions. Hospitalization is generally reserved as an option when less intensive treatments fail or when severe co-occurring psychopathology (particularly suicidality) is present.

One other possible indication for a more intensive treatment setting is the presence of co-occurring substance or alcohol use dependence (SAUD). When EDs and SAUD co-occur, it would seem ideal to provide an integrated treatment program that actively addresses both of these issues. Unfortunately, the question of how best to treat such co-occurring problems has received little research attention, and combined programs are rare. One recent controlled trial found that for alcohol-dependent women with concurrent ED, participation in treatment for alcoholism (behavioral coping skills therapy) was associated with reductions in both alcohol and ED problems, although the addition of the opiate antagonist naltrexone did not further substantially enhance outcomes (O'Malley et al., 2007). In the absence of such an integrated program, arguments can be made favoring the initial treatment of either the BN or the SAUD; practically speaking, sequencing of treatment is usually decided partly by the availability of each of these treatment resources, and also by the relative severity of the BN and the substance or alcohol use (and their attendant medical complications).

Treatment Choices

A substantial literature provides empirical support for several approaches to treating BN (National Institute for Health and Clinical Excellence [NICE], 2004; Wilson, Grilo, & Vitousek, 2007), including CBT, interpersonal therapy (IPT), and antidepressant pharmacotherapy. Among the best studied of these treatments is CBT, which received an "A" evidence grade in the NICE guidelines (2004). Currently, CBT is viewed as the treatment of choice for BN; it can be delivered using individual, group, and guided self-help approaches (Hay et al., 2008). However, delivery of CBT via group therapy methods is mostly confined to specialty ED settings, as most practitioners who do not specialize in ED treatment will not have a critical mass of patients at any given time to

allow for group treatment. In studies with BN, CBT generally achieves abstinence in one-third to one-half of patients. There is also empirical support for IPT, another focal psychological treatment, which received a "B" grade in the NICE guidelines (2004). In two studies IPT resulted in lower abstinence rates than CBT at end of treatment, but did not differ from CBT at later follow-up (Agras, Walsh, Fairburn, Wilson, & Kraemer, 2000; Fairburn, Jones, Peveler, Hope, & O'Connor, 1993).

An extensive body of literature also has examined pharmacotherapy for BN, with antidepressants by far the most studied agents. Most antidepressants have been studied, and most trials have reported positive results relative to placebo. Overall, response rates to antidepressant medications are generally lower than those seen in psychotherapy trials (typically, end-of-treatment abstinence rates of 20–35%). The SSRI fluoxetine in high doses (i.e., 60 mg/day) is often described as the "gold standard" pharmacotherapy treatment, given significant findings reported in the largest trial to date (Fluoxetine Bulimia Nervosa Collaborative Study Group, 1992; Goldstein, Wilson, Thompson, Potvin, & Rampey, 1995), and it has received a Food and Drug Administration (FDA) indication for BN treatment in the United States. Less is known about the relative or combined effects of CBT and pharmacotherapy. Studies have found that CBT alone is superior to pharmacotherapy alone (Agras et al., 1992; Walsh et al., 1997). Combined treatments seem to be better than pharmacotherapy alone but not substantially better than CBT alone, although the combined approach may have an added benefit for associated problems such as depressed affect (Agras et al., 1992; Walsh et al., 1997).

A major practical challenge in the treatment of BN is the fact that most therapists have not received specific training in these therapies (Mussell et al., 2000), and it appears that these treatments are rarely used (Crow, Mussell, Peterson, Knopke, & Mitchell, 1999). This reality raises questions about the potential utility of more generalizable treatments such as medications, self-help approaches, and stepped-care approaches. Guided self-help CBT appears to be an option with some literature support (see Wilson, Grilo, & Vitousek, 2007, for a review), although effective implementation of self-help treatments in real-world controlled trials has been challenging (Walsh, Fairburn, Mickley, Sysko, & Parides, 2004). Alternatively, a treatment plan employing an increasingly intensive series of interventions could be considered. There is some evidence that simple sequential treatment approaches for nonresponders to a first full course of treatment may be associated with limited further response and low retention rates (Mitchell et al., 2002). This finding has spurred interest in stepped-care treatment approaches, which make more rapid transitions between treatments involving increasing intensity, specialization, and cost. For example, a stepped care approach of guided self-help, followed by fluoxetine, followed by CBT may be more cost-effective and more therapeutically effective than starting with the most cost- and time-intensive treatments, such as CBT (Crow et al., 2008; Mitchell et al., 2008).

Treatment Team

Many treatment configurations are used in ED treatment. These span the spectrum from an individual physician prescribing antidepressant treatment as the sole treatment approach to a specialty center treatment team consisting of a psychotherapist, a psychiatrist for medication management, a dietician for nutritional assessment and recommendations, an occupational therapist for group cooking activities, and a primary

care physician for medical monitoring. In practice, decisions as to the makeup of the treatment team are driven by several practical factors, including the local availability of clinicians. Due to the scarcity of specialized eating disorder services, many (perhaps most) patients live in areas where this full spectrum treatment team is unavailable. If somewhat less than that full spectrum is available, then the secondary question should be: What functions are most critically necessary? First, obtain initial medical assessment and ongoing monitoring of medical stability as needed. Second, obtain initial psychiatric/psychological assessment. Third, identify someone to provide initial specific treatment for BN (medication treatment or psychotherapy).

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Exhibit 11

CHAPTER 3

Diagnosis, Assessment, and Treatment Planning for Binge-Eating Disorder and Eating Disorder Not Otherwise Specified

Jennifer E. Wildes and Marsha D. Marcus

According to the fourth edition of the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-IV; American Psychiatric Association, 1994), individuals presenting with "disorders of eating that do not meet the criteria for any specific eating disorder" (p. 550), that is, individuals with clinically significant eating disorder psychopathology that does not meet DSM-IV criteria for anorexia nervosa (AN) or bulimia nervosa (BN), are classified as having an eating disorder not otherwise specified (EDNOS). Because EDNOS is, by definition, a residual diagnostic category, there are numerous presentations, and little is known about specific variants, with a few notable exceptions. Chief among these is binge-eating disorder (BED), for which research criteria are included in an appendix to the DSM-IV. Investigators also have proposed diagnostic criteria for two additional forms of EDNOS: purging disorder (PD) (Keel, 2007) and night-eating syndrome (Stunkard, Allison, & Lundgren, 2008). Although the limitations of categorical approaches to conceptualizing psychiatric diagnosis have been discussed widely (see, e.g., Widiger & Samuel, 2005), one advantage of defining specific EDNOS syndromes has been to promote research that may inform approaches to the evaluation and treatment of these conditions. Thus, in this chapter, we focus primarily on issues pertaining to the diagnosis, assessment, and treatment of BED, as this is by far the best-studied EDNOS variant. Second, we address forms of EDNOS that are more closely related to AN and BN, including PD. Because night-eating syndrome is covered in another chapter in this volume (see Allison & Stunkard, Chapter 27, this volume), we do not discuss it further here.

Binge-Eating Disorder

Diagnostic Considerations

Diagnostic Criteria

Binge-eating disorder (BED) is characterized by recurrent episodes of binge eating (i.e., the ingestion of a large amount of food accompanied by a sense of loss of control over when, what, or the amount that one is eating) that occur in the absence of the regular compensatory behaviors (e.g., purging, fasting, excessive exercise) seen in BN and the binge-eating/purging subtype of AN. DSM-IV criteria for BED require that binge-eating episodes be associated with "marked distress" and three or more of the following features: (1) eating much more rapidly than normal; (2) eating until uncomfortably full; (3) eating in the absence of hunger; (4) eating alone because of embarrassment over the amount eaten; and (5) feelings of disgust, depression, or guilt after overeating. Finally, the DSM-IV stipulates that for individuals with BED, binge eating occurs at least 2 days per week, on average, for a 6-month period. However, research findings are mixed with respect to the clinical validity of the 2-day-per-week frequency criterion (Latner & Clyne, 2008), and there is no empirical basis for the 6-month duration requirement.

Epidemiology

Recent studies indicate that BED is at least as common as AN and BN in the general population (Hudson, Hiripi, Pope, & Kessler, 2007; Striegel-Moore et al., 2003; Wade, Bergin, Tiggemann, Bulik, & Fairburn, 2006). For example, using data from the National Comorbidity Survey Replication, Hudson and colleagues (2007) reported lifetime prevalence estimates for BED of 3.5% in women and 2.0% in men; these rates were nearly twice as high as those reported for AN and BN combined. Prevalence estimates for BED are even higher among obese individuals, ranging from 4 to 8% in community samples, and up to 30% among patients seeking bariatric surgery or other weight loss interventions (Kalarchian et al., 2007; Marcus & Levine, 2004).

Demographic Correlates

Although eating disorders (EDs) often are thought of as "culture-bound syndromes" that affect young, white females primarily (Keel & Klump, 2003), epidemiological data suggest that BED may occur more widely in the general population. For example, studies using structured diagnostic interviews to evaluate rates of binge eating in black women have documented lifetime prevalence estimates for BED that are similar to those of white women (Taylor, Caldwell, Baser, Faison, & Jackson, 2007), although one report indicates that rates of BED still are higher in whites compared to blacks (Striegel-Moore et al., 2003). Sex differences in rates of BED also are less pronounced than those for AN and BN. Indeed, epidemiological data indicate that although full-syndrome BED is approximately 1.75 times more common in women than in men, the prevalence of recurrent binge eating is at least as high among males as compared to females (Hudson et al., 2007). This discrepancy may be due, in part, to the fact that men are less likely

than women to endorse distress related to binge-eating episodes (Hudson et al., 2007), and thus fail to meet the threshold for BED diagnosis. Finally, it appears that threshold and subthreshold forms of BED may be more common in adults as compared to children and adolescents (Favaro, Ferrara, & Santonastaso, 2003). However, this discrepancy may be due, in part, to the current definition of binge eating, which requires the intake of an objectively large amount of food. Indeed, research has indicated that loss of control is more salient to disordered eating in children than is the amount of food eaten (Tanofsky-Kraff et al., 2007). Similarly, among adolescents, loss of control over eating is associated with heightened ED psychopathology and depression independent of overeating (Goldschmidt et al., 2008).

Other Associated Features and Comorbidity

The clinical correlates of BED are well documented and include high rates of medical and psychiatric comorbidity, elevated distress related to weight, shape, and eating, and diminished quality of life relative to comparison groups. Individuals with BED are significantly more likely than controls to be obese (Hudson et al., 2007) and to have chronic medical problems such as irritable bowel syndrome, fibromyalgia, and insomnia (Javaras, Pope, et al., 2008). Patients with BED also have higher rates of most major psychiatric disorders, including major depressive disorder, bipolar disorder, anxiety disorders, BN, substance use, and personality disorders, compared to individuals without clinically significant binge eating (Cassin & von Ranson, 2005; Hudson et al., 2007; Javaras, Pope, et al., 2008). Studies focusing on the cognitive correlates of disordered eating have documented that concerns about weight, shape, and eating are elevated in individuals with BED relative to obese and nonobese controls, including other disordered-eating groups (Allison, Grilo, Masheb, & Stunkard, 2005; Pike, Dohm, Striegel-Moore, Wilfley, & Fairburn, 2001). Furthermore, overvaluation of shape and weight, a diagnostic requirement for BN but not a diagnostic criterion for BED, is a commonly occurring cognitive feature in BED that has been found to be associated with greater levels of ED psychopathology, higher depression, and lower self-esteem (Grilo et al., 2008; Hrabosky, Masheb, White, & Grilo, 2007). Finally, there is evidence that obese individuals with BED have significantly greater impairment in psychosocial aspects of quality of life (e.g., work, sexual life, self-esteem) relative to obese individuals without binge-eating problems (Hudson et al., 2007; Rieger, Wilfley, Stein, Marino, & Crow, 2005).

Etiology

Although the exact causes remain unknown, BED almost certainly arises from a complex cascade of genetic, biological, and environmental factors. Studies using twin data and advanced statistical techniques have indicated that the heritability of BED lies somewhere between 30 and 80%, most likely in the middle of this range (Javaras, Laird, et al., 2008). Moreover, family interview data have shown that BED aggregates in families independently of obesity (Hudson et al., 2006).

With respect to biological mechanisms, there is evidence that individuals with binge-eating problems have functional alterations in several central and peripheral systems that are associated with the regulation of appetite and eating behavior (for a

review, see Steiger & Bruce, 2007). However, the role of these biological correlates in the pathogenesis of BED has not been well established. For example, although decreased serotonin availability has been implicated in animal models of binge eating (Blundell, 1986), as well as in studies focusing on the pathophysiology of BN (Steiger & Bruce, 2007), one report examining prolactin response to *d*-fenfluramine in individuals with BED found no evidence that the hypothalamic serotonin system is altered in this group (Monteleone, Brambilla, Bortolotti, & Maj, 2000). Similarly, research has failed to document an association between level of brain-derived neurotrophic factor (BDNF) and BED, although BDNF has been shown to modulate eating behavior both in animals and in humans, and decreased levels of BDNF have been found in other disordered-eating groups (e.g., underweight individuals with AN, individuals with BN) (Monteleone et al., 2005). Finally, studies examining the role of appetite-regulating hormones (e.g., cholecystokinin [CCK], leptin, ghrelin) in BED have produced mixed results. Although alterations in CCK and leptin generally have not been observed in individuals with BED (for review, see Steiger & Bruce, 2007), there is some evidence that levels of fasting ghrelin may be diminished in this group (Geliebter, Gluck, & Hashim, 2005; Geliebter, Yahav, Gluck, & Hashim, 2004). However, studies examining ghrelin gene polymorphisms in relation to BN and BED have produced equivocal findings (Monteleone, Tortorella, Castaldo, Di Filippo, & Maj, 2006, 2007), leading some investigators to conclude that ghrelin alterations in patients with BED are a consequence rather than a cause of binge eating (Steiger & Bruce, 2007).

Finally, studies using case-control methodology have identified several potential genetic and environmental risk factors for BED. Examples include childhood obesity, family overeating, low parental contact and high parental demands, and negative comments about weight, shape, and eating (Fairburn et al., 1998; Striegel-Moore et al., 2005). One study using signal detection analysis to identify potential risk factors for BED and BN reported that an elevated level of perceived stress prior to age 14 preceded the onset of binge eating in a significant minority of individuals (Striegel-Moore et al., 2007). Finally, some research has indicated that rates of childhood physical and sexual abuse and bullying by peers are higher in women with BED compared to healthy control women; however, with the exception of sexual abuse in black women, these factors generally do not distinguish women with BED from psychiatric comparison women, suggesting that they are associated with an increased risk for psychiatric disorders, in general, rather than binge eating more specifically (Striegel-Moore, Dohm, Pike, Wilfley, & Fairburn, 2002).

Course of Illness

With notable exceptions (i.e., Cachelin et al., 1999; Fairburn, Cooper, Doll, Norman, & O'Connor, 2000), research evidence indicates that BED is a chronic condition associated with morbidity, mortality, and duration of illness comparable to BN. For example, using data from the National Comorbidity Survey Replication, Hudson and colleagues (2007) reported a mean lifetime duration of illness for BED that was roughly equivalent to BN (i.e., 8.1 vs. 8.3 years) and significantly longer than AN (1.7 years). Similarly, Pope and colleagues (2006) found that individuals with BED reported a significantly longer mean duration of illness (i.e., 14.4 years) than did individuals with AN (5.7 years) or BN (5.8 years) in a community sample of 888 relatives of overweight and obese probands.

Finally, Fichter, Quadflieg, and Hedlund (2008) followed a clinical sample for 12 years after discharge from an inpatient ED program and found no differences between individuals initially diagnosed with BED and individuals initially diagnosed with BN on rates of current ED diagnoses (36% of patients with BED and 28% of patients with BN met criteria for an ED at follow-up), rates of current and lifetime mood and anxiety disorder diagnoses, and number of inpatient treatment days during the follow-up period. The standardized mortality ratios for BED and BN were low (i.e., 2.29 and 2.36, respectively) and did not differ significantly (Fichter et al., 2008). Taken together, these findings highlight the clinical significance of BED as a chronic syndrome, requiring a similar degree of long-term care and follow-up to other EDs.

Assessment

Psychological Evaluation and Data Gathering

BED is a complicated syndrome with behavioral (i.e., binge eating) and psychological (e.g., depression, guilt) components, and a comprehensive assessment may require multimodal methods (Grilo, Masheb, & Wilson, 2001). An interview format generally is the preferred method of diagnostic evaluation. Although self-report questionnaires can be used to screen for BED symptoms, these instruments are not appropriate for assigning diagnoses due to limited specificity—that is, high rates of false-positive diagnoses in persons who do not actually meet criteria for BED (Celio, Wilfley, Crow, Mitchell, & Walsh, 2004). Similarly, although self-report measures can be used to screen for associated psychological problems that may influence treatment formulation and planning, such as mood, anxiety, and substance use disorder comorbidities, interviews are required to arrive at firmer diagnostic impressions. Finally, it is important to keep in mind that although self-report measures can provide useful information about ED psychopathology, their results sometimes differ from those generated by interview-based assessments (Grilo et al., 2001).

In research settings BED often is assessed using standardized interview schedules such as the Structured Diagnostic Interview for DSM-IV Axis I Disorders (SCID-I) (First, Spitzer, Gibbon, & Williams, 1995) or the Eating Disorder Examination (EDE) (Fairburn & Cooper, 1993). However, these instruments require extensive training and considerable time to administer and thus are impractical in many clinical settings. Nevertheless, a careful psychiatric evaluation is important for all individuals seeking treatment for BED. Because binge eating is the cardinal feature of BED, particular attention should be given to the assessment of this behavior. It may be helpful to ask patients to recall details of specific overeating and loss-of-control eating episodes, or to request a description of a "typical binge." Self-monitoring methods, in which patients record information about overeating or loss-of-control eating prospectively for a specified of period time (e.g., the week prior to the interview), also can provide detailed assessment information without introducing the bias of retrospective self-report; however, self-monitoring has been shown to affect eating behavior and frequently is employed in clinical treatment.

It is important to recognize that unlike BN, the BED diagnosis is based on the number of binge-eating "days" rather than "episodes." However, recent data suggest that individuals with BED are able to delineate binges into discrete episodes (e.g., Grilo &

Masheb, 2005; Hilbert et al., 2007), and assessment of binge eating–episode frequency may provide useful clinical information. Finally, many observers have concluded that loss of control over eating, rather than the amount of food ingested, is the hallmark of binge eating (e.g., Latner, Hildebrandt, Rosewall, Chisholm, & Hayashi, 2007); thus, the patient's subjective experience of loss of control is of particular salience.

Medical Evaluation

There is no standard indication for the medical evaluation of individuals with BED independent of the assessment of obesity-related comorbidities. However, because many patients with BED are overweight or obese, medical evaluation may be necessary to ensure that comorbid conditions are managed appropriately. Obesity is associated with numerous medical problems including cardiovascular disease, diabetes, hypertension, kidney disease, obstructive sleep apnea, and several forms of cancer (i.e., colon, breast, esophageal, uterine, ovarian, kidney, and pancreatic) (Eckel, 2008). Thus, it is important that clinicians involved in the evaluation and treatment of obese patients with BED attend to the possibility that these individuals may require referral for assessment and management of coexisting medical problems.

Nutrition Assessment

Nutrition rehabilitation generally is not a major focus of BED treatment. Individuals with BED typically do not engage in severe dietary restriction, and thus the prescription of a healthy diet is of less concern than it might be in other disordered-eating groups (e.g., underweight patients with AN). Nevertheless, because overeating and overweight are common in patients with BED (Allison et al., 2005; Hudson et al., 2007), a nutrition evaluation that focuses on the tailoring of a balanced eating plan that reflects individual preferences may have considerable utility for this group.

Treatment Planning

Treatment Setting

Treatment for BED typically occurs in an outpatient setting. Inpatient or partial hospitalization programs rarely are warranted unless there are significant psychiatric or medical comorbidities that require more intensive intervention. For patients with relatively uncomplicated presentations and no history of prior treatment, it may be appropriate to suggest a stepped-care approach in which a course of self-help is undertaken prior to initiating more intensive intervention. Several studies have documented the benefits of therapist-guided self-help programs relative to waiting-list controls in the treatment of BN and BED (for a review, see Sysko & Walsh, 2008). Moreover, results from a recent study indicate that self-help guided by brief (i.e., six 15- to 20-minute sessions conducted individually over a 12-week period) cognitive-behavioral therapy (CBT) is superior to self-help guided by behavioral weight control in the management of BED (Grilo & Masheb, 2005). Recent work also has documented the promise of computerized technologies (e.g., CD-ROM and Internet-based interventions) as a means of disseminating therapist-guided self-help for BED (Ljotsson et al., 2007; Shapiro, Reba-Harrelson, et al., 2007).

Treatment Options

Several forms of treatment, including individual and group psychotherapy, behavioral weight control, and pharmacotherapy, have demonstrated efficacy in the management of BED. Because empirical support for these interventions has been derived primarily from clinical trials conducted in specialized research centers, their effectiveness in "real-world" settings remains unknown (Wilson, Grilo, & Vitousek, 2007). Nevertheless, evidence-based treatments represent the best first-line approaches to managing BED.

With respect to psychotherapeutic interventions, CBT, conducted individually or in a group format, has the strongest empirical support in the treatment of BED. Indeed, guidelines published by the National Institute for Health and Clinical Excellence (NICE; 2004) in the United Kingdom state that CBT is the treatment of choice for this disorder. Controlled trials have shown that CBT is effective in reducing the frequency of binge days and episodes and also leads to improvements in associated behavioral and cognitive features of disordered eating (e.g., hunger, restraint, disinhibition; for a review, see Brownley, Berkman, Sedway, Lohr, & Bulik, 2007). Moreover, research has documented that these improvements are well maintained over 12-month follow-up (Wilson et al., 2007). Nevertheless, one limitation of CBT as a treatment for BED is that it generally does not produce significant weight loss, despite high rates of abstinence from binge eating at treatment completion. In addition, the superiority of CBT for BED relative to other active interventions remains uncertain. As detailed below, although some research has shown that CBT is more effective than fluoxetine in the treatment of individuals with BED (Grilo, Masheb, & Wilson, 2005; Ricca et al., 2001), there is no evidence that CBT performs better than interpersonal psychotherapy (IPT) in the management of these patients.

Other specialized psychotherapies that have shown promise in the treatment of BED include IPT and dialectical behavior therapy (DBT). As noted above, IPT produces improvements in binge eating, the cognitive correlates of disordered eating, self-esteem, depressive symptoms, and interpersonal functioning that are comparable to CBT (Wilfley et al., 1993, 2002). Likewise, a study comparing group DBT skills training to a wait-list control found that DBT was associated with high rates of abstinence from binge eating at treatment completion that were well-maintained over a 6-month follow-up (Telch, Agras, & Linehan, 2001). However, despite its emphasis on emotion regulation, DBT did not demonstrate superiority relative to the wait-list control in reducing negative affect or enhancing adaptive affect regulation skills—which raises some question about the mechanisms by which this intervention effects change in BED symptoms.

Because most individuals seeking treatment for BED are overweight or obese, there has been considerable interest in the role of behavioral weight control in the management of this illness. Weight management interventions focusing both on moderate calorie restriction and very-low-calorie diets (i.e., approximately 800 kilocalories [kcal] per day) have been utilized in the treatment of obese patients with BED. These interventions differ from psychotherapeutic approaches in that the focus is on weight loss rather than amelioration of binge eating. Although caloric restriction and weight loss do not appear to exacerbate binge eating in patients with BED (for a review, see Marcus & Levine, 2004), support for the efficacy of behavioral weight control in this group has been equivocal.

Several studies have documented that participation in a behavioral weight control program is associated with improvements in binge eating and mood among obese

patients with BED. For example, de Zwaan and colleagues (2005) randomized 71 obese women with BED to a very-low-calorie diet program with or without the addition of group CBT for binge eating. They found no differences between the two conditions with respect to weight loss or abstinence from binge eating. Participants in both groups lost a significant amount of weight (i.e., 35.2 pounds, on average), and 66% were free of binge eating at treatment completion (de Zwaan et al., 2005). These findings are consistent with work from our research group, which found no benefit for CBT over behavioral weight loss in ameliorating binge eating and associated ED psychopathology among obese patients with BED (Marcus & Levine, 2004). Moreover, results from our study indicated that behavioral weight control using a moderate-calorie diet (i.e., 1,200–1,500 kcal/day) was associated with significantly more weight loss at posttreatment compared to CBT in obese individuals with BED. Taken together, these findings suggest that behavioral weight control interventions may be the optimal approach for treating individuals with comorbid obesity and BED.

However, some investigators have raised questions about the utility of behavioral weight control for obese patients with BED. Of particular concern are high rates of weight regain posttreatment in most studies (for a review, see Wilson et al., 2007), as well as research indicating that behavioral weight loss interventions may not be as effective as CBT and IPT in reducing binge eating among patients with BED (Grilo & Masheb, 2005; Wilfley, Wilson, & Agras, 2008). For example, a recently completed multisite randomized controlled trial comparing IPT, behavioral weight loss, and guided self-help CBT for BED found that rates of remission from binge eating at 2 years posttreatment were significantly lower among patients who received the behavioral weight loss intervention compared to those who received IPT or guided self-help CBT (Wilfley, Wilson, et al., 2008). Moreover, results of this study suggested that behavioral weight control was particularly ineffective for patients with BED who had more severe ED and general psychopathology (Wilfley, Wilson, et al., 2008).

Finally, several classes of medication, including antidepressants, anticonvulsants, and antiobesity agents, have demonstrated efficacy relative to placebo in reducing the frequency of binge eating episodes and promoting weight loss in patients with BED (for a review, see Brownley et al., 2007; Reas & Grilo, 2008). Because pharmacological interventions require considerably less investment of time by patient and clinician than do psychotherapeutic approaches or behavioral weight loss programs, medication may be an attractive first-line treatment for BED in many clinical settings. However, it is important to consider that most controlled trials of pharmacological treatments for BED have been of short duration (i.e., 6–14 weeks), and the long-term benefits of these approaches following medication discontinuation are unknown, as no controlled pharmacotherapy-only trials have reported follow-up data (Reas & Grilo, 2008). Although two recent studies have documented the efficacy of an anticonvulsant (i.e., topiramate) and an antiobesity agent (i.e., sibutramine) relative to placebo in ameliorating BED symptoms and reducing body weight over longer periods of active treatment (i.e., 21 and 24 weeks, respectively), neither report included posttreatment follow-up data (Claudino et al., 2007; Wilfley, Crow, et al., 2008).

One approach that often is suggested for the management of patients with BED is the combination of psychotherapeutic and pharmacological interventions. This strategy may be particularly useful for treating obese patients with BED, given that psychotherapies for BED generally have a limited impact on body weight (Wilson et al., 2007).

However, the few studies that have examined the effects of adding pharmacological treatments to psychotherapeutic and behavioral approaches have produced equivocal findings (Reas & Grilo, 2008). For example, although early reports indicated that adding antidepressant medication (i.e., fluoxetine, desipramine, imipramine) to CBT or behavioral weight control interventions was associated with a greater short term reduction in the frequency of binge eating (imipramine only) and improved weight loss in overweight individuals with binge eating (Agras et al., 1994; Laederach-Hofmann et al., 1999; Marcus et al., 1990), two recent double-blind randomized controlled trials found no benefit of augmenting CBT (Grilo, Masheb, & Wilson, 2005) or behavioral weight control (Devlin et al., 2005) with fluoxetine for either weight loss or remission of binge eating in patients with BED. Findings for anticonvulsant and antiobesity agents are somewhat more promising. For example, one recent study found that augmenting group CBT for BED with the anticonvulsant medication topiramate produced significantly greater reductions in body weight and higher rates of remission from binge eating over a 21-week course of treatment, relative to CBT with placebo (Claudino et al., 2007). Similarly, another report showed that adding the antiobesity agent orlistat to guided self-help CBT led to increased weight loss and higher rates of remission from binge eating at the completion of a 12-week course of treatment; moreover, reductions in body weight were maintained at a 3-month posttreatment follow-up (Grilo, Masheb, & Salant, 2005). These results require replication with longer-term follow-up to determine whether reduction in binge eating and weight loss persist after drug withdrawal. Nevertheless, they provide tentative support for the notion that augmenting empirically supported psychosocial treatments with medications designed specifically to target overweight is an effective approach to managing obese patients with BED.

In summary, treatment options for patients with BED include individual and group psychotherapies, behavioral weight loss interventions, and medication. Although CBT has been recommended as the treatment of choice for BED by some evidence-based expert guidelines (i.e., NICE, 2004), no available intervention is effective for all patients. There is an emerging literature on factors that predict treatment response and outcome in patients with BED. For example, research has shown that comorbid personality disorders and increased interpersonal problems, higher levels of shape and weight concern (among patients with low interpersonal problems), and greater negative affect are associated with poor treatment outcome in BED (Hilbert et al., 2007; Masheb & Grilo, 2008). In contrast, it appears that rapid response to treatment, defined as 65% or greater reduction in binge eating by the fourth week of treatment, is associated with superior outcomes in patients with BED, although the prognostic significance of rapid response depends, to some degree, on the treatment studied (Grilo, Masheb, & Wilson, 2006; Masheb & Grilo, 2007). Moderators of treatment outcome (i.e., variables that predict for whom or under what conditions a specific treatment works; Kraemer, Wilson, Fairburn, & Agras, 2002) for BED have yet to be identified (Masheb & Grilo, 2008). Thus, the selection of a specific treatment approach for an individual with BED must be based on a careful assessment by the clinician or treatment team, as well as a discussion of the pros and cons of available options with each patient.

Involvement of Family and Caregivers

Only one study has examined the impact of involving family members or supportive others in the treatment of BED. The results indicate that spouse involvement does not

improve the efficacy of group CBT for BED (Gorin, Le Grange, & Stone, 2003). Nonetheless, there is some evidence that including a support partner improves the efficacy of behavioral weight control programs for obese individuals without BED (Black, Gleser, & Kooyers, 1990; Wing & Jeffery, 1999). Furthermore, including support partners in behavioral weight loss treatment is one of the few strategies that has been shown to improve weight loss maintenance (Gorin et al., 2005). Thus, the involvement of family members or other supportive persons may offer some benefit in the management of obese patients with BED, particularly those enrolled in behavioral weight control programs.

Treatment Team

The treatment team for an individual with BED depends, in large part, on the choice of intervention. Specialized psychotherapies such as CBT, IPT, and DBT require involvement of clinicians with specific training and experience in these modalities, which may be difficult to obtain in some settings. Behavioral weight control programs are available in a variety of contexts (e.g., academic centers, commercial weight loss programs, self-help manuals) and from providers of numerous backgrounds (e.g., dietitians, nutritionists, health psychologists). However, the extent to which weight management provided in the community resembles interventions tested in clinical research may vary widely. Finally, pharmacological interventions require a physician or nurse practitioner to prescribe medication; however, because pharmacotherapy can be performed in a primary care setting by nonspecialists, these treatments may hold the greatest promise in terms of widespread dissemination (Wilson et al., 2007).

Summary

BED is a chronic disorder associated with significant medical and psychiatric morbidity. It also is a relatively common condition, especially among obese individuals. Thus, treatment for BED often focuses on promoting weight loss as well as ameliorating disordered-eating symptoms. Effective interventions include individual and group psychotherapy, behavioral weight control, and pharmacotherapy. However, each of these treatments has disadvantages (e.g., psychotherapy for BED generally does not lead to weight loss; long-term benefits of behavioral weight control and pharmacotherapy are unknown), and no intervention is effective for all patients. Thus, decisions about the treatment of BED must be based on a careful assessment of each patient's presenting symptomatology, including medical and psychiatric comorbidities, review of the benefits and disadvantages of different therapies, and consideration of the availability of trained professionals to provide care.

NOS Variants of AN and BN

In the second part of this chapter we review issues pertaining to the diagnosis, assessment, and treatment of individuals presenting with EDNOS variants that resemble, but do not meet the criteria for, AN and BN. As detailed below, such presentations often represent either a prodromal or residual phase of threshold-level illness, and as such, their management is identical to that of full-syndrome AN or BN. In cases in which

EDNOS symptomatology is atypical or does not resemble a DSM-defined ED, best clinical judgment and consultation are recommended.

Diagnostic Considerations

Diagnostic Criteria

Although the DSM-IV provides no specific criteria for NOS variants of AN and BN, clinicians and researchers working in the ED field are familiar with several common examples of these EDNOS subgroups. Frequently cited NOS presentations of AN include (1) all criteria for AN are met except amenorrhea; (2) all criteria for AN are met except the individual denies fear of fat or concerns about body weight and shape; and (3) all criteria for AN are met; however, despite significant weight loss, current weight is in the normal range. With respect to BN, NOS variants generally are diagnosed in cases in which an individual does not meet the two-episode-per-week frequency criterion for binge eating or compensatory behaviors, or in situations in which the size of the binge-eating episodes is not objectively large. Keel and colleagues (Keel, 2007; Keel, Haedt, & Edler, 2005) have termed this latter EDNOS variant "purging disorder"; others have called it EDNOS—purging type (EDNOS-p; Binford & Le Grange, 2005; Wade, 2007) and EDNOS-BN (Le Grange et al., 2006). In the remainder of this chapter, we use the term *purging disorder* (PD) to denote an EDNOS variant characterized by recurrent episodes of purging (i.e., self-induced vomiting, laxative misuse, diuretic misuse) in the absence of objectively large binge-eating episodes among individuals who are normal weight or overweight.

With the recent formation of the Eating Disorders Work Group for DSM-V, there has been considerable interest in the utility of amending the diagnostic criteria for AN and BN to encompass some of the above-mentioned EDNOS variants. One possibility for change is deletion of amenorrhea from the diagnostic criteria set for AN, as research has consistently failed to document that amenorrhea increases the specificity of this diagnosis (e.g., Andersen, Bowers, & Watson, 2001; Garfinkel et al., 1996). Other proposed changes include modifying "arbitrary" diagnostic criteria such as the suggested minimal body weight criterion for AN (i.e., maintenance of body weight that is < 85% of that expected) and the twice weekly frequency criterion for BN (Wilfley, Bishop, Wilson, & Agras, 2007). Finally, PD has been proposed as a new diagnostic category for DSM-V (Keel, 2007); however, the ongoing debate over the validity of the large-amount-of-food criterion for binge eating coupled with high numbers of subjective binge-eating episodes in samples of patients with PD (e.g., Keel et al., 2005) raise questions about whether this group could be encompassed more appropriately within the BN spectrum.

Epidemiology

Individuals with EDNOS comprise the majority of patients seeking treatment for disordered eating (for a review, see Fairburn & Bohn, 2005). Moreover, with few exceptions (e.g., Fairburn et al., 2007), clinical data have indicated that most of these patients present with atypical or subthreshold forms of AN and BN. For example, Andersen and colleagues (2001) reported that of 119 individuals with EDNOS admitted to the ED unit of a large university hospital, 78% met all but one criterion for AN ($n = 89$) or

BN ($n = 4$). Similarly, Eddy, Doyle, Hoste, Herzog, and Le Grange (2008) reported that three-quarters of a sample of treatment-seeking adolescents with EDNOS ($N = 166$) had subthreshold AN ($n = 46$) or subthreshold BN, including PD ($n = 79$). High rates of EDNOS also have been reported in general psychiatric settings. For example, Zimmerman, Francione-Witt, Chelminski, Young, and Tortolani (2008) found that 51% ($N = 81/164$) of individuals with a current ED presenting to a nonspecialty psychiatric service had EDNOS. Moreover, 40% of these patients met criteria for subthreshold AN ($n = 17$) or BN ($n = 17$). Finally, studies examining rates of ED psychopathology in community samples have documented that 2–5% of individuals have a lifetime diagnosis of subsyndromal AN or BN (Favaro et al., 2003; Wade et al., 2006).

Demographic Correlates

Consistent with the demographic characteristics of threshold-level EDs, available data suggest that NOS variants of AN and BN occur more frequently in whites compared to nonwhites and in females compared to males (Eddy et al., 2008; Fairburn & Bohn, 2005). A notable exception may be extreme dietary restriction in the absence of fear of fat or weight concern, as this AN variant often is observed in non-Western groups (Keel & Klump, 2003).

Other Associated Features and Comorbidity

In general, NOS variants of AN and BN are similar in presentation to full-syndrome EDs. Affected individuals endorse significantly more ED symptomatology, Axis I and II psychiatric comorbidity—particularly mood and anxiety disorder comorbidity—and impairment in psychosocial functioning than do non-eating-disordered groups (Keel et al., 2005; Wade, 2007). Furthermore, studies comparing individuals with NOS variants of AN and BN to their threshold-level counterparts have found few differences on measures of comorbid psychopathology or psychosocial impairment (Binford & Le Grange, 2005; Fairburn et al., 2007; Garfinkel et al., 1996; Keel et al., 2005). There is some evidence that threshold-level BN is associated with greater ED symptomatology relative to PD and other NOS presentations of BN (Binford & Le Grange, 2005; Keel et al., 2005; Le Grange et al., 2006; Wade, 2007); however, differences relate primarily to lower levels of disinhibition and hunger in individuals with PD compared to those with BN, which is consistent with the absence of objective binge-eating episodes in the former group (Keel, 2007).

Etiology

Although there has been considerable interest in identifying factors that may influence the onset of threshold-level EDs, few studies have focused specifically on the etiology of NOS variants of AN and BN. The limitations of assuming etiological continuity across full- and partial-syndrome presentations notwithstanding (for a review, see Striegel-Moore & Bulik, 2007), longitudinal data indicate that NOS variants of AN and BN often represent stages in the long-term course of threshold-level EDs (Milos, Spindler, Schnyder, & Fairburn, 2005), and thus it is likely that they arise from many of the same factors as their DSM-defined counterparts. Indeed, risk-factor studies have identified

several variables that are associated with the onset of both threshold and subthreshold ED psychopathology; examples include childhood feeding problems, sexual abuse and other early adverse experiences, dieting and weight concerns, negative self-evaluation, and general psychiatric morbidity (for a review, see Jacobi, Hayward, de Zwaan, Kraemer, & Agras, 2004). Furthermore, family history data have shown that rates of subthreshold EDs (defined as meeting all but one diagnostic criterion for AN, BN, or BED) are significantly higher in the first-degree relatives of women with threshold level EDs, as compared to the first-degree relatives of non-eating-disordered probands (Stein et al., 1999), indicating that EDNOS aggregates in the families of individuals with DSM-defined eating disturbance.

Because, by definition, individuals with PD do not report objective binge-eating episodes, there has been some recent speculation that the physiological mechanisms underlying this EDNOS variant may differ from those associated with threshold-level BN. In particular, research has documented that women with PD do not exhibit the blunted postprandial CCK response that has been found in patients with BN (Keel, Wolfe, Liddle, De Young, & Jimerson, 2007). Moreover, when compared to women with BN and healthy controls, women with PD report greater subjective feelings of fullness, nausea, and stomachache following a test meal, which may suggest that other neuropeptide systems involved in the regulation of food intake or delayed gastric emptying are involved in the pathophysiology of this illness (Keel et al., 2007). However, future research is needed to determine whether physiological differences between PD and BN represent a distinction in the causes, consequences, or maintenance factors for these conditions. In addition, studies are needed to identify biological factors that may be associated with the presentation and course of other NOS variants of AN and BN.

Course of Illness

Available data suggest that NOS variants of AN and BN are characterized by a variable course of illness, with frequent diagnostic crossover to threshold-level ED psychopathology and high rates of remission from disordered-eating symptoms. For example, Milos and colleagues (2005) reported that of 29 patients initially diagnosed with EDNOS, only 8 (27.6%) retained this status at 12-month follow-up; 5 (17.2%) were diagnosed with AN, 7 (24.1%) with BN, and 9 (31.0%) no longer met criteria for an ED. Furthermore, at the 30-month follow up assessment, more than half of the patients initially diagnosed with EDNOS no longer met criteria for an ED. Fichter and Quadflieg (2007) found similar results in a longitudinal study of inpatients with EDs. Specifically, they reported that more than two-thirds of patients with an EDNOS diagnosis (excluding BED) crossed over to "no eating disorder" at some point during their course of illness; the next highest remission rate was from BED (62.7%) followed by BN (53.0%) and AN (37.6%). Finally, Grilo and colleagues (2007) reported that 83% of a sample of 69 patients with EDNOS experienced remission from threshold-level ED symptoms during a 5-year follow-up, compared to 74% of individuals with BN ($n = 23$); however, relapse rates were high for both groups, with 42% of remitted EDNOS patients and 47% of remitted BN patients experiencing a return of threshold-level ED symptoms. These findings are consistent with the results of other longitudinal studies that have documented similarities between EDNOS and BN with respect to course of illness (Ben-Tovim et al., 2001).

Assessment

Psychological Evaluation and Data Gathering

As in other EDs, a clinical interview by a trained professional is the preferred method of assessment for NOS variants of AN and BN. Interviews should focus particular attention on the individual's history of ED symptoms and weight, as this may help to determine whether the NOS presentation represents a residual phase in the course of a threshold-level illness, a newer onset of disordered-eating symptoms, or a distinct pattern of symptomatology altogether (e.g., PD). Psychological evaluations of individuals presenting with NOS variants of AN and BN also should address psychiatric comorbidities frequently seen in patients with EDs (e.g., depression, anxiety, substance use), as well as history of past treatment for disordered eating and other mental illness.

Medical Evaluation

The medical evaluation of individuals with NOS variants of AN and BN generally is identical to that recommended for threshold-level EDs. Individuals presenting with NOS variants of AN should receive the standard protocol for DSM-defined AN; individuals with bulimic symptoms should be evaluated in the same manner as patients with BN.

Nutrition Assessment

Nutrition concerns for patients with NOS variants of AN and BN generally are similar to those for individuals with threshold-level EDs. Thus, nutrition assessment should follow guidelines recommended for the DSM-defined disorder that the patient's presenting symptomatology resembles most closely.

Treatment Planning

Although individuals with NOS variants of AN and BN have been included in some recent clinical trials (e.g., Fairburn & Grave, 2008), no studies have focused specifically on the treatment of these patients. Thus, there are limited empirical data to guide decisions about the management of NOS variants of AN and BN. As detailed below, in the absence of specific treatment guidelines, individuals presenting with NOS variants of AN and BN typically receive care that is identical to that of individuals with the DSM-defined ED that their symptoms resemble most closely (see Figure 3.1).

Treatment Setting

Decisions about the appropriate level of care for individuals with NOS variants of AN and BN are based largely on the nature and severity of the presenting psychopathology. For underweight patients, acute weight restoration treatment in an inpatient or day hospital setting often is warranted to normalize eating and decrease the frequency of unhealthy compensatory behaviors (e.g., purging, excessive exercise). Normal-weight individuals typically are treated in an outpatient setting; however, brief hospital stays may be required to address medical abnormalities consequent to disordered eating

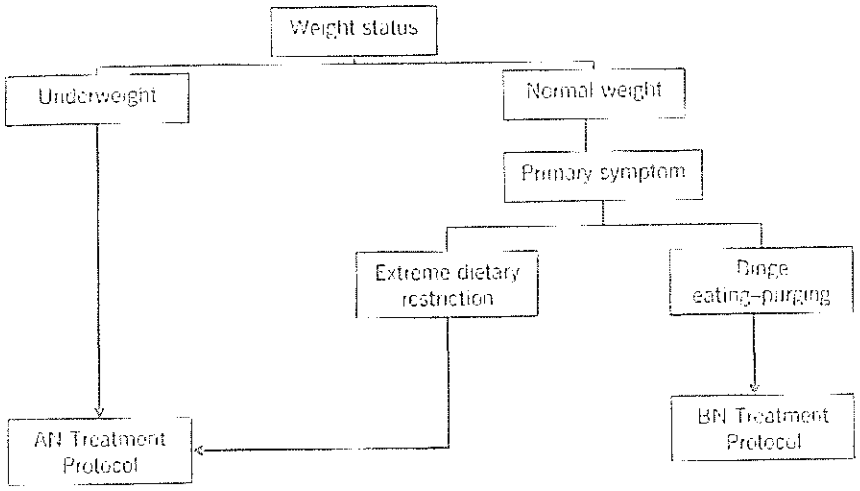

FIGURE 3.1. Treatment algorithm for patients presenting with NOS variants of AN and BN.

behaviors (e.g., electrolyte imbalances due to frequent purging) or severe psychiatric comorbidities (e.g., suicidal behaviors).

Treatment Options

The choice of treatment for individuals with NOS variants of AN and BN depends on the nature of the disordered-eating psychopathology. For underweight individuals, nutrition rehabilitation aimed at normalizing eating and restoring a healthy body weight is a critical component of treatment. However, there is consensus in the field that nutrition rehabilitation alone is insufficient to promote lasting recovery from disordered-eating symptoms (Agras et al., 2004), and thus there is a need for research to develop effective psychotherapeutic and pharmacological interventions for individuals with NOS variants of AN. As reviewed in detail elsewhere (Bulik, Berkman, Brownley, Sedway, & Lohr, 2007), very few controlled trials have focused on the treatment of patients with DSM-defined AN, and they have produced inconsistent findings. Consequently, there is limited evidence on which to base even tentative suggestions for the management of individuals with NOS variants of the disorder. Interventions that may hold promise for the treatment of patients with NOS variants of AN include family therapy for adolescents and individual psychotherapy, particularly for weight-restored patients. Few empirical data support the efficacy of pharmacological interventions for underweight individuals with anorexic psychopathology (Bulik et al., 2007).

Treatment options for patients presenting with NOS variants of BN include individual and group psychotherapies and medication. CBT appears to be particularly effective for individuals with bulimic psychopathology, although there also is evidence that IPT, DBT, and guided imagery are associated with significant and sustained reductions in the frequency of binge-eating and compensatory behaviors (for a review, see Shapiro, Berkman, et al., 2007). With respect to pharamacological interventions, there is strong support for the utility of fluoxetine in the management of patients with BN, and pre-

liminary evidence suggests that several other medications (e.g., trazodone, topiramate, desipramine) are effective in reducing bulimic symptomatology (Shapiro, Berkman, et al., 2007). Finally, some investigators have suggested that differences in the psychobiology of BN and PD may indicate the need for novel pharmacological treatments for individuals who purge in the absence of objective binge-eating episodes (e.g., Keel et al., 2007); however, no empirical studies have addressed the treatment of individuals with PD.

Involvement of Family and Caregivers

For adolescents living at home, parental involvement is standard in the treatment of disordered eating. Empirical studies that have included adolescents with NOS variants of AN and BN have documented the efficacy of family-based interventions for this group (Le Grange, Crosby, Rathouz, & Leventhal, 2007; Lock, Agras, Bryson, & Kraemer, 2005). In contrast, research generally has not supported the utility of family-based treatment for adults with EDs (Bulik et al., 2007); however, clinical experience suggests that some adults with EDNOS may benefit from including family members or other supportive individuals in treatment.

Treatment Team

Professionals involved in the care of patients with NOS variants of AN and BN include psychiatrists, psychologists, social workers, and dietitians. The specific treatment team for an individual with EDNOS depends on the required level of care and the choice of intervention.

Summary

EDNOS is the most common diagnosis assigned to patients seeking treatment for disordered eating, and data suggest that many of these individuals have NOS variants of AN and BN. Although clinical research has found few differences between patients with EDNOS and patients with DSM-defined EDs on measures of clinical severity, including course of illness, little is known about the specific needs of this group. In the absence of empirical data on which to guide treatment planning decisions, the management of EDNOS generally is identical to the management of threshold-level EDs. Future research is needed to characterize EDNOS subgroups more clearly and to develop strategies for their evaluation and treatment.

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Exhibit 12

WBC CONNECTICUT EAST - Projected Census

Year 1 - Projected	M-01	M-02	M-03	M-04	M-05	M-06	M-07	M-08	M-09	M-10	M-11	M-12	Days	Days /	Number of
Days / Month =>	30	30	31	30	30	31	30	30	31	30	30	31	ADC	Week	Patients
CT-E: Adult PHP [# of Days]	32	32	55	54	64	66	86	86	89	86	86	89	824	5	83
> CT-E: Adult PHP - ADC	1.5	1.5	2.5	2.5	3.0	3.0	4.0	4.0	4.0	4.0	4.0	4.0	3.2		
CT-E: Adult IOP [# of Days]	26	26	40	39	51	53	64	64	66	64	64	66	624	3	73
> CT-E: Adult IOP - ADC	2.0	2.0	3.0	3.0	4.0	4.0	5.0	5.0	5.0	5.0	5.0	5.0	4.0		
CT-E: Binge IOP [# of Days]	13	13	13	26	26	27	39	39	40	39	39	40	351	3	41
> CT-E: Binge - ADC	1.0	1.0	1.0	2.0	2.0	2.0	3.0	3.0	3.0	3.0	3.0	3.0	2.3		
CT-E: Adolescent PHP [# of Days]	0	0	0	21	21	22	43	43	44	64	64	66	390	5	25
> CT-E: Adolescent PHP - ADC	0.0	0.0	0.0	1.0	1.0	1.0	2.0	2.0	2.0	3.0	3.0	3.0	1.5		
CT-E: Adolescent IOP [# of Days]	0	0	0	26	26	27	39	39	40	51	51	53	351	3	28
> CT-E: Adolescent IOP - ADC	0.0	0.0	0.0	2.0	2.0	2.0	3.0	3.0	3.0	4.0	4.0	4.0	2.3		
CT-E: Aftercare IOP [# of Days]	0	0	0	0	0	0	26	26	27	39	39	40	195	3	16
> CT-E: Aftercare IOP - ADC	0.0	0.0	0.0	0.0	0.0	0.0	2.0	2.0	2.0	3.0	3.0	3.0	1.3		
TOTAL PATIENT DAYS =>	71	71	109	165	189	195	296	296	306	343	343	354	2,735		265

Year 2 - Projected	M-01	M-02	M-03	M-04	M-05	M-06	M-07	M-08	M-09	M-10	M-11	M-12	Days	Days /	Number of
Days / Month =>	30	30	31	30	30	31	30	30	31	30	30	31	ADC	Week	Patients
CT-E: Adult PHP [# of Days]	107	107	111	107	107	111	129	129	133	129	129	133	1,430	5	144
> CT-E: Adult PHP - ADC	5.0	5.0	5.0	5.0	5.0	5.0	6.0	6.0	6.0	6.0	6.0	6.0	5.5		
CT-E: Adult IOP [# of Days]	64	64	66	64	64	66	77	77	80	77	77	80	858	3	100
> CT-E: Adult IOP - ADC	5.0	5.0	5.0	5.0	5.0	5.0	6.0	6.0	6.0	6.0	6.0	6.0	5.5		
CT-E: Binge IOP [# of Days]	51	51	53	51	51	53	51	51	53	51	51	53	624	3	73
> CT-E: Binge - ADC	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		
CT-E: Adolescent PHP [# of Days]	64	64	66	64	64	66	64	64	66	64	64	66	780	5	50
> CT-E: Adolescent PHP - ADC	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		
CT-E: Adolescent IOP [# of Days]	64	64	66	64	64	66	77	77	80	77	77	80	858	3	69
> CT-E: Adolescent IOP - ADC	5.0	5.0	5.0	5.0	5.0	5.0	6.0	6.0	6.0	6.0	6.0	6.0	5.5		
CT-E: Aftercare IOP [# of Days]	51	51	53	51	51	53	64	64	66	64	64	66	702	3	56
> CT-E: Aftercare IOP - ADC	4.0	4.0	4.0	4.0	4.0	4.0	5.0	5.0	5.0	5.0	5.0	5.0	4.5		
TOTAL PATIENT DAYS =>	403	403	416	403	403	416	463	463	478	463	463	478	5,252		491

Year 3 - Projected	M-01	M-02	M-03	M-04	M-05	M-06	M-07	M-08	M-09	M-10	M-11	M-12	Days	Days /	Number of
Days / Month =>	30	30	31	30	30	31	30	30	31	30	30	31	ADC	Week	Patients
CT-E: Adult PHP [# of Days]	150	150	155	150	150	155	150	150	155	150	150	155	1,820	5	183
> CT-E: Adult PHP - ADC	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0		
CT-E: Adult IOP [# of Days]	103	103	106	103	103	106	103	103	106	103	103	106	1,248	3	145
> CT-E: Adult IOP - ADC	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0		
CT-E: Binge IOP [# of Days]	64	64	66	64	64	66	64	64	66	64	64	66	780	3	91
> CT-E: Binge - ADC	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		
CT-E: Adolescent PHP [# of Days]	86	86	89	86	86	89	86	86	89	86	86	89	1,040	5	66
> CT-E: Adolescent PHP - ADC	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		
CT-E: Adolescent IOP [# of Days]	103	103	106	103	103	106	103	103	106	103	103	106	1,248	3	100
> CT-E: Adolescent IOP - ADC	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0		
CT-E: Aftercare IOP [# of Days]	77	77	80	77	77	80	77	77	80	77	77	80	936	3	75
> CT-E: Aftercare IOP - ADC	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0		
TOTAL PATIENT DAYS =>	583	583	602	583	583	602	583	583	602	583	583	602	7,072		660

Exhibit 13

Article

A Randomized, Placebo-Controlled Trial of Sertraline in the Treatment of Night Eating Syndrome

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Objective: The authors assessed the efficacy of sertraline in the treatment of night eating syndrome.

Method: Thirty-four outpatients diagnosed with night eating syndrome were randomly assigned to receive either sertraline (N=17) or placebo (N=17) in an 8-week, double-blind, flexible-dose (50–200 mg/day) study. A mixed effects linear regression model was used to analyze change in the primary outcome measure, Clinical Global Impression (CGI) improvement rating. Secondary outcomes included changes in night eating symptoms, the number of nocturnal awakenings and ingestions, total daily caloric intake after the evening meal, CGI severity ratings, quality of life ratings, and weight.

Results: Sertraline was associated with significantly greater improvement than placebo. Twelve subjects in the sertraline group (71%) were classified as having responded (CGI improvement rating ≤2, indicating much or very much improved) versus only three (18%) in the placebo group. There were also significant improvements in night eating symptoms, CGI severity ratings, quality of life ratings, frequency of nocturnal ingestions and awakenings, and caloric intake after the evening meal. Overweight and obese subjects in the sertraline group (N=14) lost a significant amount of weight by week 8 (mean=–2.9 kg, SD=3.8) compared with overweight and obese subjects receiving placebo (N=14) (mean=–0.3 kg, SD=2.7).

Conclusions: In this 8-week trial, sertraline was effective in the treatment of night eating syndrome and was well tolerated.

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Night eating syndrome is an eating disorder characterized by morning anorexia, evening hyperphagia, and insomnia with awakenings followed by nocturnal ingestions (1, 2). In addition, mood is usually low (3), with a pattern of worsening in the latter half of the day (2). The core feature of night eating syndrome appears to be delay in the circadian timing of food intake (4). Food intake is lower in the first half of the day and greater in the evening and nighttime. Sleep is often disrupted in the service of food ingestion. In the largest controlled study to date of overweight and obese outpatients with night eating syndrome (4), energy intake in the first 8 hours of the day (6:00 a.m. to 2:00 p.m.) averaged only 575 kcal in night eating syndrome subjects (N=46) versus 1,082 kcal in a comparison group (N=43), whereas energy intake in the last 8 hours (10:00 p.m. to 6:00 a.m.) averaged 591 kcal in night eating syndrome subjects versus only 118 kcal in comparison subjects. The total energy intake over 24 hours was not different between the two groups.

Night eating syndrome is of clinical importance because it is associated with both obesity and psychological distress. Its prevalence has been estimated at 1.5% in the general population (5) with a reported range of 8.9% (6) to 14% (3) in obesity clinics and rates of up to 27% in severely obese persons (5). Night eating syndrome appears to be more common in obese persons than in nonobese persons and to increase in prevalence with increasing adiposity. In a Danish study (7), female obese subjects exhibiting night eating gained 5 kg over a 6-year period, whereas female obese subjects who did not engage in night eating gained 1 kg. About half of individuals with night eating syndrome report that they were of normal weight before the syndrome developed, suggesting that night eating syndrome may be an important pathway to obesity (8).

There have been few reports on the treatment of night eating syndrome. Case reports have suggested benefit from a variety of strategies including *d*-fenfluramine (9), phototherapy (10), progressive muscular relaxation (11), and topiramate (12). The first clinical pharmacotherapy trial (13) was a 12-week, open-label study of 17 subjects treated with sertraline, a selective serotonin reuptake inhibitor (SSRI). A significant reduction of symptoms was seen in obese subjects with night eating syndrome, with about half (N=8) of the group responding to sertraline. Those responders who achieved remission of night eating syndrome (N=5) also lost a significant amount of weight (–4.8 kg, SD=2.6).

The present study sought to follow up this previous open-label trial with a double-blind, randomized, placebo-controlled trial. This time we also included a small number of normal weight subjects with night eating syndrome to deter-

mine if sertraline might relieve the distress associated with the syndrome.

Method

Subjects were recruited from a study that characterized the psychological and behavioral aspects of night eating syndrome (4). These patients were recruited through a combination of print advertisements, TV programming, and a website. The characterization study included 1) a structured clinical interview designed to assess the presence or absence of night eating syndrome, performed by a trained clinician; 2) a 10-day sleep and food diary; 3) the Structured Clinical Interview for DSM-IV (SCID) to assess the presence of past or current psychiatric disorders; and 4) the Eating Disorder Examination to assess the presence of concomitant eating disorders.

Participants

Eligible subjects were at least 18 years of age, met standard criteria for night eating syndrome according to the structured clinical interview, and had a body mass index (BMI) >18 kg/m^2. Applicants were excluded if they 1) were severely depressed (symptoms in excess of the number required for DSM-IV diagnosis and markedly interfering with occupational functioning or with usual social activities or relationships); 2) had a lifetime diagnosis of bipolar disorder or any psychotic disorder; 3) reported substance abuse or dependence within the preceding 6 months; 4) were currently taking psychotropic medications (including hypnotics); 5) were working a night shift or swing shift schedule; 6) were in a weight reduction program; 7) had a current diagnosis of anorexia nervosa or bulimia nervosa (but not binge eating disorder); or 8) lacked awareness of their night eating episodes. The latter criterion was used to exclude subjects with nocturnal sleep-related eating disorder, a parasomnia in which nocturnal eating is accompanied by a lack of awareness at the time and subsequent amnesia for the behavior.

Procedures and Measures

Baseline night eating syndrome symptoms were assessed as part of the characterization of night eating syndrome study (4). Each subject collected data in a food and sleep diary during a 10-day 24-hour prospective monitoring period, with the first 2 days discarded as practice days and the last day discarded because of incomplete data. The diary included a record of all meals, snacks, and beverages consumed. Awakenings (during which the subject got out of bed), nocturnal ingestions, as well as the timing of bedtime and morning awakening were all recorded. A research dietician analyzed diaries for caloric intake and macronutrient content. Subjects were paid for the baseline diary data collection but not for participation in the treatment trial itself. Of the 65 subjects with night eating syndrome who completed the diary assessment, 28 who were eligible to participate in the trial decided not to. Reasons for not participating were inability to schedule (N=16), not wanting to be in a placebo-controlled study (N=7), and not wanting a medication (N=5). This left a total of 37 subjects who entered the treatment trial. Three subjects attended the baseline visit but did not return for any subsequent visits, leaving a total of 34 subjects whose data were included in the analyses.

Subjects were randomly assigned to 8 weeks of double-blind treatment with sertraline or placebo. Psychotropic agents other than the study medication were prohibited during the study. The 8-week duration of the trial was based on the results of our earlier 12-week trial. Subjects took tablets, identical in appearance, containing either 50 mg of sertraline or placebo. Subjects commenced with one tablet daily taken with the evening meal. Subjects were seen every other week for 30-minute visits at which time medication dosage could be adjusted up to a maximum of four tablets daily. Medication tolerance and adherence were recorded at each visit.

Subjects were weighed at each visit and completed three self-report scales: 1) a night eating symptom scale, 2) the Beck Depression Inventory, and 3) the Quality of Life Enjoyment and Satisfaction Questionnaire. The night eating symptom scale is a self-report scale measuring the range and severity of night eating symptoms over the preceding week (13). It measures in a series of 13 items the degree of morning anorexia, evening hyperphagia, sleep disturbance, nocturnal eating episodes and associated cravings or compulsion to eat, and level and pattern of mood disturbance. Each item is scored from 0 to 4, providing a possible range of scores from 0 to 52. The study physician recorded the number of nighttime awakenings (defined as when the subject got up out of bed for reasons other than solely to use the bathroom) and ingestions. The study physician also administered the Clinical Global Impression (CGI) improvement and severity scales and the 17-item Hamilton Depression Rating Scale at each visit. The Hamilton and Beck instruments were used to track changes in depressive symptoms. Outcome was categorized at week 8 on the basis of the CGI improvement rating, which ranges from 1 to 7. CGI improvement ratings were considered a primary outcome measure, with a priori standards applied as follows: subjects with scores of 2 (much improved) were categorized as having responded, and those with scores of 1 (very much improved) were categorized as having remitted.

Evening hyperphagia was assessed by reviewing with the subject the proportion of their daily caloric intake that occurred between the end of the evening meal and bedtime plus any nocturnal ingestions that occurred. As some subjects with night eating syndrome delay their evening meal considerably as part of the circadian delay in the food intake rhythm, a cutoff of 8:00 p.m. was used. Any food intake commencing after this time was considered to be caloric intake after the evening meal. The total caloric intake after the evening meal represents the sum of calories ingested between the end of the evening meal and bedtime plus any calories derived from nocturnal ingestions; it is expressed as a percentage of total 24-hour calorie intake.

The Institutional Review Board of the University of Pennsylvania approved the protocol. All subjects signed the informed consent form after study procedures had been fully explained.

Data Analysis

Means and standard deviations of the outcome variables at each time point were used for descriptive statistics as well as for the depiction of trends over the 8 weeks. The analyses were conducted on an intent-to-treat basis for all subjects who completed at least one follow-up visit after the baseline visit. The repeated-measures outcome variables over the 8-week period were analyzed by a mixed effects linear regression model in the following form: outcome variable=intercept + group + week + group x week. The intercept was assumed to be random in order to take within-subject correlations of the dependent variables into account for statistical inference. Group and time variables were taken as fixed and discrete; two-sided $p<0.05$ was considered significant. This mixed effects modeling approach with available cases using a maximum likelihood method is valid in the presence of observations missing at random (14).

The effects of particular interest were the main group effect and the group-by-week interaction, with this interaction representing differences in trends of the outcome variables over time between night eating syndrome and comparison groups. Omnibus interaction significance tests are reported in the text. Post hoc testing of the main group effects at each time point on the outcome variables was followed by testing of the corresponding parameter contrasts in the mixed effects model with Wald t tests. For this purpose, we used a Bonferroni-corrected significance level

TABLE 1. Demographic and Clinical Characteristics at Baseline Among Subjects With Night Eating Syndrome Randomly Assigned to 8 Weeks of Double-Blind Treatment With Sertraline or Placebo

Characteristic	Sertraline Group (N=17)		Placebo Group (N=17)	
	Mean	SD	Mean	SD
Age (years)	45.1	11.0	44.2	10.6
BMI (kg/m^2)	32.4	6.5	32.9	9.0
Night eating symptom score[a]	31.7	5.6	30.5	6.2
Duration of night eating syndrome (years)	17.6	15.5	15.3	12.7
Beck Depression Inventory score	14.4	9.7	12.1	9.5
Hamilton Depression Rating Scale score	9.9	4.5	9.6	5.2
Quality of Life Enjoyment and Satisfaction Questionnaire score	47.1	11.2	47.4	9.3
	N	%	N	%
Female	11	64.7	12	70.6
Normal weight	3	17.6	3	17.6
Race				
Caucasian	12	70.6	15	88.2
African American	5	29.4	2	11.8

[a] Obtained from self-report ratings of 13 items (score range=0–52).

0.05/4=0.0125 (correcting for the number of treatment visits after baseline), except when testing for correlations. Main group effects at any week with p values lower than this corrected significance level were declared to be significant even if the overall main group or interaction effects were not significant.

Three subjects who met criteria for binge eating disorder in addition to night eating syndrome were included as part of the sample. In line with recent evidence, binge eating disorder and night eating syndrome appear to be two distinct disorders rather than variable expressions of the same underlying psychopathology (15, 16). In this respect, binge eating disorder was treated as a comorbid condition in night eating syndrome subjects and was not viewed as exclusionary for study participation. All three subjects with binge eating disorder plus night eating syndrome were randomly assigned to the placebo group. We tested for the significance of binge eating disorder by including binge eating disorder status in the aforementioned mixed effects models. Binge eating disorder status did not have a significant effect on any of the outcomes except for caloric intake after the evening meal. Thus, caloric intake after the evening meal was the only variable for which binge eating disorder status was controlled. Pearson's correlations were used to assess the association of changes at week 2 with those at week 8 in the SSRI group. We used SAS v8.2 for statistical analyses.

Results

Characteristics of the sertraline and placebo groups at baseline are presented in Table 1. No significant between-group differences for these variables were found.

CGI Ratings

The CGI improvement rating classified 12 of the 17 subjects receiving sertraline as having responded (score ≤2), and seven of these 12 achieved remission or complete resolution of night eating syndrome symptoms (F=6.7, df=4, 113, p<0.001). Of those receiving placebo, only three subjects were classified as having responded (a response rate significantly lower than that seen with sertraline [χ^2=9.66, df=1, p<0.002]), with one of the three placebo responders achieving remission status. Of the three normal weight subjects in the sertraline group, two responded, while none of the three normal weight subjects in the placebo group responded.

Figure 1 shows that the largest reduction in symptoms occurred between baseline and week 2, indicating an early and robust effect of sertraline. Overall, a subject receiving sertraline had a 30% chance of responding by week 2. Five of the 12 who ultimately responded to sertraline had responded as early as week 2, and four of these five achieved remission status by week 2. The lack of early improvement with sertraline did not preclude ultimate response, as 50% of all responses occurred between weeks 4 and 8.

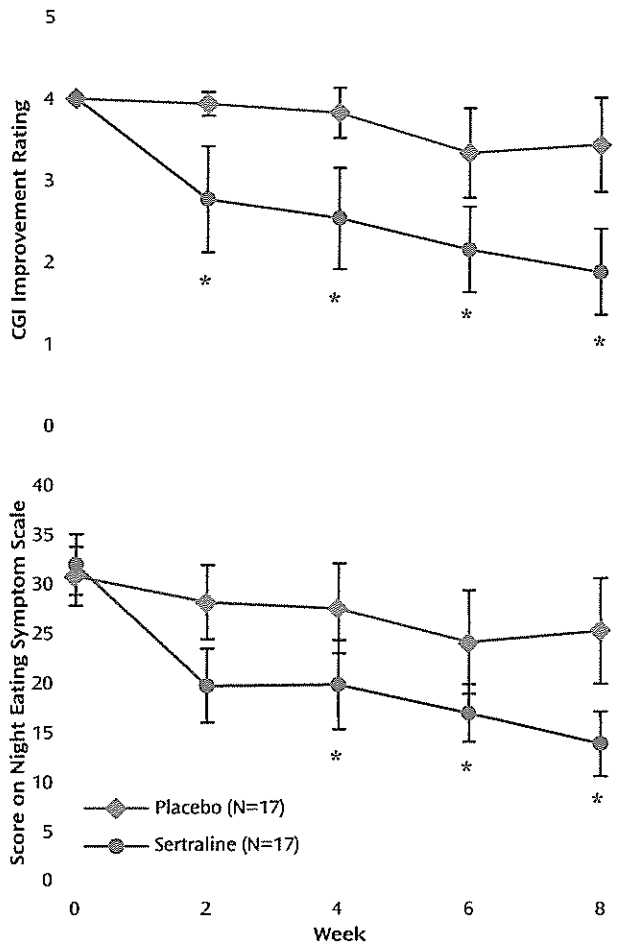
The CGI severity scale is a further index of overall change in night eating syndrome symptoms. The sertraline group had a reduction of two points in symptom severity, from 4.2 at baseline (moderate severity) to 2.2 at endpoint (borderline ill), whereas there was a much more modest reduction (from 4.2 to 3.4) in the placebo group (F=4.1, df=4, 107, p=0.004).

Night Eating Symptoms

Changes in night eating syndrome symptoms were significantly greater in the sertraline group, as assessed by night eating symptom scores over the course of the 8-week study (Figure 1).

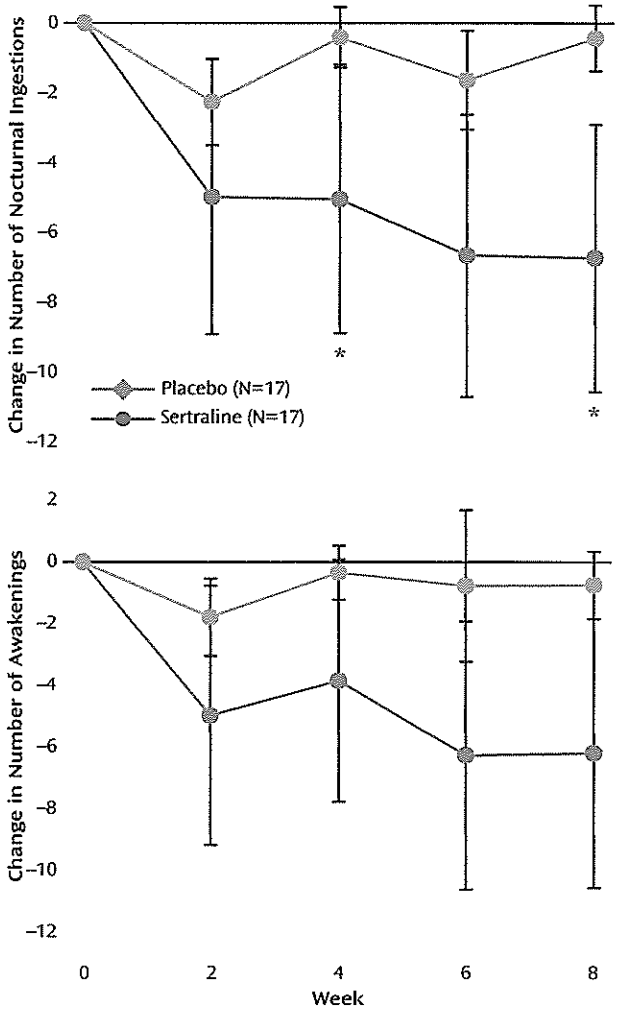
By week 8, the night eating symptom scores of the sertraline group had dropped by 18.1 points (57%) from a baseline score of 31.7 as compared with a reduction of only 5 points (16%) from a baseline score of 30.5 in the placebo group (F=8.0, df=4, 112, p<0.0001). A significant correlation was found between the change in night eating symptom scores from baseline to week 2 and the change from baseline to week 8 for subjects receiving sertraline (r=0.68, p=0.01), indicating that early improvement with sertraline was predictive of ultimate response. In addition, in terms of the speed of response, the dose at first observed response in the sertraline group was correlated with the week of response, suggesting that those responding early improved at lower doses than those responding later (r=0.84, p<0.001). How-

FIGURE 1. Changes in CGI Improvement Ratings and Night Eating Symptoms Over the Course of the Study in Subjects With Night Eating Syndrome Randomly Assigned to 8 Weeks of Double-Blind Treatment With Sertraline or Placebo



*p<0.0125.

FIGURE 2. Changes in Frequency of Awakenings and Nocturnal Ingestions in Subjects With Night Eating Syndrome Randomly Assigned to 8 Weeks of Double-Blind Treatment With Sertraline or Placebo



*p<0.0125.

ever, the probability of response by the study endpoint at week 8 was not correlated with dose, indicating that dose per se was not an important predictor of ultimate response to sertraline (r=0.52, p<0.09).

Ingestions and Awakenings

Figure 2 shows a significant reduction in the frequency of nocturnal ingestions in the sertraline group relative to the placebo group. The number of nocturnal ingestions in the sertraline group fell by 81% (from a mean at baseline of 8.3 per week [SD=8.5] to 1.6 [SD=2.6]) versus a fall of only 14% for the placebo group (from 6.4 [SD=4.9] to 5.5 [SD=4.9] per week) (F=3.7, df=4, 80, p=0.01). Figure 2 indicates that the number of awakenings fell by 74% in the sertraline group (from a mean of 8.8 per week [SD=8.6] to 2.3 [SD=4.7]) versus a fall of only 14% in the placebo group (from 6.4 [SD=4.6] to 5.5 [SD=5.0]). This drop failed to reach significance in the overall interaction effect (F=0.9, df=4, 80, p=0.40), but it yielded a difference in main effect between groups (F=4.7, df=1, 32, p=0.03). In post hoc testing, after adjustment for multiple comparisons, the difference at week 8 was not significant (t=–2.52, df=80, p=0.0137).

Caloric Intake After the Evening Meal

Figure 3 shows that caloric intake after the evening meal in the sertraline group fell by 68%, from 47.3% of total daily calories at baseline to 14.8% at week 8. In the placebo group, caloric intake after the evening meal fell by 29.3%, from 44.7% at baseline to 31.6% at week 8 (F=3.5, df=4, 106, p=0.009). Comparisons of individual time points were not significant (week 8: t=2.0, df=106, p=0.047).

Weight Change

Among overweight subjects (N=14 in both groups), the sertraline group lost 2.9 kg (SD=3.8) versus 0.3 kg (SD=2.7) in the placebo group (F=2.6, df=4, 63, p=0.06). The difference in

main effect for weight between groups at week 8 was significant (t=–2.7, df=63, p=0.009). The three normal weight subjects receiving sertraline lost 1.2 kg compared with a gain of 0.3 kg by the three normal weight subjects receiving placebo.

Mood Measures

Mood measures showed only a modest level of depressive symptoms in both groups at baseline (Table 1), and they did not differ over time (Hamilton score change: F=1.5, df=4, 110, p=0.20; Beck score change: F=1.9, df=4, 100, p=0.10).

Change in night eating symptom scores in the sertraline group did not significantly correlate with reduction in depressive symptoms as assessed with either the Beck Depression Inventory (r=0.26) or Hamilton depression scale (r=0.08). When the two depression items were removed from the full night eating symptom scale, the score on the modified scale still correlated strongly with the full scale score (r=0.98, p<0.001), implying that change in depressive symptoms was not the principal driver of change in night eating syndrome symptoms.

Quality of Life

In the sertraline group there was an increase in score on the Quality of Life Enjoyment and Satisfaction Questionnaire, from 47.1 (SD=12.0) at baseline to 54.3 (SD=9.6) at week 8. Those receiving placebo remained essentially unchanged (mean=47.6 [SD=9.9] at baseline and 47.4 [SD=7.3] at week 8; F=2.5, df=4, 108, p=0.045). No differences were noted at specific time points.

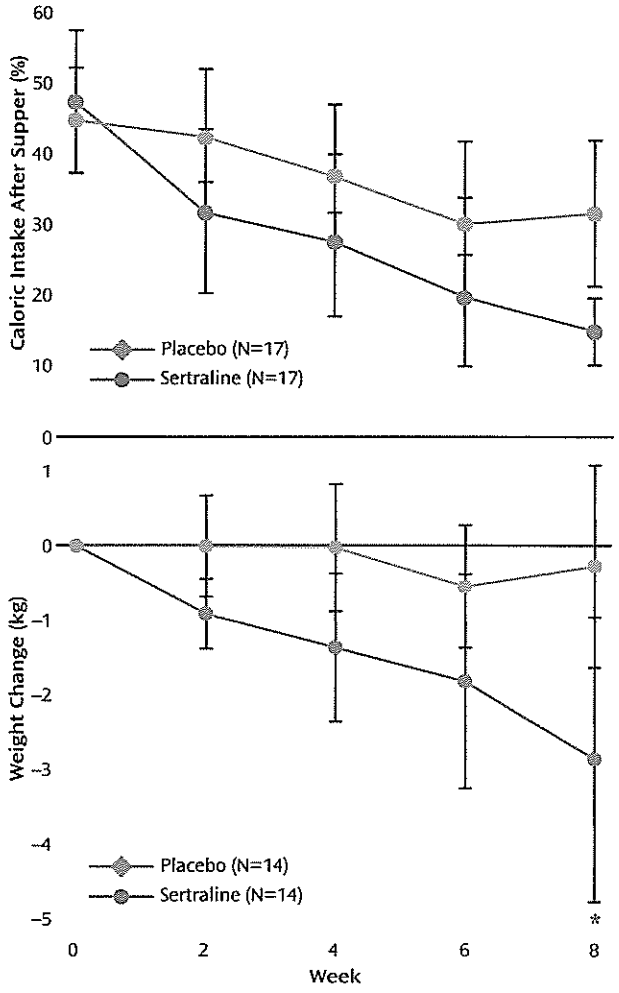
Dosing and Adverse Events

The mean daily dose of sertraline at study endpoint was 126.5 mg (SD=50.4). In contrast, the average dose of placebo attained would have translated to 173.5 mg (SD=40.0), indicating that dose was appropriately increased when a suboptimal response was observed (t=3.0, df=32, p=0.005). Sertraline was well tolerated, and no subject withdrew because of adverse events. Common side effects were mild and included dry mouth, fatigue, diminished libido, and sweating. Nausea as an adverse event was infrequent and transient (affecting two subjects receiving placebo and one receiving sertraline). There were two dropouts in the study, each related to lack of efficacy, one from the sertraline group at week 6, and one from the placebo group at week 4.

Discussion

The results of this study, the first randomized, placebo-controlled trial of sertraline in the treatment of night eating syndrome, are clear. Sertraline, an SSRI medication, reduced the symptoms of night eating syndrome, and most subjects (71%) met response criteria at the end of 8 weeks. The extent of improvement in core night eating syndrome symptoms was striking. The number of nocturnal ingestions in the sertraline group was reduced by about 80% by study endpoint. The caloric intake after the evening meal dropped from 47.3% of total daily calories consumed at baseline to 14.8% at week 8, thus approaching the normative levels of intake for obese comparison subjects without night eating syndrome found in our previous study (4).

FIGURE 3. Changes in Caloric Intake After the Evening Meal and Weight in Subjects With Night Eating Syndrome Randomly Assigned to 8 Weeks of Double-Blind Treatment With Sertraline or Placebo



*p<0.0125.

Consistent with the reduction in evening and nocturnal hyperphagia are the weight losses (about a pound a week), which were similar to those in our earlier, open-label trial with sertraline (13). This finding is the more striking in that no advice or behavioral guidance regarding weight loss was given. It suggests that sertraline may have a restraining effect on the tendency to gain weight in persons with night eating syndrome.

Two patterns of improvement with sertraline were evident. Five subjects experienced an early and robust improvement with sertraline, meaning that close to half of those ultimately responding (N=12) exhibited this re-

sponse after only 2 weeks of receiving active medication. Improvement in the seven other responders occurred more gradually, between weeks 4 and 8. The fact that there was only a weak, nonsignificant correlation between improvement in depressive symptoms among night eating syndrome subjects receiving sertraline and improvement in night eating symptoms strongly implies that the improvement with sertraline was independent of its antidepressant effect.

Subjects receiving sertraline had experienced night eating syndrome for a prolonged period of time (average duration of 17.6 years) before entering the study, but nevertheless, four of the five fast responders achieved full remission after only 2 weeks of sertraline treatment at a dose of 50 mg/day. This indicates that, despite chronicity of symptoms, a rapid and robust improvement is possible for some night eating syndrome patients. A similar finding has been reported in another eating disorder, bulimia nervosa. When treated with the SSRI fluoxetine, a significant reduction was noted in both the binge eating and vomiting episodes after a single week of active treatment (17). It is possible that the nocturnal ingestions in night eating syndrome, while not actual binges, share the psychological component of disinhibition with the binges of bulimia, and that serotonergic medications such as fluoxetine and sertraline have the potential to quickly ameliorate the loss of control present in both disorders.

As indicated earlier, the core feature of night eating syndrome appears to be a delay in the circadian timing of energy intake, with intake suppressed in the morning and increased in the evening and night. In an earlier study of carefully monitored outpatients with night eating syndrome and weight-matched comparison subjects (4), we found dissociation between the sleep and eating rhythms in the night eating syndrome group, with a delay in the food intake rhythm but not in the sleep rhythm.

The maintenance of normal circadian rhythms is the task of the suprachiasmatic nucleus of the hypothalamus, and serotonergic neurons are known to have inputs into the suprachiasmatic nucleus (18). It is possible that sertraline may act by modulating suprachiasmatic nucleus function to restore a more normal food intake pattern in subjects with night eating syndrome. The suprachiasmatic nucleus may be a site of action in some individuals for promoting a rapid improvement in night eating syndrome symptoms.

Limitations of this study include its short duration and small size. Future studies of sertraline and other pharmacotherapy agents in treating night eating syndrome should determine if positive results are sustained over a longer term. If so, sertraline may be able to control both the core night eating syndrome symptoms and the obesity that is a frequent and distressing complication of the syndrome.

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Exhibit 14

STUART L. KOMAN

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W (781) 721-7298
H (781) 721-0359

E skoman@walden
behavioralcare.com

Summary of Experience and Qualifications

Twenty five years experience developing innovative behavioral health care services and products in private and public sectors with an emphasis on advanced clinical design and sound business planning. History of success in start-up and turn-around situations through concentrated focus on strategic and market analysis, team building, and contract negotiation. A natural leader with consistent energy, good humor, and a thorough understanding of taking advantage of windows of opportunity.

Professional Experience

2003 to Present: President and CEO, Walden Behavioral Care, LLC.

Development of 45 bed private psychiatric hospital providing inpatient partial hospital and intensive outpatient services to individuals with a wide range of psychiatric illnesses including highly specialized treatment of individuals with eating disorders. This hospital is the only new facility of its kind licensed by the Department of Mental Health in the Commonwealth of Massachusetts in over ten years and has rapidly garnered local and national attention for its unique service offerings and pleasant physical surroundings.

1997 to Present: *Principal*, Koman Associates, Winchester, Ma.

Independent consulting firm providing professional assistance to public and private entities to plan, fund, develop, and deliver behavioral health care and related services. Major projects include: development of managed care models for severely mentally ill populations; assessment of administrative and clinical readiness for implementation of Medicaid managed care; management reorganization of hospital-based and community-based systems of care; strategic planning and due diligence related to acquisition scenarios; and time limited and open ended management coaching and support.

1990-1997: *Co-founder, President and C.E.O.,* Choate Integrated Behavioral Care, Inc., Stoneham, MA.

1990: Started Choate Health Systems, Inc. - owner and operator of psychiatric hospitals.
1991: Started Choate Health Management, Inc. - owner and/or manager of innovative behavioral health services including acute and sub-acute alternatives to hospitalization, contract management of general hospital psychiatric programs, consultation services to providers and payers (managed care companies, HMO's, state government, private business) and unbundled care management services.
1992: Started Choate Psychiatric Associates, Inc.- multi-disciplinary behavioral group practice.
1995: Sold CHM and CPA to Merit Behavioral Care, Inc.

Taken together, the three Choate entities grew from start-up in 1990 to approximately 40 million dollars in revenue in 1996 and served some 30,000 consumers annually through treatment programs and managed care services operating in ten states.

1989-1990: *President*, Charles River Health Management, Inc., Brighton, MA.
1987-1989: *Vice-President*, Charles River Health Management, Inc., Brighton, MA.
1985-1987: *Executive Director, Contracts Division*, Charles River Hospital, Wellesley, MA.

Conceived and implemented the expansion of a traditional, hospital-based behavioral treatment program into a multi-site, multi-level system of care for disadvantaged children and adolescents. Funded initially as a public sector demonstration project, this effort achieved numerous objectives: first to "privatize" a state hospital service in Massachusetts; first to develop a full continuum of care under one clinical and administrative umbrella; first to implement home health technology in a continuum of this type; first major venture of the Department of Mental Health with a proprietary hospital corporation; and first to implement consumer feedback and outcome data in the treatment and administrative design. In addition, this division (later, a corporate subsidiary) grew from its initial contract in 1985 to approximately 10 million dollars in revenue from contracts and other services in 1990 and was profitable in every year of operation.

1981-1985: *Director, Adolescent Program*, Charles River Hospital, Wellesley, MA.

Chief Psychologist and Administrator of 15-bed adolescent unit of proprietary hospital corporation. Co-designed and developed unique family treatment oriented program. Provided direct treatment in individual, family and group psychotherapy. Initiated multiple family group therapy program. Member of hospital senior management team. Initiated research program to assess consumer and referent satisfaction and implemented programmatic changes to incorporate findings in clinical design. Maintained census in excess of 95% for all years of operation.

1982-1997: *Private Practice, Clinical Psychology*, Winchester, MA.

Education
Ph.D., Clinical Psychology, Duke University, Durham, NC, 1981
Bachelor of Science, Phi Beta Kappa, Trinity College, Hartford, CT, 1976

Appointments
Medical Staff – Walden Behavioral Care
Faculty – Tufts University School of Medicine; Instructor in Psychiatry

Licensure, Certifications and Specialty Areas
Certified Health Service Provider in Massachusetts, license # 3046.
Clinical practice focus - family therapy, treatment of addictions, treatment of adolescents, pain management and hypnosis.

Published: Handbook of Adolescents and Family Therapy, Mirkin, M. and Koman, S., Gardner Press, New York, 1986.

Featured speaker in following areas:
- The future of behavioral health care: carve in vs. carve out, vertical vs. horizontal integration, and performance-based reimbursement.
- Developing systems of care in the age of managed care.
- Integrating clinical programs into a system of care.
- New roles for psychologists in the new Millenium.

Professional Affiliations

American Psychological Association
Governing Board: Committee for the Advancement of Professional Practice
Liaison to Task Force on Serious Mental Illness

Massachusetts Psychological Association

American Family Therapy Academy
American Orthopsychiatric Association

Community Activities
Community Activities

Chairman, Board of Directors, Twelve Step Education of New England (1998-2006):
This private, non-profit corporation develops supportive residential environments for individuals recovering from substance abuse disorders. Involved in all aspects of agency development.

Clinical Advisor/Clinical Counselor, A Better Chance (ABC), Winchester, Ma. (1994-present):
This community based non-profit corporation is a chapter of the national ABC, a residential academic program for promising but at-risk youth ages 14-18. Provision of bi-weekly group therapy for students and as needed consultation to residential advisors, host families and Board

of Directors.

Walter M. Henritze

Home:	21 Havelock Road, Worcester, MA 01602	[Phone: 508-754-7582]
Office:	880 Main Street – 2nd Floor, Waltham, MA 02451	[Phone: 781-647-2921]

Entrepreneur & Financial Executive

Founder and executive manager for a series of successful startups ranging widely from media and communications to software and non-profit arts organizations. Increasing focus on strategic and financial management with a current emphasis on health care services. Highly organized. Technically adept. Team builder.

Professional Highlights

Current

Walden Behavioral Care, LLC • Chief Financial Officer • 2009 – present
In-patient & out-patient treatment for patients with eating and psychiatric disorders
Manage all aspects of financial operations, including oversight of day-to-day accounting, supervision of billing department, negotiations with outside vendors, coordination of annual audit work (company financials, Medicare & Medicaid, 401(k) plan), as well as preparation of annual budgets and monthly reports. Recent accomplishments include:

- Built new budgeting system from scratch and revamped/upgraded payroll system.
- Instituted new "trouble ticket" reporting system for IT service requests.
- Researched and specified new telecomm/data system to link all physical locations.

Previous

Pandetix, LLC • Founder, Manager & CFO • 2005 – 2009
Performance monitoring software for business telephone systems
Set up company infrastructure and established operations; developed sales systems and marketing campaigns; acted as primary point of contact for all external contacts (banks, vendors, prospects, etc.); developed documentation and provided customer support.

Wave Inc. • Founder, President & CEO • 1984 – 2001
Electronic media and business theater for corporate communications
Grew company to $5.0 million in revenue over 15 years; developed complete operational and financial infrastructure; hired and promoted key departmental managers; supervised every aspect of financial operations; directed sales force through primary growth years.

ZMedia Group Inc. • Founder, President & CEO • 1994 – 2001
Television programs and series for broadcast and cable television
Grew company to $2.0 million in revenue over six years; developed budgeting system for multi-million dollar television projects; supervised every aspect of financial operations.

Community

Bijou Community Cinema, Inc. • Founder & Treasurer (Past)
Showcase for classic, independent and foreign films along with community events

Union Station Alliance • Advisory Board Member (Past)
Dedicated to the restoration and reuse of Worcester's Union Station

Rails to Trails Conservancy • New England Advisory Board Member (Past)
Working to create a national network of trails along abandoned railroad lines

WCUW Inc. • Board of Directors & President (Past)
Operator of community radio station (WCUW-FM) for Worcester County

Education

Bachelor of Arts – Communication Arts • Clark University, Worcester MA

CURRICULUM VITAE

Date Prepared: 02/07/11

Name:	Ronald J. Steingard
Office Address:	Walden Behavioral Care 9 Hope Avenue, Suite 500 Waltham, MA 02453
Home Address:	7 Valley Road, Milton, Massachusetts 02186
Place of Birth:	Philadelphia, Pennsylvania

Current Position:

2011-	Chief Medical Officer and Vice President for Medical Affairs Walden Behavioral Care, Waltham, Massachusetts

Education:

1973	B.A.	University of Pennsylvania
1977	M.D.	Pennsylvania State University

Postdoctoral Training:

Internship and Residencies:

1977-1978	Intern in Psychiatry, Department of Psychiatry, University of Michigan, Ann Arbor, Michigan
1978-1980	Resident in Psychiatry, Department of Psychiatry, Cambridge Hospital and Harvard Medical School, Cambridge, Massachusetts
1980-1981	Chief Resident in Psychiatry, Inpatient Service, Department of Psychiatry, Cambridge Hospital and Harvard Medical School, Cambridge, Massachusetts
1981-1983	Resident in Child Psychiatry, Department of Psychiatry, Cambridge Hospital and Harvard Medical School, Cambridge, Massachusetts

Licensure and Certification:

1978	National Board of Medical Examiners
1978-	Massachusetts License Registration
1982	American Board of Psychiatry and Neurology; Certification in Psychiatry
1985	American Board of Psychiatry and Neurology; Certification in Child Psychiatry

Academic Appointments

1983-1984	Instructor in Psychiatry, Harvard Medical School
1986-1993	Instructor in Psychiatry, Harvard Medical School

1994-1998	Assistant Professor of Psychiatry, Harvard Medical School
1998-2001	Associate Professor of Psychiatry, Harvard Medical School
2001-2011	Professor of Psychiatry and Pediatrics, UMass Medical School
2011	Lecturer in Psychiatry, Tufts University School of Medicine

Medical School Appointments

2004-	Senior Consultant, Commonwealth Medicine, University of Massachusetts Medical School
2004-2007	Director, Office of Clinical Affairs, Office of Medicaid, Executive Office of Health and Human Services, Commonwealth of Massachusetts
2004-2007	Medical Director, MassHealth, Executive Office of Health and Human Services, Commonwealth of Massachusetts
2006- 2007	Chief Medical Officer, Executive Office of Health and Human Services, Commonwealth of Massachusetts
2006- 2007	Director of Strategic Planning, Office of Medicaid, Executive Office of Health and Human Services, Commonwealth of Massachusetts
2006-2011	Chief Medical Officer, Commonwealth Medicine, University of Massachusetts Medical School
2006-2011	Associate Vice Chancellor, Commonwealth Medicine, University of Massachusetts Medical School
2007-2011	Director, Center for Health Policy and Research, Commonwealth Medicine, University of Massachusetts Medical School

Hospital Appointments:

1986-1989	Clinical Associate in Psychiatry, Department of Psychiatry, Massachusetts General Hospital, Boston, Massachusetts
1990-1991	Assistant in Psychiatry, Department of Psychiatry, Massachusetts General Hospital, Boston, Massachusetts
1991-1997	Assistant in Psychiatry, Department of Psychiatry, Children's Hospital, Boston, Massachusetts
1991-1997	Director of Psychopharmacology, Department of Psychiatry, Children's Hospital, Boston, Massachusetts
1992-2002	Research Associate in Psychiatry, Brain Imaging Center, McLean Hospital, Belmont, Massachusetts
1996-1997	Director of Clinical Research, Department of Psychiatry, Children's Hospital, Boston, Massachusetts
1997-2001	Director, Child and Adolescent Psychiatry, Cambridge Hospital, Cambridge, Massachusetts

1999-2001	Acting Chairman, Department of Psychiatry, Cambridge Hospital, Harvard Medical School, Cambridge Massachusetts
2001-2004	Vice Chairman, Child and Adolescent Psychiatry, Department of Psychiatry, UMass Memorial Medical Center

Hospital and Health Care Organization Clinical Responsibilities

1981-1982	Psychiatric Consultant and Co-Leader of the Alumni Program Schiff Day Treatment Program, Department of Psychiatry, Cambridge Hospital, Cambridge, Massachusetts
1981-1983	Psychiatric Consultant, Behavior Associates of Boston, Boston, Massachusetts
1983-1984	Attending Psychiatrist, Inpatient Child Psychiatric Service New England Memorial Hospital, Stoneham, Massachusetts
1984-1989	Assistant Medical Director, Pembroke Hospital, Pembroke, Massachusetts
1985-1989	Director of Child and Adolescent Psychopharmacology, Pembroke Hospital, Pembroke, Massachusetts
1986-1989	Director of Children's Services, Pembroke Hospital, Pembroke Massachusetts
1987-1988	Staff Psychiatrist, Pediatric Psychopharmacology Unit, Child Psychiatry Service, Department of Psychiatry, Massachusetts General Hospital, Boston, Massachusetts
1988-1991	Assistant Director, Pediatric Psychopharmacology Unit, Child Psychiatry Service, Department of Psychiatry, Massachusetts General Hospital, Boston, Massachusetts
1989-1990	Pediatric Psychopharmacology Consultant, Pembroke Hospital, Pembroke, Massachusetts
1989-1990	Coordinator of Inpatient Resident Training at Pembroke Hospital, Massachusetts General Hospital, Boston, Massachusetts
1989-1991	Staff Psychiatrist, Psychopharmacology Clinic, Psychiatry Service, Massachusetts General Hospital, Boston, Massachusetts
1989-1992	Staff Psychiatrist, Obsessive Compulsive Disorder Clinic, Psychiatry Service, Massachusetts General Hospital, Boston, Massachusetts
1991-1997	Director of Psychopharmacology, Department of Psychiatry, Children's Hospital, Boston, Massachusetts
1993-1997	Consultant Staff, Pain Treatment Service, Department of Anesthesiology, Children's Hospital, Boston, Massachusetts
1996-1997	Director of Clinical Research, Department of Psychiatry, Children's Hospital, Boston, Massachusetts
1997-2001	Director, Child and Adolescent Psychiatry, Cambridge Hospital, Cambridge, Massachusetts
1999-2001	Acting Chairman, Department of Psychiatry, Cambridge Hospital, Harvard Medical School, Cambridge Massachusetts
2001-2004	Vice Chairman, Child and Adolescent Psychiatry, Department of Psychiatry, UMass Memorial Medical Center
2004-2011	Senior Consultant, Commonwealth Medicine, University of Massachusetts Medical School
2004- 2007	Director, Office of Clinical Affairs, Office of Medicaid, Executive Office of Health and Human Services, Commonwealth of Massachusetts
2004-2007	Medical Director, MassHealth, Executive Office of Health and Human Services, Commonwealth of Massachusetts
2006-2007	Chief Medical Officer, Executive Office of Health and Human

	Services, Commonwealth of Massachusetts
2006-2007	Director of Strategic Planning, Office of Medicaid, Executive Office of Health and Human Services, Commonwealth of Massachusetts
2006-2011	Chief Medical Officer, Commonwealth Medicine, University of Massachusetts Medical School
2006-2011	Associate Vice Chancellor, Commonwealth Medicine, University of Massachusetts Medical School
2007-2011	Director, Center for Health Policy and Research, Commonwealth Medicine, University of Massachusetts Medical School

Major Administrative Responsibilities:

1984-1989	Assistant Medical Director, Pembroke Hospital, Pembroke, Massachusetts
1985-1989	Director of Child and Adolescent Psychopharmacology, Pembroke Hospital, Pembroke, Massachusetts
1986-1989	Director of Children's Services, Pembroke Hospital, Pembroke Massachusetts
1988-1991	Assistant Director, Pediatric Psychopharmacology Unit, Child Psychiatry Service, Department of Psychiatry, Massachusetts General Hospital, Boston, Massachusetts
1989-1990	Coordinator of Inpatient Resident Training at Pembroke Hospital, Massachusetts General Hospital, Boston, Massachusetts
1991-1997	Director of Psychopharmacology, Department of Psychiatry, Children's Hospital, Boston, Massachusetts
1995-1997	Chairman, Pharmacy and Therapeutics Committee, Children's Hospital, Boston, Massachusetts
1996-1997	Director of Clinical Research, Department of Psychiatry, Children's Hospital, Boston, Massachusetts
1997-2001	Director, Child and Adolescent Psychiatry, Cambridge Hospital, Cambridge, Massachusetts
1997-2001	Academic Director, Center for Mental Health Services Research and Training, Department of Psychiatry, Cambridge Hospital, Cambridge, Massachusetts
1999-2001	Acting Chairman, Department of Psychiatry, Cambridge Hospital, Harvard Medical School, Cambridge Massachusetts
2001-2004	Vice Chairman, Child and Adolescent Psychiatry, Department of Psychiatry, UMass Memorial Medical Center
2002-	Advisory Council, Children's Medical Center, UMass Memorial Health Care, Worcester, Massachusetts
2001-2004	Board of Directors, UMass Behavioral Health System, UMass Memorial Medical Center
2002- 2004	Board of Directors, Community Health Link, UMass Memorial Medical Center
2003-2004	Board of Directors, Home for Little Wanderers, Boston, Massachusetts
2003-2004	Chairman, Program Services Committee, Board of Directors, Home for Little Wanderers, Boston, Massachusetts
2004-2005	Board of Directors, Massachusetts, Health Quality Partners, Boston, MA
2004-	Senior Consultant, Commonwealth Medicine, University of Massachusetts Medical School
20004-2007	Director, Office of Clinical Affairs, Office of Medicaid, Executive Office of Health and Human Services, Commonwealth of Massachusetts
2006-2007	Chief Medical Officer, Executive Office of Health and Human Services, Commonwealth of Massachusetts

2006-2007	Director of Strategic Planning, Office of Medicaid, Executive Office of Health and Human Services, Commonwealth of Massachusetts
2006-2011	Chief Medical Officer, Commonwealth Medicine, University of Massachusetts Medical School
2006-2011	Associate Vice Chancellor, Commonwealth Medicine, University of Massachusetts Medical School
2007-2011	Director, Center for Health Policy and Research, Commonwealth Medicine, University of Massachusetts Medical School

Major Committee Appointments:

National:

1990	American Academy of Pediatrics, Committee on Children With Disabilities, Panel on Attention and Learning Disabilities in Children, Washington, D.C.
1996	National Institute of Mental Health, Reviewer, RFP # NIMH-96-CR-005, "Research Units on Pediatric Psychopharmacology (RUPP)"
1998-	Consultant, Pediatric Psychiatry Research, Office for Protection from Research Risks, Department of Health and Human Services
1999	National Institute of Mental Health, Special Emphasis Panel Review of Multisite study (MH60589; MH60727; MH60703; MH60621; MH60702; MH60705; MH60927), Primary Reviewer
1999	Consultant, Health Care Finance Administration, Review of Child Mental Health Services
1999	Consultant, Public Consulting Group, Critical Service Review Southeastern Connecticut Mental Health Department
1999-2001	Steering Committee Member, Health Services Research Center, Cambridge, Massachusetts
1999	Conference Participant, "Making a Connection: Coordinating and Functional Paradigms for Understanding Pediatric Neurodevelopment", Invitational Conference sponsored by NICHD, NIMH and NINDS
2000	Conference Participant, "Are We Helping? How Do We Know?", Invitational Conference co-sponsored by Boston Children's Institute and the Casey Family Program
2001	National Institute of Mental Health Special Emphasis Review Panel; ZMH1-CRB-B (04) SEP Review/NIMH, Primary Reviewer
2001-2003	Professional Advisory Board, NIH Curriculum Supplement, *Mental Illness as a Brain Disease* Project, Biological Sciences Curriculum Study (BSCS), Colorado Springs, Colorado.
2001	National Institute of Mental Health Special Emphasis Review Panel; ZRG1 CFS 01 S SEP Review/NIMH, Primary Reviewer
2001	Co-Chair, Research Committee, Society of Professors of Child and Adolescent Psychiatry
2001	Data Safety Monitoring Board, Pediatric Bipolar Collaborative Mood Stabilizer Trial, NIMH 1 RO1 MH63632-01

2002	National Institute of Mental Health Scientific Review Group; ZMH1 CRB-B 04 S Review/NIMH, Primary Reviewer
2002-2007	Member, Council on Child and Adolescent Psychiatry, American Psychiatric Association
2001-	Expert Consultant, Office for Human Research Protection, Department of Health and Human Services, U.S. Government
2002	National Institute of Mental Health Scientific Review Group; ZMH1 CRB-B 02 S Review/NIMH, Primary Reviewer
2002-	Autism Research Consortium, Autism Research Foundation, Boston, Massachusetts
2002	Center for Scientific Review/NIH, ZRG1 CFS (01), Chronic Fatigue Syndrome, Fibromyalgia Syndrome Special Emphasis Panel, Primary Reviewer
2003	National Institute of Mental Health Scientific Review Group; ZMH1 CRB-B 02 Review/NIMH, Primary Reviewer
2003	US Health and Human Services Advisory Committee on Human Research Protections (SACHRP), Subpart D Working Group, U.S. Government
2003	Professional Advisory Board, NIH Curriculum Supplement, *The Science of Healthy Decisions* Project, Biological Sciences Curriculum Study (BSCS), Colorado Springs, Colorado.
2004	National Institute of Mental Health Scientific Review Group; ZMH1 ERB-S (02) Review/NIMH, Primary Reviewer
2005	Clinical Advisory Group, Massachusetts eHealth Collaborative
2006	Team Member for Massachusetts, National Governor's Association, Policy Academy for Health Care Quality
2006	Team Member for Massachusetts, Center for Health Care Strategies, Pay-for-Performance Purchasing Institute
2006	National Institute of Mental Health Scientific Review Group; ZMH1 ERB-S 01 S Review/NIMH, Primary Reviewer
2007	National Institute of Mental Health Scientific Review Group; ZMH1 ERB-L 01 S Review/NIMH, Primary Reviewer
2009	National Institute of Mental Health Scientific Review Group; Special Emphasis Panel/Scientific Review Group/10 ZMH1 ERB-F (A1) P /NIMH, Primary Reviewer

Regional:

1986-1988	Plymouth Area Council For Children, Child Mental Health Panel, Plymouth, Massachusetts
1986-1988	Committee on In-Patient Psychiatric Treatment of Children, Boston, Massachusetts
1989	Department of Mental Health, Review Panel Assessing Service Provision and Needs for Chronic Patients at Gaebler Children's Center, Metropolitan State Hospital, Waltham, Massachusetts
1995	MHMA Provider Workgroup on Utilization Review/ Multidisciplinary Teams
1996	Advisory Panel, Massachusetts Hospital Association, "Medication Errors: Best Practice Models"
1998-2001	Board of Directors, ADD Information Network, Needham, Massachusetts
1998-2000	Medical Advisory Board, Juvenile Diabetes Foundation, Massachusetts Bay Chapter, Waltham, Massachusetts

1998-1999	Healthy Children Task Force, Health of the City, Cambridge, Massachusetts
1999	Working Group on Best Practice Guidelines for Pharmacotherapy for Massachusetts Children, Department of Mental Health, Boston, Massachusetts
1999	Focus Group for Intitation of Boston Children's Institute, Home for Little Wanderers
1999	Task Force on Child and Adolescent Mental Health Services, Massachusetts Psychiatric Society, Wellesley, Massachusetts
1999-2001	Mental Health Task Force, Massachusetts Chapter, American Academy of Pediatrics, Wellesley, Massachusetts
1999-	Expert Advisory Panel, Westwood Pembroke Health System, Charter Behavioral Health Care System
1999	Conference Lecturer, New England Workshop on Child Behavioral Health, Co-Sponsored by HHS, HCFA and SAMSHA
1999	NECON (New England Coalition for Health Promotion and Disease Prevention) Regional Mental Health Promotion and Illness Prevention Task Force, New England Coalition for Health Promotion and Disease Prevention
1999-2001	Board Member, Institute of Community Health, Cambridge Health Alliance, Cambridge, Massachusetts (Public Health Research Institute)
1999	Committee on Psychoactive Medications, Division of Medical Assistance, Boston, Massachusetts
2000-2003	Professional Advisory Board, Boston Children's Institute (Child Welfare Research Institute)
2001	Clinical Advisory Committee, Massachusetts Behavioral Health Partnership, Boston, Massachusetts
2001	Steering Committee, Mental Health Task Force, Massachusetts Chapter, American Academy of Pediatrics, Wellesley, Massachusetts
2001-	Executive Committee, Mental Health Task Force, NECON
2002-2004	Board Member, UMass Medical School Transitions Intensive Residential Treatment Program & Connections Behavioral Intensive Residential Treatment Program
2002-2004	Board Member, Community Health Link, Worcester, Massachusetts
2002-2004	Advisory Council, Children's Medical Center, UMass Memorial Health Care, Worcester, Massachusetts
2002-2004	Board of Directors, UMass Behavioral Health System, UMass Memorial Medical Center, Worcester, Massachusetts
2003-2004	Board of Directors, Home for Little Wanderers, Boston, Massachusetts
2003-2004	Chairman, Program Services Committee, Board of Directors, Home for Little Wanderers, Boston, Massachusetts
2003	Project Member, "Improving Care for Children with ADHD in Massachusetts", National Initiative for Children's Healthcare Quality, Boston, Massachusetts
2003	Mental Health Commission For Children, Executive Office Health and Human Services, Boston, Massachusetts
2002-2005	Board of Directors, Massachusetts Quality Health Partners, Boston, MA
2002-2006	Executive Committee, Executive Office Health and Human Services, Boston, Massachusetts
2002-2004	Interagency Mental Health Advisory Council, Executive Office of Health and Human Services, Commonwealth of Massachusetts
2002-2004	Quality Management Steering Committee, Office of Medicaid, Executive Office of Health and Human Services, Commonwealth of Massachusetts
2005	Medicaid Medical Directors Workgroup, NESCO

2005-2006	Chairman, Steering Committee, Planning and Review Teams, Executive Office of Health and Human Services, Commonwealth of Massachusetts
2005-2006	BSAS Clinical Effectiveness Group Advisory Committee, Department of Public Health, Executive Office of Health and Human Services, Commonwealth of Massachusetts
2006-2007	Biomedical Research Advisory Council, Commonwealth of Massachusetts
2006- 2011	Board member, Massachusetts e-Health Collaborative, Boston, Massachusetts

University:

1999-2001	Faculty Fellow, Mind/Brain/Behavior Initiative, Harvard University, Boston, Massachusetts
2000-2001	Board of Honors Tutors, Department of Psychology, Faculty of Arts and Sciences, Harvard University, Cambridge Massachusetts
2000- 2001	Committee on the Use of Human Subjects, Harvard University, Cambridge Massachusetts
1999-2001	Faculty, International Child Mental Health Working Group, Harvard University, Cambridge, Massachusetts

Medical School:

1979-1980	Residency Advisory Committee, Department of Psychiatry, Cambridge Hospital
1988-1991	Residency Selection Committee, Division of Child Psychiatry, Department of Psychiatry, Massachusetts General Hospital and Harvard Medical School, Boston Massachusetts
1991-1997	Residency Training Committee, Department of Psychiatry, Children's Hospital, Boston, Massachusetts
1997-2001	Residency Training Committee, Division of Child and Adolescent Psychiatry, Department of Psychiatry, Cambridge Hospital, Cambridge, Massachusetts
1999-2001	Brain Development Workgroup, Mind Brain Behavior Initiative, Harvard Medical School
1998-2001	Research Committee, Consolidated Department of Psychiatry, Harvard Medical School
1999-2001	Conference of Department Heads, Harvard Medical School
1999-2001	Executive Council, Consolidated Department of Psychiatry, Harvard Medical School
1999-2001	Steering Committee, Center for Excellence for Clinical Neuroscience and Psychopharmacological Research, Consolidated Department of Psychiatry, Harvard Medical School, Boston, Massachusetts
1999-2001	Affiliate Faculty, Harvard-MIT Division of Health Sciences and Technology, Cambridge, Massachusetts
2001- 2003	Faculty Council, University of Massachusetts Medical School, Worcester, Massachusetts
2001- 2003	Governance Subcommittee, Faculty Council, University of Massachusetts Medical School, Worcester, Massachusetts
2001-2004	Research Committee, Department of Psychiatry, University of Massachusetts Medical School, Worcester, Massachusetts
2001-2002	Faculty, Center for Mental Health Services Research, Department of Psychiatry, University of Massachusetts Medical School
2002-2003	Residency Selection Committee, Department of Psychiatry,

	University of Massachusetts Medical School, Worcester, Massachusetts
2002	Interviewer, Medical Student Applicants, University of Massachusetts Medical School, Worcester, Massachusetts
2002-2004	Institutional Review Board, University of Massachusetts Medical School, Worcester, Massachusetts
2002-2004	Advisory Council, Children's Medical Center, UMass Memorial Health Care, Worcester, Massachusetts
2002	Biomedical Computing Committee, University of Massachusetts Medical School, Worcester, Massachusetts
2003-2004	Advisory Committee for the Clinical Trials Unit, University of Massachusetts Medical School, Worcester, Massachusetts
2005-2007	Academic Resources Committee, Commonwealth Medicine, University of Massachusetts, Worcester, Massachusetts
2004-2011	Scientific Advisory Council, University of Massachusetts Medical School, Worcester, Massachusetts
2007- 2009	CTSA Chairs, University of Massachusetts Medical School, Worcester, Massachusetts
2009-2011	Global Health Workgroup, UMass Academic Health Center Strategic Plan, University of Massachusetts Medical School, Worcester, Massachusetts

Hospital:

1986-1989	Pharmacy and Therapeutics Committee, Pembroke Hospital, Pembroke, Massachusetts
1991-1997	Pharmacy and Therapeutics Committee, Children's Hospital, Boston, Massachusetts
1991-1997	Research Computing Committee, Children's Hospital, Boston, Massachusetts
1991-1995	Physician's Advisory Committee on Computing, Children's Hospital, Boston, Massachusetts
1993-1997	Steering Committee, Department of Psychiatry, Children's Hospital, Boston, Massachusetts
1993-1997	Drug Utilization Evaluation (DUE) Subcommittee, Pharmacy and Therapeutics Committee, Children's Hospital, Boston, Massachusetts
1993-1997	Clinical Research Subcommittee, Research Computing Committee, Children's Hospital, Boston, Massachusetts
1994-1997	Chairman, Drug Utilization Evaluation (DUE) Subcommittee, Pharmacy and Therapeutics Committee, Children's Hospital, Boston, Massachusetts
1994	Co-Chairman, Clinical Research Workgroup, Department of Psychiatry, Children's Hospital, Boston, Massachusetts
1994-1997	Co-Chairman, Medication Systems Team, Department of Pharmacy, Children's Hospital, Boston, Massachusetts
1994-1997	Adverse Drug Event Subcommittee, Pharmacy and Therapeutics Committee, Children's Hospital, Boston, Massachusetts
1994-1997	Founding Member, Children's Hospital Informatics Program, Children's Hospital, Boston, Massachusetts
1995-1997	Clinical Investigations Committee, Children's Hospital, Boston, Massachusetts
1995-1997	Chairman, Pharmacy and Therapeutics Committee, Children's Hospital, Boston, Massachusetts
1996-1997	Physician Organization Information System Committee, Children's Hospital, Boston, Massachusetts
1996-1997	Pediatric Alliance Task Force, Technology Transfer Office, Children's Hospital, Boston, Massachusetts

1996-1997	Co-Chair, Long Range Planning Committee on Research Development, Department of Psychiatry, Children's Hospital, Boston, Massachusetts
1997	Clinical Practice Guidelines Committee for Intravenous Immunoglobulin Administration, Children's Hospital, Boston, Massachusetts
1997-2001	Quality Improvement/Quality Management Committee, Department of Psychiatry, Cambridge Hospital, Cambridge, Massachusetts
1997-2001	Research Steering Committee, Department of Psychiatry, Cambridge Hospital, Cambridge, Massachusetts
1997-2001	Steering Committee, Department of Psychiatry, Cambridge Hospital, Cambridge, Massachusetts
1997-2001	Clinical Services Committee, Department of Psychiatry, Cambridge Hospital, Cambridge, Massachusetts
1997-1999	Institutional Review Board, Cambridge Hospital, Cambridge, Massachusetts
1998-1999	Pharmacy Committee, Cambridge Hospital, Cambridge, Massachusetts
1998-2001	Co-Chairman, Research Committee, Department of Psychiatry, Cambridge Hospital, Cambridge, Massachusetts
1999-2001	Corporate Compliance Committee, Department of Psychiatry, Cambridge Hospital, Cambridge, Massachusetts
1999-2001	Academic Director, Center for Mental Health Services Research and Training, Department of Psychiatry, Cambridge Hospital, Cambridge, Massachusetts
1999-2001	Recruitment Committee, Department of Psychiatry, Cambridge Hospital, Cambridge, Massachusetts
1999-2001	Medical Staff Executive Committee, Cambridge Hospital, Cambridge, Massachusetts
1999-2001	Chairman, Research Committee, Department of Psychiatry, Cambridge Hospital, Cambridge, Massachusetts
1999-2001	Chairman/Chief of Service Committee, Cambridge Hospital, Cambridge, Massachusetts
1999-2001	Leadership Forum, Cambridge Hospital, Cambridge, Massachusetts
1999-2001	Graduate Medical Education Committee, Cambridge Hospital, Cambridge Massachusetts
1999-2001	Graduate Medical Education Board, Cambridge Hospital, Cambridge Massachusetts
2000- 2001	Clinical Investigations Committee, Children's Hospital, Boston, Massachusetts
2001-2004	Executive Committee, Department of Psychiatry, University Of Massachusetts Medical School, Worcester, Massachusetts
2001-2004	Grand Rounds Committee, Department of Psychiatry, University Of Massachusetts Medical School, Worcester, Massachusetts
2001-2004	Operations Committee, Children's Medical Center, UMass Memorial Health Care, Worcester, Massachusetts
2002-2004	Advisory Council, Children's Medical Center, UMass Memorial Health Care, Worcester, Massachusetts
2002-2004	Board of Directors, UMass Behavioral Health System, UMass Memorial Medical Center
2002-2004	Board of Directors, Community Health Link, UMass Memorial Medical Center
2005-2007	Board of Directors, New England States Consortium Systems Development (NESCSO)

Professional Societies Involvement:

1980-1986	Massachusetts Medical Society
1980-	Massachusetts Psychiatric Society
1980-	American Psychiatric Association
1982-1986	American Medical Association
1982-	American Academy of Child and Adolescent Psychiatry
1982-	New England Council of Child and Adolescent Psychiatry
1991-1994	Computer Utilization Committee, American Academy of Child and Adolescent Psychiatry, Washington, D.C.
1991-1999	Chairman, Committee on Pediatric Psychopharmacology, New England Council of Child and Adolescent Psychiatry
1992	Editor, Column on Pediatric Psychopharmacology, Newsletter, New England Council of Child and Adolescent Psychiatry
1992-1995	Board of Directors, New England Council of Child and Adolescent Psychiatry
1995-	Psychopharmacology Task Force, Massachusetts Psychiatric Society
1996	Fellow, American Academy of Child and Adolescent Psychiatry
1997-1999	President-Elect, New England Council Of Child and Adolescent Psychiatry
1999-	Society of Professors of Child and Adolescent Psychiatry
1999-	American Association for the Advancement of Science
1999-2001	President, New England Council Of Child and Adolescent Psychiatry
1999-2000	Task Force on Child and Adolescent Mental Health Services, Massachusetts Psychiatric Society, Wellesley, Massachusetts
1999-	Society of Biological Psychiatry
1999-2004	Assembly Delegate to American Academy of Child and Adolescent Psychiatry, New England Council of Child and Adolescent Psychiatry
2002-2007	Member, Council on Child and Adolescent Psychiatry, American Psychiatric Association

Editorial Boards:

1988-	Reviewer, Biological Psychiatry
1989-	Reviewer, Journal of the American Academy of Child and Adolescent Psychiatry
1991-	Reviewer, Journal of Child and Adolescent Psychopharmacology
2000-	Reviewer, Journal of the American Medical Association
2001-	Reviewer, Archives of General Psychiatry
2001-	Reviewer, Journal of Child Psychology & Psychiatry
2002-2007	Editorial Board, Archives of General Psychiatry
2002-2007	Web-site Editor, Archives of General Psychiatry
2002-	Reviewer, Neuropsychopharmacology
2003	Reviewer, Psychiatry Research
2003	Reviewer, Psychiatric Services
2006-	Reviewer, American Journal of Psychiatry
2010-	Reviewer, Australian and New Zealand Journal of Psychiatry

Awards and Honors

1973	B.A., Cum Laude, University of Pennsylvania
1991-1992	Tourette Syndrome Association Research Award
1993	Visiting Scholar, Visiting Scholar Program, University of Vermont, Department of Psychiatry, Burlington, Vt.

1995-1997	Stanley Foundation Research Award, "Frontal Lobe Structure and Function in Depressed Adolescents" 8/95-8/97 (Total Award $114,000)
1996	Fellow, American Academy of Child and Adolescent Psychiatry
1996	Children's Hospital Research Faculty Council Award, "Post-beta-streptoccocal infection immune markers in childhood obsessive compulsive disorder and attention deficit/hyperactivity disorder", 1/97-1/98 (Total Award $10,000)
1998	Visiting Professor, Visiting Professor Program, Borgess Medical Center, Michigan State University, Kalamazoo Center for Medical Studies, Kalamazoo, MI
2000	Visiting Professor, Department of Psychiatry, Hershey Medical Center, Pennsylvania State University, Hershey, PA
2002	Margaret L. Bauman Award as Outstanding Medical Provider, Autism Research Foundation, Boston, Massachusetts

MARGARET A. MORAN, RN, MHSA
34 SALEM STREET
WILMINGTON, MA 01887
Tel: (978) 604-0738 Email mmoran@waldenbehavioralcare.com

EXPERIENCE SUMMARY

An innovative ability to develop programs that meet social, environmental and health care service demands and market those programs to meet the demands of the current social, environmental and health care environment.

PROFESSIONAL HIGHLIGHTS

Walden Behavioral Care, LLC 2008-present

SENIOR VICE PRESIDENT, MARKETING, CONTRACTING & NEW BUSINESS DEVELOPMENT

- Management of MCO/insurance contracts
- Development of effective marketing, communications and PR strategies
- Development of market positioning & brand identification
- Oversight of web development strategies
- Oversee the development of social networking strategies
- Participate in the development of new business development strategies

Walden Behavioral Care, LLC 2004 – 2007

VICE PRESIDENT, MARKETING & CONTRACTING

Responsible for all sales, marketing and PR strategies for innovative private psychiatric hospital that specializes in the treatment of patients with eating and psychiatric disorders. Developed marketing and PR plan that resulted in significant revenue growth and branding. Secured over 25 managed care contracts, resulting in sustainable revenue model.

KidsTerrain, Inc. 2000 – 2004

CEO & PRESIDENT

Co-founder of KidsTerrain, an innovative child, parent and teacher communication company. Author of three published children's books and one online story. Providing after school enrichment programs for children and workshops and seminars for parents and teachers on topics affecting children, parents and teachers on a daily basis. Some of these topics include: self-

esteem, nutrition and exercise for children, bullying, taunting and teasing, parent/teacher communication, listening and talking to kids, and safety.

Moran & Associates 1998 - 2000

PRINCIPAL

Providing health care consulting services to Providers, MCOs and Organizations on Managed Care Readiness, Clinical Trainings (MDs, RNs, PhDs, and LICSWs), Proposal Development, Program Design and Development, Marketing and Sales, Network Positioning Opportunities, Reimbursement Strategies and Rate Negotiation and MCO Vendor Selection.

Choate Health Systems/Choate Health Management, Inc. 1990-1998

SENIOR VICE PRESIDENT, MARKETING AND PROGRAM DEVELOPMENT

- Maintained 90% of customer retention of current contracts.
- Secured 2nd out of state hospital management contract; after hours managed care support services contract for Pilgrim Behavioral Healthcare and subsequently, Harvard Pilgrim Healthcare; and several major consulting contracts both instate and out of state.
- Appointed Board Member of Association Ambulatory Behavioral Healthcare.
- Conducted managed care readiness assessments at 15 sites.
- Developed reimbursement strategies with the CFOs at 15 sites.

VICE PRESIDENT, MARKETING AND PROGRAM DEVELOPMENT

- Secured over 40 managed care contracts; 12 major management contracts; the 1st out of state hospital management contract; MHMA (Managed Medicaid) contract for Dual Diagnosis patients/clients; and the after hours managed care contract for MHMA and BCBSMA.
- Developed both a 3-year marketing plan for Choate with subsequent amendments and 15 marketing plans for each of the contracted management sites both instate and out of state.
- Developed an account manager position for the out-of-state providers.
- Directed the MIS Task Force in establishing MIS needs, goals and objectives for the organization.
- Directed the development of extended systems of care management contracts for 2 major providers.

- Participated in the development of 15 systems of care for the psychiatric and chemical dependent patient population.
- Directed an effective customer retention program resulting in retaining 100% of the original customers over several years.
- Developed marketing strategies in terms of feasibility, desirability, and cost benefit to the organization.
- Participated in managed care training programs for Choate staff.
- Developed all communication and marketing materials for the organization.
- Participated in the development and implementation of a case rate pilot project with Mental Health Management of America (MHMA).
- Chaired the MIS Task Force.
- Developed a rate schedule for all managed care contracts.
- Chaired Child & Adolescent Task Force.

CHIEF OPERATING OFFICER

- Developed staffing patterns for 8 alternative delivery systems.
- Managed a staff of 75 and a $4ml. budget.
- Directed several task force groups, i.e. Managed Care Utilization Review and Quality Assurance.
- Ensured the delivery of high quality patient care and developed appropriate training programs for staff.
- Monitored the process of transition of patients from one system of care to another.
- Provided managed care training throughout the organization and positioned the organization to be managed care ready.

BlueCross/BlueShield of MA, Inc., Boston, MA 1979 - 1990

DIRECTOR, BENEFIT MANAGEMENT PROGRAMS

- Directed Medical/Surgical, Behavioral Health, Quality Assurance and Systems Development for all of the utilization management programs.
- Managed an $11 million dollar budget and a staff of 180.
- Developed new programs for cost containment.
- Developed a corporate strategic plan for utilization review.

- Directed the benefit management programs for major product lines.

- Developed and directed a specialized unit for the review of psychiatric and substance abuse treatment. This program was evaluated by a National Medical Audit firm and was compared to the best program audited by the National firm.

- Developed a comprehensive utilization management program for major national accounts.

- Participated in several national task forces on psychiatric/chemical dependency process; guideline development and implementation; individual case management protocols and discharge planning initiatives.

MANAGER, MASTER HEALTH/PLUS

- Managed the first freedom of choice managed care program for BlueCross/BlueShield of MA, Inc.

- Effectively performed centralized management of over 70 professionals located in nine regional offices.

- Managed a budget in excess of $3 million dollars.

ASSISTANT MANAGER, SUPERVISOR
AND MEDICAL REVIEWER POSITIONS

Additional Experience

- Charge Nurse, McLean Hospital.

- Director of Health Services for 5 communities under the Head Start Program.

- School nurse and staff nurse positions (specializing in pediatrics and psychiatry).

Education

- Emmanuel College, Boston, MA
  - Master of Science, Health Services Administration

- Emmanuel College, Boston, MA
  - Bachelor of Science in Psychology

- Catherine Laboure' School of Nursing, Boston, MA
  - Diploma in Nursing

- Graduate courses in counseling.

- Course work in management practices and performance management.

Publications

- Best, L., Hartman, E., and Moran, M. (1996) "How One Managed Care Organization Collaborated with Providers to Create a Public Sector Continuum of Care".
  Continuum The Journal of the Association for Ambulatory Behavioral Healthcare. Volume 3, 2, Pgs. 73-84. San Francisco; Jossey-Bass, Inc.

- Kiser, Laurel J., PH.D., M.B.A. and Moran, Margaret A., RN., M.S.H.A. (2001), Access to the System of Care, The Integrated Behavioral Health Continuum, Theory and Practice. Pgs. 69-89. American Psychiatric Publishing, Inc.

Associations

- Suffolk University Task Force to develop marketing healthcare curriculum for both undergraduate and graduate programs. 1995 - 1997
- American Association Partial Hospitalization Task Force to develop levels of care for outpatient programs. 1992
- BlueCross/Blue Shield Association National Committee on Second Surgical Opinion Programs. 1986-1988
- BlueCross/BlueShield Association National Committee on Psychiatric/Chemical Dependency Programs. 1984-1990

Memberships

- Woburn Coalition on the Prevention of Drug & Alcohol Abuse in Adolescents 1990-1995.
- American Hospital Association Marketing and Public Relations Organization 1990 - 2000
- Winchester Elders Professional Group 1990-1998.
- Museum of Fine Arts 1990- present
- Employee Assistance Programs Association (EAPA) 1990-1998.
- Association of Ambulatory Behavioral Healthcare (AABH). 1991- 2000

Faculty

- Association Ambulatory Behavioral Healthcare (AABH) 1991-1998.
- Institute for Behavioral Health (IBH) 1991-1997.

Special Review Panel Member

- U. S. Healthcare 1993-1997.

. Utilization Management Associates, Inc. 1994-1996.

Participant

. Office of Managed Care (OMC) with the Center for Substance Abuse Prevention (CSAP), Washington, D.C. - Train the Trainer Program 1993-1998.

Consultant

. William M. Mercer, Inc. 1992-1995
San Francisco, California.

Board Member

. Association of Ambulatory Behavioral Healthcare 1993-1998

. *MEDA Clinical Advisory Board, 2007-present*

. KidsTerrain, Inc., 2000 - present

Presentations:

Joining or Forming A Network: Making It Happen – Association of Ambulatory Behavioral Healthcare, - Alexandria, VA. – February, 1998.

Managed Care Preparedness – Grand Rounds, The Waterbury Hospital, - Waterbury, CT –January 1998.

. Developing Integrated Behavioral Healthcare Networks - Association of Ambulatory
Behavioral Healthcare - New Orleans, Louisiana - February 1997.

. Establishing a Successful Continuum of Ambulatory Mental Health Services - Association of Ambulatory Behavioral Healthcare - Fort Worth, Texas - November 1996.

Managed Care & Patient Care - Are They Mutually Exclusive?
- Association of Ambulatory Behavioral Healthcare - Minneapolis, Minnesota - August 1996.

. Medicare Managed Care - Public & Private Integration - Institute for Behavioral Healthcare - May 1996.

. Keynote-Systems of Care-Ohio-Association of Ambulatory Behavioral Healthcare May 1996.

. Establishing a Successful Continuum of Ambulatory Mental Health Services - American Association for Partial Hospitalization, Inc. - Philadelphia, Pennsylvania - 1996.

. Establishing a Successful Continuum of Ambulatory Mental Health Services - American Association for Partial Hospitalization, Inc. - San Francisco, California - 1995

. How to Structure and Manage Medicare Systems of Care - Institute of Behavioral Health, Dallas, Texas – 1995.

. Managed Care: Mandate or Choice, American Association of Partial Hospitalization, Inc. Denver, CO – 1995.

. Establishing a Successful Continuum of Ambulatory Mental Health Services - American Association for Partial Hospitalization, Inc. - Boston, Massachusetts - 1995.

. Establishing a Successful Continuum of Ambulatory Mental Health Services - CA American Association for Partial Hospitalization, Inc. - Sacramento, California - 1995.

. Developing Systems of Care - Beverly Hospital - Beverly, Massachusetts – 1995.

- Integrated Systems of the Future - National Association of Social Workers (NASW) - Empowering Social Workers in the Changing Health Care Environment - Boston, Massachusetts - 1994

- Systems of Care for Children and Adolescents - Orthopsychiatric Conference, Washington, D.C. 1994.

- Establishing a Successful Continuum of Ambulatory Mental Health Services - American Association for Partial Hospitalization, Inc. - Fort Lauderdale, Florida 1994.

- Establishing a Successful Continuum of Ambulatory Mental Health Services - American Association for Partial Hospitalization, Inc. - Atlanta, Georgia 1994.

- Focus Applications of CQI in Psychiatric Services National Association Quality Assurance Professionals New York City, 1993.

COLLEEN J. O'BRIEN, PSY.D.

22 Jackson Road ♦ Belmont, MA ♦ (781) 572-6869 ♦ colleenjobrien@yahoo.com
Licensed Psychologist – #6481 Mass.

Executive and psychologist with significant clinical and business experience in behavioral healthcare and computer industry. Ability to inspire high performance teams and organizations. Consultative sales, relationship management, quality improvement experience. Strong clinical, operations, technical, project management, and communication skills.

PROFESSIONAL EXPERIENCE

DIRECTOR OF QUALITY IMPROVEMENT AND REGULATORY COMPLIANCE 2008- Present
Walden Behavioral Health, LCC – Waltham, MA

Establish procedures for maintaining high standards of quality and safety. Determine and enforce – through the quality committee structure and organizational functional groups - quality requirements. Organize and promote quality improvement efforts across the continuum of care. Enable Walden to fulfill its responsibilities to patients, professionals, support staff, and the community through continuous and systematic measurement, assessment and improvement of its systems and processes.

PRIVATE PRACTICE – Cambridge, MA 1993-1997; 2005 – Present
Psychologist
Provide individual psychotherapy to adolescents and adults. Areas of interest include eating disorders, trauma, and addiction. Expertise managing high risk patients across the continuum of care.

HEALTH CARE QUALITY CONSULTING GROUP 2002 - Present
President and Founder
Built consulting group focused on improving health care quality for clients including the following:

- Vermont Medicaid / Robert Wood Johnson Foundation initiative linking clinical and system strategies to promote effective models for treating depression in primary care settings.
- Vermont Dept. of Corrections as Mental Health Service Program Administrator and Quality Improvement Director. Wrote health policies, created and implemented quality improvement program.
- The Protestant Guild for Human Services – Clinical, quality and operations consultation for residential school serving developmentally disabled adolescents with co-morbid psychiatric diagnosis.
- Cerebral Palsy Foundation of MA – Proposal writing, marketing, and strategic planning.

THE CAMBRIDGE EATING DISORDER CENTER – Cambridge, MA 2005 – 2007
Director, Partial Hospital Program
Provide clinical and administrative leadership to Partial Hospital Program treating adolescents and adults with eating disorders. Supervise multi-disciplinary clinical team and provide individual, family, and group treatment. Consult to primary care providers concerning appropriate clinical care.

THE DIMOCK COMMUNITY HEALTH CENTER – Roxbury, MA 2007 - 2008
Director, Behavioral Health Clinical Operations
Provided leadership and strategic development to outpatient and residential programs serving children, adolescents, and adults with mental health and substance abuse diagnoses. Obtained new grant funding to support suboxone outpatient treatment, tobacco cessation programming, substance abuse outpatient treatment access and continuity, and Intensive Outpatient substance abuse treatment for adolescents. Created and implemented data driven quality improvement program.

MAGELLAN BEHAVIORAL HEALTH - Columbia, MD 1998 – 2002

Director, Health Plan Web Initiatives 2000 - 2002
Created and implemented web strategy which reduced costs and improved service through consumer empowerment, provider partnership, and web-based collaboration with client health plans. Evaluated web-based behavioral healthcare products. Managed web development team.

President, Vermont Regional Service Center 1998 - 2000
Managed and developed business in Maine, NH, and VT. Provided account management, customer service, provider network and care management for four key health plan clients (180,000 covered lives). Improved member and provider satisfaction rates, reduced cost of care, and expanded community-based behavioral health services. Won repeated contract renewals.

Regional Quality Improvement Manager 1997 – 1998
Coordinated QI programs for four major client accounts. Conducted QI activities, improving clinical care, customer service, and provider satisfaction.

BOSTON REGIONAL MEDICAL CENTER - Stoneham, MA 1995 – 1997
Assistant Director, Partial Hospital and Acute Residential Programs
Created and managed program providing acute addictions and psychiatric treatment to adults, adolescents and children. Managed Quality Assurance, accreditation and licensing, utilization review, daily operations, staffing, admissions, and treatment planning. Supervised multi-disciplinary staff and provided individual, family and group therapy.

WHEELOCK COLLEGE - Boston, MA 1992 – 1995
Supervising Psychologist
Provided solution-focused individual and group psychotherapy to students. Consulted with faculty and parents concerning students with special needs. Participated in national mental health prevention screening programs. Developed and led support groups for graduating seniors.

MOUNT AUBURN HOSPITAL - Cambridge, MA 1991 – 1992
Inpatient Psychiatry Post Doctoral Fellowship
Provided inpatient treatment to patients with acute psychiatric illness at Harvard University Medical School teaching hospital. Member of multi-disciplinary treatment team. Provided group therapy, conducted individual and family assessments, psychological testing.

THE CAMBRIDGE HOSPITAL - Cambridge, MA 1991 – 1992
Psychology Intern
Provided inpatient treatment to patients with acute psychiatric illness at Harvard Medical School teaching hospital. Co-chaired multi-disciplinary treatment team. Provided group therapy, conducted individual and family assessments, psychological testing.

TUFTS UNIVERSITY- Medford, MA 1988 – 1990
Psychology Intern, Counseling Center
Provided individual and group therapy to college students. Participated in training program for doctoral students in psychology.

HARVARD UNIVERSITY MEDICAL SCHOOL - Boston, MA 1987 – 1988
Psychology Intern, Community Geriatrics Program
Consultant to North End Community Health Center's Home Health Care team focused on assessing and resolving barriers to medical compliance, including depression, family conflict, and cognitive decline. Developed self-care retreat for caregivers to encourage use of respite services.

APOLLO COMPUTER, INC. - Chelmsford, MA 1981 – 1987
Director of Technical Communications
Created and led $3M Technical Communications department with 85 staff members. Managed technical writers, programmers, designers and middle-level managers. Produced electronic and printed documentation to support rapidly evolving hardware and software product line. Teamed with cross-divisional management colleagues to ensure successful product releases.

EDUCATION

Doctorate in Psychology, Massachusetts School of Professional Psychology, Boston, MA
BA in **Journalism,** Northeastern University, Boston, MA
Professional Development Certificates in Management and Web Site Development

AWARDS and RECOGNITIONS

Scholarship Award - Society of Professional Journalists
Technical Writing Award - Society of Technical Communication
Outstanding Contributor - Data General Corporation
Management Excellence Award - Apollo Computer, Inc.
September 11 Response Recognition - Magellan Behavioral Health

REFERENCES AVAILABLE UPON REQUEST

CHARLES R. ROSSIGNOL

63 Laurel Drive, Hudson, MA 01749
Phone: 978-568-1660 / Cell: 978-314-1660
email: *c.rossignol@bostonbehavioral.com*

EXECUTIVE-LEVEL HEALTHCARE SERVICES CONSULTANT

Successful track record of executive management experience in areas of operations, finance and administration, service development and startup in for-profit and non-profit behavioral healthcare business sectors. Data driven. Growth focused. Results oriented.
Key strength areas:

- Financial / Operations turnaround expertise.
- CEO / Executive-level Leadership, Interim executive leadership.
- Quality Improvement, Joint Commission / Regulatory Compliance

PROFESSIONAL HIGHLIGHTS

Dir. - Bus. Development, Walden Behavioral Care, Waltham MA (2010-Present)
Opened two licensed OP clinic sites, and in active development of three additional sites in MA, CT and NY.

Boston Behavioral – Consultant (2003-present). Highlights with selected clients:

- Staffing productivity analyses – over $750K in annual savings for CA county hospital;
- Selected hospital and clinic operations improvements. IP laboratory service savings – 63% (approx. $164K annually). OP clinic salaries and benefits savings - 14%, while adding 3 service contracts and improving regulatory compliance. Increase IP census 24% for hospital client in 30 days.
- Development activities: Creation/development of new MA OP mental health clinics.
- Compliance: Multi-year regulatory (CMS/DMH/DPH) and accreditation (JC) compliance for private psych services provider: Environment / Safety, QI, Info. Mgmt.

CEO – Arbour HRI Hospital, Brookline, MA (1999-2003)

- Financial turnaround; continuously improving financial performance throughout tenure, earning $1.2M NI on $10M NR (2003).
- Increased admissions (18%) and staff efficiency (26%); reduced A/R (24%).

Group VP – Pioneer Behavioral Health, Peabody, MA (1997-1999)

- Improved net revenues / cash receipts, reduced gross A/R 13%, increased staff output 10%, for multisite long term care service providers in NY.
- Increased psychological services contracts (6) in CT.

Vice President – Operations – Choate Health Mgmt, Stoneham, MA (1991-1997)

- Promoted 1996. Opened psych hospital; JC accreditation and 90% occupancy in 100 days.
- Developed/managed exclusive state-wide service contracts, staff training and QI.
- Developed company's first OP provider network.

Selected other operations improvements for medical/behavioral service providers.

EDUCATION: **Master of Business Administration, Northeastern University, Boston, MA.** Concentration: Healthcare. Graduated first in program.
Bachelor of Arts - Psychology, Framingham State University,

Framingham, MA. Graduated Magna Cum Laude.

AFFILIATIONS: **American College of Healthcare Executives**

59 Montague Road • Westhampton, MA 01027
Phone 413-527-7458 •E-mail Jsmith@waldenbehavioralcare.com

JENNIFER A. SMITH, LICSW

SUMMARY OF QUALIFICATIONS

Extensive experience providing leadership and clinical oversight of mental health services for children, adolescents, and adults with an emphasis on ongoing assessment of clinical appropriateness, cost-effectiveness, and consistency with contract service requirements.

EDUCATION

University of Connecticut School for Social Work — West Hartford, CT
M.S.W.

University of Massachusetts — Amherst, MA
B.A., Psychology, Cum Laude

PROFESSIONAL EXPERIENCE

Director of Outpatient Programs, Northampton
Walden Behavioral Care, Northampton — Northampton, MA
(January 2008 – present)

Clinical, fiscal, and administrative start-up and oversight of Walden's first satellite clinic. Walden Behavioral Care specializes in the treatment of eating disorders, and provides a full continuum of care.

- Manage satellite program's operating budget and staff of 10.
- Manage oversight of licensing and contract compliance requirements for JCAHO, DMH, and third party payors.
- Manage Utilization Review Committee
- In collaboration with senior management, develop agency wide clinical best practice standards, policies and procedures.
- Perform marketing activities in Massachusetts, Connecticut and Vermont, including colleges, outpatient providers, and professional groups.
- Participate in Workforce Training Grant Lean Management with a focus on admissions and communication.
- Design, implement and supervise new programs, including binge and night eating IOP.

Regional Director
Northeastern Family Institute (NFI) of Vermont Brattleboro, VT
(May 1998 - January 2008)

Clinical, fiscal, and administrative oversight of three central and southern Vermont offices of statewide mental health agency. NFI specializes in providing wrap-around services to children and youth in therapeutic foster care, staffed residential homes, and supported family placements.

Fiscal/Administrative

- Manage $1.9 million regional operating budget and staff of 35 FTE's
- Management oversight of licensing and contract compliance requirements for $1.9 million in annual contracts from multiple state agencies
- Oversight of Creative Sociomedics analysis and reporting (billing/service delivery software)
- Manage NFI Utilization Review Committee for southern and central Vermont
- In collaboration with NFI statewide Senior Management, develop agency-wide clinical best practice standards, policies and procedures

Clinical

- Supervise clinical staff, including oversight of initial assessments, individualized treatment plans, monthly treatment reviews, critical incident reports, risk management, discharge and aftercare planning.
- Consult to VT Department of Disability and Mental Health Services and Department for Children and Families on clinical assessment regarding level of care for psychiatrically hospitalized children.
- Design, implement, and supervise new programs in response to community needs, including:
  - the first community-based Dialectical Behavioral Therapy program for adolescents in VT;
  - a $500,000 multi-year collaborative grant from Springfield (VT) Public Schools for remedial and enrichment program serving underachieving students;
  - a four-bed staffed foster home specializing in treating children with Attachment Disorder;
  - a 24-hour crisis response system for all NFI programs in Southern Vermont; and collaborative six-bed community-based crisis respite program for children and adolescents

Assistant Director for Treatment
Tri-County Youth Programs Northampton, MA
(August 1991 – January 1998)

- Oversight of therapeutic services to clients in residential care, including hospitalizations and crisis management; clinical training of residential staff (DBT, Post-Traumatic Stress Disorder, and sexual offenders)
- Supervision of residential managers in crisis management and treatment protocols
- Primary program liaison to families and other service/care providers

- Maintenance of JCAHO accreditation standards
- Co-leader of weekly DBT group of 6-8 residents; co-leader of weekly group for adolescent male sexual offenders

Case Manager Franklin/Hampshire Counties, MA
Department of Mental Health
(July 1989 – August 1991)

- Intake and eligibility assessment of children and adolescents for DMH services
- Monitor mental health service delivery in inpatient and residential treatment facilities
- Complete Comprehensive Assessment and Individual Service Plan for each client
- Advocacy to ensure that referred children and adolescents receive appropriate mental health services

ADDITIONAL PROFESSIONAL ACTIVITIES

- Brain based treatment of Attachment Disorder 2005, Farmington, CT
- Transforming the Difficult Child, 2006 Howard Glasser, Northampton, MA
- Understanding Autism, 2005, Dr. Nancy Cotton, Brattleboro, VT
- No-Talk Therapy with Children and Adolescents, 2002 Smith College School of SW
- Managing the Explosive Child, Ross Greene, 2001 Casey Family Services
- Attachment Training, Dan Hughes, 2000 Casey Family Services
- Traumatic Stress: Techniques for Recovery, B. Van Der Kolk, 2000, Kurn Hattin School
- American Sign Language, 1998-2001, Austine School
- Treatment of Traumatized Children, Lenore Terr, 1998, Springfield, MA
- Treatment of Sexualized Children and Adolescent Sex Offenders, 1995, Worcester, MA
- Dialectical Behavioral Therapy, Marcia Linehan, 1994-95, Seattle, WA
- 9th and 10th Annual Conference on Dissociative Disorders, 1994-95, Arlington, VA

Kelly L. Stellato MS, RD, LDN, CLC

64 Aldrich Street
Granby, MA 01033
(413) 530-5819
dietitian.kelly@live.com

Objective

Provide nutrition counseling in a way that increases food confidence while improving the relationship with food.

Education:

Registered Dietitian by the Commission of Dietetic Registration,2006
Licensed by State of MA Board of Dietitians/Nutritionists, Lic. #2451

Cambridge College
M.Ed. Psychological Studies
In Progress Current GPA: 4.0/4.0

University of Northern Colorado
Nutrition Graduate Studies and Dietetic Internship
Completed: February 2006

Clayton College
Master of Science, Nutrition
Graduated: 2005 GPA: 4.0/4.0

University of Massachusetts, Amherst
Bachelor of Science, Human Nutrition, minor in Psychology
Graduated: 2004 GPA: 3.4/4.0

Certifications:

Lactation Counselor
CPR
Weight Management Consultant
Personal Trainer / Fitness Counselor
Tai' Chi Instructor
Pre/Post Natal Exercise Instructor
Kids and Teens Fitness Instructor
Strength Training
Mat Pilates

Professional Experience:

Clinical Dietitian (April 2010-Present, per diem)
Mercy Medical Center
Determine nutrition risk and provide medical nutrition therapy for acute care patients to support healing, disease management and recovery.
Registered Dietitian (August 2008-Present, 2 days/week)
Walden Behavioral Care, Northampton MA

Conduct nutrition assessments and counseling to clients with eating disorders. Facilitate group nutrition classes and supervise therapeutic meals.

Licensed Nutritionist (August 2008-Present, 1 day/week)
Smith College, Northampton MA
Provide nutrition therapy to students for a variety of diagnoses, conduct group nutrition classes and "lunch and learn."

Registered Dietitian (August 2008-Present, per diem)
Worcester Polytechnic Institute, Worcester MA
Provide individual nutrition counseling and teach the nutrition portion of a wellness course.

Registered Dietitian (July 2006-Present)
Pediatric Services of Springfield, Inc. Wilbraham MA
Provide behavioral nutrition education to pediatric patients and their families, as well as provide therapeutic diets.

Clinical Dietitian (September 2008-April 2010)
Brightside for Families and Children, Springfield MA
Develop group nutrition workshops, individual counseling, write wellness polices, analyze the menu for nutrition content and provide staff training.

Consultant RD; Regional Coordinator (Aug 2006- June 2008)
Healthy Choices, Mass. Dept. of Public Health
Provide assistance to schools focusing on making policy changes to create supportive nutrition environments.

Consultant Dietitian (Jan. 2005- June 2007, special projects)
Granby Junior Senior High School
Wrote grants for nutrition awareness programs. Provide faculty and staff in-services regarding healthy eating and good nutrition in school.

Nutritionist (Jan. 2005-December 2005)
Connecticut Department of Public Health
Provide nutrition education to pregnant and post-partum women, infants and children focusing on proper eating and behavior to promote growth.

Memberships:

The American Dietetic Association
Dietetic Practice Groups; Behavioral Health, Pediatrics
Massachusetts Dietetic Association
National Association of Nutrition Professionals
Action for Healthy Kids
Mass. Action for Healthy Kids
Massachusetts Partnership for Healthy Weight

Notable Mention:

Quoted in Health Care Ledger
Published Article: Clean Plate Drop Out
School Nutrition Hero Award

Exhibit 15

Attachment 4.c

Standard of Practice Guidelines

Identify the Standard of Practice Guidelines that will be utilized in relation to the proposal. Attach copies of relevant sections and briefly describe how the Applicant proposes to meet each of the guidelines.

Walden utilizes the American *Psychiatric Association's Practice Guidelines for the Treatment of Patients with Eating Disorders, Third Edition.* (Attached – pgs. 2-30.). These standards are the basis for the clinical guidelines utilized in our contracts with third-party payers, and provide detailed information on the formulation and implementation of a treatment plan. Specifically, they address:

- Establishing and maintaining a therapeutic alliance
- Coordination of care and collaboration with other clinicians
- Assessing and monitoring eating disorder symptoms and behaviors
- Assessing and monitoring the patient's general medication condition
- Assessing and monitoring the patient's psychiatric status and safety
- Family assessment and treatment
- Developing a Treatment Plan for the Individual Patient
    - Choosing a site of treatment (level of care – inpatient, residential, partial, intensive outpatient).
    - Choice of specific treatments for specific eating disorders
        - Nutritional rehabilitation
        - Psychosocial interventions
        - Medications

Compliance with these standards is managed through clinical supervision, medical record review, and concurrent utilization review.

Walden Behavioral Care maintains accreditation under the Joint Commission Comprehensive Behavioral Healthcare standards, (see attached summary - http://www.jointcommission.org/assets/1/18/Behavioral_Health_Care_Accreditation.pdf).

These standards include guidelines which specifically focus on the assessment and provision of care, treatment, and services for individuals served who have eating disorders. Walden carefully integrates these standards into the organization's policies and procedures. Each year, we formally evaluate and report the results to the Joint Commission. We address any variation from those standards with a formal corrective action plan, including quantitative, verifiable measures of success as required by the Joint Commission.

Treatment of Patients With Eating Disorders, Third Edition

http://www.psychiatryonline.com/content.aspx?aID=138866

DOI: 10.1176/appi.books.9780890423363.138660

II. FORMULATION AND IMPLEMENTATION OF A TREATMENT PLAN

A. Psychiatric Management

Psychiatric management includes a broad range of therapeutic actions that are performed by the psychiatrist or that the psychiatrist ensures are provided to all patients with eating disorders in combination with other specific treatment modalities. Psychiatric management begins with the establishment of a therapeutic alliance, which is then enhanced by empathic comments and behaviors, positive regard, reassurance, and support. Basic psychiatric management includes support through the provision of educational materials, including self-help workbooks (4), information on community and Internet resources (5, 6), and direct advice to patients and their families (when they are involved) (7). It is important to caution patients and families about Internet sites that encourage eating disorder lifestyles ("pro-ana" sites). Although many service providers have made attempts to police and encourage elimination of these sites, they still continue to appear, to the concern of families and professionals (8, 9). In some settings, judicious use of e-mail contact with patients has been increasingly used (5, 10). Some resources for patients and families are presented in Table 1.

1. Establish and maintain a therapeutic alliance

At the very outset and through ongoing interactions with the patient, it is important for clinicians to attempt to build trust, establish mutual respect, and develop a therapeutic relationship that will serve as the basis for ongoing exploration and treatment of the problems associated with the eating disorder. Eating disorders are frequently long-term illnesses that can manifest themselves in different ways at different points during their course; treating them often requires the psychiatrist to adapt and modify therapeutic strategies. Many patients with anorexia nervosa are initially reluctant to enter treatment and may feel invested in their symptoms. Many are secretive and may withhold information about their behavior because of shame. During the course of treatment, they may resist looking beyond immediate symptoms to possible coexisting psychiatric disorders, comorbid psychopathology, and underlying psychodynamic issues. Conversely, some patients may resist discussing eating disorder symptoms and want to focus on only "core issues," apparently to avoid relinquishing their symptoms. Psychiatrists should be mindful of the fact that the recommended interventions create extreme anxieties for individuals with anorexia nervosa. Encouraging patients to gain weight asks them to do the very thing of which they are most frightened. Patients may believe that the psychiatrist just wants to make them fat and does not understand or empathize with

their underlying emotions. Consequently, by recognizing and acknowledging an awareness of patient anxieties, psychiatrists can assist in building the therapeutic alliance. The clinician may foster rapport by letting patients know that eating disorder symptoms often serve a number of important functions, such as providing a sense of accomplishment or a way to feel looked after or protected (11, 12). Addressing patients' resistance to treatment and enhancing their motivation for change may be important in allowing therapy to proceed through impasses as well as helping to ameliorate factors that serve to aggravate and maintain eating disorders (13–18). Finally, letting patients know that full recovery from anorexia nervosa takes time (19) may help build rapport, as the patient senses that the clinician is not expecting a magical, rapid turnaround, which the patient may sense is unrealistic.

2. Coordinate care and collaborate with other clinicians

Professionals from several disciplines may collaborate in the patient's care. The specific role of each professional may vary with the organizational structure of the eating disorders program and the professional qualifications of those working within the program. The psychiatrist may assume the leadership role in the patient's treatment program or the patient's treatment team or work collaboratively on a team led by other health professionals, including other physicians or psychologists. Registered dietitians with specialized training in eating disorders often provide nutritional counseling. Therapists from a variety of professional fields may provide family, individual, or group psychotherapy, including CBT. Other physician specialists and dentists may be consulted for management of acute and ongoing medical and dental complications. Often in the treatment of children and adolescents, school coaches, teachers, and school counselors may be asked to collaborate in a patient's treatment. In treatment settings where staff do not have the training or experience to deal with patients with eating disorders, the provision of education, supervision, and leadership by a qualified psychiatrist can be crucial to the success of treatment.

Although a variety of management models are used for adult patients with eating disorders, no data exist on their comparative efficacies. Psychiatrists who choose to manage both general medical and psychiatric issues should have appropriate medical backup to treat the medical complications associated with eating disorders. Some programs routinely arrange for interdisciplinary teams to manage treatment (sometimes called *split management*). In this model, the psychiatrist handles administrative and general medical requirements, prescribes medications when clinically necessary and appropriate, and recommends interventions aimed at normalizing disturbed cognitions and eating and weight-reducing behaviors. Other clinicians then provide individual and/or group psychotherapeutic interventions (e.g., CBT, psychodynamic psychotherapy, family therapy). For this management model to be effective and to avoid reinforcing some patients' tendencies to play staff off each other (i.e., split the staff), all personnel must work closely together and maintain open communication and mutual respect.

For children and adolescents, the recommended treatment model is the team approach (3). In this interdisciplinary management approach, general medical care clinicians (e.g., specialists in internal medicine, pediatrics, adolescent medicine, or nutrition) manage general medical issues, such as nutrition, weight gain, exercise, and eating patterns, whereas the psychiatrist addresses the psychiatric issues (3, 20, 21). The biopsychosocial nature of anorexia nervosa

and bulimia nervosa dictates the need for interdisciplinary treatment, and each aspect of care must be developmentally tailored to the treatment of adolescents (22). In unusual circumstances, psychiatrists may be qualified to act as the primary provider of comprehensive medical care.

When a patient is managed by an interdisciplinary team in an outpatient setting, communication among the professionals is essential so that all team members have a clear understanding of each other's responsibilities and approaches. For example, in team management of outpatients with anorexia nervosa, one professional must be designated to consistently monitor weights so that this essential function is not inadvertently omitted from care.

3. Assess and monitor eating disorder symptoms and behaviors

It is important for the psychiatrist to carefully assess the patient's eating disorder symptoms and behaviors (23). Such an assessment will assist the clinician in identifying target symptoms and behaviors that will be addressed in the treatment plan as well as determining whether a DSM-IV-TR diagnosis of anorexia nervosa or bulimia nervosa is present (Tables 2 and 3).

It is important to note that a significant number of patients are relegated to the heterogeneous diagnostic group referred to as eating disorders not otherwise specified because they have not been amenorrheic for 3 months and consequently do not meet current criteria for anorexia nervosa. In terms of their clinical course, treatment response, or level of impairment, such patients do not differ from those who fulfill the DSM-IV-TR criteria for anorexia nervosa (24, 25). These observations have important implications with respect to making clinical treatment decisions. They also imply that patients with continued menses who fulfill other criteria for anorexia nervosa should be eligible for the same levels of care as patients with anorexia nervosa.

Obtaining a detailed report of food intake during a single day in the patient's life or using a calendar as a prompt may help elicit specific information about a patient's eating behaviors, particularly regarding perceived intake. A clinician may also obtain useful information by sharing a meal with the patient or observing the patient eating a meal; in this way, the clinician can observe any difficulties the patient may have in eating particular foods, anxieties that erupt in the course of a meal, and rituals concerning food (such as cutting, separating, or mashing) that the patient feels compelled to perform.

It is important to explore the patient's understanding of how the illness developed and the effects of any interpersonal problems at the onset of the eating disorder. A family history should be obtained regarding eating disorders and other psychiatric disorders, alcohol and other substance use disorders, obesity, family interactions in relation to the patient's disorder, and family attitudes toward eating, exercise, and appearance. It is essential that the clinician avoid articulating theories that imply blame or permit family members to blame one another or themselves for the patient's disorder. No evidence exists to prove that families cause eating disorders. Furthermore, blaming family members harms their psychological well-being and often impairs their desire, willingness, and capacity to be helpful to patients and to participate

actively and constructively in treatment and recovery. Rather, the point is to identify family stressors whose amelioration may facilitate recovery.

In the assessment of young patients, it is always helpful to involve parents and, whenever appropriate, school and health professionals who routinely work with children. The complete assessment usually requires several hours. Even when directly questioned, patients and their families may not initially reveal pertinent information about sensitive issues; important information may be uncovered only after a trusting relationship has been established and the patient is better able to accurately identify inner emotional states.

Formal measures are available for the assessment of eating disorders, including self-report questionnaires and semistructured interviews. Examples are listed in Table 4. Clinical decisions about a diagnosis cannot be made on the basis of self-report screening instruments. Patients who are identified on initial screening as likely to have an eating disorder must be followed up in a second-stage determination by trained clinical interviewers. The instruments shown in Table 4, used by clinicians to interview patients in a structured format, are generally taken as "gold standards" to determine clinical diagnoses.

4. Assess and monitor the patient's general medical condition

A full physical examination should be performed by a physician familiar with common findings in patients with eating disorders, with particular attention to vital signs; physical status (including height and weight); heart rate and rhythm; jugular venous pressure; heart sounds (especially midsystolic clicks or murmurs from mitral valve prolapse); acrocyanosis; delayed capillary refill; lanugo; salivary gland enlargement; scarring on the dorsum of the hands (Russell's sign); evidence of self-injurious behaviors, such as ecchymoses, linear scars, and cigarette burns; muscular weakness; indications of muscular irritability due to hypocalcemia, such as in Chvostek's and Trousseau's signs; and gait and eye abnormalities (40–43). The patient should also be referred for a dental examination if necessary or indicated by the patient's history (44). In younger patients, examination should include growth pattern and sexual development, including sexual maturity rating, as well as general physical development. The use of a growth chart of standardized values for pediatric populations may allow the clinician to identify patients who have failed to gain weight and have growth retardation (3, 45); such charts are available on the web site of the CDC (http://www.cdc.gov/growthcharts/).

BMI, in conjunction with weight and height, has gained increasing attention in research and clinical settings as a tool for assessing eating disorder patients. BMI is calculated as weight (in kilograms) divided by height (in meters squared) and is particularly useful for comparing groups according to index percentiles that take into account height, sex, and age (46). It is important to remember that BMI is a calculation based only on height and weight and does not provide any further measure of body composition. Except in individuals who are extremely under- or overweight, it is often not useful in estimating nutritional status. Furthermore, considerable debate in the scientific community exists about appropriate BMI ranges for various ethnic groups. Among Caucasian women, for example, the range of a healthy BMI may be higher than for some groups of Asian women (47). Adults with a BMI <18.5 kg/m^2 are considered to be underweight. In addition, abnormal muscularity, body frame size, fluid

status, marked constipation, and fluid loading can decrease the validity of BMI as an indicator of the patient's nutritional status (48–52). In children and adolescents, an age-adjusted BMI is used (see http://www.cdc.gov/nccdphp/dnpa/bmi/00binaries/bmi-tables.pdf). Children with a BMI <5th percentile for age are considered to be underweight.

Commonly found signs, symptoms, and associated laboratory abnormalities for anorexia nervosa and bulimia nervosa are shown in Table 5 and Table 6, respectively. Although patients treated in outpatient practice may report few symptoms and show few obvious physical signs or abnormal laboratory test results, significant occult abnormalities may be present (e.g., in bone, heart, and brain).

The need for laboratory analyses should be determined on an individual basis depending on the patient's condition or when necessary for making treatment decisions (43). Some of the laboratory assessments that may be indicated for patients with eating disorders appear in Table 7.

5. Assess and monitor the patient's psychiatric status and safety

In addition to assessing patients' physiological and nutritional status as well as their behaviors, cognitions, and emotions associated with eating and exercise, it is essential that clinicians attend to the overall psychiatric status and safety of patients. Associated psychiatric issues that bear close monitoring include historical evidence, signs, and symptoms related to psychiatric conditions that are often comorbid with eating disorders (e.g., mood, anxiety, and substance use disorders) as well as personality traits and personality disorders that greatly influence patients' clinical course and outcome (78–82). Patients' motivational status also bears monitoring, as it is likely to determine their capacity to engage in treatment (15). Safety issues for patients with eating disorders include both physiological and psychiatric parameters. Many of the physiological safety parameters are described in Section II.B.1, "Choice of a Treatment Site." Clinicians must be vigilant regarding shifts in patients' weight, blood pressure, pulse, other cardiovascular parameters, and behaviors that are likely to provoke physiological decline and collapse. General psychiatric safety issues that bear constant attention include suicidal ideation and suicide attempts as well as impulsive and compulsive self-harm behaviors (83, 84).

6. Provide family assessment and treatment

The available evidence affirms the importance of family involvement and treatment in the management of children and adolescents with anorexia nervosa (85–87). In addition, clinical consensus supports the value of family assessment and involvement in the treatment of both younger and older patients with other eating disorders (88, 89). Since eating is a quintessential family activity, the opportunity to observe patterns of family interaction around the eating and particularly around the eating problems can be useful in assessment (89a). Family members can provide useful perspectives on factors contributing to the onset of the disorders and issues that may aid or hamper efforts at recovery. Family members are often distressed by difficulties in understanding and interacting with the patient. Clinicians need to empathically listen to family members, advise them on their interactions with the patient, and, when indicated, involve them in conjoint or individual treatment so that the patient and family

all stand the best chance of achieving a good outcome (90). Patients with anorexia nervosa who are in a relationship may present with a higher motivation to change (91), and the involvement of spouses and partners in treatment may be highly desirable. Families of adolescents with anorexia nervosa may be directed to the Maudsley approach, which focuses on the family as a resource for recovery and puts parents in charge of refeeding their affected child (87, 92, 93). Although this approach is promising, additional data are required to determine if it is the best approach for adolescents with anorexia nervosa.

B. Developing a Treatment Plan for the Individual Patient

1. Choice of a treatment site

Services available for the treatment of eating disorders can range from intensive inpatient settings (in which subspecialty general medical consultation is readily available) to residential and partial hospitalization programs to varying levels of outpatient care (in which the patient can receive general medical treatment, nutritional counseling, and/or individual, group, and family psychotherapy). Because specialized programs are not available in all geographic areas and financial considerations are often significant, access to these programs may be difficult. The resources listed in Table 1 may provide guidance to patients and families for accessing suitable programs.

Pretreatment evaluation of the patient is essential for determining the appropriate treatment setting. Patient weight, rate of weight loss, cardiac function, and metabolic status are the most important physical parameters for making this choice. Eating disorders should be recognized and early treatment implemented as soon as possible after the onset of symptoms. This is especially true in children, adolescents, and young adults, to avoid the disorder becoming chronic.

As a general rule, patients who weigh less than approximately 85% of their individually estimated healthy weights have considerable difficulty gaining weight outside of a highly structured program that includes inpatient care; such a program may be medically and psychiatrically necessary even for patients above that weight level. It is important to underscore that these are individually estimated healthy weights, not weights simply listed in a standard insurance table. Healthy weight estimates for a given individual must be determined by that person's physicians on the basis of historical data (e.g., growth charts) (3) and, for women, the weight at which healthy menstruation and ovulation resume, which may be higher than the weight at which menstruation and ovulation became impaired (94–96).

It is equally important that the decision to hospitalize a patient be based on psychiatric and behavioral factors, including a rapid or persistent decline in oral intake; a decline in weight despite maximally intensive outpatient or partial hospitalization intervention; the presence of additional stressors, such as dental procedures, that may interfere with the patient's ability to eat; the weight at which the patient was medically unstable in the past; and co-occurring psychiatric problems that merit hospitalization. The degree of a patient's denial and resistance to participate in his or her own care in less supervised settings is critical in deciding whether to hospitalize the patient. Once weight loss is severe enough to indicate the need for immediate hospitalization, treatment may be less effective, refeeding may entail greater risks,

and prognosis may be more problematic than if intervention had been provided earlier. Because cortical gray matter deficits result from malnutrition and persist after refeeding (97–99), earlier (rather than later) interventions may be important to minimize the persistent effects of these physiological impairments. Therefore, hospitalization should occur before the onset of medical instability as manifested by vital signs, physical findings, or laboratory test results outside of the normal range.

Vital sign changes that indicate a need for immediate medical hospitalization include marked orthostatic hypotension, with an increase in pulse of 20 bpm or a drop in blood pressure of 20 mmHg standing; bradycardia, with a heart rate <40 bpm; tachycardia, with a heart rate >110 bpm; or the patient's inability to sustain his or her body core temperature (e.g., body temperatures <97.0°F) (3). Most severely underweight patients, particularly those with physiological instability, require inpatient medical management and comprehensive treatment to support their weight-gaining efforts. To avert potentially irreversible effects on physical growth and development, many children and adolescents require inpatient medical treatment, even when weight loss, although rapid, has not been as severe as that suggesting a need for hospitalization in adult patients (3). If children refuse fluids or food out of concern about gaining weight, they may become dehydrated quickly. Also, a child's small size may mean that relatively smaller reductions in weight will result in greater physiological danger.

In determining a patient's initial level of care or suitability for change to a different level of care, expert consensus indicates that it is important to consider a patient's overall clinical and social picture rather than simply rely on weight criteria. Furthermore, weight level per se should never be used as the sole criterion for discharge from inpatient care. Patients need to both gain healthy body weight and learn to maintain that weight prior to discharge; patients who reach a healthy body weight but are discharged before this learning occurs are likely to immediately decrease their caloric intake to excessively low levels that are often insufficient to sustain their healthy body weight. Assisting patients in determining and practicing appropriate food intake at a healthy body weight is likely to decrease the chances of their relapsing. Patients who are medically stabilized on acute medical units will still require inpatient treatment for eating disorders if they do not meet biopsychosocial criteria for partial hospitalization programs or if no suitable partial hospitalization program for eating disorders treatment is accessible because of geographic or other reasons. Patients with inadequate motivation or support who are discharged from inpatient to partial hospitalization programs before they are clinically ready often have high rates of early relapse, greater struggles with recovery, and slower rates of progress, necessitating longer future inpatient stays.

In shifting between levels of care, it is important to establish continuity of care. Stepping down from one level of care to a less intensive level may be destabilizing for a patient and can be even more so when this involves a change in physician, therapist, or treatment team. At times, patients may erroneously conclude that moving to a less restrictive treatment setting means that they are suddenly fully improved. The patient's ability to continue treatment with familiar and trusted staff in a partial hospitalization or outpatient setting may contribute to the success of aftercare planning. Consequently, if the patient is moving from one treatment setting or locale to another, transition planning requires that the care team in the new setting or locale be identified and that specific patient appointments be made. It is preferable that a specific clinician on the team be designated as the primary coordinator of care to ensure

continuity and attention to important aspects of treatment. Guidelines for treatment settings are provided in Table 8.

Although most patients with uncomplicated bulimia nervosa do not require hospitalization, indications for hospitalization can include severe disabling symptoms that have not responded to adequate trials of outpatient treatment, serious concurrent general medical problems (e.g., metabolic abnormalities, hematemesis, vital sign changes, uncontrolled vomiting), suicidality, psychiatric disturbances that would warrant patients' hospitalization independent of the eating disorder diagnosis, or severe concurrent substance use.

Legal interventions, including involuntary hospitalization and legal guardianship, may be necessary to address the safety of patients who are reluctant to receive treatment but whose general medical conditions are life threatening (102). On a short-term basis at least, outcomes for those patients who are hospitalized involuntarily are comparable with outcomes of those hospitalized voluntarily with respect to rates of weight restoration (103). The decision to hospitalize on a psychiatric versus a general medical or adolescent/pediatric unit depends on the patient's general medical status, the skills and abilities of local psychiatric and general medical staff, and the availability of suitable programs to care for the patient's general medical and psychiatric problems (104). There is evidence to suggest that patients treated in specialized inpatient eating disorder units have better outcomes than patients treated in general inpatient settings where staff lack expertise and experience in treating patients with eating disorders (105).

Partial hospitalization and day hospital programs are being increasingly used in attempts to decrease the length of inpatient stays or even in lieu of hospitalization for individuals with milder symptoms. However, such programs may not be appropriate for patients with lower initial weights. The failure of outpatient treatment is one of the most frequent indications for the more intensive treatment provided in a day, partial hospitalization, or inpatient program. In deciding whether a patient requires a partial hospitalization program, the patient's motivation to participate in treatment and ability to work in a group setting should be considered (106, 107). A growing body of evidence suggests that partial hospitalization outcomes are highly correlated with treatment intensity and that more successful programs involve patients at least 5 days/week for 8 hours/day (101).

Patients who are considerably below their healthy body weight but who are highly motivated to adhere to treatment, have cooperative families, and have brief symptom duration may benefit from treatment in outpatient settings, but only if they are carefully monitored and if they and their families understand that a more restrictive setting may be necessary if persistent progress is not evident within a few weeks (108, 109). Careful monitoring includes at least weekly (and often twice or thrice weekly) weight determinations done immediately after the patient voids and while the patient is wearing the same class of garment (e.g., hospital gown, standard exercise clothing). Measurement of urine specific gravity, orthostatic vital signs, oral body temperature, and, in purging patients, electrolytes may also need to be monitored on a regular basis. Although child and adolescent patients treated in the outpatient setting can remain with their families and continue to attend school or work, these advantages must be balanced against the risks of failure to progress in recovery.

2. Choice of specific treatments for anorexia nervosa

Anorexia nervosa is a complex, serious, and often chronic condition that may require a variety of treatment modalities at different stages of illness and recovery. Specific treatments include nutritional rehabilitation, psychosocial interventions, and medications. The aims of treatment are to 1) restore the patient to a healthy weight (associated with the return of menses and normal ovulation in female patients, normal sexual drive and hormone levels in male patients, and normal physical and sexual development in children and adolescents); 2) treat the patient's physical complications; 3) enhance the patient's motivation to cooperate in the restoration of healthy eating patterns and participate in treatment; 4) educate the patient regarding healthy nutrition and eating patterns; 5) help the patient reassess and change core dysfunctional cognitions, attitudes, motives, conflicts, and feelings related to the eating disorder; 6) treat the patient's associated psychiatric conditions, including deficits in mood and impulse regulation, self-esteem, and behavior; 7) enlist family support and provide family counseling and therapy where appropriate; and 8) prevent the patient from relapsing.

a) Nutritional rehabilitation

The goals of nutritional rehabilitation for seriously underweight patients are to restore weight, normalize eating patterns, achieve normal perceptions of hunger and satiety, and correct biological and psychological sequelae of malnutrition (110, 111).

Healthy target weights should be established as part of the initial treatment plan and discussed explicitly with the patient, but with considerable sensitivity to how generally fearful patients are of gaining weight. On occasion it may be judicious to delay this discussion until the patient is less likely to be terrified of his or her ultimate weight goal. In general, a healthy goal weight for female patients is the weight at which normal menstruation and ovulation are restored and, for male patients, the weight at which normal testicular function is resumed. For female patients who previously had a healthy menses and ovulation, the clinician can estimate their healthy weight as approximately the same weight at which full physical and psychological vigor were present. In one study of 100 adolescent patients with anorexia nervosa (94), the resumption of menses occurred at a weight approximately 4.5 pounds greater than the weight at which menses was lost; at 90% of healthy weight, 86% of patients resumed menses. In children and adolescents, growth curves should be followed and are most useful when longitudinal data are available, given that extrapolations from cross-sectional data at one point in time can be misleading. Therefore, for most clinical work, it is reasonable to simply weigh patients and gauge how far they are from their individually estimated healthy body weight (112). Bone age may be accurately estimated from wrist X-rays and nomograms. In conjunction with bone measurements, menstrual history in adolescents with secondary amenorrhea, mid-parental heights, and assessments of skeletal frame, CDC growth charts (available at http://www.cdc.gov/growthcharts/) may be used to accurately estimate individually appropriate ranges for "expected" weights for current age and to set individually realistic expectations and goals for weight and height for patients up to age 20 years.

For individuals who are markedly underweight and for children and adolescents whose growth is substantially less than that predicted by growth curves, hospital-based programs for nutritional rehabilitation should be considered. For those in inpatient or residential settings,

the weight at which it is appropriate to discharge a patient may vary in relation to the patient's healthy target weight and will depend on the patient's ability to feed him- or herself, the patient's motivation and ability to participate in aftercare programs, and the adequacy of aftercare, including partial hospitalization. In general, the closer a patient is to his or her healthy body weight before discharge, the less the risk he or she has of relapsing and being readmitted. Having patients maintain their weight for a period of time before they are discharged from inpatient treatment probably decreases the risk of their relapsing as well.

Refeeding programs should be implemented in nurturing emotional contexts. Staff should convey to patients their intention to take care of them and not let them die even when the illness prevents the patients from taking care of themselves. Staff should clearly communicate that they are not seeking to engage in control battles and have no punitive intentions when using interventions that the patient may experience as aversive. Some positive reinforcements (e.g., privileges) and negative reinforcements (e.g., required bed rest, exercise restrictions, restrictions of off-unit privileges) should be built into the program; negative reinforcements can then be reduced or terminated and positive reinforcements accelerated as target weights and other goals are achieved.

As patients work to achieve their target weights, their treatment plan should also establish expected rates of controlled weight gain. Clinical consensus suggests that realistic targets are 2–3 lb/week for hospitalized patients and 0.5–1 lb/week for individuals in outpatient programs, although an intensive partial hospitalization, stepped-down program has reported gains of up to 2 lb/week (113). Occasionally some patients may gain as much as 4–5 lb/week, but these individuals must be carefully monitored for refeeding syndrome and fluid retention. Dietitians can help patients choose their own meals and provide a structured meal plan that ensures nutritional adequacy and inclusion of all the major food groups. Formula feeding may have to be added to achieve large caloric intake. Some authorities advocate that the amount of solid food eaten should not exceed the amount that patients would ordinarily be eating at their target weight. Expanding cuisine options is important to avoid the severely restricted food choices frequently seen in eating disorder patients. Legitimate food allergies and patients' religious and cultural practices must be considered and discussed to limit patient rationalizations for restricted eating. Intake levels should usually start at 30–40 kcal/kg per day (approximately 1,000–1,600 kcal/day). During the weight gain phase, intake may have to be advanced progressively to as high as 70–100 kcal/kg per day for some patients; many male patients require a very large number of calories to gain weight. Patients who require significantly higher caloric intakes may be discarding food, vomiting, or exercising frequently or they may engage in more nonexercise motor activity such as fidgeting; others may have a truly elevated metabolic rate. Patients requiring much lower caloric intakes or those suspected of artificially increasing their weight by fluid loading should be weighed in the morning after voiding while they are wearing only a gown; their fluid intake also should be carefully monitored. Assessing urine specimens obtained at the time of weigh-in for specific gravity may help ascertain the extent to which the measured weight reflects excessive water intake.

Particularly in residential or hospital treatment programs, it may initially be difficult to obtain the cooperation of patients who do not wish to be there. In addition, many patients have delayed gastric emptying that initially impairs their ability to tolerate 1,000 calories/day. Under such circumstances, it is often more effective to begin with 200–300 calories above the

patient's usual caloric intake (e.g., a patient consuming 400 calories/day may need to start at 600–700 calories/day). During hospitalization, giving patients a liquid feeding formula in the early stages of weight gain and then gradually exposing them to food and slowly increasing their activity level can be a very effective strategy for inducing weight gain (114). As patients are able and as their cooperation improves, a 2–3 lb/week gain in residential or hospital programs can be expected without compromising the patients' safety.

In addition to an increased caloric intake, patients also benefit from vitamin and mineral supplements. Serum potassium levels should be regularly monitored in patients who are persistent vomiters. Hypokalemia should be treated with oral or intravenous potassium supplementation and rehydration.

Physical activity should be adapted to the food intake and energy expenditure of the patient, taking into account bone mineral density and cardiac function. For the severely underweight patient, exercise should be restricted and always carefully supervised and monitored. Once a safe weight is achieved, the focus of an exercise program should be on physical fitness as opposed to expending calories. The focus on fitness should be balanced with restoring patients' positive relationship with their bodies—helping them to take back control and get pleasure from physical activities rather than being compulsively enslaved to them. An exercise program should involve exercises that are not solitary, are enjoyable, and have endpoints that are not determined by time spent expending calories or changing weight and shape. Sports such as soccer, basketball, volleyball, or tennis are examples (115).

Staff should help patients deal with their concerns about weight gain and body image changes, given that these are particularly difficult adjustments for patients to make. In fact, there is general agreement among clinicians that distorted attitudes about weight and shape are the least likely to change and that excessive and compulsive exercise may be one of the last of the behaviors associated with an eating disorder to abate. Although it is by no means certain that patients' abnormal eating habits will improve simply as a function of weight gain (116), there is considerable evidence to suggest that other eating disorder symptoms diminish as weight is restored with nutritional rehabilitation. For example, clinical experience indicates that with weight restoration, food choices increase, food hoarding decreases, and obsessions about food decrease in frequency and intensity, although they do not necessarily disappear.

Providing anorexia nervosa patients who have associated binge eating and purging behaviors with regular structured meal plans may also enable them to improve. For some patients, however, giving up severe dietary restrictions and restraints appears to increase binge-eating behavior, which is often accompanied by compensatory purging.

As weight is regained, changes in associated mood and anxiety symptoms as well as in physical status can be expected (117). Clinicians should advise patients of what changes they can anticipate as they start to regain weight. In the initial stages, the apathy and lethargy associated with malnourishment may abate. However, as patients start to recover and feel their bodies becoming larger, and especially as they approach frightening magical numbers on the scale that represent phobic weights, they may experience a resurgence of anxious and depressive symptoms, irritability, and sometimes suicidal thoughts. These mood symptoms, non-food-related obsessional thoughts, and compulsive behaviors, although often not eradicated, usually decrease with sustained weight gain.

Weight gains result in improvement in most of the physiological complications of semistarvation, including improvement in electrolyte levels, heart and kidney function, and attention and concentration. Initial refeeding may be associated with mild transient fluid retention, and patients who abruptly stop taking laxatives or diuretics may experience marked rebound fluid retention for several weeks, presumably from salt and water retention caused by elevated aldosterone levels associated with chronic dehydration. Refeeding edema and bloating occur frequently.

Patients may experience abdominal pain and bloating with meals from the delayed gastric emptying that accompanies malnutrition. Constipation, which may be ameliorated with stool softeners, can progress to obstipation and, rarely, acute bowel obstruction. As weight gain progresses, many patients also develop acne and breast tenderness. Many patients become unhappy and demoralized about resulting changes in body shape. Management strategies for dealing with these milder adverse effects include careful refeeding, frequent physical examinations, and forewarnings to patients about mild refeeding edema.

A severe refeeding syndrome may occur when severely malnourished patients (generally those weighing <70% of their healthy body weight) are re-fed too rapidly, particularly in the context of enteral or parenteral feedings but also with vigorous oral refeeding regimens. This syndrome consists of hypophosphatemia, hypomagnesemia, hypocalcemia, and fluid retention. Thiamine deficiency may also be seen as a feature of this syndrome. In some case series, the refeeding syndrome has been reported to occur in roughly 6% of hospitalized adolescents (118). Excessively rapid refeeding and nasogastric or parenteral feeding may be particularly dangerous because of their potential for inducing severe fluid retention, cardiac arrhythmias, cardiac failure, respiratory insufficiency, delirium, seizures, rhabdomyolysis, red cell dysfunction, and even sudden death, especially in the lowest-weight patients (118, 119). In such cases, phosphorus, magnesium, and/or potassium supplementation will be necessary (118, 120). In one series of hospitalized adolescents, moderate hypophosphatemia occurred in 5.8% and mild hypophosphatemia in 21.7% of patients, requiring some degree of phosphorus replacement in 27.5% of these patients (120).

Besides monitoring of mineral and electrolyte levels, general medical monitoring during refeeding should include assessment of vital signs, monitoring of food and fluid intake and output (if indicated), and observation for edema, rapid weight gain (associated primarily with fluid overload), congestive heart failure, and gastrointestinal symptoms. For children and adolescents who are severely malnourished (weigh <70% of their standard body weight), cardiac monitoring, especially at night, may be advisable (120).

Some patients are completely unable to recognize their illness, accept the need for treatment, or tolerate the guilt that would accompany eating, even when performed to sustain their lives. On the rare occasions when staff have to take over the responsibilities for providing life-preserving care, nasogastric feedings are preferable to intravenous feedings. In some programs, supplemental overnight pediatric nasogastric tube feedings have been used to facilitate weight gain in cooperative patients. This practice is not routinely recommended at present, although it appears to be well tolerated, may slightly decrease hospital stays in children, and may be experienced positively by some patients, particularly younger patients, who may feel relieved to know that they are being cared for and who, while they cannot bring

themselves to eat, are willing to allow physicians to feed them (121). If used, such interventions should never supplant expectations that the patient will resume normal eating patterns on his or her own. Total parenteral feeding is required only rarely and for brief periods in life-threatening situations.

Forced nasogastric or parenteral feeding can each be accompanied by substantial dangers. When nasogastric feeding is necessary, clinical experience suggests that continuous feeding (i.e., over 24 hours) may be less likely than three to four bolus feedings a day to result in metabolic abnormalities or patient discomfort and may be better tolerated by patients. As an alternative to nasogastric feedings, in very difficult situations where patients physically resist and constantly remove their nasogastric tubes, gastrostomy or jejunostomy tubes may be surgically inserted. As described above, rapid refeeding can be associated with the severe refeeding syndrome, and infection is always a risk with parenteral feedings in emaciated and potentially immunocompromised patients with anorexia nervosa. Consequently, these interventions should not be used routinely but should be considered only when patients are unwilling or unable to cooperate with oral feedings or when the patients' health, physical safety, and recovery are being threatened. In situations where involuntary forced feeding is considered, careful thought should be given to clinical circumstances, family opinion, and relevant legal and ethical dimensions of the patient's treatment.

If using interventions that patients with anorexia nervosa may experience as coercive, the clinician should consider the potential impact on the therapeutic relationship, especially since maintaining a sense of control is often a key dynamic in these patients. The setting of limits is developmentally appropriate in the management of children and adolescents and may help shape the patient's behavior in a healthy direction. It is essential for caregivers to be clear about their own intentions and empathic capacities regarding the patient's impression of being coerced. Caregivers should not be seen as using techniques intended to be coercive. Rather, caregivers' interventions should always be clearly seen as components of a general medical treatment required for the patient's health and survival.

During the last few years, there has been considerable debate about the ethics of involuntarily feeding patients with anorexia nervosa (122, 123). There is general agreement that children and adolescents who are severely malnourished and in grave medical danger should be re-fed, involuntarily if necessary, but that every effort should be made to gain their cooperation as cognitive function improves.

Ethical as well as clinical dilemmas often confront clinicians dealing with adult patients with chronic anorexia nervosa and their families. The general principles to be followed are those directing good, humane care; respecting the wishes of competent patients; and intervening respectfully with patients whose judgment is severely impaired by their psychiatric disorders when such interventions are likely to have beneficial results (124, 125).

b) Psychosocial interventions

The goals of psychosocial interventions in patients with anorexia nervosa are to help them 1) understand and cooperate with their nutritional and physical rehabilitation, 2) understand and change the behaviors and dysfunctional attitudes related to their eating disorder, 3) improve their interpersonal and social functioning, and 4) address comorbid psychopathology and

psychological conflicts that reinforce or cause them to maintain eating disorder behaviors. Efforts to achieve these goals often benefit from an initial enhancement of a patient's motivation to change along with ongoing efforts to sustain this motivation.

(i) Acute anorexia nervosa

Few controlled studies offer guidance for the psychosocial treatment of anorexia nervosa. Clinical consensus suggests that during the acute refeeding and weight gain stages, it is beneficial to provide patients with individual psychotherapeutic management that is psychodynamically informed and that provides empathic understanding, explanations, praise for positive efforts, coaching, support, encouragement, and other positive behavioral reinforcement. During all phases of treatment, seeing patients' families is also helpful, particularly for children and adolescents, for whom controlled trials suggest that family treatment is the most effective intervention (86, 126). For patients who initially lack motivation, their awareness and desire for recovery may be increased by psychotherapeutic techniques based on motivational enhancement, although solid evidence for this contention is lacking.

At the same time, clinical consensus suggests that psychotherapy alone is generally not sufficient to treat severely malnourished patients with anorexia nervosa. Although the value of establishing and maintaining a psychotherapeutically informed relationship is clearly beneficial and psychotherapeutic sessions to enhance patient motivation and further patient weight gain are likely to be helpful, the value of formal psychotherapy during the acute refeeding stage is uncertain (127). Attempts to conduct formal psychotherapy may be ineffective with starving patients, who are often negativistic, obsessional, or mildly cognitively impaired, presumably in relation to the known cortical atrophy seen in nutritionally compromised patients. One study documented the difficulty researchers have had in initiating and sustaining cognitive-behavioral therapies for patients with anorexia nervosa (128).

Most nutritional rehabilitation programs incorporate emotional nurturance and one of a variety of behavioral interventions that link exercise, bed rest, and privileges with target weights, desired behaviors, and informational feedback. Several studies of individual therapy have shown modest success, sometimes in only a small percentage of patients (7, 85). In one controlled trial, nonspecific supportive clinical management appeared to be at least as effective as CBT or IPT in some patients. However, 70% of patients either did not complete or made only small gains from the active psychotherapies they received (7). In this study, clinical management included education, care, support, and the fostering of a therapeutic relationship designed to promote adherence to treatment through the use of praise, reassurance, and advice.

The accumulated evidence strongly supports the value of family therapy for the acute treatment of children and adolescents in outpatient settings. Studies show that whether patients and parents are seen together or are treated separately in ongoing treatment, the results are better than when families are not involved at all (86, 126). This approach begins with the therapist's attempting to unite the parents in developing a consistent approach to refeeding, sympathizing with their plight, and explicitly disclaiming the notion that the parents have caused the eating problem. When families are involved in treatment, sibling subsystems

can be engaged to support the affected sibling. Parents can determine for themselves how best to refeed their child with anorexia nervosa with the therapist's ongoing support and consultation. For some outpatients, a short-term course of family therapy may be as effective as a long-term course; however, a shorter course of therapy may not be adequate for patients with severe obsessive-compulsive features or nonintact families (129). In these studies (129), inpatient care was used briefly for medical stabilization. For adolescents treated in inpatient settings, participation in family group psychoeducation may help promote weight gain and may be as effective as more intensive forms of family therapy (130).

(ii) Anorexia nervosa after weight restoration

Clinical consensus suggests that psychotherapy can be helpful for patients with anorexia nervosa once their malnutrition has been corrected and they have begun gaining weight (131). Because of the enduring nature of many of the psychopathological features of anorexia nervosa and the patient's need for support during recovery, ongoing individual psychotherapeutic treatment is frequently required for at least 1 year and may take many years (132, 133).

Although there have been few formal studies of its effectiveness (134, 135), psychotherapy is generally thought to help patients understand 1) what they have been through; 2) developmental, familial, and cultural antecedents of their illness; 3) how their illness may have been a maladaptive attempt to cope and emotionally self-regulate; 4) how to avoid or minimize the risk of relapse; and 5) how to better deal with salient developmental and other important life issues in the future. At present there is no absolute weight or percentage of body fat that indicates when a patient is actually ready to begin formal psychotherapy. In addition, patients often display improved mood, enhanced cognitive functioning, and clearer thought processes once their nutritional status has significantly improved and even before they make substantial weight gains.

Little evidence from controlled studies exists to guide clinicians in the use of specific therapies for adults with anorexia nervosa. Nonetheless, some data are emerging in support of individual CBT (136–138) for helping patients maintain healthy eating behaviors and CBT or IPT for inducing cognitive restructuring and promoting more effective coping (139, 140). After a patient has begun to gain weight, CBT may be helpful in reducing the risk of relapse and improving outcome, as demonstrated in a small randomized controlled trial (136). In that study, patients who received CBT were more likely to remain in treatment (78%) and have a good outcome after a year (44%) than those assigned to nutritional counseling (7%).

Many clinicians also use psychodynamically oriented individual or group psychotherapy to address underlying personality disorders that may hamper treatment and help sustain the illness and to foster psychological insight and maturation in patients who have made strides toward weight restoration (141–148). Clinical consensus suggests that psychosocial interventions should incorporate an understanding of the patient's developmental traumas, cognitive development, psychodynamic conflict and defense styles, disorders of self-esteem, self-regulation, and "sense of self," as well as other psychological deficits, the presence of other psychiatric disorders, and the complexity of family relationships (149–152). Although studies of psychotherapies focus on different interventions as distinctly separate treatments,

in practice there is frequent overlap among treatments. Indeed, most experienced clinicians report using interventions that cross theoretical boundaries when treating patients with eating disorders (153).

In adolescents, controlled studies have shown that for patients who are younger than age 19 years, have been ill for 3 years or less, and have restored their weight, family therapy is more beneficial than individual therapy, whereas individual therapy is more beneficial for patients with later-onset disorders (154). At 5-year follow-up of patients who received these therapies, much of the improvement could be attributed to the natural outcome of the illness, but it was still possible to detect long-term benefits of the psychological therapies (155).

Regardless of the clinical or theoretical approach used in treatment, some patients with eating disorders challenge clinicians' understanding and in some instances provoke countertransference reactions, particularly in response to patients' communications of aggression and defiance (140, 147, 156–162). Clinical consensus suggests that eating disorders are often difficult to ameliorate with short-term interventions, at least in older adolescents and adults; for this reason, clinicians often feel they have not done enough to change the patient's plight. Countertransference feelings often include beleaguerment, demoralization, and excessive need to change patients with a chronic eating disorder. At the same time, when treating patients with chronic illnesses, clinicians need to understand the longitudinal course of the disorder and that patients can recover even after many years of symptoms. Such awareness may help clinicians maintain a degree of therapeutic optimism and deal with the feelings of pessimistic demoralization that may arise (13, 163).

Some observations suggest that the gender of the clinician may play a role in the particular kind of countertransference reactions that come into play (156, 157). A patient's concerns about the gender of a clinician may be tied to concerns about potential boundary violations and should be attended to when selecting clinicians, including psychiatrists (164, 165). In addition, cultural differences between patients and clinicians or patients and other aspects of the care system may also influence the course and conduct of treatment and require attention. Ongoing processing of one's countertransference reactions, sometimes with the help of a supervisor or consultant, can be useful in helping the clinician persevere and reconcile intense, troublesome countertransference reactions.

When a patient with an eating disorder has been sexually abused or has felt helpless in other situations of boundary violations, this may stir up needs in the clinician to rescue the patient, which can occasionally result in a loosening of the therapeutic structure, the loss of therapeutic boundary keeping, and a sexualized countertransference reaction. In some cases, these countertransference responses have led to overt sexual acting out and unethical treatment on the part of the clinician that have not only compromised treatment but also severely harmed the patient (166). The maintenance of clear boundaries is critical in treating all patients with eating disorders, not only those who have been sexually abused but also those who may have experienced other types of boundary intrusions regarding their bodies, eating behaviors, and other aspects of the self by family members or others. Regular meetings with other team members and/or formal supervision can also help clinicians avoid boundary violations with eating disorder patients. Particularly with some adolescents, a clinician's obvious warmth and direct educational approach may facilitate initiating and sustaining the

patient's trust. However, the license to be informal may create a climate in which a clinician is at a greater risk to violate therapeutic boundaries; such an occurrence must be consistently and carefully prevented. At the same time, according to some clinicians, a clinician's excessively rigid, cold manner and formal distancing behaviors (e.g., avoiding even benign pats on the shoulder that a patient might seek for reassurance) may be disconcerting to some patients and inhibit them from fully engaging in treatment.

Some clinicians use group psychotherapy as an adjunctive treatment for anorexia nervosa; in such cases, however, caution must be taken that patients do not compete to be the thinnest or sickest patient in the group or become excessively demoralized by observing the ongoing struggles of other patients in the group. For that reason, clinicians sometimes prefer heterogeneous groups that combine patients with bulimia nervosa and those with anorexia nervosa. Although there has been little formal study of group psychotherapy in the treatment of anorexia nervosa, one naturalistic study suggests that CBT may have promise (137).

Some clinicians consider that eating disorders may be usefully treated through addiction models, but no data from short- or long-term outcome studies using these methods have been reported. Literature from Anorexics and Bulimics Anonymous and Overeaters Anonymous emphasizes that these programs are not substitutes for professional treatment. These organizations specifically recommend that members seek appropriate medical and nutritional guidance. Nevertheless, there are concerns about zealous and narrow application of the 12-step philosophy in addiction-oriented programs for eating disorders. Programs that focus exclusively on abstaining from binge eating, purging, restrictive eating, and exercise (e.g., 12-step programs) without attending to nutritional considerations or cognitive and behavioral deficits have not been studied and therefore cannot be recommended as the sole treatment for anorexia nervosa. Clinicians frequently report encountering patients who, while attempting to resolve anorexia nervosa by means of a 12-step program alone, might have been greatly helped by concurrent conventional treatment approaches such as nutritional counseling and rehabilitation, medications, and psychodynamic or cognitive-behavioral approaches. By limiting their attempts to recover to their participation in a 12-step program alone, patients not only deprive themselves of the potential benefits of conventional treatments but also may expose themselves to misinformation about nutrition and eating disorders offered by well-intended nonprofessionals participating in and sometimes running these groups. Attempts have been made to integrate traditional and 12-step approaches into treatment; such approaches can offer a strong sense of community, but the effectiveness and potential adverse effects of these combined interventions have not been systematically studied (167). It is important for programs using a 12-step model to be equipped to care for patients with the substantial psychiatric and general medical problems often associated with eating disorders.

Selective support groups led by professionals and advocacy organizations may be beneficial as adjuncts to other psychosocial treatment modalities. However, clinicians should remain cognizant of the idiosyncratic recommendations made in some self-help groups. Sometimes, participants or leaders will eschew clinician-recommended treatments such as psychotropic medication or insist that a participant follow a particular kind of meal structure. These recommendations may conflict with other treatment recommendations and potentially increase the patient's resistance to treatment.

Patients and their families are increasingly using online web sites, news groups, and chat rooms as resources. Although substantial amounts of worthwhile information and support are available in this fashion, the lack of professional supervision of these sources may sometimes lead to misinformation and unhealthy dynamics among users. Clinicians should ask patients about their use of electronic support and other alternative and complementary approaches and be prepared to openly and sympathetically discuss the information and ideas they and their families have gathered from these sources.

As with any form of intervention, various psychosocial interventions may generate adverse effects; however, these have not been systematically studied with regard to treating anorexia nervosa. Some that have been observed by clinicians, patients, and families include 1) fostering negative attitudes in patients and/or families toward health care professionals without adequate discussion and reflection, thereby increasing the risk that patients will drop out of treatment and become less willing to seek or engage in professional treatment; 2) delaying referral to more appropriate interventions; and 3) generating burdensome costs without reasonable or expected benefits (13, 168).

Patients often have difficulty with certain elements of psychotherapy. For example, among patients receiving CBT, some are quite resistant to self-monitoring, whereas others have difficulty mastering cognitive restructuring. Most patients are initially resistant to changing their eating behaviors, particularly when it comes to increasing their caloric intake or reducing exercise. However, the complete lack of acceptance of a psychotherapeutic approach appears to be rare, although this has not been systematically studied.

Management strategies to deal with potential negative effects of psychotherapeutic interventions include 1) conducting a careful pretreatment evaluation, during which the therapist must assess and enhance the patient's level of motivation for change and determine the most appropriate therapeutic approach and format (e.g., individual versus group); 2) being alert to a patient's reactions to and attitudes about the proposed treatment and listening to and discussing the patient's concerns in a supportive fashion; 3) ongoing monitoring of the quality of the therapeutic relationship; and 4) identifying patients for whom another treatment should be co-administered or given before psychotherapy begins (e.g., substance use disorder treatment for those actively abusing alcohol or other drugs, antidepressant treatment for patients whose depression makes them unable to become actively involved, more intensive psychotherapy for those with severe personality disorders, group therapy for those not previously participating). Alternative strategies may be necessary to facilitate the therapeutic process and prevent the abrupt termination of therapy (13). As with all therapeutic interventions, it is essential that the therapist be alert to potential countertransference phenomena toward these often difficult-to-treat patients. If unresolved, these reactions have a high potential for disrupting or hastening the termination of treatment.

(iii) Chronic anorexia nervosa

Available studies of patients with chronic anorexia nervosa typically show a lack of substantial clinical response to psychotherapy. For example, in the study of Dare et al. (85), 84 patients, ill for an average of 6.3 years and with an initial average BMI of 15.4 kg/m^2, were assigned to one of three individual psychotherapies or a control group. The results after 1 year of

psychotherapy were modest in all groups, although the psychoanalytic psychotherapy and family therapy groups fared better than those in the low-contact, routine-care control group. Nevertheless, many clinicians report seeing patients with chronic anorexia nervosa who, after many years of struggling with their disorder, experience substantial remission; thus clinicians are justified in maintaining and extending some degree of hope to patients and families.

For patients whose anorexia nervosa continues to be resistant to treatment despite substantial trials of nutritional rehabilitation, medications, and hospitalizations, more extensive psychotherapeutic measures may be undertaken in a further effort to engage and help motivate them or, failing that, as compassionate care. This difficult-to-treat subgroup may represent an as-yet poorly understood group of patients with malignant, chronic anorexia nervosa. Efforts to understand the unique plight of such patients may sometimes lead to engagement in the therapeutic alliance, thereby allowing the nutritional protocol to be initiated (125, 141, 142, 169, 170). With patients who have difficulty talking about their problems, clinicians have reported a variety of nonverbal therapeutic methods, such as creative arts and movement therapy programs, to be useful (171), but these methods have not been formally studied. At various stages of recovery, occupational therapy programs may also enhance self-concept and self-efficacy (172, 173), but again these programs have not been formally studied.

c) Medications

Although psychotropic medications should not be used as the sole or primary treatment for anorexia nervosa, they have been used as an adjunct treatment when nutritional rehabilitation programs alone are ineffective in restoring patients' normal weight or when patients demonstrate significant comorbid psychopathology such as disabling obsessive-compulsive, depressive, or anxiety symptoms. However, because anorexia nervosa symptoms and associated features such as depression may remit with weight gain, decisions concerning the use of medications should be deferred if possible until patients' weight has been restored. The decisions about whether to use psychotropic medications and which medications to choose will be determined by the remaining symptom picture (e.g., antidepressants are usually considered for those with persistent depression, anxiety, or obsessive-compulsive symptoms and for bulimic symptoms in weight-restored patients; second-generation antipsychotics are usually considered for those with severe, unremitting resistance to gaining weight, severe obsessional thinking, and denial that assumes delusional proportions). Many patients with anorexia nervosa are extremely reluctant to take medications and often refuse those that they know to specifically affect weight. These issues must be discussed sympathetically and comprehensively with patients and, for children and adolescents, with their families.

(i) Antidepressants

The efficacy of SSRI antidepressants for anorexia nervosa appears to vary with the phase of treatment. On the basis of several studies, fluoxetine does not appear to confer significant benefits during weight restoration (174, 175), nor did citalopram increase the rate of weight gain in a small study (176). In contrast, in weight-restored patients, fluoxetine in dosages of up to 60 mg/day may decrease relapse episodes and has been associated with better maintenance of weight and fewer symptoms of depression (177). However, for weight-

restored patients with anorexia nervosa who are receiving CBT to help prevent relapse, adding fluoxetine to their treatment does not further decrease the risk of relapse (138).

Although higher dosages of fluoxetine have been found to impair appetite and cause weight loss in normal-weight and obese patients, this effect has not been reported in anorexia nervosa patients treated with lower dosages. Many clinicians report that malnourished depressed patients are less responsive to the beneficial effects of tricyclics, SSRIs, and other antidepressant medications than normal-weight depressed patients. These findings are consistent with those showing that SSRIs are not as effective for depression, when patients without an eating disorder undergo dietary restrictions (178, 179).

Malnourished patients are also much more prone to the side effects of medications. For example, the use of tricyclic antidepressants may be associated with greater risk of hypotension, increased cardiac conduction times, and arrhythmia, particularly in purging patients whose hydration may be inadequate and whose cardiac status may be nutritionally compromised. Given the availability of other antidepressant treatments, tricyclic antidepressants should be avoided, particularly in underweight patients and in patients who are at risk for suicide. In patients for whom there is a concern regarding potential cardiovascular effects of medication, medical specialty consultation can help evaluate the patient's status and advise on the use of medication. With all antidepressants, strategies to manage side effects include limiting the use of medications to patients with persistent depression, anxiety, or obsessive-compulsive symptoms; using low initial doses in underweight patients; and remaining vigilant about early manifestations of side effects.

Several other antidepressants have also been associated with significant side effects that are of relevance to the treatment of anorexia nervosa patients. Bupropion has been associated with an increased likelihood of seizures in patients with bulimia nervosa (180, 181); although the reason for this is unknown, it is suspected that patients with anorexia nervosa, binge-purge type, may also be at increased risk for seizures. Thus, this medication is not recommended for patients with anorexia nervosa, particularly those who purge. Mirtazapine, an antidepressant associated with weight gain, has also been associated with neutropenia. In addition, the only published case report of using mirtazapine to treat anorexia nervosa described a patient also taking fluvoxamine who developed the serotonin syndrome (182). Thus, mirtazapine may not be suitable for use in underweight anorexia nervosa patients.

Clinicians must attend to the black box warnings concerning antidepressants and conduct appropriate informed consent with patients and families if antidepressants are to be prescribed (183–189).

(ii) Antipsychotics

It has been suggested that antipsychotic medications, particularly second-generation antipsychotics, can be potentially useful during the weight-restoration phase or in treatment of other associated symptoms of anorexia nervosa, such as marked obsessionality, anxiety, limited insight, and psychotic-like thinking. Although no controlled studies have been reported in patients with anorexia nervosa, controlled trials of olanzapine and risperidone are under way. Evidence from case reports, case series, and open-label uncontrolled trials suggests that the second-generation antipsychotic olanzapine may promote weight gain in adults and in

adolescent patients (190–193) and that olanzapine (190–194) and quetiapine may improve other associated symptoms (195–197). A small open-label study of low-dose haloperidol also showed improved insight and weight gain in severely ill patients (198). The quality of the available evidence on using antipsychotic medications is also limited by the fact that studies rarely include male patients and have included only small numbers of adolescents; in addition, only case reports are available regarding prepubertal children. If antipsychotic medications are used, the possibility of extrapyramidal symptoms, especially in debilitated patients, should be considered and routinely assessed. Also, appropriate attention must be given to the potential adverse impact of these medications on insulin sensitivity, lipid metabolism, and length of QTc interval.

(iii) Other medications and somatic treatments

Other somatic treatments, ranging from vitamin and hormone treatments to ECT, have been tried in uncontrolled studies. None has been shown to have specific value in the treatment of anorexia nervosa symptoms (199).

Other medications have been used to address associated features of anorexia nervosa. For example, antianxiety agents have been used selectively before meals to reduce anticipatory anxiety concerning eating (200, 201), and pro-motility agents, such as metoclopramide, are commonly offered for the bloating and abdominal pains that result from gastroparesis and that contribute to the premature satiety seen in some patients. However, before prescribing metoclopramide, clinicians should consider the fact that extrapyramidal symptoms are more likely to be seen in underweight anorexia nervosa patients.

In anorexia nervosa patients with prolonged amenorrhea, hormone replacement therapy (HRT) is frequently prescribed to improve patients' bone mineral density. However, no good supporting evidence exists to demonstrate the efficacy of this treatment (202, 203). In women with anorexia nervosa, the evidence supporting the use of HRT is marginal at best. HRT has not been demonstrated to increase bone mineral density over and above standard treatment in adults (204) or in adolescents (203). Only in a subset of very-low-weight women (<70% average body weight) did it prevent further bone loss (204). Estrogen can cause the fusion of the epiphyses and should not be administered to girls before their growth is completed (3). HRT usually induces monthly menstrual bleeding, obscuring the major sign that indicates weight normalization in women. This, in turn, may cause the patient to misunderstand that her body is functioning normally and therefore contribute to denial of the need to gain more weight. Clinicians stress that efforts should be made to allow patients to increase their weight and achieve resumption of normal menses before they are offered estrogen (205). There is no indication for the use of biphosphonates such as alendronate in patients with anorexia nervosa. In fact, long-term use of alendronate may oversuppress bone turnover (206). Thus, the recommended treatment for low bone mineral density includes weight gain and calcium with vitamin D supplementation (207).

3. Choice of specific treatments for bulimia nervosa

The aims of treatment for patients with bulimia nervosa are to 1) reduce and, where possible, eliminate binge eating and purging; 2) treat physical complications of bulimia nervosa; 3)

enhance the patient's motivation to cooperate in the restoration of healthy eating patterns and participate in treatment; 4) provide education regarding healthy nutrition and eating patterns; 5) help the patient reassess and change core dysfunctional thoughts, attitudes, motives, conflicts, and feelings related to the eating disorder; 6) treat associated psychiatric conditions, including deficits in mood and impulse regulation, self-esteem, and behavior; 7) enlist family support and provide family counseling and therapy where appropriate; and 8) prevent relapse.

a) Nutritional rehabilitation and counseling

Bulimia nervosa is associated with nutritional chaos characterized by alternating cycles of dietary restriction, bingeing, and purging. A primary focus for nutritional rehabilitation is to help patients develop a structured meal plan that will allow them to reduce the episodes of dietary restriction and the urge to binge and purge. Nutritional intake should be sufficient to promote satiety. Because most bulimia nervosa patients who have been studied are of normal weight, nutritional restoration will not be a central focus of treatment. However, normal body weight (or normal BMI) does not ensure normal body composition, nor does it ensure that nutritional intake is appropriate. In addition, even if their weight is within statistically normal ranges, many patients with bulimia nervosa weigh less than their appropriate biologically determined set points (or ranges) and may have to gain some weight to achieve physiological and emotional stability. Although many patients with bulimia nervosa report irregular menses, improvement in menstrual function has not been systematically assessed in the available outcome studies. Thus, even among patients of normal weight, nutritional counseling may be a useful adjunct to other treatment modalities in reducing behaviors related to the eating disorder, minimizing food restrictions, increasing the variety of foods eaten, and encouraging healthy but not compulsive exercise patterns (208). Those patients for whom some weight gain is indicated similarly require the establishment of a pattern of regular, non-binge meals, with attention on increasing their caloric intake and expanding macronutrient selection. Patients with bulimia nervosa who are overweight or obese have not been well studied.

b) Psychosocial interventions

The goals of psychosocial interventions for patients with bulimia nervosa vary and can include the following: reducing or eliminating binge eating and purging behaviors; improving attitudes related to the eating disorder; minimizing food restriction; increasing the variety of foods eaten; encouraging healthy but not compulsive exercise patterns; treating co-occurring conditions and clinical features associated with eating disorders; and addressing themes that may underlie eating disorder behaviors such as developmental issues, identity formation, body image concerns, self-esteem in areas outside of those related to weight and shape, sexual and aggressive difficulties, affect regulation, sex role expectations, family dysfunction, coping styles, and problem solving. Consequently, psychosocial interventions should be chosen on the basis of a comprehensive evaluation of the individual patient and take into consideration the patient's cognitive and psychological development, psychodynamic issues, cognitive style, comorbid psychopathology, and preferences as well as age and family situation.

With respect to short-term interventions for treating acute episodes of bulimia nervosa in adults, the available evidence indicates that CBT is the most efficacious. CBT may effect

improvements in psychological functioning of bulimia nervosa patients as well as ameliorate binge eating and purging symptoms. For example, studies have shown that bulimia nervosa patients who improved with CBT also showed improvements in self-directedness and harm avoidance (209, 210). Among patients who do not initially respond to CBT, a small number do respond to IPT or fluoxetine (211) or other modes of treatment such as family and group psychotherapies. Some controlled trials (212) have also shown the effectiveness of IPT as an initial therapy. Behavioral techniques, such as planned meals and self-monitoring, may also be helpful for managing initial symptoms and interrupting binge-purge behaviors (213, 214). It should be pointed out that these study results may not be generalizable to typical clinical situations. For example, to maximize the "clean" experimental nature of some of the CBT/IPT controlled studies mentioned above, the CBT intentionally avoided dealing with interpersonal issues and the IPT intentionally avoided talking about eating issues, which is quite different than how these therapies are conducted in clinical practice (215). It is also possible that the narrow inclusion criteria of some studies limit the generalizability of the study results (216).

Some clinical reports indicate that psychodynamic and psychoanalytic approaches in individual or group format are useful once bingeing and purging symptoms improve (217–219). These approaches address developmental issues; identity formation; body image concerns; self-esteem; conflicts surrounding sexuality, anger, or aggression; affect regulation; gender role expectations; interpersonal conflicts; family dysfunction; coping styles; and problem solving. In a recent naturalistic study of treatment as practiced by experienced clinicians in the community, both CBT and psychodynamic psychotherapy led to decreased rates of bingeing and purging similar to those seen in controlled trials (roughly 50%). However, although CBT has been reported to be associated with a more rapid remission of eating symptoms, some therapists note that more integrative treatments that include psychodynamic approaches are useful in targeting both eating symptoms and broader personality, comorbidity, and quality-of-life issues (153).

Some bulimia nervosa patients, particularly those with concurrent personality pathology or other co-occurring disorders, may require substantially longer treatment. In one study, the clinicians reported that their average CBT treatment for bulimia nervosa lasted 69 sessions (81). However, just how closely these clinicians adhered to formal CBT methods is unknown. Also unknown is how the length and characteristics of the treatments varied according to other clinical dimensions of these patients. Exactly what is required over the long run to best help patients resolve lingering preoccupations with body image and the more subtle but impairing psychological dimensions that may be associated with eating disorders requires additional study. These concerns are often approached in practice through a variety of longer-term psychotherapies.

Family therapy should be considered whenever possible, especially for adolescents still living with parents or for older patients with ongoing conflicted interactions with parents. Patients with marital discord may benefit from couples therapy.

A variety of self-help and professionally guided self-help programs have been effective for a small number of patients with bulimia nervosa (220–222) and have been piloted in some stepped-care approaches. Several innovative online programs are currently being studied (5). Support groups and 12-step programs such as Overeaters Anonymous may be helpful as

adjuncts to initial treatment of bulimia nervosa and for subsequent relapse prevention but are not recommended as the sole initial treatment approach for bulimia nervosa (168, 223). As noted above, these support organizations emphasize in their literature that their programs are not substitutes for professional treatment and specifically recommend that members seek appropriate medical and nutritional guidance. However, clinicians should remain cognizant of the idiosyncratic recommendations made in some self-help groups.

Patients with bulimia nervosa occasionally have difficulties with certain elements of psychotherapy similar to what was discussed above for patients with anorexia nervosa. Possible adverse effects of psychotherapeutic and psychosocial interventions, steps that clinicians might take to minimize negative therapeutic reactions, and issues concerning countertransference (as discussed in Section II.B.2.b) apply to the treatment of patients with bulimia nervosa.

c) Medications

Antidepressants are effective as one component of an initial treatment program for most bulimia nervosa patients. Although various classes of antidepressant medications can reduce symptoms of binge eating and purging, SSRIs have the most evidence for efficacy and the fewest difficulties with adverse effects (224–226). To date, the only medication approved by the FDA for the treatment of bulimia nervosa is fluoxetine. The only other SSRI shown to be effective is sertraline, which was studied in a small randomized controlled trial (227). Available studies also suggest that antidepressants may be helpful for patients with substantial symptoms of depression or anxiety, obsessions, or certain impulse disorder symptoms or for patients who have not responded or had a suboptimal response to previous attempts at appropriate psychosocial therapy (228, 229). Dosages of SSRIs that are higher than those used for depression (e.g., fluoxetine 60 mg/day) are more effective in treating bulimic symptoms (224, 226, 230), but high dropout rates may also be seen in patients using these drugs (226). A small open trial demonstrated the safety and effectiveness of 60 mg/day of fluoxetine for treating bulimia nervosa in adolescents (225). Thus, many clinicians initiate fluoxetine treatment for bulimia nervosa at the higher dosage, titrating downward if necessary to manage side effects. Tricyclic and MAOI antidepressants are rarely used to treat bulimia nervosa, but if they are used, the dosages are similar to those used to treat depression (231).

Often, several different antidepressants may have to be tried sequentially to identify the specific medication with the optimum effect in a particular patient. In the bulimia nervosa patient whose symptoms do not respond to medication, it is important to assess whether the patient has taken the medication shortly before vomiting. Correlations between serum levels and response have not been identified; however, if serum levels of the medication are available, they may help determine whether presumably effective levels of the drug have actually been achieved. Treatment adherence will also enhance the patient's response to treatment, and subtle interpersonal and psychodynamic factors in the physician-patient relationship may contribute to treatment resistance if left unaddressed (232).

As in most clinical situations, careful education of the patient regarding possible side effects of medications and their symptomatic management (e.g., stool softeners for constipation) is important. Side effects vary widely across studies depending on the type of antidepressant

medication used. In the multicenter fluoxetine trials (224, 230), sexual side effects were common, and at the dosage of 60 mg/day, insomnia, nausea, and asthenia were seen in 25%–33% of patients. For the tricyclic antidepressants, common side effects include sedation, constipation, dry mouth, and, with amitriptyline, weight gain (233–238).

The toxicity and potential lethality of tricyclic antidepressant overdosage also dictate caution in prescribing this class of drug for patients who are at risk for suicide. Practitioners should also avoid prescribing MAOIs to patients with chaotic binge eating and purging behaviors. The risk of spontaneous hypertensive crises in patients with bulimia nervosa taking MAOIs is not insignificant (239). This risk and the importance of eating a tyramine-free diet while taking MAOIs should be discussed with patients for whom this type of medication is contemplated.

There are few reports on the use of antidepressant medications in the maintenance phase of treating bulimia nervosa patients. Although there are data indicating that fluoxetine can be effective in preventing relapse in these patients (226), other data suggest that high rates of relapse occur while antidepressants are being taken and possibly higher rates are seen when the medication is withdrawn (240). In the absence of more systematic data, most clinicians recommend continuing antidepressant therapy for a minimum of 9 months and probably for 1 year in most patients with bulimia nervosa.

Clinicians must attend to the black box warnings concerning antidepressants and conduct appropriate informed consent with patients and families if these medications are to be prescribed (183–189).

For patients with bulimia nervosa who require mood stabilizers, the use of lithium carbonate is problematic, because lithium levels may shift markedly with rapid volume changes. Lithium is not effective in the treatment of bulimia nervosa (241). Both lithium carbonate and valproic acid frequently lead to undesirable weight gains that may limit their acceptability to bulimia nervosa patients. Selecting a mood stabilizer that avoids these problems may result in better patient adherence and medication effectiveness. Topiramate is not an effective mood stabilizer but may be potentially useful for bulimia nervosa and binge eating disorder (242, 243). However, in contrast to the low rates of adverse effects observed in clinical trials with topiramate, practitioners have reported several patients experiencing adverse effects with the drug, such as word-finding difficulties and paresthesias in a sizable minority of patients, although these may have been related to excessively rapid rates of dosage increases (242, 243). Also of note, patients receiving topiramate for bulimia nervosa lost an average of 1.8 kilograms, so this medication may be problematic for normal- to lower-weight individuals (243). No data are available regarding the use of these medications for treating bulimia nervosa or binge eating in children or adolescents, but safety and tolerability data have been reported for children and adolescents with other disorders for which lithium (244), valproic acid (245), and topiramate (246) have been prescribed.

Several case reports indicate that methylphenidate may be helpful for bulimia nervosa patients with concurrent ADHD (247–249). In these situations, particular attention should be given to a range of potential adverse effects, including abuse.

d) Combinations of psychosocial interventions and medications

Although not all psychotherapies have been well studied, there is general consensus among clinicians regarding the efficacy of a combined psychotherapeutic/medication approach; such an approach is worth considering when initiating treatment. In some research, the combination of antidepressant therapy and CBT has resulted in the highest remission rates of bulimia nervosa (250–252). Other studies suggest that target symptoms such as binge eating and purging and attitudes related to the eating disorder generally respond better to CBT than to pharmacotherapy (253–255), with at least two studies (251, 254) showing that the combination of CBT and medication is superior to either alone. Two of the studies suggested a greater improvement in mood and anxiety variables when antidepressant therapy is added to CBT (251, 253, 256). Of note, some experienced clinicians do not find rigidly defined and doctrinally practiced CBT to be as useful as methods that integrate CBT with other psychotherapeutic techniques. This may be due to several factors, including clinician inexperience or discomfort with the methods of CBT or differences among patients seen in the community and those who have participated as research subjects in these studies (81, 153).

e) Other treatments

Bright light therapy has been shown to reduce binge frequency in several controlled trials (257–259). Case reports suggest that repeated transcranial magnetic stimulation may be effective in treating patients with major depression and bulimia nervosa (260, 261). One controlled trial (719) showed odansetron, a peripheral 5-hydroxytryptamine type-3 (5-HT_3) receptor antagonist that reduces vagus nerve activity, to be effective in decreasing symptoms of bulimia nervosa, and its use may be considered in unusual circumstances.

4. Eating disorder not otherwise specified

The eating disorder not otherwise specified (EDNOS) category is a conceptually problematic one and comprises a clinically heterogeneous group of diagnoses (262, 263). This "everything else" category currently consists largely of individuals with subsyndromal anorexia nervosa or bulimia nervosa who do not meet DSM-IV-TR criteria of being 15% below expected weight or who binge and purge slightly less than twice per week. Such individuals merit treatment similar to that of full-syndrome patients. In addition, the EDNOS category lumps together normal-weight patients who purge, individuals who chew and spit out their food without swallowing it to prevent weight gain, and patients with binge eating disorder. Also perhaps suitable for this "other" category are individuals who experience psychiatric impairment related to the abuse of diet pills and diuretics (264), individuals who are obsessively preoccupied with liposuction (265) to deal with issues of shape and weight, and certain new-onset postgastrectomy eating disorder patients (266). The EDNOS diagnosis covers a wide spectrum, so no easily generalizable comments can be made for the entire group regarding course or prognosis (267). In addition, over time, considerable movement occurs from one eating disorder diagnostic category to another, including EDNOS (263).

Binge eating disorder is the most discrete and well-studied EDNOS subgroup. Although binge eating disorder is currently not an approved DSM-IV-TR diagnosis, research criteria listed in DSM-IV-TR consist of disturbances in one or more of the following spheres: behavioral (e.g., binge eating), somatic (obesity is common, although not required), and psychological (e.g., body image dissatisfaction, low self-esteem, depression). Empirically supported strategies for

the treatment of binge eating disorder include nutritional counseling and dietary management; individual or group behavioral, cognitive behavioral, dialectical behavioral, psychodynamic, or interpersonal psychotherapy; and medications. In reviewing the available information on treating binge eating disorder, it is important to consider the focus of treatment. Most programs using nutritional rehabilitation and counseling focus on weight loss as the primary outcome, whereas studies of psychotherapy and medication generally consider reduction of binge eating as the primary outcome measure, with weight loss as a secondary outcome. Clinical consensus suggests that psychodynamic psychotherapy may also be helpful to reduce binge eating in some patients.

a) Nutritional rehabilitation and counseling: effect of diet programs on weight and binge eating symptoms

The literature on treating binge eating disorder suggests that 1) behavioral weight control programs incorporating low- or very-low-calorie diets may help patients lose weight and usually reduce symptoms of binge eating; 2) at least some degree of weight gain often follows weight loss; 3) weight gain after weight loss may be accompanied by a return of binge eating patterns; and 4) various combinations of diets, behavior therapies, non-weight-directed psychosocial treatments, and even some "nondiet/health at every size" psychotherapy approaches may be of benefit in reducing binge eating and promoting weight loss or stabilization in various circumstances (268).

Some believe that patients with a history of repeated weight loss followed by weight gain ("yo-yo" dieting) or patients with an early onset of binge eating might benefit from following programs that focus on decreasing binge eating rather than losing weight (269, 270). However, at this point, there is little empirical evidence to suggest that obese binge eaters who are primarily seeking weight loss should receive different treatment than obese individuals who do not binge eat.

b) Other psychosocial treatments: effects on binge eating disorder

CBT is the most widely studied treatment for binge eating disorder, and there is substantial evidence supporting its efficacy for behavioral and psychological symptoms, whether it is delivered in the individual or group format. IPT and dialectical behavior therapy have also been shown to be effective for behavioral and psychological symptoms and can be considered as alternative therapies. There is less consensus regarding the long-term effects of treatment; however, some studies suggest that most patients continue to show behavioral and psychological improvement at 1-year follow-up (271, 272). There is a substantial body of evidence supporting the efficacy of self-help and guided self-help CBT treatment programs (273–277) and their use as an initial low-burden step in a sequenced treatment program.

Because severe dieting may disinhibit eating and lead to compensatory overeating and binge eating (278), and because chronic calorie restriction can also increase symptoms of depression, anxiety, and irritability (279), alternative therapies have been developed that use a "nondiet" approach and focus on self-acceptance, improved body image, better nutrition and health, and increased physical movement (280–282). Addiction-based 12-step approaches,

self-help organizations, and treatment programs based on the Alcoholics Anonymous model have been tried, but no systematic outcome studies of these programs are available.

In sum, there appear to be several good psychotherapeutic options for treating binge eating disorder when a reduction in binge eating is the primary goal. Weight loss, particularly in the long term, is a much more elusive goal, not only for obese patients with binge eating disorder but for obese patients in general. However, several studies suggest that at least for some patients at certain stages of recovery, behavioral weight control may be a useful treatment component. Also, because studies have found that binge eating may begin before obesity or dieting (283), specific approaches are needed for nonobese patients struggling with binge eating symptoms. The optimal sequencing of treatments—that is, whether the treatment of binge eating should precede or occur concurrently with weight control treatment—has yet to be definitively determined.

c) Medications

There is substantial evidence to suggest that treatment with antidepressant medications, particularly SSRI antidepressants, is associated with at least a short-term reduction in binge eating, in most cases without substantial weight loss. The dosage of medication is typically at the high end of the recommended range. The appetite-suppressant medication sibutramine also appears to be effective in suppressing binge eating, at least in the short term, and is additionally associated with significant weight loss (284). Heart rate and blood pressure need to be monitored closely in patients taking sibutramine, and the medication should be discontinued if there are significant elevations in these parameters, although these side effects seem to be uncommon (285). Finally, the anticonvulsant medication topiramate appears to be effective in reducing binge eating and promoting weight loss in the short (286) and long (287) term, although side effects such as cognitive problems, paresthesias, and somnolence may limit its clinical utility for some individuals. The anticonvulsant zonisamide may produce similar effects (288). Dexfenfluramine, although effective for reducing binge eating (289), has been removed from the market because of increased risk of primary pulmonary hypertension and heart valve abnormalities. Patients who report having used fenfluramine and phentermine in the past should be screened for potential cardiac and pulmonary complications.

It is important to note that in several studies, the placebo response rate has been reported to be quite high. The clinical implications of this finding are that controlled studies are extremely important, as a positive response in an open study may be nonspecific, and short-term beneficial responses to treatment should be viewed cautiously, given that a transient "honeymoon" effect of initiating treatment is common.

d) Combined psychosocial and medication treatment strategies

There have been few studies of combined treatment for binge eating disorder, so the clinical recommendations are preliminary. Overall, it appears that for most patients, the addition of antidepressant medication to behavioral weight control and/or CBT does not significantly augment binge suppression but may confer additional benefits in weight reduction (290–294). One study reported that the addition of the weight-loss medication orlistat to a guided self-help CBT program yielded additional weight loss (295). Another study found that fluoxetine in

the setting of group behavioral treatment did not augment binge cessation or weight loss but did reduce depressive symptoms (294). Thus, the addition of medication to psychotherapy for binge eating disorder is not, in most cases, associated with additional benefit on the core symptom of binge eating, perhaps because psychosocial treatments are quite effective for this symptom. However, medication augmentation may have additional benefits.

e) Treatment strategies for night eating syndrome

The phenomenon of wakeful nighttime eating, variously characterized as night eating syndrome, nocturnal eating/drinking syndrome, or nocturnal sleep-related eating disorders, is currently an area of active research (296). Although formal agreed-upon definitions for these syndromes do not yet exist, the construct of night eating syndrome, first described by Stunkard et al. (297), generally includes morning anorexia, evening hyperphagia, and insomnia. In contrast, the construct of nocturnal eating/drinking syndrome emphasizes a sleep disorder with recurrent awakenings often accompanied by eating or drinking, and the construct of nocturnal sleep-related eating disorders adds to this a reduced level of awareness or recall of nocturnal eating episodes. Sleep-related eating disorders, including somnambulism, have reportedly been induced by risperidone, olanzapine, and bupropion, among other medications (298–300). The literature does not, at this point, support the recommendation of particular treatments for these disorders. However, there is preliminary evidence supporting the utility of progressive muscle relaxation (301) and sertraline (302, 303). Further studies of the phenomenology and treatment of these disorders are needed.

Exhibit 16

Walden Behavioral Care

2011
Policy and Procedures Manual
For
Outpatient Programs

This Manual has been reviewed and approved
By the leadership of
Walden Behavioral Care

Example
To be updated to ensure CT DPH and CT DCF Compliance

1: Patient Rights

1.1 Legal Rights
1.2 Confidentiality
1.3 Complaint Process
1.4 Duty To Protect

1.1 LEGAL RIGHTS

1.1.1 Consent to Treatment

(Treatment of Patients < 18 Years of Age)

POLICY:

Consent to treatment for patients less than 18 years of age will be obtained from the patient's parent or guardian or from the patient directly if he/she is an emancipated minor.

PROCEDURE:

1. Consent to Treatment should be obtained from a minor's parent or guardian prior to the initiation of treatment.
2. In the instance where the consulting psychiatrist or clinical nurse specialist prescribes medication to a minor under the age of 18, Informed Consent will be obtained. The prescriber will document this consent in the patient's medical record.
3. Conflictual or ambiguous situations between a minor and his/her parent or guardian should be reviewed on a case by case basis with the Program Director or designee. The Walden Behavioral Care attorney will be consulted as needed. These situations may include the following:
    a) The patient consents to medically necessary treatment which the parent or guardian will not allow
    b) Parent or guardian gives informed consent for medically necessary treatment which patient is refusing
4. An emancipated minor can give Informed Consent for all types of treatment without the physician's contacting a parent or guardian.
5. For the purposes of psychiatric services, an emancipated minor is defined as a person under the age of 18 for whom at least one of the following applies:
    a) Married, widowed or divorced
    b) A parent
    c) A member of the armed forces
    d) Living apart from and financially independent from his/her parent or guardian.

1.1.2 Release of Medical Records

POLICY:

It is the policy of Walden Behavioral Care (WBC) to acknowledge the patient's request for access to his/her medical record.

It is also the policy of WBC to protect the patient's confidentiality in regard to requests for medical records from third parties.

PROCEDURE:

1. If a client in a WBC outpatient program requests to see his/her medical record, the Program Director shall be informed of the request.
2. The Program Director may offer to read or interpret the record when necessary to the understanding of the patient.
3. A patient shall not be denied access because the patient has declined the offer by Program Director to read or interpret the record.
4. If the patient independently reviews his/her record, the staff will offer an opportunity to process the information.
5. A patient's record may only be disclosed to a patient's attorney with the signed permission of the patient.
6. A record may also be released in response to a court order, which specifies release of mental health information.
7. If a patient requests a copy of his/her record after discharge, the following steps shall occur:
    a. The patient sends a written request to Medical Records.
    b. The patient may request and obtain his/her complete medical record or designated sections.
    c. The Program Director will be notified of the request for the record.
8. Medical Records will make the patient's record available within a timely manner of the request.
9. When a minor requests to inspect or obtain a copy of his/her record, the Program Director should be consulted. As needed, assistance should be sought from the hospital attorney.
10. The informed, written consent of the patient must be obtained prior to the release of medical records to a third party.

1.1.3 Professional Therapeutic Boundaries

POLICY:

Walden Behavioral Care will protect the rights of patients and families.

All staff employed by Walden Behavioral Care are trained in identifying and maintaining appropriate therapeutic boundaries in their professional relationships and interactions with patients and families.

All staff must abide by the following guidelines in maintaining professional therapeutic boundaries in their interactions with patients, former patients and their families.

Failure to abide by these guidelines will result in immediate supervisory review and may result in disciplinary action up to and/or including termination.

PROCEDURE:

1. Staff will limit their contact with patients/families to professional interactions within the clinical setting of practice and will refrain from engaging in personal or social contact with patients outside of the hospital.

2. Staff will refrain from initiating physical contact with patients, including hugging, embracing, and dancing. Sexual contact of any kind between patients and staff is prohibited and is grounds for immediate termination.

3. Staff will refrain from conducting financial transactions with patients or families. This includes lending or borrowing money or engaging in the sale or purchase of services or products with patients.

4. Staff will refrain from routinely accepting individual gifts or compensation from patients/families and will report any such offerings to their immediate supervisor.

5. Staff will refrain from inappropriately timed self-disclosure with patients/families or from engaging is self-disclosure of personal information that lacks clear therapeutic value.

6. Staff will address patients/families by their first or last names and will refrain from using overly familiar, endearing, or sexual language or terms.

7. Staff will use a calm and respectful tone in interacting with patients/families and refrain from hostile, coercive, or intimidating tones or language.

8. Staff will abide by all hospital and departmental policies regarding patient confidentiality.

9. Staff will immediately report a patient/family initiated boundary violation to their immediate supervisor for further evaluation and intervention.

10. Staff will immediately report any observation or patient/family complaint regarding a staff-initiated boundary violation to their immediate supervisor for further evaluation and intervention.

11. Each new employee/volunteer will read the above policy on Professional Therapeutic Boundaries during orientation and will sign the statement indicating their knowledge of the policy and their agreement to abide by it.

1.1.4 Interpreter Services

PURPOSE:

To ensure that all persons with communication barriers (i.e. non-English speaking or Limited English Proficient(LEP), deaf or hard of hearing) receive services by culturally competent and trained interpreters, and are able to comprehend, understand and participate in the decisions related to his or her health care.

POLICY:

1. Walden Behavioral Care will make every effort to minimize any detrimental effect of communication barriers on the delivery of quality health care to patients.
2. Interpreter services for non-English speaking or limited English proficient (LEP) patients/families and/or interpreters for deaf or hard of hearing patients/families shall be provided at no cost to the patient.
3. Staff shall use only interpreters with demonstrated competence in medical interpreting when communicating with non-English speaking of LEP patients/families, or patients/families who are nonverbal, deaf or hard of hearing.
4. Staff shall not require, suggest, or encourage the use of family members or friends of patients as interpreters and shall not, except in exceptional circumstances, use minor children as interpreters.
5. If the health care provider informs a patient of the right to a free interpreter service and the patient declines such service and requests the use of a family member or a friend, the offer and refusal should be documented in the patient's medical record.
6. Program staff accesses Sign Language interpreters through the Massachusetts Commission for the Deaf and Hard of Hearing to ensure trained and certified interpreters are provided for our deaf and hard of hearing patients.
7. Upon identification of a need for an interpreter, the assigned program staff will make every effort to arrange for a qualified interpreter either in person or via phone as deemed appropriate.

PROCEDURE:

A. For non-English or Limited English Proficient Patients

1. Contact the Program Director or Director of Nursing at WBC or designee from Monday through Friday between 9:00 a.m. and 5:00 p.m.
2. . If the request is for a future scheduled appointment, a message can be left on the Program Director's voice mail.
3. The following information needs to be provided:
    a) Patent's name
    b) Program name where patient will be seen
    c) Name and phone number of the person who is requesting an interpreter
    d) Caller's name and phone number if different from above
    e) Language needed
    f) Date and time interpreter is needed and, if possible, anticipated duration of the visit

g) Purpose of the visit

4. For evenings refer to the list of Freelance Interpreters who have agreed to provide interpreting services to Walden Behavioral Care if available for either person to person or telephone assistance.
5. This list will be kept in the reception area file drawer .
6. If the list of approved interpreters does not meet the need for interpretive services, or if otherwise preferred, the AT&T Language Line can be accessed by calling 1-877-261-6608.
    h) Include Walden's 6 digit client ID 226422
    i) Name is Walden Behavioral Care
    j) Personal Code is 226422

B. For deaf and hard of hearing patients

1. For a scheduled appointment call the Massachusetts Commission for the Deaf and Hard of Hearing at (617) 695-7500 (voice), or (617) 695-7600(TTY), 8:45a.m to 5:00p.m., Monday through Friday.
2. The following information is necessary to process the request:
    a) Your name, telephone number and organization
    b) Date and time you will need an interpreter, and length of the assignment
    c) Address and specific location within that address
    d) The nature and format of the meeting
    e) Names of deaf participants and preferred mode of communication (i.e. ASL Signed English, CART)
    f) Payment information: name, address and telephone number of the responsible party
    g) Name and phone number of the contact person at the assignment.
3. Call in requests as early as possible. Requests are to subject to availability-Priority will be given to urgent medical or mental health matters.

APPROVED LIST OF INTERPRETERS AVAILABLE FOR SERVICES AT WALDEN BEHAVIORAL CARE.

Arabic
Armenian
Bengali
Chinese
French
French Haitian-Creole
Haitian-Creole
Italian
Portuguese
Russian
Spanish
Spanish
Turkish
American Sign Language
Language Line Services
American Sign Language Deaf and hard of hearing

1.1.5 Insurance/Financial Responsibility

POLICY:

WBC staff will work diligently on patients' behalf to attempt to secure full coverage for healthcare services at Walden Behavioral Care programs through patients' insurance companies.

PROCEDURES:

1. Patients are asked to sign a "Financial Responsibility Agreement" form prior to admission.
2. It is the responsibility of the patient to find out from their insurance company what co-pays and deductibles they will incur.
3. Walden Behavioral Care will verify co-pays and deductibles if applicable under patients' health plans.
4. It is the responsibility of the patient to inform his or her case manager of any insurance changes in order to prevent an interruption of coverage.
5. If a higher level of care is indicated, the case manager will make every effort to obtain authorization for the higher level of care and confirm with the patient's health plan that Inpatient or Residential level of care is a covered benefit under his or her plan.

1.2 PATIENT CONFIDENTIALITY

1.2.1 Patient Confidentiality

POLICY:

To maintain confidentiality regarding patients admitted to Walden Behavioral Care

To abide by Federal Confidentiality Regulations for Mental Health patients.

To prevent disclosure of any information to any person, organization or institution without the expressed authorization of the patient.

Staff will be oriented to the issues and regulations concerning patient confidentiality.

PROCEDURE:

1. Privacy of patients admitted for the treatment of mental health or substance abuse issues are protected by Federal Regulation 42 C.F.R. Part 2. (Employee/volunteer Confidentiality Policy)
2. All staff will be oriented to the confidentiality policy and will sign the "Statement of Confidentiality" (see attached).
3. Without the patient's specific written authorization, only those individuals directly responsible for the clinical or administrative aspects of a patient's care may access the patient's demographics and/or other medical information. These individuals may include physicians, nurses, clinicians, counselors, social workers and other support personnel who must access information to serve the patient and to tend to the administrative aspects of patient care.
4. Patient information will only be released if the patient has given written consent granting authorization to a specific person or facility. The written consent must specify the type of information that may be released. The duration of the consent will not be longer than is necessary to fulfill the purpose for which it was given. A patient's consent to release information is filed in the medical record.
5. A guardian or parent of a minor has the authority to give written consent for release of information.
6. A patient may revoke consent at any time verbally or in writing. In situations when not having information could result in a patient being at risk to harm him/her self or others, confidentiality may be breached and the reasons will be clearly documented.
7. Therefore it may be necessary to contact the patient's family, outpatient providers, and other collateral contacts to insure the patient's safety and establish appropriate treatment.
8. In situations where mandated reporting is appropriate, confidentially may be compromised and the patient will be informed. The situations in which a patient's confidentiality may be compromised are as follows:
    a) Suspected Child Abuse
    b) Suspected Elder Abuse
    c) Suspected Disabled Person Abuse

d) Protection of a potential victim or property

9. A patient still maintains his or her right to confidentiality even when law enforcement agencies are requesting information. Law enforcement officers are not permitted access to any areas in the program or service area without permission by the Program Director. A staff member should not accept a court order or subpoena unless approved by the Program Director. Law enforcement officers should be directed to the Director of Psychiatric Nursing, Program Director, or Chief Medical Officer. The Director will then contact the treatment team to decide on the best approach to handle the situation. If a patient does consent for staff to communicate with a law enforcement officer, written consent should be obtained.
10. The following guidelines are to be used when responding to telephone inquiries regarding patients: Individuals requesting information on patients should be told:

> "I AM SORRY, WE ARE PROHIBITED BY THE LAW FROM GIVING ANY INFORMATION INCLUDING WHETHER OR NOT A GIVEN INDIVIDUAL IS OR HAS BEEN A PATIENT IN THIS PROGRAM. IF YOU WISH TO HAVE INFORMATION ON A CERTAIN INDIVIDUAL, I WOULD SUGGEST THAT YOU CALL HIS/HER FAMILY." OR "I CAN NEITHER CONFIRM OR DENY THAT PERSON'S PRESENCE BUT WE SUGGEST YOU CALL A FAMILY MEMBER OR CLOSE FRIEND"

11. If someone expresses a strong desire to contact the person and shares enough information as to convince you that they are certain of the patient's presence then you may offer to take their number without confirming patient status and give it to the patient to return the call.
12. Phone calls from family, aware of and involved in the patient's admission, requesting practical information should be answered in a helpful manner. If these individuals request clinical information, they should be referred to the assigned clinician or designated member of patient's treatment team who will insure that the patient consents to a release of information prior to speaking with the caller.
13. Breaches of confidentiality should be reported to the Program Director. If a breach in confidentiality is proven, disciplinary action may be taken up to and including immediate termination.

1.2.2 Statement of Confidentiality

In accordance with the Massachusetts Department of Public Welfare and the Federal Drug Abuse Prevention, Treatment, and Rehabilitation Act 42 C. F.R. Part 2, Subchapter A regarding Confidentiality of Drug Abuse and Mental Health Records:

I will:

1. NOT discuss any patient or any information pertaining to any patient with anyone else, including my family members at any time.

2. NOT discuss any patient or any information pertaining to any patient with any other staff member who is not directly working with the patient.

3. NOT discuss any patient or information pertaining to any patient in any place where it may be overheard by anyone, staff or patients.

4. NOT mention a patient's name or admit, directly or indirectly, that any person is a patient at the facility, except to those who are authorized to have this information. Such authorization must be explicit and where necessary, in writing.

5. NOT discuss any behavior by a patient, which has been observed, or learned as a result of my services at the facility, except to those authorized to have this information.

6. NOT contact any individual or agency outside the facility to obtain personal information about a patient.

7. NOT continue a relationship with a discharged patient unless expressly authorized to do so in the course of my duties.

8. NOT release any medical / psychiatric or substance abuse information.

I understand that the penalty for violation of the Federal Regulation shall be a fine of not more than $500 in the case of a first time offense, and not more than $5,000 in the case of each subsequent offense.

Violation of this policy is grounds for termination of services to Walden Behavioral Care.

Signature Date

Independent Contractor (print)

Service

1.2.3 Information Privacy

Policy:

The Outpatient Continuum maintains information privacy and confidentiality according to laws set forth by HIPAA and the Massachusetts Department of Public Welfare and the Federal Drug Abuse Prevention, Treatment and Rehabilitation Act 42 C.F.R. part 2, Subchapter A.

Procedures:

- All employees, physicians, health care personnel, students, and volunteers are responsible for protecting client information and client confidentiality.
- Information protected under HIPPA regulations includes any health information that identifies or can be used to identify a client.
- Upon admission into the program, clients
    - receive and sign an acknowledgement of receipt of privacy notice and consent to treat/disclose health information
    - receive and sign forms to authorize the use or disclosure of protected health information to outside parties specified by the client
    - receive a copy of the Five Fundamental Rights according to Mass. Ann. Laws ch. 123, subchapter 23 (2001).
- Under the Federal Minimum Necessary Rule, employees, physicians, health care personnel, students, and volunteers have access only to the information needed to fulfill their assigned duties. Only information used for treatment, payment, and operations can be shared.
- Personal identifiers are removed to the extent possible for uses and disclosures of clinical/service information, consistent with maintaining the usefulness of the information.
- Protected clinical/service information is used for the purposes identified or as required by law or regulation and not further disclosed without client authorization.
- All employees, staff, students, and volunteers are made aware of this policy during their orientation to the program. Violations of this policy can result in fines, penalties, disciplinary action including termination, or imprisonment.

1.2.4 Information Security and Data Integrity

Policy:
The Outpatient Continuum maintains information security consistent with law and regulation, including data integrity.

In anticipation of an unplanned disaster, every attempt will be made to safeguard medical records, documents and other storage medium in structurally safe; fire-resistant, and water resistant storage environments. General safeguarding will ensure that combustible or hazardous chemicals are maintained in a supervised environment with minimal risk for damage to hospital property.

Procedures:

1. Clients' clinical records are kept on file in the medical records office of the Outpatient Program. This office is kept locked during non-business hours.
2. The main entry to the Outpatient Program is kept locked during non-business hours. See section 4.3: Patient Security.
3. Staff are not permitted to remove clinical records from the program area..
4. Any copies of clinical records made for reference or faxing are subsequently shredded to eliminate security risk.
5. Staff computers require a staff identification and password for log-in. Computers must be logged off when not in use or attended to minimize security risk by unauthorized users.
6. All progress notes are dated and timed, and require an authorized staff signature.
7. Medical records will be maintained in permanent storage in shelving units that are raised from the floor to prevent water damage. Should flooding or water damage occur, every attempt will be made to remove medical records from the area.
8. If records cannot be removed prior to damage, the Director of Medical Records and the Administrative Team will meet to determine what recovery mechanisms are feasible based on age and type of records, insurance coverage, costs and long-term damage.
9. An alternate site for record storage will be considered if needed. Arrangements with local storage facilities may be initiated as determined by Administration. Confidentiality and security will be maintained if storage in alternate locations is necessary.
10. A revised retention plan may be developed based on what records are recoverable. Legal opinions will be solicited as needed.
11. For further details around information security and data integrity, please refer to the Medical Records Policy and Procedure Manual (located in the WBC Medical Records Department).

1.2.5 Fax Policy

POLICY:

Patients and staff will use the fax machine as a mode of communication.

PROCEDURE:

PATIENT USE:

1. Patients may request to use the fax machine to transmit documents relating to their treatment and/or discharge plan.
2. These requests must be cleared through a member of the team, and items over five (5) pages must come to the attention of the Program Director.
3. A staff member will transmit the documents.

STAFF USE:

1. All materials faxed will be sent with an attached WBC Fax Cover Sheet. The Fax Cover Sheet will become part of the medical record as evidence of such information being transmitted to identified parties.
2. Patient-related documents will be faxed only after the patient's written consent has been obtained.

1.2.6 Tape Recordings/Photographs

POLICY:

To assure confidentiality, patients and visitors to the Outpatient Continuum may not make audiotape or video recordings, nor are photographs of patients permitted in the program.

Staff may record working and educational sessions under specified conditions and with administrative approval.

Tape recordings never serve as permanent treatment records and therefore are not retained.

PROCEDURE:

1. Patients are informed that tape or video recorders and cameras are not allowed in the Outpatient Continuum.

2. Client(s) will sign Release of Information when recordings are approved for educational purposes.

3. A staff member may record a work session, such as an educational session, by placing the recorder in an area not inhabited by patients while the recording is being made.

1.2.7 Destruction of Protected Health Information

POLICY & PROCEDURE:

All program locations containing any Protected Health Information such as:

- Copies of Medical Records
- Census sheets
- Claims/Reports

that are no longer true or applicable are shredded in the program's shredder device.

1.2.8 Client Confidential Access to Telephone

POLICY & PROCEDURE:

Policy:

Clients treated at any Walden Behavioral Care (WBC) outpatient clinic or program shall have confidential access to telephone service.

Procedures:

1) Clients treated within the clinic setting may request access to a telephone to make treatment or service related calls, in a setting which provides reasonable confidentiality for the client.
2) Clients may request telephone access of any staff person on-site at the clinic when the request is made. Staff will check with the clinical staff to determine the optimal location for telephone access.
3) Clinic staff will accommodate the client by providing confidential access to a telephone. Such access should be made available in an area which is away from other clients in the treatment setting to the extent possible.
4) Clinic staff must ensure that the area promotes confidentiality of Protected Health Care Information (PHCI) for both the client using the telephone, and other clients being treated at the clinic location.

1.3 COMPLAINT PROCESS

1.3.1 Complaint Process

Policy Statement:

Walden Behavioral Care supports the right of the client to make a complaint. A Complaint Form and Confidential Complaint Box is available to all clients. Any staff member can assist the client in filing a complaint. In addition, the Human Rights Officer is available to discuss any concerns or complaints a client may have related to his or her rights.

Protocol:

1. A secure locked complaint box with a mail slot is located in each client area.
2. Complaint forms are available next to the complaint box and may be inserted into the complaint box.
3. Complaints will be accepted in any form.
4. The WBC Human Rights Officer (HRO) is notified when a complaint is written.
5. The HRO will meet with the complainant to discuss the complaint. This discussion will include a determination of what the complainant would like to see happen to resolve the complaint.
6. The HRO will share the complaint with the Director of Human Resources and other WBC senior clinical or administrative executive as appropriate.
7. As needed an investigation will be made by the Director of Human Resources and other WBC senior clinical or administrative executive. A determination will be made if the degree of the complaint meets requirement to notify the Department of Mental Health or other regulatory agency.
8. A plan of action is formulated by the Human Rights Officer, Director of Human Resources and other WBC senior clinical or administrative executives as to the actions Walden Behavioral Care will make to resolve the complaint.
9. The Human Rights Officer, the Director of Human Resources and/or other WBC senior clinical or administrative executives will meet with the complainant and notify him/her of the complaint resolution.

Addendum: Walden Behavioral Care recognizes and supports the Department of Mental Health (DMH) complaint process and will abide by the DMH regulations as noted below.

(1) Any person may make a complaint regarding any incident or condition which he or she believes to be dangerous, illegal, or inhumane to any employee, who shall forward the complaint to the Program Director.
(a) If an employee is notified or becomes aware of a client's complaint, the employee shall provide the patient/client with a complaint form and shall assist the client in completing this form if requested to do so.

(b) The completed complaint form shall be immediately filed by the employee with the HRO or Program Director.

(c) An employee who becomes aware of any condition or incident which he or she has reason to believe is dangerous, illegal or inhumane shall immediately complete a complaint form and give it to their supervisor or designee or shall verbally notify the supervisor Program Director or designee, who shall complete a complaint form.

(2) In accordance with 104 CMR 32.05(2), the Program Director or designee shall determine how to proceed.

(3) A complaint referred to the Department's Central Office pursuant to 104 CMR 32.05 shall be sent to the Office of Investigations if it involves a Department-operated or contracted for program or facility, and to the Director of Licensing if it involves a program that is licensed but not contracted for by the Department.

(4) The complaint shall be investigated and a decision shall be given to the parties:
(a) by the Program Director within ten days of receipt of the complaint; or
(b) when referred to the Department's Central Office, by the Area Director, Assistant Commissioner, or Director of Licensing, no later than 40 days after receipt of the complaint, or such later date as is permitted by extension.

The decision under 104 CMR 32.03(4) (a) or (b) shall notify the parties of the right to request reconsideration pursuant to 104 CMR 32.03(5) and shall notify the client of his or her right to appeal the decision pursuant to 104 CMR 32.03(6) and with whom the appeal must be filed.

(5) Reconsideration. Any party to the complaint has the right to request reconsideration of the decision by the person who issued the decision. Reconsideration is not a prerequisite to a client's filing of an appeal.
(a) The party must request reconsideration in writing within ten days of receipt of the decision;
(b) The request must, with specificity, assert the failure to interview an essential witness or the failure to consider an important fact or factor;
(c) The final decision shall issue within ten days of receipt of the request for reconsideration.

(6) Appeal. A client or an individual or entity acting on behalf of a client or a client's estate has the following appeal rights. All appeals must be in writing within ten days of receipt of the applicable decision.
(a) Appeal from Decision after Investigation by the Person in Charge.
1. The client or an individual or entity acting on behalf of a client or a client's estate may appeal to the respective Area Director or Assistant Commissioner, if the complaint involves a Department-operated or contracted program or facility, or to the Director of Licensing, if the complaint involves a program or facility licensed but not contracted for by the Department. The decision on appeal shall be given to the parties within 30 days from the receipt of the appeal, unless further fact-finding is required, in which case the decision shall issue within 40 days.
2. The client or an individual or entity acting on behalf of a client may further appeal the decision of the Area Director or Assistant Commissioner to the Deputy Commissioner,

who shall issue a decision within 30 days from the receipt of the appeal and whose decision shall be final.

3. The client or an individual or entity acting on behalf of a client may further appeal the decision of the Director of Licensing to the Commissioner, who shall issue a decision within 30 days and whose decision shall be final.

(b) Appeal from Decision after Investigation by the Office of Investigations or the Director of Licensing.

1. If the Program Director, Area Director, or Assistant Commissioner issued a decision after an investigation by the Office of Investigations, the client or an individual or entity acting on behalf of a client may appeal to the Deputy Commissioner, who shall issue a decision within 30 days from the receipt of the appeal.

2. The client or an individual or entity acting on behalf of a client may further appeal the Deputy Commissioner's decision to the Commissioner, who shall issue a decision within 30 days from the receipt of the appeal and whose decision shall be final.

3. If the Director of Licensing issued a decision after an investigation by the Office of Investigations or after his or her own investigation, the client or an individual or entity acting on behalf of a client may appeal the Director of Licensing's decision to the Commissioner, who shall issue a decision within 30 days from the receipt of the appeal and whose decision shall be final.

No Retaliation. There shall be no retaliation against any individual who files a complaint pursuant to 104 CMR 32.00.

1.3.2 DPH Complaint Form

See Attached

1.3.3 Complaint Investigation Report

Complainant:

Date Complaint Filed: Date Response Due: _

Complaint received by: Phone Letter In Person Complaint Form Survey
Acknowledgement to complainant Letter ( ) Phone call ( ) .
Principal Investigator/Fact finder _____
Patient (s) interviewed _____ ____: _____

Staff interviewed

Findings

Recommendations

If applicable, extension request to DMH Follow-up letter(s) sent: To Complainant

To DMH (if applicable)

Date

Signatures

Investigator/Fact Finder_ Human Rights Officer _

VP of Patient Services/ CEO

1.3.4 Complaint Policy

POLICY:

Walden Behavioral Care has a framework to provide consumers, staff, and families a policy for reporting complaints or concerns related to patient care, quality of services, perceived human rights violations, and safety issues.

PROCEDURES:

All staff will be informed of patients' rights and the complaint/investigation process as part of orientation.

The Walden Behavioral Care is accountable to report complaints as defined above both internally to Walden Behavioral Care (WBC) administration and externally, if appropriate by criteria, to the Department of Public Health and Department of Mental Health.

Staff will forward documentation of the complaint on Health Care Complaint Form per policy (see attached "Health Care Complaint" form).

Walden Behavioral Care will adhere to the Department of Mental Health Regulations regarding the reporting and investigation of complaints as outlined in CMR 104, Sec. 32:00 and summarized on attached addendum (see attached DMH Regulations and Complaint Reporting form).

Patients Rights will be posted in a prominent place in each program area.

The Human Rights Officer for Walden Behavioral Care will be identified by name and phone number. This information will be posted along with the Patient Rights and these individuals will assist patients in completing and forwarding complaints as is needed.

Patients will be informed of complaint reporting procedures upon admission.

The staff will be informed of the patients' rights and the complaint process during orientation.

The complaint forms will be visible and readily available.

1.3.5 Complaint Regarding Program Employees

POLICY:

Walden Behavioral Care has in place a framework for patients, their families, physicians and program employees to report their concerns that relate to patient care and/or the quality of services.

PROCEDURE:

1. All formal complaints shall be put into writing using the Complaint Form and forwarded to the Program Director.

2. The information called for on the complaint form will include demographic information, date, time, and location of the incident, a concise description of the event for which a complaint has been lodged, person(s) involved including the complainant.

3. Investigation of complaints will begin within 24 hours of receipt and must be completed within 30 days.

4. The Program Director will meet with the complainant, and conduct an investigation including a review and analysis of the complaint. Thereafter, the Program Director will meet with the person(s) named in the complaint and any other person(s) involved.

5. After these meetings, the Program Director will report their findings, which will include information from the person(s) involved.

6. In the event that the Program Director is not available a WBC Administrative Representative shall assume this role.

7. The Program Director will determine whether or not corrective action will be appropriate.

8. All final determinations will be reported to the Quality Council for appropriate logging and tracing.

9. Recommendations for disciplinary action against an employee, as well as the employee's appeal rights, will be carried out in accordance with approved Program Policies and Procedures.

10. The Program Director will maintain communication with the complainant throughout the investigation process.

1.4 DUTY TO PROTECT

1.4.1 Response to Homicidal Threat by Patient

POLICY:

When a patient at Walden Behavioral Care makes a verbal or written threat directed at another person, it is the responsibility of the Walden Behavioral Care staff to take adequate steps to protect the threatened parties.

Licensed mental health professionals have a duty to warn and protect potential victims.

PROCEDURE:

1. If a patient has explicitly-stated to a staff member an "intention to kill or inflict serious bodily harm upon a reasonably identifiable victim and the patient has the apparent intent and ability to carry out the threat, or if a patient has a history of physical violence and presents a clear and present danger to another" the Walden Behavioral Care staff must take reasonable steps to protect the identified individual(s). Refer to M.G.L. Ch. 123, Section 36 B, on file on the WBC Inpatient unit.

2. The involved staff member will immediately inform the Program Director and attending psychiatrist/, in order to assess the immediacy of the problem.

3. Once the immediacy of the problem has been determined, appropriate plans will be formulated to protect the threatened party.

4. If given adequate time:

    a. A clinical-legal conference may be convened to determine the threatening patient's access, opportunity and motive, as well as current mental status. This may include medical, legal, nursing, and social service staff.

    b. An appropriate treatment plan will be developed to protect the threatened individual(s). This plan may include, but is not limited to the following:

        i. Notifying the threatened parties by telephone or registered mail.

        ii. Insuring increased security for the threatening patient by any or all of the following:

            1. Provide counseling intervention

            2.

3. findings from the clinical-legal conference and interventions must be documented in the patient's medical record.

5. If risk is determined to be imminent, then immediate steps must be taken to protect the threatened individual(s). These steps may include, but are not limited to the following:

    a. Notify the appropriate law enforcement agency in the area in which the potential victim resides. Gain their assistance in warning and protecting potential victim(s).

    b. Notify the appropriate law enforcement agency in the area in which the patient resides. Gain their assistance in locating the patient.

    c. Take appropriate steps as necessary to initiate proceedings for involuntary hospitalization. This may include completing a Section 12, notifying police to place an A.P.B. and commit patient to an inpatient psychiatric unit.

    d. Notify Program Director, Director of Nursing, Chief Medical Officer and Administrator on Call.

    e. Complete documentation of the above process should be carried out so as to indicate the efforts of staff.

Walden Behavioral Care, LLC
Threat Assessment Report Form
Attachment A

Complete when an employee:

1. Believes they have witnessed or become aware of an act of violence or a threatening behavior including physical assaults and actions or statement which either directly or indirectly, by words, gestures, symbols, intimidation, coercion, carrying a firearm or weapon, give reasonable cause to believe that the personal safety of the affected individual or others may be at risk.
2. Is the recipient of threatening and or violent behavior as defined above.

Complete the following:

Date: _____ Specific location: _____

Day of the week: _____ Time: _____

Assailant: Female _____ Male _____

Violence directed towards: Patient _____ Staff _____ Visitor _____ Other _____
Assailant is: Patient _____ Staff _____ Visitor _____ Other _____

Assailant's name: _____ Armed _____ Unarmed _____
Weapon: _____

Predisposing Factors:

_____ Intoxication _____ Dissatisfied with care/waiting time

_____ Grief reaction _____ History of prior violence

_____ Gang related _____ Other: Describe: _____

Description of Incident: Physical Assault _____ Verbal Assault _____

Other _____ Describe: _____

Injuries: Yes _____ No _____

Extent of injuries: _____

Detailed description of incident: _____
Details (continued)

Did any person leave the area because of the incident: Yes ___ No ____ Unknown ___

Who was present at the time of incident: Other employees: please name:

Was police department called: Yes _____ No _____

Was Assailant arrested? Yes _____ No _____

Termination of Incident:

Incident diffused: Yes _____ No _____

Disposition of assailant:

Remained on premises _____ Escorted off premises _____ Left on his/her own: _____

Were restraints used Yes _____ No _____

Report completed by: _____ Date: _____

Director notified: _____ Date: _____

Additional comments:

Walden Behavioral Care, LLC
Attachment B
Threat Assessment Team Follow-Up

Date Received: _____Time: _____

Follow-up classification:

Immediate: _____ Urgent _____ Non Urgent _____

Urgent classification will be addressed within 1-2 business days. Non-urgent at monthly meetings.

Team members present:

Evaluation:

Actions/Responsible person(s):

Outcome:

1.4.2 Suspected Child Abuse And Neglect

POLICY

It is the policy of the Walden Behavioral Care (WBC) to render good and compassionate care to all patients. In the case of children it extends to being aware of their social and emotional needs and taking care to comply with laws and regulations regarding the welfare of children. This includes Walden Behavioral Care's duties under Chapter 119, Section 51A of the Massachusetts General Laws (reporting of suspected child abuse and neglect).

1. Definitions of Child Abuse and Neglect (from the guidelines from the Commonwealth of Massachusetts Department of Social Services):

    a. A person under the age of 18 is considered to have a reportable condition if there is reasonable cause to believe that he or she is suffering from a serious physical emotional injury resulting from:

        i. Abuse

        ii. Neglect

        iii. Sexual abuse, the commission of any act by a caretaker with a child, which constitutes a sexual offense under the criminal laws of the Commonwealth.

        iv. Positive toxic screen of mother's or child's blood at birth.

    b. Abuse means the non-accidental commission of any act by a caretaker that causes or creates a substantial risk of harm or threat of harm to a child's well-being. .

    c. Neglect means failure by a caretaker, either deliberately or through negligence (including inability), to take actions necessary to provide a child with minimally adequate food, clothing, shelter, medical care, supervision or other essential care.

    d. Serious Physical Injury means

        i. death, of

        ii. fracture of a bone, subdural hematoma, soft tissue swelling, impairment of any organ, burn, skin bruising, and other non-trivial injury including malnutrition or

        iii. failure to thrive

e. Serious Emotional Injury means an extreme pathological emotional condition such as a severe state of anxiety, depression, or withdrawal.

Caretaker means a child's parent, guardian, any other household member or any other person entrusted with the responsibility for a child's health or welfare, whether in the child's home, a relative's home, a school setting, a day care setting including babysitting, a foster home, a group care facility, or any other comparable residential setting. '.

1.4.3 Reporting Suspected Child Abuse and Neglect Under. Section 51A

The purpose of Section 51A is the protection of a child under the age of 18 from serious physical or emotional injury resulting from abuse inflicted upon him or her, including sexual abuse, or from neglect, including malnutrition, or whose blood shows evidence of toxic substances at birth.

1. If any mandated reporter including physician, medical intern, hospital personnel engaged in the examination, care or treatment of persons, medical examiner, psychologist, emergency medical technician, dentist, nurse, chiropractor, podiatrist, osteopath, public or private school teacher, education administrator or, guidance or family counselor, day care worker, probation officer, social worker, foster parent, fire fighter, or police officer who, in his/her professional capacity shall have reasonable cause to believe that child is suffering from the above, then he or she is required to report the case either directly to the Massachusetts Department of Social Services or to notify a designated agent of the institution where he or she works (this means following the guidelines under section IV, Persons Responsible for Evaluations of Suspected Child Abuse and Neglect Cases).

2. If any mandated reporter required under Section 51A has reasonable cause to believe that a child has died as a result of an of the conditions listed above, the Massachusetts Department of Social Services must be notified verbally, then in writing. The District Attorney for the country in which the death occurred and the District Medical Examiner in the country where the child's body is located must be notified.

3. No mandated reporter shall be liable in any civil or criminal action by reason of submitting a report. No other person making a report shall be liable in any civil or criminal action by reason of submitting a report if it was made in good faith.

4. Any person is required to report suspected child abuse or neglect and deaths suspected to be caused by child abuse or neglect may be punished by a fine of not more than one thousand dollars if he or she fails to report.

5. Only those personnel involved in the child's care shall have access to any information relating to a case of suspected child abuse or neglect. Health personnel, in discussing such a case, should use their best efforts to maintain the family's right to confidentiality.

PROCEDURE

Person Responsible: All mandated reporters

Action:

Persons Responsible for Evaluation of Suspected Child Abuse Offense Cases.

When a physician, nursing, or other staff involved in patient care suspect possible child abuse or neglect, the patient's treatment team should be contacted to evaluate further.

Procedures Regarding the Reporting of Suspected Child Abuse and Neglect.

When a child abuse or neglect is suspected or when there is any question as to the ability of an expectant mother, mother of a newborn, or parent(s) or caretaker(s) to provide adequate care to the child, proceed with the following:

1) Notify attending physician and/or child's primary physician if he or she is not already aware of situation.

2) Notify the Program Director.

3) The Program Director will notify the WBC Chief Medical Officer outside of normal business hours, the Program Director will contact the WBC administrator on call.

4) The child's situation is evaluated by the physician, nurse, and/or social worker assigned to the case.

5) When it appears from physical examination by the attending physician or social history data that the child has been abused and/or neglected, or is in danger of being abused and/or neglected, the mandated reporter will:

6) Verbally notify the Massachusetts Department of Social Service to initiate an investigation (phone in a 5 1A Report).

7) If the mandated reporter is someone other than the social worker, all information will be provided to the social worker who will complete a written report within 48 hours. Reports should be made to the area or regional office covering the residence of the parent(s) or person(s) responsible for the child. For Franklin and Hampshire Counties, reports should be made to:

    Department of Social Services
    1 Arch Place
    Greenfield, MA 01301
    (413) 775-5000j

8) It is necessary to provide the following information when filing a 51A report: name, address, phone number, age of child name, address, phone number of male and

female parent or guardian name, address, phone number, and relationship to child of person accompanying child to E.R, etc. nature and extent of the injury, abuse, maltreatment or neglect, including prior evidence of same, source of this information if not observed first hand the action that has been taken thus far to treat, shelter or otherwise assist the child to deal with this situation any other information that might be helpful in establishing the cause of injury and/or person responsible for it.

9) The original ABUSE/NEGLECT REPORT should be sent to the Massachusetts Department of Social Services. A copy should be sent to the Program Director. A copy should not be placed in the medical record.;

10) It should be documented in the record that a 51A was phoned in to the Massachusetts Department of Social Services and on what date that a written report has or will be sent in within 48 hours.

11) When a 51A report is filed:

(1) The Massachusetts Department of Social Services begins an evaluation and investigation

(2) The Massachusetts Department of Social Services must complete the investigation within 24 hours of a case they deem as an "emergency" and 10 days to complete the investigation of a "non-emergency" case.

(3) When the investigation is completed, the mandated reporter will be notified within 7 days after the completion of the investigation as to whether the Massachusetts Department of Social Services substantiated the report, along with the services they intend to provide to the family, such as day care, babysitting, homemaking, counseling, case management, etc. This written report from the Massachusetts Department of Social Services to be attached to the copy of the 51A Report.

12) Where death may have resulted from child abuse or neglect:

13) The administrator on duty should be contacted immediately.

14) The administrator, along with the Chief Medical Officer, Director of Nursing, and Program Director will decide who is to:

(1) File a verbal and written report with the Massachusetts Department of Social Services,

(2) Notify the Medical Examiner, of the time, place, manner, circumstanced alleged cause of death,

15) Notify the police in the city/town in which the child resided.

1.4.4 Suspected Abuse of a Disabled Person

POLICY:

It is the policy of the Walden Behavioral Care to render good and compassionate care to all patients. In the case of the disabled persons, this extends to being aware of their social and emotional needs and taking care to comply with laws and regulations regarding their welfare. This includes Walden Behavioral Care's duties under Chapter 19 C of the Massachusetts General Laws (Disabled Person Protection Commission).

PROCEDURE:

The same guidelines for reporting suspected elder abuse apply to disabled persons (see Policy & Procedure for Suspected Elder Abuse in this manual) with the exception of the following:

1. "Disabled person" is defined as a person between the ages of eighteen (18) and fifty-nine (59) inclusive, who is mentally retarded (as defined by M.G.L. C. Ill S 1), or who is otherwise mentally or physically disabled, and as a result of such mental or physical disability' is wholly or partially dependent on others to meet his daily needs.

2. Mandated reporters must notify the DPPC orally of any reportable condition immediately upon becoming aware of such a condition, and in writing within 48 hours after the oral report (see Attachment A-19 C report). Reports may be made during regular business hours to be DPPC at 413-586-4948. For reporting cases after hours, weekends or on holidays, call 413-537-8169.

3. Upon Receipt of a report of abuse, the DPPC must conduct an investigation within 24 hours if there appears to be immediate dander of further abuse, and within 10 days of all other cases. The DPPC may arrange for protective services as well as petition the court for appointment of a guardian or conservator.

1.4.5 Suspected Elder Abuse

POLICY

It is the policy of the Walden Behavioral Care to render good and compassionate care to all patients. In the case of elderly persons this extends to being aware of their social and emotional needs and taking care to comply with laws and regulations regarding their welfare. This includes the Walden Behavioral Care's duties under Chapter 19A, a, Section 15(a) of the Massachusetts General Laws as amended by Chapter 604 of the Acts of 1982 (reporting of suspected elder abuse).

PROCEDURE

Person Responsible: All mandated reporters. Refer to Section 11, A.

Definition of Elder Abuse (from guidelines from the Department of Elder Affairs)

1. "Reasonable Cause to Believe" means having a basis for judgment that rests on specific facts, either directly observed or obtained from reliable sources, and that supports a belief that a particular event probably took place or a particular condition probably exists

2. Abuse: An act or omission which results in serious physical or emotional injury of an elder or financial exploitation of an elder; provided, however, that no person shall be considered to be abused for the sole reason that such person is being finished or relies upon treatment in accordance with the tenets and teachings of a church or religious domination by a duly accredited practitioner thereof Acts or omissions include any of all the following:

3. Physical Abuse: The non-accidental infliction of serious physical injury to an elder or the threat of serious physical injury in which the Protective Services Agency has reasonable cause to believe that an individual may have the intent and capacity to carry out the threatened serious physical injury. Serious physical injury shall be determined by consideration of the following factors:
    a. the elder's physical condition;
    b. the type, size, shape, number and location of physical injuries;
    c. the circumstances under which the injury occurred including the potential for serious injury in the actual incident;
    d. the emotional impact on the elder,
    e. the potential for escalation of abuse.

4. Sexual Abuse: Sexual assault, rape, sexual misuse, or sexual exploitation of an elder or threats of sexual abuse where the individual has the intent and capacity to carry out the threatened sexual abuse.

5. Emotional Abuse: The non-accidental infliction of serious emotional injury to an elder. Emotional Abuse must establish a relationship between abusive

actions, behaviors, or language and a resulting effect on the emotional state or functioning of the elder. Serious emotional injury includes:

a. An extreme emotional reaction or response such as a severe state of anxiety, fear, depression or withdrawal,
b. Development of post traumatic stress disorder including but not limited to symptoms resulting from being forced to engage in sexual relations by force, threat, or force and duress;
c. Symptoms of an emotional reaction or response resulting: in threats to harm or financially exploit.

6. Neglect

7. The failure or refusal by a caretaker to provide one or more of the necessities essential for physical well-being, such as food, clothing, shelter, personal care, and medical care, which has resulted in or where there is substantial reason to believe that such failure or refusal will immediately result in physical harm to an elder.

8. Neglect shall be determined by consideration of each of the following factors:
   a. The elder's ability to meet her/his own needs;
   b. A history of dependence on a caretaker as defined in 651 GMR 5.02;
   c. The elders capacity to consent,
   d. The expectation or desire of the elder of continuing to receive care provided by the caretaker.
   e. the seriousness of physical harm resulting from neglect shall be determined by consideration of the above factors.

9. Financial Exploitation

10. The non-accidental act or omission by another person without the consent of the elder causing:
    a. Substantial monetary or property loss to the elder or
    b. Substantial monetary or property gain to the other person which gain would otherwise benefit the elder, but for the act or omission of the other person.
    c. Financial exploitation may be result from consent obtained as a result of misrepresentation, undue influence, coercion or threat of force by the other person. Financial exploitation may not result from a bona fide gift or from any act or practice by another person in the conduct of a trade or commerce.

11. Serious Abuse:

12. As stated in Section 18 (a) of the Elder Abuse Law, the term "Serious Abuse" means abuse which the Department or its designated agencies determine may constitute a violation of criminal law of the Commonwealth.

13. These acts include but are not limited to the following: murder, first degree murder, second degree murder, felony murder, manslaughter, assault, battery, mayhem, rape, imprisonment, kidnap in extortion, robbery, assault and battery with a dangerous weapon, poison, larceny by stealing, attempt to murder, attempt to rape, attempt to extort, attempt to commit crimes. Extremely annoying telephone calls may also be added to "Serious Abuse". The Department or its designed agency must report these cases to the district attorney of the country within which the elderly person resides within 48 hours. The district attorney may investigate and decide whether to initiate criminal proceedings. Walden Behavioral Care may also wish to notify the district attorney's office. If it is felt that this would be appropriate, this must be discussed with administration and legal counsel.

The Elder Abuse Law (Sections 14-26 of Chapter 19A of the General Law "An Act Providing Further Protection of Elderly Persons"

1. Reporting Requirements :
    a. Any mandated reporter: physician, medical intern, dentist, nurse, probation officer, social worker, policeman, licensed psychologist, coroner, registered physical therapist, registered occupational therapist, osteopath, podiatrist, executive director of a homemaker service agency who has reasonable cause to believe that an elderly person is suffering from or has a verbal report of such information or cause a report to be made to the department or its designated agency shall within forty-eight hours make a written report to the department or its designated agency. Any person so required to make such reports who fails to do so shall be; punished by a fine of not more than one thousand dollars.
    b. The executive director of a home car corporation, licensed home health agency or homemaker service agency shall establish procedures within such agency to ensure that homemakers, home health aides, case managers or other staff of said agency who have reasonable cause to believe that an elderly person has been abused shall report such case to the executive director of the corporation or agency. The executive director shall immediately make a verbal report of such.
    c. In addition to a person required to report under the provisions of subsection (a) of this section, any other person may make sure a report to a department or its designated agency, if any such person has reasonable cause to believe that an elderly person is suffering from or has died as a result of abuse.
    d. No person required to report pursuant to the provisions of subsection (a) shall be liable in any civil or court action by reason of such report. No other person making such report pursuant to the provisions (b) or (c) shall be liable in any civil or criminal action by reason of such report if it was made in good faith. No employer or supervisor may discharge, demote, transfer, reduce pay, benefits or work privileges, prepare a negative work performance evaluation, or take any other action detrimental to an employee or supervisee who files a report in accordance with provisions of this section by reason of such report.

2. Definition in the Elder
    a. "Abuse" an act or omission which results in serious physical or emotional injury to an elder person, provided, however, that no person shall be considered to be abused or neglected for the sole reason that such person is being finished or relies upon treatment in accordance with the tenets and teachings of a church or religious denomination by a duly accredited practitioner thereof
    b. "Caretaker" the person responsible for the care of an elderly person, which responsibility may arise as the result of a family relationship, or by a voluntary or contractual duty undertaken on behalf of an elderly person, or may arise by a fiduciary duty imposed by law.
    c. "Department". The Department of Elder Affairs.
    d. "Elderly person" is an individual who is sixty years or over.
    e. "Protective Services" services which are necessary to prevent, eliminate; or remedy the effects of abuse to an elderly person.
    f. Immunity of Mandated Reporter
        i. No mandated reporter shall be liable in any civil or criminal action by reason of such report. No other person in a report shall be liable in any civil or criminal action by reason of submitting a report if it was made in good faith.
    g. Designated Agency
        i. "Designated Agency" is Highland Valley Elder Services Inc. for the town of Northampton. The Department of Elder Affairs is responsible for designating the protective services agency.

Procedure Regarding the Reporting of Suspected Elder Abuse

When elder abuse is suspected or when there is a serious question as to the ability of the caretaker to provide adequate care to the elderly person (if he/she is unable to care for him/herself which places the elderly person at risk of suffering a serious physical or mental injury) proceed with the following:

1) Notify the treatment team.
2) The case manager will notify the Program Director when he/she is involved.
3) The Program Director will be available to any staff member wishing to discuss a possible elder abuse case.
4) When it appears from physical examination by the attending physician or social history data that the elderly person has been, abused or is in danger of being abused, the mandated reporter will:
5) Notify the appropriate designated agency. For patients living in Franklin and Hampshire Counties, Highland Valley Elder Services is the designated agency. The mandated reporter will verbally notify them to initiate an investigation.
6) If the mandated reporter is someone other than the case manager, all information will be provided to the social worker who will complete the Elder Abuse Mandated Reporter Form (see attachment A) within 48 hours. For Franklin and Hampshire Counties reports should be made to:

    Highland Valley Elder Services
    320 Riverside Dr, Northampton, Ma 1-800-322-0551

7) The original written report should be sent to. Highland Valley Elder Services. A copy should not be placed in the patient's medical record.
8) It should be documented in the medical record that an elder abuse report was phoned in to the Highland Valley Elder Services, Inc. and on what date and that a written report has or will be sent within 48 hours.
9) If the Treatment Team is not available, the staff person who suspects abuse/neglect should follow the procedure.
10) Once an elder abuse report is filed, it is extremely important for the case manager involved in the case to work with the Protective Services worker while the elderly person is hospitalized in order to coordinate an appropriate discharge plan. The case manager will communicate the above information to the elderly person's physician.
11) If a mandated reporter finds evidence for filing an elder abuse report and learns that a report has previously been filed on this elderly person, the mandated reporter should file a new report, both verbal and written.
12) If an Elder Abuse report is filed, the elderly person should be told that a protective services worker will be contacting him/her to discuss his/her situation. On a case-by-case basis, it is recommended to notify the caretaker that a report has been filed. The person to discuss this will be decided on a case by case basis taking into consideration that has been most involved and has the most knowledge of the case, who has established the best relationship with the elderly person and caretaker, who filed the report, and the availability of staff involved. In most cases, the case manager will discuss this whenever he/she has been involved. The discussion should focus on the caretaker's needs as well as the elderly person's and the fact that this is not as punitive action, but an expression of concern. Those involved should be advised that filing the report initiates an evaluation regarding the care and safety of the elderly person and may result in the provision of additional support and services to help alleviate the stress, i.e., arrange for homemaker, home health aid, legal assistance, etc. It should be documented in the medical record if the caretaker was notified of the report being filed.

When an elder abuse report is filed:

1) Highland Valley Elder Services, Inc. is responsible for sending a protective services worker to conduct their initial assessment and make recommendations for a discharge plan.
2) If the reporter receives any written response from Highland Valley Elder Services, Inc. to the elder abuse report indicating the findings of the investigation, this should be attached to the copy of the elder abuse report.
3) According to Section 17 of the Law, a protective services agency (West Suburban Elder Services, Inc.) is authorized:
    a. to receive and investigate reports of abuse.
    b. to furnish protective services to an elderly person with his or her consent.
    c. to petition the court for appointment of a conservator of guardian or for issuance of an emergency order for protective services (if there is reasonable cause to believe that an elderly person is suffering from abuse and lacks the capacity to consent to the provision of protective services)

d. to furnish protective services to an elderly person on an emergency basis as hereinafter provided
e. to furnish protective services to a protected person with the consent of such person's guardian or conservator
f. to serve as conservator, guardian, or temporary guardian of a protected person

Where death may have resulted from elder abuse:

1) The Program Director should be contacted immediately.
2) The Program Director along with the physician case manager will decide who is to file a verbal and written elder abuse report.
3) If Highland Valley Elder Services, Inc. has reasonable cause to believe that an elderly person has died as a result of abuse; the death shall immediately be reported by Highland Valley Elder Services, Inc. to the district attorney of the county in which the elderly person resided.
4) Walden Behavioral Care may also wish to notify the district attorney's office. If it is felt that this would be appropriate, this must be discussed with WBC administration and legal counsel.

Procedure Regarding the Reporting of Suspected Elder Abuse of a Nursing Home Resident

If a nursing home resident seeking treatment at Walden Behavioral Care presents with signs of abuse or neglect, a report must be made to the Department of Public Health, Health Care Quality Division at 1-(800V4620-5540 during business hours. After 5:00 p.m., on weekends and holiday call (617V522-3700. A written narrative describing the circumstances should follow within 48 hours. (There are no forms for this written report.) Written reports should be sent to:

Department of Public Health
Division of Health Care Quality
Complaint Unit - 5h Floor
10 West St.
Boston, MA 02111

Procedure Regarding the Reporting of Suspected Elder Abuse of a Resident Living in Assisted Living Facility

A report must be made to the Assisted Living Ombudsman at (617)222-7492. If it is after business hours, leave a message and also contact the police department where the facility is located.

2: Assessment and Care of Patients

2.1 Assessment and Admission of Patients
2.2 Medical Management
2.3 Nutritional Management
2.4 Social Work/Case Management
2.5 Discharge Planning
2.6 Client Clinical Records

2.1 ASSESSMENT AND ADMISSION OF PATIENTS

PHP Admissions Policy

2.1.1 Patients admitted through an Admissions Evaluation

When a patient is admitted to an outpatient program from outside of the Walden system, the following evaluations are completed by the Admissions department:

- Initial Clinical Assessment
- Eating Disorder Behavior Addendum

Vital signs, weight, height, and lab work are assessed and appropriate level of care is determined based on the client's history and current symptoms.

Upon starting treatment in the outpatient program, the following assessments are completed by the patient's case manager, the program dietician, and the program psychiatrist/CNS:

- Psychosocial Assessment
- Nutrition Assessment
- Psychiatric Assessment
- Health Screening Questionnaire
- Suicide Assessment Form (completed for all program admissions by medical staff)
- Lab work is ordered and reviewed

These assessments are added to the "Assessment" section of the patient's chart.

2.1.2 Patients admitted to PHP or other outpatient programs through Direct Admission process

Certain patients who are coming from outside of the Walden system can avoid a face-to-face evaluation in the WBC Admissions department under the following circumstances:

1) they have been evaluated in an Emergency Department, by a Crisis Team, or are transferring from another treatment center
2) they are appropriate for admission, *and*
3) adequate information is available.

The Psychiatric Admissions Team will initiate the admission by completing a Direct Admission form and reviewing available information with the psychiatrist on call. (See policy and procedure for Direct Admissions.)

Upon starting treatment in the PHP or other outpatient program, the following assessments are completed by the patient's case manager, the program dietician, and the program psychiatrist:

- Psychosocial Assessment
- Nutrition Assessment
- Psychiatric Assessment
- Health Screening Questionnaire
- Suicide Assessment Form (completed for all program admissions by medical staff)
- Lab work is ordered and reviewed

Direct Admission

Procedures:

1. The onsite Intake Coordinator screens the call to determine what program/ level of care the referring facility is interested in.
2. The Intake Coordinator requests a verbal summary of the patient's clinical status.
3. The Intake Coordinator requests written information via fax including:
    a. Crisis Evaluation
    b. Statement of Medical Clearance
    c. Lab Results within 24 hours
    d. Demographic information including insurance policy and ID#
    e. Most recent progress notes
    f. EKG if deemed necessary
4. The Intake Coordinator reviews provided information and present to MD or Program Director.
5. The Intake Coordinator calls presenting facility to inform them of decision. If MD/Director approves admission the Intake Coordinator asks the presenting facility to obtain authorization from the patient's insurance company.

6. The Intake Coordinator provides any clinical information to the program in which the patient will be admitted
7. The Intake Coordinator completes and distributes the necessary paperwork

2.1.3 Patients admitted from the Inpatient or Residential Units

When patients step down to PHP or other outpatient program from the Inpatient unit or Walden Place, copies of all major assessments from the patient's previous admission(s) are made. These assessments include:

- Initial Clinical Assessment (from Admissions, unless patient was a direct admit)
- Change in Level of Care Form
- Eating Disorder Behavior Addendum (from Admissions, unless patient was a direct admit)
- Direct Admission form (from Admissions *only* if patient was a direct admit and did not receive an Initial Clinical Assessment)
- History & Physical
- Psychosocial Assessment
- Nutrition Assessment
- Psychiatric Assessment
- Suicide Assessment Form

The History & Physical is reviewed and signed by the PHP psychiatrist, and is filed under the "Assessment" section. In the case that a History and Physical is more than 30 days old, the patient will be assessed with the psychiatrist using a health screening questionnaire (HSQ) to determine the need for a History and Physical (H&P). If an H&P is indicated, it will be completed either by the patient's PCP or by a WBC nurse practitioner.

Suicide Assessment Form. Previously completed Suicide Assessment forms may be included in the new PHP record and filed under 'Previous Admissions'. Regardless of the inclusion of previously completed forms, a new Suicide Assessment Form will be completed for the patient by medical staff upon admission to the program.

Copies of all other assessments (whether from Inpatient or Residential) are kept as part of the patient's new PHP chart, under the "Previous Admissions" section. If a patient has gone through both Inpatient and Residential levels of care, there may be multiple assessments copied from each level of care.

Other copies kept in the new PHP chart include previous Treatment Plans and Discharge Summaries. These copies are filed under "Previous Admissions" for the duration of the patient's stay in PHP.

The PHP treatment team (including Case Manager, program dietician, and program psychiatrist) reviews all previous assessments while formulating the patient's new PHP treatment plan.

Previous psychosocial, nutrition, or psychiatric assessments that have been completed *within the past 30 days* in Inpatient or Residential may be used as current assessments in place of a new assessment being completed. These previous assessments would be copied and kept under the "Assessment" section of the chart, with an initialed note from the PHP clinician, dietician or psychiatrist stating "Assessment reviewed on (date) by (name). See progress note dated (___) for updates." All copies should be noted as 'Copies' by writing this on the photocopied documents. The PHP provider must then write a progress note detailing any updates or changes since the patient's previous admission.

If previous psychosocial, nutrition, or psychiatric assessments were conducted *more than 30 days prior* to the patient's admission to PHP, new assessments must be completed.

2.1.4 The Psychiatric Admissions Team: Level of Care Assessment

POLICY:

Referred patients are assessed for the most therapeutic intervention in the least restrictive setting. The WBC Psychiatric Admissions Team adheres to the criteria established by various levels of treatment within the care system to establish an appropriate level of care Evaluations are discussed with the WBC Psychiatrist on call when there is a clinical or medical question with regard to level of care. If indicated, the patient may be referred to the contracted emergency service provider for evaluation for hospitalization.

PROCEDURE:

1. The Psychiatric Admissions Team utilizes the Initial Clinical Assessment tool while adhering to the standards for The Psychiatric Admissions Team mental health documentation. This form will be kept as part of the Medical Record.
2. Information obtained during the triage assessment must be reviewed as part of the level of care assessment.
3. Patients who have been evaluated in an Emergency Department or by a Crisis Team and are appropriate for admission can avoid a direct interview if adequate information is available. The Psychiatric Admissions Team can initiate the admission by completing the Direct Admission form and reviewing available information with the psychiatrist on call. (See policy and Procedure for Direct Admissions).
4. Every attempt is made to contact the patient's providers and collateral contacts (including Primary Care Physicians) as part of the evaluation process. Every effort is made to contact the patient's Primary Care Physician following a level of care assessment providing the patient has signed a release of information.
5. The Psychiatric Admissions Team adheres to the Confidentiality policy during the evaluation process.
6. Every effort is made to review prior assessments, medical records, and other available documentation as part of the assessment.
7. All insurance related information is documented on the "Insurance Tracking Sheet." The top copy of the triplicate form becomes part of the Medical Record, the bottom portion is transferred to the business office. The middle portion of the "Insurance Tracking Sheet" is kept as part of this file. All Psychiatric Admissions Team patient files are kept for up to two years for future reference.
8. A copy of the final Initial Clinical Assessment Form is kept in the Psychiatric Admissions Team patient files.
9. The middle portion of the "Insurance Tracking Sheet" is kept as part of this file. All Psychiatric Admissions Team patient files are kept for up to two years for future reference.
10. Requested documentation is faxed to payers providing the patient has signed a release of information.

11. The Psychiatric Admissions Team will generate the necessary admission documents that will accompany the patients to the program.
12. Patients who are not admitted to WALDEN BEHAVIORAL CARE will be referred to appropriate services. Patients will be provided with a copy of the disposition form.

2.1.4.1 Admission Evaluation Process for Clinic Programs

Policy:

This procedure is to ensure that admitting evaluation process is efficient.

Procedure:

1. The onsite intake coordinator completes the following before a patient coming to any Walden outpatient programs for a level of care evaluation:
   a. The onsite intake coordinator completes the Walden telephone intake with the patient, guardian or outpatient treatment team.
   b. The Insurance Benefits are thoroughly verified.
   c. An Insurance Tracking Sheet is created to reflect benefit information.
   d. The patient or guardian is called and provided with an explanation of benefits.
   e. A lab slip is created for patients to have labs drawn.
2. When the patient arrives the Intake Coordinator presents the following paper work to the patient for completion:
   a. EDE-Q
   b. Disclosure Forms
   c. Privacy Notice
3. After completion of paperwork the Intake Coordinator takes the patients height, weight and orthostatic vitals.
4. The Intake Clinician meets with the patient.
5. The Intake Clinician is responsible for having the patient complete the following:
   a. Binge/Night Eating Scale if deemed appropriate – Clinician then scores the scales, if for some reason they are unable to score the scales the clinician may ask an Intake Coordinator to score.
   b. Financial Agreement Form – Clinician should also collect any co-payments or deductibles.
   c. Insurance Tracking Sheet should be completed including the authorization.
   d. Face Sheet
   e. ED Addendum
   f. Clinical Assessment
   g. Clinician is also responsible for scoring the EDE-Q with the patient and making a copy for intake staff purposes.
6. The Intake Coordinator calls the Waltham Admissions Department to assign the patient's medical record number and provide information for the Master Patient Index. The patient name is also recorded in the log book in order to keep the Master Patient Index updated and accurate.
7. The clinician is responsible for making sure that all paper work has been completed, once this is established the clinician may hand off the paper work to an intake coordinator who will distribute the paper work as appropriate (See Paper Work Distribution Policy for Programs).

POLICIES AND PROCEDURES	SECTION
Change in Level of Care	**Policy #: 2.1.5**
Prepared by: Rebecca Libitz	**Effective:** 3/9/09
Approved by: Paula Vass, LICSW, Assistant Vice President of Clinical Operations	**Revised:** 7/1/2011

Policy:

This policy is to ensure that patients transfer through Walden Behavioral Care's continuum in a uniform manner. This policy ensures that transitions from one level of care to another will be done efficiently and in the best interest of the patient.

Procedure:

1. The clinical team will come to a preliminary agreement with the patient and family on the recommended next level of care.
2. The sending team determines change in level of care and makes the recommendation. The team social worker verifies that the patient is eligible for insurance benefits for the change in level of care. Note: The Social Worker or Utilization Reviewer must be aware of benefit days remaining.
3. The social worker notifies the charge RN of the potential change in level of care and presents a brief clinical summary. Social work contacts the admissions department to determine bed/slot availability. (All attempts will be made by the admissions department to provide level of care requested). The Admissions Department notifies the receiving program of the transfer.
4. For step ups and step downs the program calls the charge nurse to give report.
5. For step ups and step downs the program will give regular updates to the admissions department regarding the status of the transfer
6. Nursing writes a transfer/discharge note in the chart.
7. For patients transferring between inpatient units, the sending inpatient unit provides a verbal nurse to nurse report to the receiving unit. The verbal report must be documented in the patients chart by the sending unit. The receiving unit will provide the sending unit with a time for the transfer to occur (approximately 11a.m.)
8. Patients moving to residential from the inpatient unit will be told the status of the transfer by their social worker. The social worker will document that the patient has been notified of the status of change of level of care. The inpatient nurse and the program coordinator (or designee) will arrange transfer time.

   NOTE: Patients transferred to other programs at WBC will be escorted to the new onsite program by a staff member of the sending program.

9. If patient is discharging to any outpatient program (Partial, IOP, etc.) at WBC, the social worker discharging the patient is responsible for contacting the outpatient program, providing clinical information and determines the start date.

10. Insurance authorization is obtained and documented.
11. Patient and/or family is notified of the status of change in level of care. (This is to assume that the patient and family have been involved in the transfer prior to this notice)
12. Social work completes the change in level of care form.
13. Patient is escorted to the receiving program or discharged home to start new program the following day.

Documents to Accompany Patients to all Programs

- Face Sheet
- Tracking Sheet
- New Labels
- Completed Change in LOC Form
- Medication Reconciliation Form
- Transfer Order/ Discharge Order
- Most Recent Lab Results
- Most Recent Meal Plan
- Graphic Data
- Copies of Assessments
    i. Initial Clinical Evaluation
    ii. History and Physical Evaluation
    iii. Patient Centered Nursing Assessment
    iv. Psychiatric Evaluation
    v. Psychosocial Assessment
    vi. Initial Clinical Evaluation
    vii. Eating Disorder Behavior Addendum
    viii. Nutrition Assessment
    ix. Trauma Assessment
- Treatment Plans

Formatted: Bullets and Numbering

Note: For patient moving from Alcott/Thoreau a nursing discharge form will also accompany the patient.

Attachment A

CHANGE IN LEVEL OF CARE/ TRANSFER

Patient Name _____

Date of Admit to New Program: _____/ **Program Changing To:** _____

Overview of treatment while in current program: _____

_____

_____

Reason for change in level of care:

_____

_____

_____

Family involvement:

_____

_____

Caloric Intake/ Dietary Restrictions:

_____

Goals for continued treatment:

_____

_____

_____

Axis I: _____, _____, _____
Axis II: _____
Axis III: _____ **Axis IV:** _____ **Axis V:** _____

Have outpatient providers been notified of change in level of care?
YES____ NO____

Discharge: YES____ NO____
If No Reason Why:_____

Social Worker Signature

_____

Attending Physician

_____

POLICIES AND PROCEDURES	SECTION
Clinic Program Step Up Change in Level of Care	**Policy #: 2.1.6**
Prepared by: Gail Hanson-Mayer, APRN	**Effective: :** 8/1/09
Approved by: Dr. James Greenblatt, MD, Chief Medical Officer	**Revised:** 7/1/2011

POLICY:

This policy is to ensure that patients transfer through Walden Behavioral Care's continuum in a uniform manner. With this policy transitions from one level of care to another will be done efficiently and in the best interest of the patient. Patients and their families will be notified, and when appropriate, participate in the treatment plan regarding changes in level of care.

PROCEDURE:

1. The sending team discusses change in level of care and makes the recommendation. The team is aware of the patient's insurance benefits for change in level of care.
2. Follow the Direct Admit procedure.

2.1.7 Program – Paperwork Distribution

POLICY:

The Admissions Paper Work Distribution Procedure is to ensure that all paperwork is completed and distributed to the appropriate department. The procedure should be followed with regard to all admissions done through the evaluation process for any of the Walden Behavioral Care Eating Disorder Programs.

PROCEDURES:

1. The following paperwork should be provided to the unit/program upon admission:
    a. Face Sheet (White Copy)
    b. Tracking Sheet (White Copy)
    c. Ed Addendum
    d. Clinical Assessment
    e. Disclosure Forms
    f. Privacy Notice
    g. EDE-Q Survey and Scoring Sheet
    h. Binge/Night Surveys and Scoring Sheets
    i. Labels

2. The following paperwork should be provided to the Business Office in Waltham:
    a. The original copy of the following documents should be mailed:
        i. Face Sheet (Yellow Copy)
        ii. Tracking Sheet (Yellow Copy)
        iii. Any Insurance Checking Paper Work
        iv. Financial Agreement (White Copy)
    b. In regards to deposits/ payments to the Walden Bank Account the following should be faxed to the Business Office in Waltham:
        i. Copy of any cash or check payments including the date of deposit and the total amount deposited

2.2 MEDICAL MANAGEMENT

2.2.1 Medical Monitoring

POLICY:

All patients in the PHP are required to complete a health screening questionnaire, and have a History and Physical completed if indicated. (See Admissions Policy.)

Participants in the PHP and IOP are required to be in contact with their Primary Care Physician (PCP) while enrolled in program. Participants are asked to sign a release of information form for their PCP so WBC staff can coordinate an appropriate continuum of care. All patients are required to have an outpatient team consisting of a therapist, PCP, nutritionist, and psychiatrist.

Patients' weight and vitals are monitored weekly by the PHP, and blood work is drawn when necessary.

PROCEDURE:

1. Upon admission patients are required to complete, with the help of the program psychiatrist, a health screening questionnaire (see attached). If this health screening questionnaire indicates the need for a further health screening, a History and Physical will be completed either by the patient's PCP.
2. If a patient is coming from another level of care within the Walden system and has had a History and Physical (H&P) completed within the past 30 days, the program psychiatrist reviews and initials the H&P. This previous H&P is then filed in the patient's chart under "Assessments".
3. After 30 days of enrollment in the PHP, patients are given another health screening questionnaire to complete with the program psychiatrist in order to re-asses their status. If the health screening questionnaire indicates the need for further evaluation, a History and Physical will again be completed by the patient's PCP.
4. Patients are required to schedule an appointment with their primary care physician (PCP) upon admission to the program, if they have not been seen within 3 months. Appointments are asked to be scheduled outside of program hours.
5. Patients are required to sign a release of information form for their PCP so WBC staff can coordinate appropriate treatment recommendations.
6. The patient's PCP, in conjunction with the WBC treatment team, will determine the frequency of further visits while the patient is enrolled in program and/or the need for specified blood work based on patient's reported eating disorder symptoms.
7. If a patient does not have a PCP who is familiar with eating disorders, a physician will be recommended by the WBC team.
8. While enrolled in program, all patients are required to have an outpatient team consisting of a PCP, therapist, nutritionist, and psychiatrist. If a patient does not have one or more of these providers, the WBC staff will help arrange referrals.

9. While enrolled in the PHP the patients' weights will be monitored twice weekly, and vitals signs will be monitored weekly.
10. Any precipitous changes in weight and/or any orthostatic changes in blood pressure and/or pulse rate will be brought to the attention of the program director and the psychiatrist. Thereafter, the psychiatrist and/or program director will meet with patient to discuss and question the severity of his or her eating disorder symptoms and/or any substance abuse issues that may be co-occurring.
11. In order to rule out the potential for medical instability at that point as determined by both the program director and psychiatrist, the patient will be sent to Cooley Dickinson Hospital, for specified blood work (done STAT) as ordered by the psychiatrist. In the event that the psychiatrist and/or the program director are not available, the WBC Medical Director will be consulted.
12. All lab results are directly faxed by Cooley Dickinson Hospital, or one of its satellite clinics to the PHP upon completion. These results will be given immediately to the program director, or the psychiatrist will be paged, to determine whether or not the patient is in need of a medical admission or Inpatient Eating Disorders Admission as needed (see Policy & Procedure 2.5 for Changing Level of Care). All critical lab values that Cooley Dickinson Hospital has attained automatically result in a phone call to WBC program staff. At Walden Behavioral Care – Northampton, Cooley Dickinson laboratory staff will contact the program at 413-582-0100.
13. All pertinent medical information (lab results, weight graph, vital signs) will be faxed to the patient's PCP for further follow-up.

2.2.2 HEALTH SCREENING QUESTIONNAIRE (HSQ)

Assess your health needs by marking all true statements.

The purpose is to identify individuals who may be at physical risk for participating in the PHP level of care and may need further medical assessment by their own PCP.

The questions were designed, in consultation with occupational health physicians, to identify individuals whose health may be at risk. The HSQ is not a medical examination. Any medical concerns you have that place you or your health at risk should be reviewed with your personal physician prior to admission in the PHP.

Check 'Yes' or 'No' in response to the following questions:

Y □ N □ 1) During the past 12 months have you at any time (during physical activity or while resting) experienced pain, discomfort or pressure in your chest?

Y □ N □ 2) During the past 12 months have you experienced difficulty breathing or shortness of breath, dizziness, fainting, or blackout?

Y □ N □ 3) Do you have a blood pressure with systolic (top #) greater than 140 or diastolic (bottom #) greater than 90?

Y □ N □ 4) Have you ever been diagnosed or treated for any heart disease, heart murmur, chest pain (angina), palpitations (irregular beat), or heart attack?

Y □ N □ 5) Have you ever had heart surgery, angioplasty, or a pace maker, valve replacement, or heart transplant?

Y □ N □ 6) Do you have a resting pulse greater than 100 beats per minute?

Y □ N □ 7) Do you have any arthritis, back trouble, hip /knee/joint /pain, osteoporosis, or any other bone or joint condition?

Y □ N □ 8) Do you have personal experience or doctor's advice of any other medical or physical reason that would prohibit you from participating in all the groups including yoga here at WBC?

Y □ N □ 9) Has your personal physician recommended against exercise because of asthma, diabetes, epilepsy or elevated cholesterol or a hernia?

Y □ N □ 10). Do you smoke regularly?

PATIENT SIGNATURE:_____

DATE_____

2.2.3 Psychiatrist/Medication Management

POLICY:

During their stay in PHP, patients will meet with the WBC psychiatrist or APRN who will complete a psychiatric evaluation and recommend medications or prescribe medications as needed.

PROCEDURE:

1. Upon admission, a patient's case manager will schedule an initial appointment with the program's psychiatrist/APRN.
2. The program psychiatrist/APRN will complete an initial psychiatric assessment, which will be kept in the patient's chart. In the case that a psychiatric assessment has been completed within another level of care at Walden Behavioral Care within the past 30 days, the psychiatrist will review and initial the previous psychiatric assessment.
3. Any updates to the Initial Psychiatric Assessment are reflected through progress notes and treatment plan changes.
4. Patients are asked to sign a release of information form for their outpatient psychiatrist, so WBC staff can coordinate an appropriate continuum of care.
5. The Program Psychiatrist/APRN will verify with each client the prescribed medications they are taking upon initial assessment, including the dosage, frequency, and the reason for taking the medication.
6. All medications shall be noted in the Initial Psychiatric Assessment in the client's record. Any changes in medication will be noted in progress notes. The chart shall specify for each client:
    a. The type and dosage of medications.
    b. The condition for which the medication is prescribed
    c. When and how the medication is to be administered.
    d. Any contraindications or allergies; and special instructions including steps to take if a dose is missed.
7. If medications are prescribed by the PHP psychiatrist/APRN, patients are responsible for medication compliance. See "Self Administration of Medication" below.
8. If adverse reactions to medications are experienced, he or she must discuss this with the PHP psychiatrist, or 911 will be called if necessary.
9. If a patient wishes to make a change in prescription, he or she must discuss this with his or her outpatient psychiatrist, and the PHP psychiatrist/APRN will consult as needed.
10. The PHP does not supply routine medications to patients, including over-the-counter medications. Therefore, patients will be expected to have taken their required medications prior to attending PHP.
11. Prescription medication and/or over-the-counter medications are NEVER allowed to be shared with, borrowed from, or shown to other patients in treatment.

2.2.4 Self-Administration of Medication

POLICY:

All clients admitted to the Outpatient Continuum will have the responsibility to self administer prescribed and approved over the counter medications.

PROCEDURE:

1. Patients will meet with the Program Psychiatrist/APRN for an initial assessment while in the program. If the patient has an outpatient psychiatrist established, his or her outpatient psychiatrist will prescribe medications for the client's use while in the PHP. If a patient does not have an outpatient psychiatrist established, he or she will be followed by the Program Psychiatrist/APRN until one is established.
2. Prescriptions written by the Program Psychiatrist/APRN may be filled by the client at his or her local pharmacy. Clients are responsible for filling their own prescriptions.
3. During program hours, clients are responsible for self-administering their own prescription or approved over-the-counter medications. Non-compliance with prescribed medications is considered to be therapy interfering behavior.
4. Patients are responsible for monitoring their supply of medication and must inform their outpatient psychiatrist when refills are needed prior to exhausting their medication supply. Medication refills will only be called in by the PHP psychiatrist under emergency circumstances.
5. All clients must be capable of medication self-administration to be considered for admission to the PHP at Walden Behavioral Care.

2.2.5 Adverse Drug Reactions

POLICY:

The Outpatient Continuum responds to actual or potential adverse drug events and mismanagement of medication by the client.

PROCEDURE:

1. Clients in the Outpatient Continuum are expected to be followed by an outpatient psychiatrist who will prescribe medications for the client's use. If a client does not have an outpatient psychiatrist established, he or she will be followed by the Program Psychiatrist until one is established.
2. In the case of an adverse drug event or mismanagement of medication by the client, staff will consult with the Medical Director and 911 will be called if necessary.
3. The client's outpatient psychiatrist and PCP will be notified by staff of the adverse drug event.

2.2.6 Client-Specific Information for Medication Management

POLICY:
The Outpatient Continuum provides readily accessible client-specific information to those involved in the medication management of clients, namely the Program Psychiatrist.

PROCEDURE:

1. Information including the client's age and sex can be found on the Patient Face Sheet of the client's chart.
2. The client's current medications, past medication use, drug and alcohol use or abuse, diagnosis, comorbidities, concurrently occurring conditions, allergies and past sensitivities can be found in the Assessment section of the client's chart.
3. The client's weight, height, any relevant laboratory values, and pregnancy/lactation status can be found in the Graphic section of the client's chart.

2.2.7 Medication Management and the Use of Psychopharmacologic Drugs

POLICY:

Clients in the Outpatient Continuum are responsible for self-administering their own medication as prescribed by their outpatient psychiatrist, or as prescribed by the Program Psychiatrist in the case that they do not yet have an outpatient psychiatrist. The use of psychopharmacologic drugs is monitored as needed by the Outpatient Continuum.

PROCEDURE:

1. If a client is prescribed multiple psychopharmacologic agents by the Program Psychiatrist/APRN, the effects of these drugs are monitored and recorded in the client's chart in continuing follow-up sessions. Clients who are prescribed multiple psychopharmacologic agents by their outpatient psychiatrist are expected to follow up with and be monitored by their outpatient psychiatrist.
2. If the Program Psychiatrist/APRN prescribes the use of high-dose pharmacotherapy, the effects will be monitored and recorded in the client's chart in continuing follow-up sessions.
3. Clients are encouraged, if they have not already done so, to establish an outpatient psychiatrist as soon as possible as part of the expectation of establishing a thorough outpatient team. Program staff will help with this process as needed by giving referrals. As soon as an outpatient psychiatrist is established and an initial appointment is completed, the responsibility for medication management is transferred from the Program Psychiatrist/APRN to the client's outpatient psychiatrist. After a release is signed, the Program Psychiatrist/APRN will be in contact with the outpatient psychiatrist as needed to give relevant clinical information.
4. If tardive dyskinesia is identified or suspected, the client is encouraged to follow up with his or her outpatient psychiatrist. In the case of a client who does not have an outpatient psychiatrist established, the Program Psychiatrist/APRN or Medical Director will be contacted. Numbers for the Program Psychiatrist/APRN and Medical Director are posted by the phone in the staff office.

2.3 NUTRITIONAL MANAGEMENT

PHILOSOPHY:

Our philosophy is based on an understanding of the importance of individuals with eating disorders learning to make food choices which support normal eating and optimum health. The WBC Outpatient Continuum is designed to provide a safe and healing environment for participants to relearn the sensations of hunger and fullness and to become increasingly comfortable with freedom over their food and activity choices. We emphasize mindfulness as a means toward restoring overall balance to learn effective ways of nurturing mind and body, thereby giving participants the needed tools to learn to eat intuitively.

We believe that imposing external structures may be an essential step in the treatment process. We begin by regulating eating and move towards teaching skills for self regulation. We take the approach of guiding participants to develop insights into the root of the problem and develop effective coping skills to restore biochemical and physiological well being. By teaching skills in making food choices in a safe environment that supports change and growth, we assist patients in the process of discontinuing the use of eating disordered behaviors to cope with uncomfortable situations or feelings.

Primary goals of the program:

- Restoring biochemical functioning and nutritional balance
- Establishing and maintaining a pattern of regular, adequate food intake
- Challenging destructive behaviors such as binging, purging, restricting or excessive exercise
- Empowering patients with skills to continue healthy patterns of self care upon discharge

PROCEDURE:

1. Patients will meet with the staff dietitian within 24-48 hours of admission to establish a meal plan, set nutritional goals, and become oriented to the nutritional guidelines used in the PHP. If patients have a meal plan that has been prescribed from another dietitian or from within another level of care at WBC, they are asked to bring it with them on their first day of treatment.
2. The complete nutrition assessment evaluates each patient's patterns of eating, biochemical and anthropomorphic data. The assessment incorporates each patient's medical and psychological profiles to determine appropriate goals for the treatment program and beyond.
3. Individual meal plans are based on the concept of balanced meal composition, and are developed by each patient with the help of a registered dietitian.
4. Patients are asked to sign a release of information form for their outpatient nutritionist so WBC staff can coordinate an appropriate continuum of care. The PHP dietitian will collaborate with the patient's current dietitian as needed during treatment and prior to discharge for continuum of care arrangements.

5. The staff dietitian will meet with patients once a week to adjust the meal plan as needed, to promote progress towards established goals, and to review individual progress.
6. Patients are expected to meet with their outpatient nutritionist on an as needed basis while enrolled in the PHP.
7. Vegetarian choices are offered by the PHP, and any diagnosed food allergies are taken into account.
8. During the course of treatment patients are expected to assume greater freedom and responsibility in making food choices outside of the PHP setting.
9. Group nutrition therapy sessions are scheduled once a week to address concerns and feelings patients have about foods, nutrition and eating behaviors. Topics include normalized eating, food and brain chemistry, effects of starvation and other behaviors, mindfulness and relapse prevention, nutrition myths, science of healthy eating, and overcoming food phobias.

2.4 CASE MANAGEMENT

2.4.1 Case Management

POLICY:

All patients will have a social worker/ case manager assigned as a member of their Multidisciplinary Treatment Team to assist in the coordination and implementation of each patient's treatment plan and discharge plan.

PROCEDURE:

1. The social worker/case manager will be an integral member of the Multidisciplinary Treatment Team.
2. The social worker/case manager will meet individually as well as with other members of the treatment team and the patient to assess the patient's current status and develop a comprehensive treatment plan with the .patient.
3. The social worker/case manager will complete a psychosocial evaluation within 24 - 48 hours of admission.
4. The social worker/case manager will obtain necessary releases of information and will contact family, supports and outpatient providers approved by the patient.
5. The social worker/ case manager will work with these contacts to obtain additional information, provide support and education to family members and clinical information to providers in order to facilitate continuity of care.
6. The social worker/case manager will be available for daily individual sessions with the patient to continue to assess the patient's needs and provide support and interventions to assist in the patient's recovery.
7. The social worker/ case manager will provide family meetings, when appropriate, to provide support and psycho-education to assist the patient and family in developing new methods to address the patient's illness or family dynamics.
8. The social worker/case manager will assist in coordinating communication/meetings between the patient and outpatient providers.
9. The social worker/case manager will document all individual and family meetings, as well as any other pertinent information, in the patient's medical record. Each note will provide an evaluation of the patient based on the patient care goals and the patient's plan for care, treatment and services.
10. The social worker/case manager will provide utilization review with managed care to ensure continuation of benefits for appropriate level of care.
11. The social worker /case manager will document the results of each UR on the insurance tracking sheet in the patient's medical record.
12. The social worker/case manager will work with the patient and treatment team to develop a comprehensive discharge plan, as outlined in the discharge planning policy.
13. The social worker/case manager will review the discharge plan with the patient and family, as well as with the patient's outpatient providers.
14. A copy of the discharge plan will be placed in the patient's medical record.

15. In addition to working with individual patients, the social worker/ case manager may lead therapeutic milieu groups.

2.4.2 Psychosocial Assessments

Policy:

All clients entering the Outpatient Continuum will have a psychosocial assessment completed upon admission to the program. When indicated, additional psychosocial data will be collected by a PHP or IOP Case Manager while the client attends the Outpatient Continuum.

Procedures:

- When beginning treatment in the Outpatient Continuum, each client is assigned a case manager who completes a psychosocial assessment with the patient.
    - Clients referred directly from admissions are assessed with a Psychosocial Assessment by their case manager within 24 – 48 hours of admission.
    - All clients admitted to the Outpatient Continuum from Inpatient or Residential levels of care have had a psychosocial assessment completed. If this previous assessment was completed within the past 30 days, it will be reviewed and initialed by the PHP case manager and referenced while the client is in PHP. If this previous assessment was completed more than 30 days prior to the patient's admission to PHP, another Psychosocial Assessment must be completed.
- Information gathered during the psychosocial assessment includes at least the following:
    - History of present illness
    - Environment and living situation
    - Salient personal history
    - Marital status, social supports, and family circumstances
    - Employment
    - Leisure and recreation
    - Religion and spiritual orientation
    - Childhood history
    - Military service history, if applicable
    - Financial issues
    - Sexual history
- When addressing bereavement, the psychosocial assessment includes the social, spiritual, and cultural variables that influence the perceptions and expressions of grief by the client or family.
- The case manager will follow the case with one individual session per week. Additional information from these meetings pertaining to the psychosocial assessment is recorded in Progress Notes and Tracking Summaries in the client's chart.

2.4.3 Treatment Plans

POLICY:

All clients in the PHP are evaluated by a designated case manager within their first 24 - 48 hours of treatment. During this meeting a treatment plan is created that specifies the client's goals and plan of treatment during their stay in program.

PROCEDURE:

1. Upon arrival to PHP, new clients are assigned to a Case Manager (CM) who will follow their case during their stay in program. CMs meet with a new client within the first 24 - 48 hours of a client's arrival to program to conduct a psychosocial assessment and create a treatment plan.
2. A treatment plan is filled out by the CM in collaboration with the client. The treatment plan specifies 1-2 problems or target behaviors that will be addressed while the client is enrolled in program. The treatment plan also establishes short-term and long-term goals, and what will be included in the treatment.
3. Once completed, the treatment plan is signed by the CM, treatment team, and client.
4. Initial treatment plans are reviewed and updated by the treatment team weekly in treatment planning meetings.
5. Initial treatment plans are updated every 30 days as clinically indicated.

2.5 DISCHARGE PLANNING

2.5.1 Changes in Level of Care

POLICY:

The following steps are taken when a patient transitions through the continuum of care to ensure accurate communication of data and information, and to facilitate a continuum of care.

PROCEDURE:

1. Instances in which a patient may no longer meet Partial level of care include but are not limited to:
    a. Continued weight loss or inability to maintain stable weight
    b. Inability to interrupt, or make progress in attempting to interrupt, eating disorder behaviors outside of program hours
    c. Consistent inability to follow the prescribed meal plan during program hours, or consistent refusal of boost
    d. Medical instability as seen by electrolyte imbalances, dehydration, and/or orthostatic changes
2. If a patient has been determined to no longer meet Partial level of care, the PHP case manager and treatment team will work together to identify an appropriate course of treatment. Transition to a higher level of care may include transfer to the Inpatient or Residential programs at Walden Behavioral Care, or to another facility altogether.
3. The patient is informed that he or she no longer meets Partial level of care, and the recommendation and rationale for a higher level of care is explained.
4. If the patient refuses to transition to a higher level of care, the patient is informed that he or she cannot continue to be treated in the Partial Hospitalization Program and will be discharged Against Medical Advice.
5. Patients who successfully complete their PHP course of treatment will either be discharged as planned, or arrangements will be made for a step-down to a lower level care, i.e. WBC Intensive Outpatient Program or another facility.
6. All necessary paperwork will be completed by PHP staff to facilitate all changes in level of care. These include:
    a. Face Sheet
    b. Insurance Tracking Summary
    c. Financial Responsibility Form
    d. Change in Level of Care Form
    e. Discharge Summary
    f. Disposition Form
    g. Copies of all relevant assessments and notes

2.5.2 Discharge Planning

POLICY:

The Multidisciplinary Treatment Team will work with the patient to evaluate the patient's needs and develop an appropriate discharge plan. Although the discharge planning process begins at the time of admission, the plan may be revised if the patient's needs and goals change during PHP treatment. Readiness for discharge should be based on sufficient completion of short and long term treatment goals (established in the patient's treatment plan) to ensure ability to function safely at a lesser level of care.

PROCEDURE:

1. The Multidisciplinary Treatment Team will assess the patient's potential discharge needs during the initial treatment planning process with the patient.
2. The case manager provides a key role in patient discharge planning and provides primary leadership regarding all discharge planning initiatives. In addition, the social worker/case manager will include an evaluation of the patient's anticipated discharge needs in the psychosocial assessment which will be completed within 24 - 48 hours of admission. Areas to be assessed should include the psychiatric and physical needs of the patient, family relationships/support systems, financial concerns, housing or placement issues, spiritual and cultural needs, educational needs/vocational needs and accessibility to community resources.
3. With the patient's permission, the treatment team will also collaborate with the patient's family, social supports, and/or outpatient therapeutic supports to obtain additional information which may help to clarify discharge needs, and address any concerns or educational needs of these supports.
4. The case manager will develop a discharge plan utilizing the input of the patient, treatment team and outside supports approved by the patient.
5. Recommendations for specific types of aftercare will be explained and any questions or concerns will be addressed.
6. Changes to the plan will be made if the patient's needs change prior to discharge.
7. The social worker/case manager will review the discharge plan with the patient, as well as with any appropriate outside supports designated by the patient.
8. The patient will receive a written copy of the disposition plan, including all scheduled appointments as well as any additional recommendations.
9. A copy of the disposition plan will be included in the patient's medical record.
10. The attending psychiatrist will provide the patient with prescriptions for any newly ordered and/or needed medications ONLY if he has been following the patient in the absence of an established outpatient psychiatrist.
11. A dictated discharge summary, written by the patient's case manager, will be completed and in the medical record within 30 days.
12. Effectiveness of discharge planning will be evaluated by review of all readmissions, patient surveys and surveys to outside agencies.

2.5.3 Social Work/Case Management Discharge Planning

POLICY:

Each patient is assigned a social worker/case manager. Continuity of care is an important social work principle and is demonstrated through the social worker's integral role in case management and discharge planning.

PROCEDURE:

1. Each patient will be assigned to a social worker/case manager.
2. The social worker/case manager will complete a psychosocial assessment within 24 – 48 hours of admission.
3. The psychosocial assessment will include an assessment of potential aftercare needs and reflect a tentative discharge plan, including referrals to appropriate community based agencies or programs.
4. Through collaboration with the patient, the treatment team, the family, therapeutic and social supports, the social worker/case manager will further refine and develop the discharge plan. Issues regarding significant relationships, physical and psychiatric needs, financial needs, housing or placement needs, personal supports, spiritual or cultural needs, and accessibility to community resources will be assessed.
5. The social worker/case manager also has the opportunity to assess the patient in the context of the milieu groups which he/she leads.
6. The social worker/case manager will meet with the patient and family with the patient's permission to obtain additional information which may clarify discharge needs.
7. The social worker/case manager will also provide education and support to the patient and family to:
    a) Prepare the patient and family for the transition to the next level of care,
    b) Address how the next level of care will continue the patient's treatment,
    c) Address any questions or concerns about aftercare and dealing with issues which may arise,
    d) Review progress made and patient and family strengths.
8. The social worker/case manager will provide the patient with a written plan of follow-up appointments and recommendations.
9. The social worker/case manager will provide appropriate clinical information to the patient's aftercare providers.

2.5.4 Unplanned Discharges

POLICY:

It is the policy of the Partial Hospitalization Program at Walden Behavioral Care to have a formal system in place in the case of unplanned discharges. The circumstances in which an unplanned discharge occurs are identified.

Circumstances that may present for an unplanned discharge include, but are not limited to the following:

1) Patient no longer meets Partial level of care but is not compliant with the program recommendation of a higher level of care, such as Inpatient or Residential.
2) Two Consecutive Absences
3) Patient is non-compliant in other areas of the program's guidelines in ways that interfere with treatment.
4) Lack of insurance benefits.

PROCEDURE

Non-compliance with recommendation for higher level of care

1. When a patient is assessed by the team for appropriateness at the Partial level of care (see "Changes in Level of Care") and is found to no longer meet Partial level of care based on established criteria, the team recommends a transition to a higher level of care. This higher level of care may include the Inpatient or Residential programs at Walden Behavioral Care, or another facility altogether.
2. The patient is informed that he or she no longer meets Partial level of care, and the recommendation and rationale for a higher level of care is explained. If the patient refuses to transition to a higher level of care, the patient is informed that he or she cannot continue to be treated in the Partial Hospitalization Program and will be discharged unplanned.
3. The patient is assessed by the psychiatrist or designee for potential risk factors. If the psychiatrist's or designee's assessment indicates that there is no acute risk to self or others, but still concludes that the patient would benefit from further treatment at a higher level of care, the psychiatrist will explain the recommendation and rationale to the patient.
4. If the patient still refuses a higher level of care, the patient will be asked to sign the disposition plan form in the presence of a witness who is a member of the staff. Another patient cannot be asked to witness this signature.

Two Consecutive Absences

1. If a patient is absent from program for two consecutive program days (not including weekends or holidays in which the program is closed) the program reserves the right to administratively discharge the patient.
2. On the second day of absence, the patient is contacted and informed of potential discharge. If the patient does not respond or does not return the call by 5:00pm

on the second day of absence, he or she is administratively discharged and the discharge summary reflects this decision in the patient's chart.

3. If the patient contacts the program before 5:00pm and agrees to come in to treatment on the following day, the Case Manager will meet with the patient the following day to assess motivation and commitment to treatment. If the Case Manager deems these absences as excused absences and concludes that the patient is committed to treatment, and if the patient contracts to attend full days of treatment 5 days a week unless otherwise noted, the patient may be allowed to continue treatment in the Partial Hospitalization Program.
4. If a patient requests to take two consecutive days off for appointments (or any other reason), the patient's Case Manager will meet with the patient to stress the importance of attendance and work with this patient around any scheduling problems. Case Managers reserve the right to grant two consecutive absences in certain circumstances in which it is felt that these absences will be beneficial for the patient's recovery and will not interfere with treatment.

Administrative Discharge for Non-Compliance with Program Guidelines

A patient who is assessed to be behaviorally inappropriate to continue in the EDS, who is not able to respond to limit setting, intervention or treatment plans, or who is unable to comply with the program's guidelines and parameters for patients, or contractual agreements will be administratively discharged. Confrontation of inappropriate behaviors or non-compliance with treatment issues is necessary to prevent non-therapeutic enabling processes that occur when issues of non-compliance are not addressed. Administrative discharge is at staff request and considered a treatment team decision. Behavioral inappropriateness will be identified as infractions of the program's guidelines and parameters for patients, or non-compliance with patients' contractual agreements.

No patient who is considered by the attending physician to be medically at risk will be administratively discharged. No patient whose mental status requires active intervention will be administratively discharged, e.g. active suicidal or homicidal ideation.

An administrative discharge will not prevent the treatment team from making suggestions for the patient regarding continuing care.

In the case of administrative discharge, the following steps are to be taken:

1. Notify Program Director (or designee) of patient's non-compliance.
2. Program Director or the Treatment Team on duty will assess patient's non-compliance.
3. Treatment Team will ass's patient's mental status and medical stability.
4. Program Director will assess necessity for a psychiatrist to be present in order to determine mental status and disposition.
5. Program Director will give orders for disposition/discharge.
6. Notify administration if safety may be an issue. Inform administration of patient's status and unit's plan for disposition and decide if additional security is needed before approaching the patient.

7. Staff will notify appropriate persons of patient's discharge abiding by the laws of confidentiality, or where the treatment facility is legally responsible for notification.
8. Documentation responsibilities on the medical record:
    a. Issues of non-compliance leading up to incident.
    b. Psychiatrist's name.
    c. Date and time psychiatrist was notified.
    d. Interventions used; outcomes of these.
    e. Condition of patient, i.e. mental status, medical status.
    f. Decisions for disposition.
    g. Final disposition – continuing care plans or recommendations.

Lack of Insurance Benefits

In the situation where a patient is unexpectedly denied further care by his or her insurance company and is unable to self-pay, the patient will need to be discharged unplanned from the Partial Program and the following steps will be taken.

1. Case Manager will meet with patient to discuss discharge plan and disposition. Care will be taken to assess patient's mental status and potential risk factors of unexpected discharge.
2. Case Manager and patient will create a discharge plan including follow-up appointments with the patient's outpatient team (therapist, psychiatrist, nutritionist, and PCP). Case Manager and patient will address signs and symptoms of relapse and review coping skills and safety strategies patient has learned while in program.
3. Patient will be asked to sign the disposition form in the presence of a witness who is a member of the staff. Another patient cannot be asked to witness this signature.

2.6 CLIENT CLINICAL RECORDS

Policy:

The Outpatient Continuum maintains complete and accurate clinical records for clients assessed, cared for, treated, or served.

Procedures:

1. Refer to Health Information Management Policy & Procedure Manual for details.

Walden Behavioral Care
Medical Record Content

Patient Face Sheet ***Patient's Picture***

Service Log/Discharge Diagnosis (green) **Medicare Certification Sheet (yellow)**

HIPAA-Our Privacy Obligations (give to patient) Safety Check List
Insurance Tracking/ UR Reviews Financial agreement

I. **LEGAL** –red (This section moves to bottom of record after discharge)
Authorization to Use or Disclose Protected Health Information
Any Other Consents
Notice of Rights (give to patient)
Important Notice (Medicare Patients Only- give to patient)
Sec.3 For Transfer of Patients
Sec.7 & 8 For Court Commitment
Rogers Treatment Plan
Guardianship Decree
Three-Day Notice to Terminate Hospitalization
Retraction of Three-Day Notice
Sec.12 (pink form)
Sec.10 & 11(conditional voluntary mandated reporting form) (blue form)
Consent to Treat/Disclose Health Information for Benefits
Notification of Poss. Med. Use For a Non FDA-Approved Indication or Indiv. Under 18 Yrs.
Patient Personal Property

II. **PHYSICIAN'S ORDERS**-yellow
Direct Admission Form
Medication Reconciliation
Thoreau Physicians Admitting Orders
Alcott Physicians Admitting Orders
EDS-Bowel Protocol Orders
Enteral Nutrition Orders
Physicians Orders
Restraints
Meal Plan
Diet Order Progression (Alcott)
Medications Informed Consent
Medications Intake Form

GR **GRAPHIC DATA**-pink
Vital Signs Record
Weight Restoration Progress (graph)

IV. **MEDICATIONS**-lime green
Medication Administration Record (gray)
PRN Medication Record (yellow)

V. **ASSESSMENTS**-gray
Psychiatric Evaluation
Suicide Assessment
Initial Treatment Plan
Abnormal Involuntary Movement Scale
Initial Clinical Assessment
Eating Disorder Behavior Addendum
Nursing Assessment/Health Screening Questionnaire
Falls/ Risk Pain Assessment
Trauma Assessment
ICPP-Safe Coping Strategies
Psychosocial Work Assessment/Genogram
Occupational Therapy Screen
Nutritional Assessment

VI. **HISTORY & PHYSICAL**-purple
History & Physical

VII. **LABORATORY REPORTS**-dark green
Lab Reports
Radiology Reports
EKG Reports
Other Diagnostic Studies (CAT, MRI, Ultrasound, Echo)

VIII. **TREATMENT PLAN**-beige
Eating Questionnaire/Binge Scale/Night Eating Questionnaire
Interdisciplinary Treatment Plan
Individualized Treatment Plan
Treatment Plan Review
Tracking Summary

VIII. **PROGRESS NOTES**-blue
Pain Assessment/ Problem List
Interdisciplinary Progress Notes

X. **GROUP PROGRESS NOTES**-white
Group Progress Notes
Diary Cards

XI. **RECORDS/OTHER HOSPITAL**-orange

XII. **DISCHARGE**-gold (This section moves to top of record after discharge)
Discharge against Medical Advice
Transfer form to an acute facility
Patient Care Referral Form (3 pages)
Discharge Summary (typed after discharge)
Psychiatric Discharge Summary
Nursing Discharge Summary
Nutrition Discharge Summary (Alcott Only)
Discharge Instructions
Disposition Plan
Change in Level of Care

3: Environment of Care

3.1 Environmental Tours
3.2 Reporting Environmental Conditions
3.3 Medical Equipment
3.4 Food Safety

3.1 ENVIRONMENTAL TOURS

Policy:

The Outpatient Continuum maintains a safe environment, and conducts environmental tours of its treatment spaces weekly to ensure that it is safe and appropriate for the services it provides to its clients.

Procedures:
The Program Director is responsible to ensure compliance with the following procedures.

1) Environmental Tours. Environmental safety / hazard surveillance tours of the treatment areas of the Outpatient Continuum are conducted minimally on a monthly basis, but more frequently when necessary, for compliance with safety rules and regulations. Tours will be conducted by the Program Coordinator or designee. Tour inspections are documented and recorded in the Environmental Tour binder.

2) Reporting. The Program Coordinator maintains records of environmental tours. The Program Director and Coordinator follow up with relevant WBC facilities staff to ensure that all issues are properly and timely addressed. Tour results are reported at each Safety Committee meeting. Copies of completed tour documentation are provided to the WBC Safety Officer on a quarterly basis.

3.2 REPORTING ENVIRONMENTAL CONDITIONS

Policy:

The Outpatient Continuum establishes and implements the following processes for reporting and investigating conditions in the environment.

These conditions include any event or incident that is out of the norm and may cause injury or harm to the client, staff, or organization. Examples include but are not limited to:

- Accidental or purposeful injury to staff or clients
- Medical incidents involving clients
- Damage to property
- Occupational illnesses to staff
- Security incidents
- Hazardous materials and waste spills, exposures, or other related incidents
- Fire safety, utility systems, or equipment management problems, deficiencies, failures, or use errors
- Arrival of clients to the program under the influence
- Theft

Procedures:

In the event of an incident in the environment during program hours, the following procedures are to be followed:

1. Staff observing the incident will immediately notify the Program Director and the PHP attending Psychiatrist with concerns related to medical safety.

2. Staff will also notify the Program Director when completing an incident report to obtain further direction regarding the situation.

3. Staff will complete an incident report form and place it in the Program Director's mail box.

4. The Program Director will file a copy of this form and send the original to the Director of Nursing or other designee at Walden Behavioral Care.

5. The Program Director and any other appropriate staff will plan and implement an appropriate action to resolve the incident.

3.3 MEDICAL EQUIPMENT

POLICY:

Medical equipment used in the provision of care for all Walden Behavioral Care programs is maintained through a contract with DESCO.

PROCEDURE:

1. Responsible Designated Staff:
   Each unit / program will have a designated staff person to be in charge of inventory. For the Outpatient Continuum, that person is the Program Coordinator or designee. The Safety Officer will maintain the Master Inventory List.
2. New Equipment
   - Prior approval must be obtained from the Program Director, Director of Human Resources, and the Chief Financial Officer (for expensive items).
   - The Safety Officer is to be notified at the time of the order and when the equipment arrives. The Safety Officer notifies DESCO and adds the item(s) to the Master Inventory List.
   - DESCO will be called to put a fix asset tag on the item(s), assign a number, and add the item(s) to their list.
3. Damaged or Broken Equipment
   - Staff will label broken equipment with signage to note the date and a brief description of what is wrong with the item. Store the broken equipment in an area removed from patient care.
   - Notify Safety Officer of the broken equipment and he or she will notify DESCO.
   - If they are unable to repair the item, DESCO will remove it from the inventory and order a replacement.
4. Annual Inventory: On an annual basis, the designated staff will inventory their unit's medical equipment. Any missing items will be identified and reported to the Safety Officer. He or she will note this on the Master Inventory List. If items are found that belong to other units via their color code, they will be returned at this time.

3.4 FOOD SAFETY

Refrigerators: Temperature Monitoring and Cleaning

POLICY:
The Outpatient Continuum (Partial Hospitalization and Intensive Outpatient Programs) will maintain service refrigerators to be clean and operating at correct temperature levels.

PROCEDURE:

1) Refrigerators will be cleaned weekly by PHP staff.
2) Staff food which is acquired from outside the program and stored in the refrigerators must be dated and marked with staff's initials, unless an expiration date is already identified on the food container AND the food container is unopened.
3) Community food used by clients for daily snacks or other purposes *that are unopened* need not be labeled. Any community food used by clients that has been opened must be labeled with the date it was opened, an expiration date of 7 days later, and staff initials.
4) Undated or expired food will be discarded on a weekly basis in conjunction with the scheduled cleaning.
5) Temperature logs will be maintained on all refrigerators.
   a) The Program Director will assign staff to record the temperature of the refrigerator and freezer for each refrigerator used for client food at Walden Place. Temperatures will be recorded on a daily basis.
   b) When temperatures are above the range noted on the logs (> 46 degrees for the refrigerator, and > 32 degrees for the freezer), the incident will be reported to both the Program Director and the Executive Assistant on the same day. Items within the defective refrigerator must be moved to another refrigerator and freezer until the unit is repaired.
   c) The Program Director will maintain copies of all completed logs.
6) Problems with completion of these procedures must be reported to the Program Director.

4: Safety Policies

4.1 Medical Emergency Policy
4.2 Fire Safety
4.3 Patient Security

4.1 MEDICAL EMERGENCIES

4.1.1 Medical Emergency Policy

Policy:

Staff will respond to all medical concerns in an effective and timely manner. Staff will follow the procedures below in the case of a medical emergency.

Procedures:

1. **Emergency Phone Numbers List (see attached).** Staff should utilize the Emergency Phone Numbers list for responding to various types of emergencies which could occur in the Outpatient Continuum. Emergency phone number lists are posted by the phone in the staff office.

2. **In the case of a medical emergency, the following steps must be taken:**
   - If a major medical emergency occurs for either clients or staff (e.g. client collapse, serious injury, choking), call 911 and notify the Program Director.
   - If a medical incident occurs requiring a client to be transferred to a hospital or another organization, but is not a 911-emergency, call American Medical Response at 1-413-584-2431. The Walden Behavioral Care Transfer Policy is completed and accompanies the patient to the receiving facility.
   - During program hours, consult with the attending psychiatrist and/or the Clinical Nurse Specialist regarding acute medication concerns or symptoms.
   - A First Aid kit is available in the staff office of the PHP. Staff are required to be CPR certified. In the event that first aid services are necessary for any client or other staff person, staff are instructed to provide it using all resources available.

3. **Staff orientation and training.**
   Staff are oriented and trained in these procedures as part of their orientation process for work in the Outpatient Continuum of Walden Behavioral Care.

4.1.2 Outpatient Continuum

Partial Hospitalization and Intensive Outpatient Programs at Walden Behavioral Care

EMERGENCY PHONE NUMBERS

Jennifer Smith, LICSW,
Outpatient Program Director
413-582-0100
413-687-3101 (cell)

- **Ambulance Assistance:**
  1. American Medical Response of Massachusetts 413 584-2431.

- **Dr. Susan Mahler** , Program Psychiatrist
  617 429-3365

- **Gail Hanson-Mayer, RNCS**, Director – Psychiatric Nursing: 617-448-9924

- **Dr. James Greenblatt, MD** – Chief Medical Officer
  781-677-3336 (pager)
  617-620-5600 (cell)

- **Nancy Corcoran,,** Executive Assistant for Walden Behavioral Care
  781-647-6767.

4.2 FIRE SAFETY PLAN

4.2.1 Fire Safety Policy

POLICY:

The Outpatient Continuum manages fire safety risks through the following procedures. The Program Director is responsible for ensuring compliance with the following procedures. Although Walden Behavioral Care emphasizes preventative measures, the danger of fire always exists. Every employee is expected to be knowledgeable and be capable of immediate response to a situation of fire.

Fire safety equipment, including fire extinguishers, are inspected monthly by staff. A log of satisfactory or not satisfactory is kept on a monthly basis, and a case of "not satisfactory" must be reported to the Safety Officer.

PROCEDURE:

1. There are fire extinguishers located in each of the dining rooms, in the corridor adjacent to Medical Records, and in the corner adjacent to the Housekeeping closet, to be utilized to contain the fire while waiting for the fire department. There is also a pull station within the outer foyer of the main clinic entrance. Smoke detectors are throughout the clinic space. Activation of any smoke detector or the pull station automatically notifies, and is connected to, the Northampton Fire Department.
2. The Person in Charge (PIC) is the most senior clinical or administrative person on-site within the Outpatient Continuum at the time of the fire emergency. The PIC will assign instructions to all staff for evacuating the building, as necessary. All staff and patients are to follow the instructions of the PIC.
3. In the event of a real fire, the PIC or other designated staff person will complete the following:
    a. **Dial 911** to report the fire or other emergency. This call notifies both the police and fire departments.
    b. Immediately move clients and staff to safety. All staff and clients follow the direction of the PIC.
    c. The PIC will take special care to assign staff to aid handicap clients to follow all emergency procedures. Of particular importance is assigning staff to assist handicap clients to evacuate the building if necessary.
    d. Notify administration at Walden Behavioral Care - Waltham
4. In case of fire within a treatment room, responsible staff designated by the PIC may try to extinguish the fire by:
    a. Pulling pin
    b. Squeezing handle
    c. Direct at base of fire to extinguish

5. At the direction of the PIC or the Fire Department, the building may be evacuated. Target time for program evacuation is two (2) minutes. When evacuating the building, the PIC implements the following procedures:
   a) Prior to evacuation, all clients are gathered together with staff.
   b) Copies of each patient's Face Sheet are kept on record in the Group Notes Binder, located in the staff office. Information on the Face Sheet includes patient name, address, contact information, and emergency contact information. The PIC or designated person is responsible for obtaining this binder during an emergency and using it to account for all patients. Once gathered together, all patients and staff are accounted for.
   c) If necessary and appropriate to evacuate, the PIC selects a distinct evacuation route to utilize, based upon safety. A fire map designating specific fire exit route is located on the inside of the main door, and in treatment spaces and office areas.
   d) Area of Safe Refuge. At the direction of the PIC, all patients and staff move together to an area designated by the PIC as an area of safe refuge. One staff is assigned to lead the group, and one to follow at the rear of the group. Unless otherwise recommended, the area of safe refuge within the program space **in the large group room, adjacent to the emergency exit.** Once at the safe area of refuge, all clients and staff are again accounted for.
   e) Building Evacuation. The PIC will identify the location to which clients will be evacuated. This evacuation plan is based on the recommendation of the Fire Department. In case of a full evacuation, the first location to which clients and staff should be evacuated is **to the parking lot in the rear of the building.**
   f) All clients and staff remain at this location until instructed by the Fire Department that it is safe to return to the building.
   g) The PIC directs the safe return of clients to the program when appropriate and authorized by the Fire Department.
   h) If unable to re-enter the building due to safety concerns, patients are instructed to go home. Patients will be contacted by the Program Director regarding continuation of services, either triaged elsewhere or provided through Walden Behavioral Care at a different location until further notice.
6. After the emergency, an incident report documenting the incident is filed by the PIC. Copies of all incident reports are kept on file in the staff office.
7. Copies of this plan are available to all staff.

4.2.2 Fire Drills

POLICY:

Periodic drills will be held on a quarterly (at a minimum) basis to emphasize the need for all employees to maintain knowledge of fire plan. These drills are unannounced. When conducted, fire drills:

a) Involve all staff
b) Are documented on the Fire Drill Report
c) Are critiqued to identify deficiencies and opportunities for improvement.

PROCEDURE:

The Program Director is responsible to ensure compliance with the following procedures:

1) When a drill is conducted, the Person in Charge (PIC) assigns staff to implement the following:
   a) Announce that a fire drill has begun.
   b) Gather all clients together in a safe area, either in the group room or in the snack room. Account for all staff and clients using the Patient Face Sheets in the Group Notes Binder.
   c) Complete evacuation, when necessary and/or instructed by the Fire Department.
   d) Ensure that all staff maintain client safety during the drill and evacuation.
2) During drills, the PIC identifies a separate staff person (if available) to document all aspects of the drill on the Fire Drill Report.
3) All drills are critiqued by the PIC or other staff person conducting them, to identify deficiencies and opportunities for improvement.
4) Staff and patients remain in the safe area until the end of the drill is announced.
5) At the conclusion of the drill, staff are queried for correct responses to the following questions, to evaluate staff knowledge in fire safety:
   e) When and how is the fire alarms system activated (where such alarms are available)?
   f) When and how is the fire alarm signal transmitted to offsite responders?
   g) How is smoke and fire contained?
   h) How is fire extinguished?
   i) What are specific duties assigned to staff in response to a fire?
   j) How are clients transferred to areas of safe refuge?
   k) How is evacuation completed? Where are clients and staff evacuated to?
   l) What does RACE stand for?

   Responses to these questions are provided immediately following this policy.
6) The Program Director will provide copies of all drill activity to the WBC Safety Officer on a monthly basis.

4.2.3 Post Fire Drill Survey Questions

Question	Response Satisfactory (S)	Response Not Satisfactory (N/S)
When and how is the fire alarm system activated?		
When and how is the fire alarm signal transmitted to offsite responders, such as the Waltham Fire Department?		
How is smoke and fire contained?		
How are fires extinguished?		
What are specific duties assigned to staff in response to a fire?		
How are clients transferred to areas of safe refuge?		
How is evacuation completed? Where are clients and staff evacuated to?		
What does RACE stand for?		

N/S: Not satisfactory responses require additional training of staff.

4.2.4 Fire Emergency Orientation and Training
Fire Safety Questions and Answers

1.1

1. *When and how to sound fire alarms (where such alarms are available)?*
   Answer: The fire alarm should be activated whenever there is the observation of fire within any patient care area of Walden Behavioral Care. It may also be activated when there is the presence of smoke.
   Smoke and fire detectors automatically respond to the presence of heat or smoke. Activation of the detectors triggers automatic notification to building personnel at the Fire Command Center in the building, and also to the Northampton Fire Department. Activation of any pull stations will also activate the fire alarm.

2. **How do you transmit a fire alarm to offsite responders, such as the Northampton Fire department?**
   Answer: The fire alarm system of smoke and heat detectors is automatically connected to offsite responders such as the Northampton Fire Department. Activating fire alarm pull stations will also activate the alarm at Waltham Fire Department. You may also call 911 to notify community emergency responders.

3. **How is smoke and fire contained?**
   Answer: Fire is contained at a number of levels.
   a) Patient room doors are closed, and are fire rated to diminish fire transmission.
   b) Hallway doors are fire doors, and must be closed to prevent the transmission of fire and smoke from one apartment unit to any other area.
   c) Floors, walls and ceilings are also fire rated to prevent fire and smoke transmission from one floor to another.

4. **How are fires extinguished?**
   Answer: Fire is extinguished by several methods
   a) Automatic sprinklers are activated in the area of the fire to suppress it.
   b) Fire extinguishers may be used by staff to apply to the base of small fires.
   c) The Fire Department, upon arrival, may attach fire hoses to standpipes located within the building for access to water to extinguish the fire.

5. **What is the process of transferring patients to areas of refuge?**
   Answer: In a fire emergency, or when the fire alarm sounds, staff must remove patients from the area of the fire to an area of safe refuge. This area can be an area within the building identified as a safe from fire (e.g. building lobby), or within the exit area at the end of the fire evacuation route. When instructed by the fire department, all occupants to evacuate the building, patients and staff may evacuate to the main hospital building for refuge.

The process by which this occurs is as follows:

a) Staff are assigned specific duties in each evacuation type by the Person in Charge.
b) In a Horizontal Evacuation, the area of safe refuge is an internal space which is on the same floor as the program, but in the direction away from the fire and in the direction of a fire exit.
c) In a Complete Evacuation, all are evacuated from the building to a safe area (e.g. main entrance to the parking garage) at the direction of the Person in Charge, or the Fire Department.

6. **What are some specific fire response duties?**
Answer: The Person in Charge (PIC) is the most senior staff member on site at the time of the fire emergency. During business hours, it will be assigned to one of the staff who is working in the program. The PIC will assign some staff to each of the following duties:

a) Notify the Walden Behavioral Care Clinic Administrator, or PIC of the emergency. The clinic administrator will determine the need to evacuate.
b) Gather clients together. Some staff will be assigned to gather all patients together and proceed to an area of safe refuge, and to account for all patients.
c) The Person in Charge directs the evacuation. This includes the gathering of patients, managing the departure of patients and staff to the area of safe refuge, through to Complete Evacuation if necessary.
d) The Person in Charge will follow the direction of the Fire Department upon its arrival. Follow Fire Department and the Person in Charge instruction regarding if and when the apartment units may be re-occupied.

7. **How are patients prepared for evacuation?**
Answer: Follow the direction of the Person in Charge. This person will assign staff to account for each patient, and to escort patients from the site of the fire to the area of safe refuge. No patients proceed through any evacuation unassisted or unsupervised. Reassure patients that they are safe, and instruct them to follow the direction of the Person in Charge.

8. **What does RACE stand for?**
Answer:

a) R = RESCUE anyone in immediate danger.
b) A = ALARM. Pull the fire alarm box.
c) C = CONFINE. Confine the fire by closing all doors and windows in the area of the fire.
d) E = EXTINGUISH. After evacuating patients and staff, extinguish the fire if you are safe to do so.

4.2.5 WALDEN BEHAVIORAL CARE

FIRE DRILL REPORT LOG

PHP/IOP

Date: _____ Time: _____

Location: _____

Evacuation Type:

_____ Partial _____ Horizontal _____ Vertical _____ Complete

All Clear Time: _____

Staff Involved:

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____

Outcome / Comments:

Signed: _____
Program Director or Designee

4.3.1 Visitor Policy

POLICY:

During the PHP day from 8:30am until 2:30pm, there are no specified visiting hours. In order to minimize unauthorized entry into the program space, the main entry door to the Outpatient Continuum will be locked at all times, unless the program entrance is monitored by staff.

PROCEDURE:

1. Any non-patient who is not enrolled in the PHP and is not staff is considered a visitor.
2. The main entry door to the Outpatient Continuum is locked at all times, unless the entrance is being directly monitored by staff. If the door is unlocked for any reason, a staff member must be present by the main entrance to actively monitor any entry during the unlocked period.
3. Any person who is assisting a patient with transportation, i.e. dropping off or picking up a patient from program, should agree to meet the patient in the main entrance of the program, rather than entering the treatment spaces.
4. Any visitor coming onto the floor is arriving for a scheduled family meeting that has been planned in advance with the case manager and patient involved.
5. If an unplanned visitor is asking about a particular patient or staff, staff is to refer to the rules of confidentiality until a release of information for the visitor can be established. The unplanned visitor must show identification prior to entering the program space.

4.3.2 Staff Identification

POLICY:

All staff (including student interns) working in the Outpatient Continuum must wear proper identification in the form of a staff I.D. Staff is to keep this I.D. on them at all times as a means of conveying their employment and role at Walden Behavioral Care.

5: Program Policies

5.1 Attendance Policy
5.2 Client Responsibilities
5.3 Behavior Management: Prohibited Procedures
5.4 No Smoking Policy
5.5 Bathroom Policy
5.6 Inclement Weather Policy
5.7 Off-hours Coverage

5.1 ATTENDANCE POLICY

5.1.1 Request to be Absent From Program

POLICY:

Walden Behavioral Care Partial Hospitalization Program is 30 hours each week, Monday through Friday. Patients are expected to arrive on time and attend the entirety of the program day.

PROCEDURE:

5. Patients agree to arrive on time for program and remain in program until the end of the day. If not able to do so, the patient agrees to contact the PHP at 413 582-0100 as early in the day as possible, and prior to the start of treatment.
6. If a patient must be absent, arrive late, or leave early from program on any given program day due to outpatient appointments or scheduling conflicts, he or she must fill out a 2-day request form at least 2 days prior to the event, requesting permission to take this day off. WBC case managers reserve the right to approve or deny these requests depending on treatment relevance and appropriate continuation of treatment. Case Managers will meet with patients to discuss scheduling issues as needed.
7. If a patient requests to take two consecutive days off for appointments (or any other reason), the patient's Case Manager will meet with the patient to stress the importance of attendance and work with this patient around any scheduling problems. Case Managers reserve the right to grant two consecutive absences in certain circumstances in which it is felt that these absences will be beneficial for the patient's recovery and will not interfere with treatment.
8. If a patient has two *unexcused* absences from PHP, the Treatment Team will work with the patient to determine if remaining in PHP is indicated.

5.1.2 Absentee Patients

POLICY:

Patients with unexplained absences during program hours will have a clinical case review by the treatment team to determine clinical safety and appropriate responsiveness.

PROCEDURE:

1. Upon admission, patients provide identifying information and emergency contact information.
2. When a patient has not shown up for program or is discovered as missing during program hours, staff will notify the Program Director.
3. The Program Director and treatment team members will convene to review the case to determine the clinical safety of the patient.
4. Staff will first attempt to contact the patient using the contact information given upon admission.
5. If a missing patient is unable to be reached and is clinically determined to be in imminent danger of harming herself or others, staff will notify the local Police Department and the identified patient's emergency contact and/or legal guardian.
6. If a missing patient is unable to be reached and the treatment team has determined that she is not in imminent danger of harming herself or others, staff will leave a message for the patient requesting the patient call back with her whereabouts and reason for absence. If Release of Information forms have been provided by the patient, staff will notify the missing patient's outpatient treatment team and, if indicated, family contacts.
7. If a missing patient has not called the program to explain her absence and has not attended program for 2 consecutive days, she will be discharged by the treatment team.

5.2 CLIENT RESPONSIBILITIES

5.2.1 Client Responsibilities

POLICY:

Clients in the Outpatient continuum are given information about their responsibilities while receiving care, treatment, and services.

PROCEDURE:

- Upon admission into the Outpatient Continuum, clients are oriented to the program by staff. During this time staff will explain the guidelines, responsibilities, and expectations of the program, and clients are given the opportunity to ask questions.
- Clients receive a written participation guideline and contract to sign and return to staff within their first day of treatment. Clients also receive copies of these guidelines to keep.
- These guidelines and contracts define client's responsibilities while in program, including but not limited to the following responsibilities:
    - To provide information to assist with treatment, especially involving self-injury or other dangerous behaviors
    - To continue meeting with outpatient providers, including PCP, therapist, nutritionist, and psychiatrist as applicable
    - To follow group guidelines, meal protocol, and any other instructions established by program staff
    - To self-administer all medications during program hours
    - To show respect and consideration to other clients and staff, as well as respect confidentiality of others
- Upon admission into the Outpatient Continuum or change in level of care, clients sign a Financial Responsibility Agreement detailing their insurance benefits and coverage and any co-pay or deductible they must meet. A copy of this document is given to the client and the original is sent to the business office.

5.2.2 Group Guidelines

POLICY:

The guidelines below have been developed to create a safe and respectful space for the community and to honor the sanctity of the therapeutic experience. Patients and staff are asked to adhere to these guidelines to support the therapeutic benefit of groups.

- Patients and staff are to be on time for groups. Groups will start and end on time.
- If a patient is called out of a group by staff, he or she is to return to group if it is still in session.
- All staff and patients must respect the confidentiality, privacy, and anonymity of all group members by not disclosing any information that could identify someone.
- Food and drink of any kind are not permitted during group time.
- All cell phones are to be turned off before the group begins.
- If a patient needs to leave group for any reason, he or she must inform the group leader prior to leaving the group.
- Patients are encouraged to give feedback to one another (such as support, validation, identifying with another's experience, or having a personal reaction to what was said). Patients are asked to use "I" statements rather than "you" statements or generalizations.
- Patients are asked to be mindful of not sharing details related to eating disorder behaviors such as numbers and specific foods.
- Patients are asked to be mindful of not sharing details related to other self-injurious behaviors or personal trauma history.

5.2.3 Treatment Compliance/Behavioral Expectations

POLICY:

1). Patients are expected to attend all scheduled sessions and to actively participate in all modalities of treatment. Every effort will be made to facilitate patient involvement in treatment. However, patients who are non-compliant with the Treatment Team's recommendations and/or their treatment program will be discharged from the program.

2). Patients who are not responding to the current level of treatment (i.e., no decrease in symptoms) may be provided a referral to a more appropriate level of care.

3). Patients are expected to provide their own transportation to and from treatment at the scheduled times.

Behavioral Expectations:

1. Appropriate language is expected at all times. Patients will be redirected to use appropriate language to communicate their thoughts and feelings. Verbal abuse or name calling directed toward staff or other patients is not permitted.
2. If group therapy sessions become too intense or difficult for an individual to handle, he or she can self-impose a "time out" in order to re-group. However, patients are encouraged to remain and share their feelings with the group. If a time out is needed, the patient will be asked to address this issue with his or her case manager. Staff may also impose a time out for a patient if the patient is acting inappropriately and is not responding to redirection. In case of emergency, staff members from the hospital will be called to diffuse the situation in order to protect the safety of all patients.
3. The use of alcohol and other mind/mood altering substances is prohibited prior to or during treatment. The use of alcohol outside of the program is not recommended if taking any psychotropic medications, if under the age of 21, if chemically dependent, or if otherwise identified as a targeted behavior.
4. Weapons, knives, etc., are not allowed on hospital premises.
5. Treatment center romances are not allowed. Romantic relationships between patients can be detrimental to treatment and can prevent both individuals as well as the group from addressing issues.
6. In the event that a patient becomes medically or psychiatrically unstable, the treatment team will work closely with her and her team to determine the most appropriate treatment, one of which may be a transition to an alternate level of care.
7. If a patient becomes medically or psychiatrically unstable outside of PHP hours, she agrees to contact her medical and/or psychiatric providers or go to a local Emergency Room.
8. If a patient is experiencing difficulty with self-injurious behaviors and/or substance abuse, the PHP team will work closely with the patient and her providers to assist her in interrupting this behavioral pattern. Depending on

severity, the PHP team will consider a higher level of care to ensure the patient's safety.

9. Patients agree to be in weekly or bi-weekly outpatient therapy for the duration of the PHP participation.
10. Patients agree to medical monitoring as recommended by their PCP/NP for the duration of the program. This will include a "blind weight," checking vitals and blood work as indicated. Patients must agree to have "blind, spot weight" in hospital gown if deemed necessary by the Treatment Team.
11. Patients agree to authorize releases so that WBC may communicate with outpatient providers.
12. Patients agree to refrain from using the bathroom except during scheduled bathroom breaks. Patients agree not to use other bathrooms in the hospital. Additionally, staff members monitor all bathroom breaks.
13. All patients sign in and out each day in the PHP logbook. Signing out each day is contracting for safety. If a patient is unable to contract for safety, he or she agrees to notify PHP staff immediately and agree to further evaluation.
14. Patients assume responsibility for taking all medications as prescribed. All medications should be taken before or after treatment hours when possible.
15. Patients agree to attend and complete all meals, snacks, and groups.
16. If a patient has two unexcused absences from the PHP, the Treatment Team will work with you to determine if remaining in PHP is indicated.
17. Patients agree NOT to exercise while in PHP.

The following are considered to interfere with treatment and will not be tolerated during program participation:

- TARDINESS
- UNEXCUSED ABSENCE
- RESTRICTING DURING THERAPEUTIC MEALS
- INTENTIONAL WEIGHT LOSS
- MANIPULATING WEIGHT
- REFUSING WEIGH-IN
- HIDING FOOD
- VOMITING DURING TREATMENT
- EXERCISING AGAINST MEDICAL ADVICE
- SELF-INJURIOUS BEHAVIORS
- BREACHING CONFIDENTIALITY
- NOT COMPLETING DAILY FOOD DIARY CARDS/MEAL PLANNING SHEETS
- EXCESSIVE INTERRUPTING OF PEERS/STAFF
- INAPPROPRIATE CONVERSATIONS
- INAPPROPRIATE DRESS/ATTIRE
- GIFT GIVING TO STAFF OR OTHER PATIENTS

5.3 BEHAVIOR MANAGEMENT: PROHIBITED PROCEDURES

POLICY:

The following specified procedures are prohibited in the Outpatient Continuum:

PROCEDURES:

- Any procedure that physically hurts or is a psychological risk to the client
- Procedures that deny any basic needs, such as nutritional diet, water, shelter, and essential, safe, and appropriate clothing
- Corporal punishment
- Fear-eliciting procedures
- Any behavior management and treatment intervention that is implemented by another client
- Mechanical restraint and seclusion, other than for clients who exhibit intractable behavior that is severely self-injurious or injurious to others, have not responded to traditional interventions, and are unable to contract with staff for safety. When restraint or seclusion is used in an emergency situation, its use complies with standards PC.12.10 through PC.12.190.

5.4 NO SMOKING POLICY

Policy:

The Outpatient Continuum prohibits smoking by clients or staff except in specified circumstances.

Procedures:

1) The No Smoking Policy applies to all programs within Walden Behavioral Care (WBC). It is intended to reduce risks a) to people who smoke, including possible adverse effects on care, treatment and services, b) of passive smoke for others, and c) of fire.
2) Smoking is prohibited in all areas of WBC.
    - There is no smoking allowed by clients or staff in any internal area of Walden Behavioral Care.
    - Smoking is only allowed outside the building, in an area so designated and identified for this purpose. It is located away from the main entrance.
    - The guidelines for use of the area include the following:
        a) Clients may use the area only during scheduled smoking breaks.
        b) Clients may access the area without staff.
        c) Staff may smoke in this area only during their assigned work breaks.
3) Education materials on smoking cessation will be made available through the Program Director and/or designee for clients expressing interest.
4) Monitoring of compliance with this policy is the responsibility of all staff.

Violations of this policy by staff must be reported to the Program Director and/or designee, and the Walden Behavioral Care Environmental Safety Officer. Violations will be dealt with through progressive disciplinary action by the Program Director with consultation from the WBC Director of Human Resources.

5.5 BATHROOM POLICY

POLICY:

During program hours the door to the bathroom will be locked. All patients using the bathroom will be monitored by staff as a deterrent to engaging in behaviors. These policies are designed to provide support and safety.

PROCEDURE:

1. The PHP/IOP bathroom will be locked at all times.
2. Staff will open the bathroom for a period of time before breakfast (8:00 – 8:30am), morning snack (10:30), and lunch (12:00 – 12:30). During these designated times, any patients needing to use the bathroom may do so. Staff will monitor these designated bathroom breaks by standing outside the door and asking patients to engage in conversation. Staff may also choose to ask patients not to flush the toilet until staff has inspected it.
3. If a patient cannot wait until a designated time, he or she may come to staff and ask to use the bathroom. Staff will ask the patient to leave the door cracked open as a deterrent to engaging in behaviors. Staff will also ask the patient not to flush.

5.6 INCLEMENT WEATHER POLICY

POLICY:
The Partial Hospitalization Program will officially close the program during inclement weather based upon the Waltham Public Schools being closed.

PROCEDURE:

1. If Northampton Public Schools are closed due to inclement weather, the PHP will close.
2. If Northampton Public Schools are delayed one or two hours, the PHP will also delay the start of its program one or two hours.
3. Patients and staff are instructed to watch or listen for the "no school" or "school delayed" announcements on local news station or radio station.
4. Patients and staff are advised to use their own discretion in the event that Northampton Public Schools *do not* close and the weather conditions are unfavorable in their own surrounding community.

5.7 Northampton Admissions and Financial Process

The following process will be for all patients who receive services in the Northampton office.

1. The following paperwork will need to be completed and faxed to the Business Office daily. The Business Office Fax number is 781-647-6753

    a. Complete new face sheet for each client with Northampton start date. Try to complete as much information on the face sheet as possible. Include the admitting diagnosis code and name of attending physician.
    b. New Insurance Tracking sheet with insurance benefit and authorization information. When possible, include a copy of the patient/guarantor Insurance Card. The tracking sheet should include Insurance coverage/benefit information, an authorization number, patient copays/deductibles information, insurance mailing address and insurance company telephone number.
    c. A Financial Agreement form must be completed by Northampton staff and signed by the client. A signed copy should be give to the client.
    d. Copays and deductibles should be collected at time of service. For clients paying with a credit card, please complete a credit card sheet (see attached sample) for the Business Office. Complete and distribute a receipt to all clients paying with cash or check. For all clients paying by credit card, a receipt will be mailed to the client from the Business Office.
    e. Deposit cash and checks to the local Bank of America branch (sample deposit slip with Walden Behavioral Care account number attached). Fax a copy of the cash and check payments to the Business office for posting to the client's account. Include for the Business office, the date of the deposit and total amount deposited.

Original paperwork should be mailed to the Walden Behavioral Care, Business Office, 9 Hope Avenue, Suite 500, Waltham, MA 02453

Business Office Personnel:

Marie Dansereau, Director of Patient Financial Services, Telephone 781-647-6705
Christine Kezerian, Medical Billing Specialist, Telephone 781-647-6706

5.8 OFF-HOURS COVERAGE

POLICY:

In conjunction with DPH regulations for outpatient mental health clinics (105 CMR 140.304), Walden Behavioral Care in Northampton MA maintains a contractual arrangement with Clinical Support Options for the provision of emergency psychiatric services during all non-business clinic hours.

PROCEDURE:

1. Walden Behavioral Care clinic clients in either Franklin or Hampshire counties who experience a mental health crisis after-hours and on week-ends are directed to call Clinical Support Options in Northampton at **413-586-5555**. Those clients who reside outside of these counties are directed to call Emergency Services in their area.
2. This information is provided to all clinic clients upon admission to Walden Behavioral Care clinic services in Northampton via the attached notice (see attached).
3. Staff are required to report to the Clinic Administrator any problems with accessing Clinical Support Options' Emergency Services by clients, as soon as possible.

walden *behavioral care*

EMERGENCY MENTAL HEALTH SERVICES DURING NON-CLINIC HOURS

Clinical Support Options Emergency Services: 413-586-5555

To all Walden Behavioral Care Clinic Clients
109 Main Street
Northampton, MA 01060

Walden Behavioral Care maintains a contractual arrangement with Clinical Support Options, with offices in several locations, including Northampton. When clients served by our clinic need emergency mental health services during non-business hours, please contact Clinical Support Options' Emergency Services at 413-586-5555 for immediate assistance. They are staffed 24 hours per day, and are available to provide emergency assistance and direct you to appropriate resources and services
to meet your immediate need.

If you have any questions regarding this information, please seek out any clinic staff person to provide you with needed clarification.
Thank you.

Exhibit 17

walden behavioral care
DRAFT

September 28, 2011

Mr. Kevin G. Murphy
Treasurer & Executive Vice President
of Network/Business Development
Eastern Connecticut Health Network
71 Haynes Street
Manchester, CT 06040

Dear Mr. Murphy:

The following is a transfer agreement between WBC Connecticut East LLC, Walden Behavioral Care's Connecticut service site at 2400 Tamarack Drive, South Windsor, CT, and Eastern Connecticut Health Network (ECHN). Please note the following:

TRANSFER AGREEMENT

This document represents a written agreement between WBC Connecticut East LLC (hereafter referred to as Walden) and ECHN. When emergency treatment beyond those services provided by Walden may be necessary for Walden patients, Walden may transfer such patients to ECHN's inpatient facility – Manchester Memorial Hospital, located at 71 Haynes Street, Manchester, CT for emergency services treatment. Unless otherwise directed, Walden patients will be directed to the Emergency Services Department (ED) at Manchester Memorial Hospital. Such transfers will be completed either through ECHN's ambulance resources, or other ambulance service which Walden may contact via 911 emergency responders. Walden will make reasonable attempts to notify ECHN's ED in advance of such transfers. ECHN and Walden will work collaboratively to implement aftercare plans which meet the clinical needs of the patient.

This agreement is effective November 1, 2011, and will remain in effect indefinitely, unless either party desires to modify or discontinue it. This agreement may be modified or discontinued by either party with 60 days notice. Such notices should be directed to:

FOR: Walden Behavioral Care
Stuart L. Koman, PhD
President and Chief Executive Officer
Walden Behavioral Care

For: ECHN
Kevin Murphy
Treasurer and Executive Vice President
Eastern Connecticut Health Network

Accepted by:

_____
Stuart L Koman, PhD (date)

Accepted by:

_____
Kevin Murphy (date)

Exhibit 18

The Joint Commission

HELPING HEALTH CARE ORGANIZATIONS HELP PATIENTS

Quality Check

What the Gold Seal of Approval™ Means

Search Results:

For name/number "Walden Behavioral CAre", yielded 1 health care provider.

Organization	Accreditation/ Certification	Special Quality Awards
Walden Behavioral Care 9 Hope Avenue Waltham, MA 02453 781-647-6767	The Joint Commission The Gold Seal of Approval™ **Accredited Programs** • Hospital • Behavioral Health Care	

Also provides care at:

Walden Behavioral Care - Worcester
332 Chandler St, Suites 3, 5 &6
Worcester, MA 01602

Walden Behavioral Care Northampton
109 Main Street
Northampton, MA 01060

Walden Behavioral Care of Waltham
880 Main Street, 2nd floor
Waltham, MA 02451

The Joint Commission obtains information about accredited/certified organizations not only through direct observations by its employees ...Read more.

000379

Exhibit 19

WALDEN BEHAVIORAL CARE, INC.
AND SUBSIDIARY

CONSOLIDATED FINANCIAL STATEMENTS
AND SUPPLEMENTARY INFORMATION

DECEMBER 31, 2010 AND 2009

WALDEN BEHAVIORAL CARE, INC. AND SUBSIDIARY

CONTENTS

MARCUM
ACCOUNTANTS ▲ ADVISORS

INDEPENDENT AUDITORS' REPORT

Board of Directors and Stockholders
Walden Behavioral Care, Inc. and Subsidiary

We have audited the accompanying consolidated balance sheets of Walden Behavioral Care, Inc. and Subsidiary, a Delaware corporation, (the Company) as of December 31, 2010 and 2009 and the related consolidated statements of operations, changes in stockholders' deficit, and cash flows for the years then ended. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these consolidated financial statements based on our audits.

We conducted our audits in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the consolidated financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the consolidated financial position of Walden Behavioral Care, Inc. and Subsidiary as of December 31, 2010 and the results of its consolidated operations, changes in stockholders' deficit and cash flows for the year then ended in conformity with accounting principles generally accepted in the United States of America.

Marcum LLP

Boston, MA
May 31, 2011

000383

WALDEN BEHAVIORAL CARE, INC. AND SUBSIDIARY

CONSOLIDATED BALANCE SHEETS

DECEMBER 31, 2010 AND 2009

	2010	2009
Assets		
Current Assets		
Cash and cash equivalents	$ 443,480	$ 196,726
Accounts receivable, less allowance for uncollectible accounts of $135,000 in 2010 and 2009	1,718,471	1,957,048
Inventories and other current assets	75,541	114,143
Deferred income taxes	112,930	--
Total Current Assets	2,350,422	2,267,917
Deferred Income Taxes	77,028	--
Furniture, Equipment and Leasehold Improvements	89,442	159,428
	$ 2,516,892	$ 2,427,345
Liabilities and Stockholders' Deficit		
Current Liabilities		
Bank credit arrangement	$ 769,114	$ 719,927
Accounts payable	448,536	935,360
Accrued expenses	61,670	137,401
Accrued payroll and related withholdings	234,478	196,986
Accrued interest	16,378	336,814
Due to stockholders	223,451	525,530
Due to patients and third-party payors	397,457	358,279
Current portion of long-term debt	450,000	1,648,798
Total Current Liabilities	2,601,084	4,859,095
Long-Term Debt - less current maturities	2,690,216	--
Total Liabilities	5,291,300	4,859,095
Stockholders' Deficit		
Preferred stock, $.001 par value, 480,000 shares authorized, 280,000 shares issued and outstanding	280	--
Common stock, $.001 par value, 2,000,000 shares authorized, 1,387,148 shares issued and outstanding	1,407	3
Additional paid-in capital	2,249,020	99,997
Accumulated deficit	(1,931,807)	(2,531,750)
Treasury stock	(3,093,308)	--
Total Stockholders' Deficit	(2,774,408)	(2,431,750)
	$ 2,516,892	$ 2,427,345

The accompanying notes are an integral part of these financial statements.

WALDEN BEHAVIORAL CARE, INC. AND SUBSIDIARY

CONSOLIDATED STATEMENTS OF OPERATIONS

FOR THE YEARS ENDED DECEMBER 31, 2010 AND 2009

	2010	2009
Operating Revenues		
Net patient service revenue	$ 14,049,804	$ 13,078,138
Other revenue	212,438	179,005
	14,262,242	13,257,143
Operating Expenses		
Direct patient care	7,785,887	7,457,714
Facility operations	2,470,261	2,744,172
Residential and other programs	433,934	383,485
Corporate operations	2,649,406	2,114,515
Interest expense	197,516	220,050
Provision for bad debts	179,635	113,042
Depreciation and amortization	76,995	97,703
	13,793,634	13,130,681
Income Before Provision for Income Taxes	468,608	126,462
Provision for (Recovery of) Income Taxes	(172,535)	3,775
Net Income	$ 641,143	$ 122,687

The accompanying notes are an integral part of these financial statements.

WALDEN BEHAVIORAL CARE, INC. AND SUBSIDIARY

CONSOLIDATED STATEMENTS OF CHANGES IN STOCKHOLDERS' DEFICIT

FOR THE YEARS ENDED DECEMBER 31, 2010 AND 2009

	Preferred Stock		Common Stock		Additional	Accumulated	Treasury Stock		Total Stockholders'
	Shares	Amount	Shares	Amount	Paid-in Capital	Deficit	Shares	Amount	Deficit
Balance - December 31, 2008	--	$ --	300	$ 3	$ 99,997	$ (2,654,437)	--	$ --	$ (2,554,437)
Net income	--	--	--	--	--	122,687	--	--	122,687
Balance - December 31, 2009	--	--	300	3	99,997	(2,531,750)	--	--	(2,431,750)
Issuance of common stock	--	--	1,386,848	1,384	(1,384)	--	--	--	--
Purchase of treasury stock							693,574	(3,093,308)	(3,093,308)
Stockholder distribution	--	--	--	--	--	(41,200)	--	--	(41,200)
Shares issued under stock award	--	--	20,283	20	50,687		--	--	50,707
Issuance of preferred shares	280,000	280	--	--	2,099,720	--	--	--	2,100,000
Net income	--	--	--	--	--	641,143	--	--	641,143
Balance - December 31, 2010	280,000	$ 280	1,407,431	$ 1,407	$ 2,249,020	$ (1,931,807)	693,574	$ (3,093,308)	$ (2,774,408)

The accompanying notes are an integral part of these financial statements.

WALDEN BEHAVIORAL CARE, INC. AND SUBSIDIARY

CONSOLIDATED STATEMENTS OF CASH FLOWS

FOR THE YEARS ENDED DECEMBER 31, 2010 AND 2009

	2010	2009
Cash Flows from Operating Activities		
Net income	$ 641,143	$ 122,687
Adjustments to reconcile change in net assets to net cash provided by operating activities:		
Depreciation and amortization	76,995	97,703
Stock-based compensation	50,707	--
Forgiveness of debt	(152,798)	--
Deferred income taxes	(189,958)	--
Changes in operating assets and liabilities:		
Accounts receivable	238,577	(50,133)
Inventories and other current assets	38,602	6,637
Accounts payable	(486,824)	(159,001)
Accrued expenses	(75,731)	(87,274)
Accrued payroll and related withholdings	37,492	110,076
Accrued interest	(141,220)	17,854
Due to patients and third-party payors	39,178	--
Net Cash Provided by Operating Activities	76,163	58,549
Cash Flows from Investing Activities		
Purchases of property and equipment	(7,009)	(66,834)
Net Cash Used in Investing Activities	(7,009)	(66,834)
Cash Flows from Financing Activities		
Net borrowing on bank credit arrangement	49,187	--
Repayment of amount due to stockholder	(302,079)	--
Distribution to stockholder	(41,200)	--
Payments on long-term debt	(985,000)	(185,000)
Purchase of treasury shares, net	(643,308)	--
Proceeds from issuance of Series A preferred stock	2,100,000	--
Net Cash Provided by (Used in) Financing Activities	177,600	(185,000)

The accompanying notes are an integral part of these financial statements.

WALDEN BEHAVIORAL CARE, INC. AND SUBSIDIARY

CONSOLIDATED STATEMENTS OF CASH FLOWS (CONTINUED)

FOR THE YEARS ENDED DECEMBER 31, 2010 AND 2009

	2010	2009
Net Change in Cash and Cash Equivalents	246,754	(193,285)
Cash and Cash Equivalents - Beginning	196,726	390,011
Cash and Cash Equivalents - Ending	$ 443,480	$ 196,726
Supplemental Disclosures of Cash Flow Information		
Cash paid for interest	$ 283,894	$ 202,196
Purchase of treasury stock in 2010:		
Cost of shares acquired	$ 3,093,308	
Less - note payable for purchase	2,450,000	
Cash outflow for treasury stock	$ 643,308	

The accompanying notes are an integral part of these financial statements.

NOTE 1 - ORGANIZATION AND SIGNIFICANT ACCOUNTING POLICIES

ORGANIZATION

Walden Behavioral Care, LLC (WBC LLC) was formed as a limited liability company in June 2003 and began operations in August 2003. Effective February 9, 2004, Walden Behavioral Care, Inc. was formed as a Delaware corporation and on that day, the managing members of WBC LLC exchanged their LLC membership interest of WBC LLC for stock in the newly formed corporation.

WBC LLC is a behavioral health care provider located in Waltham, Massachusetts that offers clinical services including inpatient and outpatient eating disorder programs and inpatient and outpatient adult psychiatric programs to patients 13 years and older. The maximum inpatient capacity of the programs is 45 beds in a hospital setting and 12 beds in residential care.

PRINCIPLES OF CONSOLIDATION

The accompanying consolidated financial statements include the accounts of Walden Behavioral Care, Inc. and its wholly-owned subsidiary WBC LLC (collectively, the Company). All significant intercompany transactions and balances have been eliminated from these consolidated financial statements.

USE OF ESTIMATES

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements. Estimates also affect the reported amounts of revenues and expenses during the reporting period. Accordingly, actual results could differ from those estimates.

CASH AND CASH EQUIVALENTS

Cash and cash equivalents include investment in highly liquid debt instruments with original maturities of three months or less.

Financial instruments that potentially subject the Company to concentrations of credit risk consist principally of cash deposits. For the year ended December 31, 2010, accounts at each institution are insured by the Federal Deposit Insurance Corporation (FDIC) up to $250,000. At December 31, 2010, the Company had no cash in excess of FDIC insured limits.

NOTE 1 - ORGANIZATION AND SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

FAIR VALUE OF FINANCIAL INSTRUMENTS

The carrying amount of the Company's financial instruments classified as current assets and current liabilities (cash and cash equivalents, accounts receivable, inventories and other current assets, accounts payable, and accrued expenses) approximates fair value. The fair values of other financial instruments are disclosed in their respective notes.

INVENTORIES

Inventories, consisting primarily of medical supplies and pharmaceuticals, are stated at the lower of cost (first-in, first-out), or market value.

FURNITURE, EQUIPMENT AND LEASEHOLD IMPROVEMENTS

Furniture, equipment and leasehold improvements are stated at cost. Depreciation of furniture and equipment is determined on a straight-line basis over the estimated useful lives of the related assets. The estimated useful life for furniture and equipment is 3 to 5 years. Major leasehold improvements are amortized over the lesser of the estimated useful lives or the term of the lease.

Maintenance and repairs that do not extend the lives of the assets are charged directly to expense as incurred. Upon disposition of equipment, the cost of the asset and the associated accumulated depreciation are eliminated from the related accounts and any resulting gain or loss is recognized as a component of income or loss.

NET PATIENT SERVICE REVENUE, ACCOUNTS RECEIVABLE AND ALLOWANCE FOR UNCOLLECTIBLE ACCOUNTS

Patient accounts receivable and revenues are recognized when patient services are performed. Amounts received from third-party payors and patients are generally different from established billing rates of the Company, and these differences are accounted for as contractual allowances.

Net patient service revenue is reported at the estimated realizable amounts from patients, third-party payors, and others for services provided and include estimated retroactive adjustments under reimbursement agreements with third-party payors. Revenue under certain third-party payor agreements is subject to audit, retroactive adjustments, and significant regulatory actions.

NOTE 1 - ORGANIZATION AND SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

Provisions for third-party payor settlements and adjustments are estimated in the period the related services are provided and adjusted in future periods as additional information becomes available and as final settlements are determined. Laws and regulations governing the Medicare program are complex and subject to interpretation. As a result, there is at least a possibility that recorded estimates will change by a material amount in the near term. Adjustments to revenue related to prior periods increased (decreased) net patient service revenue by approximately $86,000 and $74,000 in 2010 and 2009, respectively.

The Company grants credit without collateral to its patients, most of whom are local residents and are insured under third-party payor arrangements.

The provision for bad debts is based upon management's assessment of historical and expected net collections considering business and economic conditions, trends in health care coverage, and other collection indicators. Periodically throughout the year, management assesses the adequacy of the allowance for uncollectible accounts. The results of this review are then used to make modifications to the provision for bad debts to establish an appropriate allowance for uncollectible accounts. Accounts receivable are written off after collection efforts have been followed in accordance with the Company's policies.

CHARITY CARE

The Company provides care to patients who meet certain criteria under its charity care policy without charge or at amounts less than its established rates. Because the Company does not pursue collection of amounts determined to qualify as charity care, they are not reported as revenue. The amount of charges foregone for services furnished under the Company's charity care policy aggregated approximately $236,000 and $320,000 in 2010 and 2009, respectively.

INCOME TAXES

In 2009, and through the period from January 1, 2010 through August 31, 2010, the Company filed its tax returns as a Subchapter S Corporation and therefore income taxes were generally the responsibility of the Company's stockholders. Effective September 1, 2010, the Company converted from its Subchapter S Corporation status and is now responsible for federal and state corporate income taxes. The State of Massachusetts assesses an additional corporate level tax at rates ranging from 3.0 percent to 4.5 percent of net income when revenues exceed a threshold level of $6 million.

NOTE 1 - ORGANIZATION AND SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

Beginning on September 1, 2010, the Company now accounts for income taxes under the liability method whereby deferred tax asset and liability account balances are determined based on differences between financial reporting and tax bases of assets and liabilities and are measured using enacted tax rates and laws that will be in effect when the differences are expected to reverse. The Company provides a valuation allowance, if necessary, to reduce deferred tax assets to their estimated realizable value.

The Company's procedure related to the accounting for uncertainty in income taxes contains a two-step approach to recognizing and measuring uncertain tax positions (tax contingencies). The first step is to evaluate the tax position for recognition by determining if the weight of available evidence indicates it is more likely than not that the position will be sustained on audit, including resolution of related appeals or litigation processes, if any. The second step is to measure the tax benefit as the largest amount which is more than 50 percent likely of being realized upon ultimate settlement. The Company considers many factors when evaluating and estimating its tax positions and tax benefits, which may require periodic adjustments and which may not accurately forecast actual outcomes. As of December 31, 2010 and 2009, there were no amounts that had been accrued for uncertain tax positions.

SUBSEQUENT EVENTS

The Company has evaluated subsequent events through May 31, 2011, which is the date these financial statements were available to be issued. All subsequent events requiring recognition as of December 31, 2010, have been incorporated into these consolidated financial statements.

RECLASSIFICATIONS

Certain reclassifications were made to the accompanying 2009 consolidated financial statements to conform to the 2010 presentation. These reclassifications had no impact on the change in the previously reported operations or changes in stockholders' deficit.

NOTE 2 - BANK CREDIT ARRANGEMENT

The Company has available $1,000,000 under the terms of an operating line of credit agreement (the New Line) with a bank. The New Line is subject to renewal on September 3, 2011, and carries an interest rate based on the bank's prime rate (3.25 percent at December 31, 2010). As of December 31, 2010 the Company had borrowed $769,114 under the line of credit. Availability under the agreement was limited to qualified accounts receivable as defined in the Line agreement. The Line is secured by substantially all assets of the Company and guaranteed by the Company's majority stockholder.

In 2009 the Company had available $750,000 under the terms of an operating line of credit agreement (the Old Line) with a bank, which was repaid from the proceeds of the New Line of credit agreement. The Old Line was subject to annual renewal on July 31, 2011, and carried an interest rate based on .75 percentage points over the bank's defined index rate. As of December 31, 2009 the Company had borrowed $719,927 under the line of credit.

NOTE 3 – PREFERRED STOCK

The Company is authorized to issue two (2) classes of shares, designated as common stock and preferred stock. The total number of shares of common stock authorized to be issued is 1,300,000 shares at $0.001 par value per share. The total number of shares of preferred stock authorized to be issued is 480,000 shares at $0.001 par value per share (the Preferred Stock), which have been designated as Series A Preferred Stock.

On September 2, 2010, the Company issued 280,000 shares of Series A Preferred Stock to a single investor at $7.50 per share for a total cash consideration of $2,100,000.

The holder of the Series A Preferred Stock have the following rights and preferences:

Voting
The holders of preferred stock are entitled to vote, together with the holders of common stock, on all matters submitted to stockholders for a vote. Each holder of Series A Preferred Stock is entitled to the number of votes equal to the number of shares of common stock into which each share of Series A Preferred Stock is convertible at the time of such vote.

Dividends
Dividends shall accrue on the Series A Preferred Stock from the original issue date of each respective holder. The annual dividend rates for the Series A preferred Stock are 8% per annum and such dividends are cumulative.

NOTE 3 – PREFERRED STOCK (CONTINUED)

Liquidation Preference

In the event of any voluntary or involuntary liquidation, dissolution or winding up of the Company, the holders of shares of Series A Preferred Stock then outstanding shall be entitled to be paid out of the assets of the Company available for distribution to its stockholders before any payment is made to the holders of common stock an amount equal to the greater of (a) the Series A original issue price, plus any dividends accrued but unpaid or (b) such amount per share as would have been payable has all shares of Series A Preferred Stock been converted into common stock prior to such liquidation, together with any other dividends declared but unpaid.

Conversion

Each share of Series A preferred Stock is convertible, at the option of the holder and without the payment of additional consideration, into such number of fully paid and nonassessable shares of common stock as is determined by dividing the Series A Preferred Stock original issue price by the Series A Conversion Price, as defined in the Company's charter.

NOTE 4 – COMMON STOCK

As of December 31, 2010, the Company has authorized 2,000,000 shares of $0.001 par value voting common stock. As of December 31, 2009, the Company had authorized 3,000 shares of $0.01 par value voting common stock.

As part of a restructuring of the Company in 2010, the Company issued 1,387,148 shares of $0.001 par value common stock in exchange for 300 shares of its original $.01 par value common stock, in the form of a stock dividend.

On September 2, 2010, the Company entered into a Stock Redemption Agreement whereby the Company acquired 693,574 shares of its common stock from an investor at a total cost of $3,093,308. These shares are being held by the Company as treasury stock, and are collateral for the payment of a promissory note entered into with the investor as part of the Stock Redemption Agreement.

NOTE 5 – STOCK-BASED COMPENSATION

COMMON STOCK OPTIONS

In 2010, the Company adopted the Walden Behavioral Care, Inc. 2010 Stock Incentive Plan (the 2010 Plan). The 2010 Plan allows for the grant of up to 97,357 options to purchase shares of common stock.

Grants under the 2010 Plan may be made to provide long-term incentives and rewards to those key employees who contribute to the long-term success and growth of the Company. The Board of Directors administers the 2010 Plan, which includes determining the participants in the Plan and the number of shares of common stock to be covered by each option, the fair value of the common stock, amending the terms of any option, and interpreting the terms of the 2010 Plan.

Under the 2010 Plan, stock option grants are generally subject to a three-year vesting schedule pursuant to which the options vest 33% on each anniversary of the grant date. The options generally terminate on the tenth anniversary of the grant date. In addition, vested options may be exercised for specified periods after the termination of the optionee's employment or other service relationship with the Company.

In 2010, the Company entered into a Stock Award and Incentive Compensation Agreement (the Agreement). Pursuant to the terms and conditions of the 2010 Plan and Agreement, the Company granted to the key employee, in consideration for services rendered, a stock award of 20,283 shares of the Company's common stock. The fair value of the stock was determined to be $2.50, which is the fair value of the common stock on the date of the Agreement. In addition, the key employee has an option to purchase an additional 20,283 shares of the Company's common stock, at an option price of $2.50, subject to the terms and conditions of the 2010 Plan and Agreement.

Total stock-based compensation recognized in the Company's consolidated statement of operations for the year ended December 31, 2010 was $50,687. At December 31, 2010, there was approximately $30,000 of unrecognized compensation costs, adjusted for estimated forfeitures, related to non-vested, share-based payments granted. As of December 31, 2010, the unrecognized compensation expense is expected to be recognized over a three-year period.

NOTE 5 – STOCK-BASED COMPENSATION (CONTINUED)

The changes in the stock option plan are as follows:

	Number of options outstanding	Weighted average exercise price per share
Outstanding at January 1, 2010	--	
Granted	20,283	2.50
Outstanding at December 31, 2010	20,283	2.50

The Company estimated the fair value of stock options granted in 2010 using a Black-Scholes valuation model with the following assumptions:

Risk free interest rate	3%
Expected dividend yield	0%
Expected life of options (yrs)	10
Expected volatility	50%

FAIR VALUE OF COMMON STOCK

The Company has granted common stock and common stock option awards to key employees. The Company's determination of the fair value of the underlying common stock is a significant aspect in accounting for these aforementioned stock option awards in accordance with generally accepted accounting principles.

The Company and its Board of Directors (the Board) determines the fair value of the common stock at each issuance of such stock option awards. The fair value of the common stock is determined by the Board at the measurement date of each of the aforementioned stock option awards based on a variety of different factors including, but not limited to, the Company's financial position and historical financial performance, the composition and ability of the current management team, the current climate in the marketplace, the illiquid nature of the common stock, the effect of rights and preferences of preferred shareholders, and the prospects of a liquidity event, among others.

NOTE 6 - LONG-TERM DEBT

Long-term debt consists of the following at December 31:

	2010	2009
Subordinated notes with interest at 12 percent, with principal and interest due August 2012.	$ 395,152	$ 1,496,000
Subordinated note with interest at 12 percent, with principal and interest due August 2013.	295,064	--
Note payable to a former stockholder, with interest at 2 percent through August 2011, thereafter 3 percent through August 2012 and 4 percent through August 2013. Repayment terms call for annual payments of principal together with all unpaid and accrued interest through maturity August 2013.	2,450,000	--
Accrued interest on subordinated note converted into a long-term note, with interest at 3 percent, due December 2010.	--	152,798
	3,140,216	1,648,798
Less current portion	450,000	1,648,798
	$ 2,690,216	$ --

The note payable to the former stockholder is in connection with the Stock Redemption Agreement effective September 2, 2010. The shares of treasury stock acquired by the Company, and all assets of the Company, are pledged as collateral for the note.

NOTE 6 - LONG-TERM DEBT (CONTINUED)

Scheduled principal payments on long-term debt at December 31, follows:

2011	$ 450,000
2012	1,395,152
2013	1,295,064
Thereafter	--
	$ 3,140,216

NOTE 7 - LEASE COMMITMENTS

The Company leases space for its primary operating facility under a non-cancellable operating lease expiring October 2013, at a minimum annual rental of $716,194. The lease contains an option to extend the lease for two additional five year terms. Taxes, insurance, and operating expenses are the Company's responsibility under the terms of the lease.

The Company also leases space for its center in Northampton, Massachusetts, at a minimum annual rental of $74,256, with escalating rent payments until the expiration at September 2013. The lease contains an option to extend for one additional five year term. Taxes, insurance, and operating expenses are the Company's responsibility under the terms of the lease.

In addition, the Company leases office space in Waltham, Massachusetts. The minimum annual rent is $105,116, with escalating rent payments until the expiration in February 2012. In connection with this lease, the Company has recorded a $33,446 security deposit in accordance with the lease terms. Taxes, insurance, and operating expenses are the Company's responsibility under the terms of the lease.

The Company also leases office and other operating space under operating lease agreements expiring on various dates through November 2011, for use in its residential treatment program, at an aggregate annual rental of $131,616.

NOTE 7 - LEASE COMMITMENTS (CONTINUED)

Future minimum payments under these leases at December 31 are as follows:

2011	$ 995,300
2012	812,301
2013	596,828
	$ 2,404,429

Rental expense under the operating leases amounted to $1,327,271 and $1,296,310 in 2010 and 2009, respectively.

NOTE 8 - VENDOR SETTLEMENT

In October 2009, the Company reached a settlement with Newton-Wellesley Hospital (the Hospital) that related to a previous agreement with Newton-Wellesley Hospital dated July 2003. This settlement determined that the Company owed Newton-Wellesley for back fees related to laboratory services from December 2006 to August 2008 at which point the agreement terminated. As a result of the settlement agreement, the Company owed Newton-Wellesley Hospital $270,000 payable in installments through July 2010. A total of approximately $150,000 was forgiven by the Hospital, which has been recorded by the Company as other revenue in 2009.

NOTE 9 - RELATED PARTY TRANSACTIONS

As of December 31, 2010 and 2009, the Company's debt included $690,216 and $1,598,798, respectively, payable to the Company's stockholders or related parties (see Note 3). Accrued interest at December 31, 2010 and 2009 for these notes amounted to approximately $-0- and $337,000, respectively.

As of December 31, 2010 and 2009, the Company has accrued $223,451 and $525,530 of compensation for services provided by the Company's stockholders. These amounts are reported as due to stockholders at December 31, 2010 and 2009.

NOTE 10 – INCOME TAXES

The provision for income taxes at December 31 is comprised of the following:

	2010	2009
Current:		
Federal	$ --	$ --
State	17,422	3,775
Deferred		
Federal	(168,261)	--
State	(21,696)	--
	$ (172,535)	$ 3,775

The income taxes shown differ from the amount that would result from applying federal and state statutory rates to income before income taxes because deferred income taxes are based on average tax rates. In addition, no tax benefit has been recognized for nondeductible operating expenses.

Effective September 1, 2010, the Company made a voluntary election to convert from its Subchapter S Corporation tax status and is now responsible for federal and state corporate income taxes. Accordingly, provision is now made for current and deferred corporate income taxes. As part of the conversion, the Company determined the effect of recognizing the deferred tax asset as of the conversion date, which has been included in income from continuing operations.

Deferred income taxes reflect the net tax effects of temporary timing differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for income tax purposes.

NOTE 10 – INCOME TAXES (CONTINUED)

The major components of deferred income taxes as of December 31, 2010 are as follows:

Current:	
Allowance for doubtful accounts	$ 9,193
Accrued expenses	103,737
	112,930
Noncurrent	
Property and equipment	35,555
Net operating losses	41,473
	77,028
	$ 189,958

NOTE 11 - OPERATING RESULTS AND LIQUIDITY

The Company has incurred cumulative losses since inception and has a working capital deficit of approximately $250,000 and a total stockholders' deficit of approximately $2,774,000 as of December 31, 2010.

In recent years, the Company has experienced profitability due to an increase in the number of patients served, as well as an increase in the net realizable amounts for the services performed. During this same period, the Company has extended the repayment dates of its long-term debt and the Company's shareholders have elected to continue to defer the receipt of a portion of their compensation which was accrued in 2003, the Company's start up year. The Company entered into a line of credit facility with a new bank in 2010, and now has availability up to $1 million under terms that are substantially similar to its prior arrangement including shareholder guarantees.

In 2010, the Company received a capital infusion of $2.1 million through the issuance of its Series A preferred Stock.

NOTE 11 - OPERATING RESULTS AND LIQUIDITY (CONTINUED)

The Company continues to monitor its cash flow and has experienced positive cash flow from operations in both 2010 and 2009. In addition, the Company has developed operating plans to increase cash flow to fund on-going operations.

The Company has obtained extensions from the subordinated note holders, extending the maturity of these notes payable to August 31, 2012 and 2013. If cash flow from operations in is not sufficient at that time, the Company would need to seek either a further extension of the maturity date or secure additional financing to repay the subordinated notes payable and related interest. There can be no assurances that the Company will be able, if necessary, to obtain either a further extension of the subordinated notes payable or additional financing under acceptable terms and conditions, or at all.

MARCUM
ACCOUNTANTS ▲ ADVISORS

INDEPENDENT AUDITORS' REPORT ON SUPPLEMENTARY INFORMATION

Board of Directors and Stockholders
Walden Behavioral Care, Inc. and Subsidiary

Our report on our audits of the consolidated financial statements of Walden Behavioral Care, Inc. and Subsidiary appears on page 1. These audits were conducted for the purpose of forming an opinion on the consolidated financial statements taken as a whole. The accompanying schedules of expenses are presented for purposes of additional analysis and are not a required part of the consolidated financial statements. Such information has been subjected to the auditing procedures applied in the audits of the consolidated financial statements and, in our opinion, is fairly stated in all material respects in relation to the basic financial statements taken as a whole.

Marcum LLP

Boston, MA
May 31, 2011

000403

WALDEN BEHAVIORAL CARE, INC. AND SUBSIDIARY

SCHEDULES OF SELECTED EXPENSES

FOR THE YEARS ENDED DECEMBER 31, 2010 AND 2009

	2010	2009
Salaries and related expenses	$ 6,084,565	$ 5,752,454
Pharmacy supplies and expenses	476,592	476,045
Dietary	423,462	418,835
DOCS/Medical coverage	337,342	331,160
Housekeeping	117,538	120,795
Laboratory fees	111,933	159,615
Medical supplies and expenses	95,286	106,836
Contract labor	84,073	17,693
Laundry and linen	25,979	27,856
Patient transportation	22,034	35,472
Patient medical services and other	7,083	10,953
Total Direct Patient Care	$ 7,785,887	$ 7,457,714
Salaries and related expenses	$ 930,827	$ 1,018,938
Occupancy	1,010,828	1,010,314
Insurance	187,307	190,605
Medical supplies and expenses	33,606	30,885
Office supplies and expenses	62,579	119,692
Professional fees and contracted services	45,282	111,009
Repairs and maintenance	116,486	102,678
Quality and compliance	64,188	85,094
Telephone	13,932	55,418
Travel and entertainment	5,226	12,344
Advertising and recruitment	--	7,195
Total Facility Operations	$ 2,470,261	$ 2,744,172

See independent auditors' report on supplementary information.

WALDEN BEHAVIORAL CARE, INC. AND SUBSIDIARY

SCHEDULES OF SELECTED EXPENSES (CONTINUED)

FOR THE YEARS ENDED DECEMBER 31, 2010 AND 2009

	2010	2009
Salaries and related expenses	$ 952,458	$ 956,201
Employee benefits	614,885	515,093
Professional fees and contracted services	536,358	336,119
Marketing and website development	145,313	131,912
Office supplies and expenses	126,182	54,513
Occupancy	116,237	88,954
Recrutiment and orientation	99,056	--
Telephone	34,363	3,248
Travel and entertainment	24,554	28,475
Total Corporate Operations	$ 2,649,406	$ 2,114,515
Occupancy	$ 241,818	$ 243,977
Dietary	63,810	56,760
Program services and supplies	41,341	38,595
DOCS/Medical coverage	33,080	--
Telephone and internet	16,366	5,168
Office supplies	15,423	21,374
Housekeeping	8,039	--
Laundry and linen	6,821	6,100
Repairs and maintenance	2,465	8,405
Travel expense	4,771	3,106
Total Residential and Other Program Expenses	$ 433,934	$ 383,485

See independent auditors' report on supplementary information.

Exhibit 20

Description of Proposed Building Work

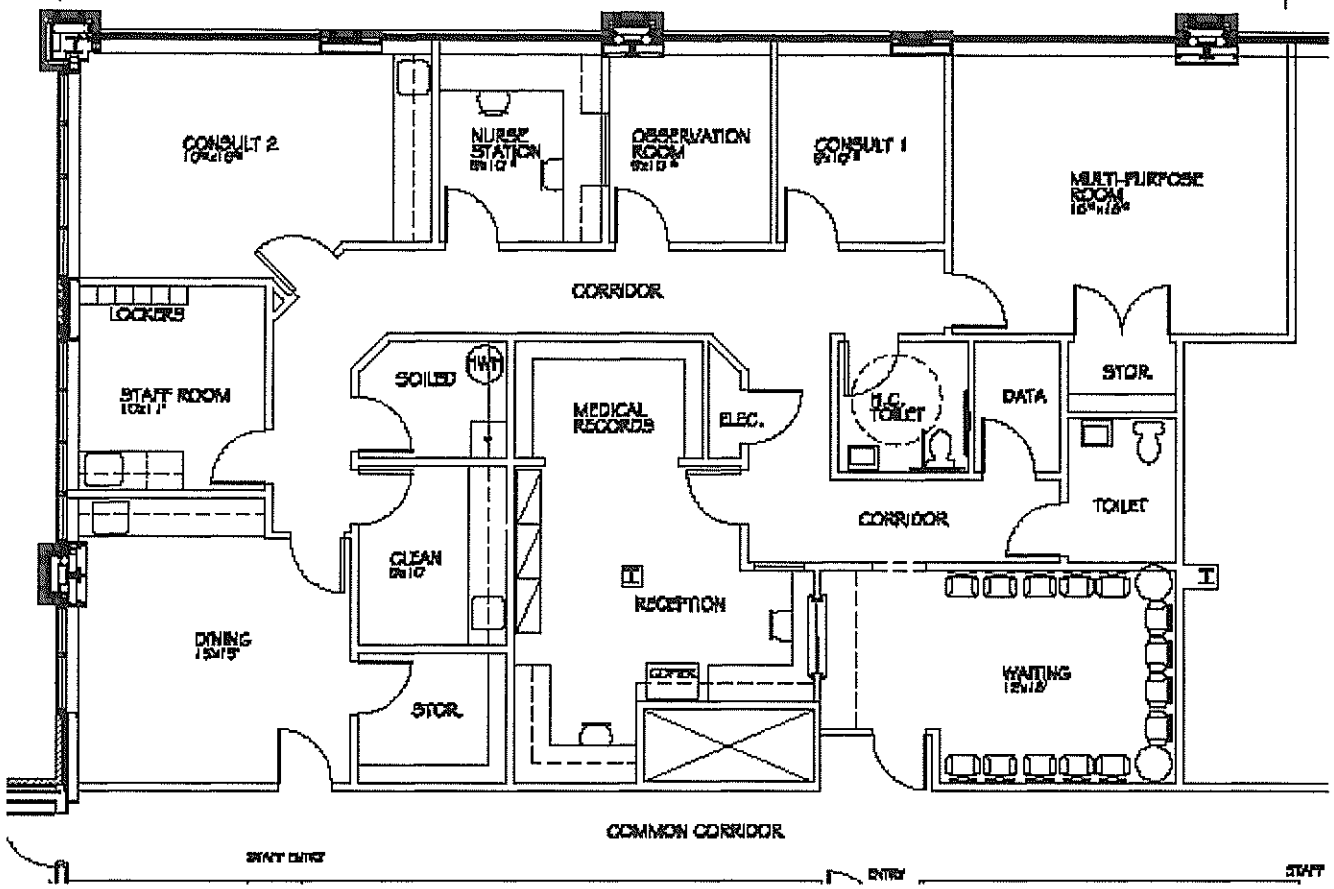
Location, Lease and Expenses

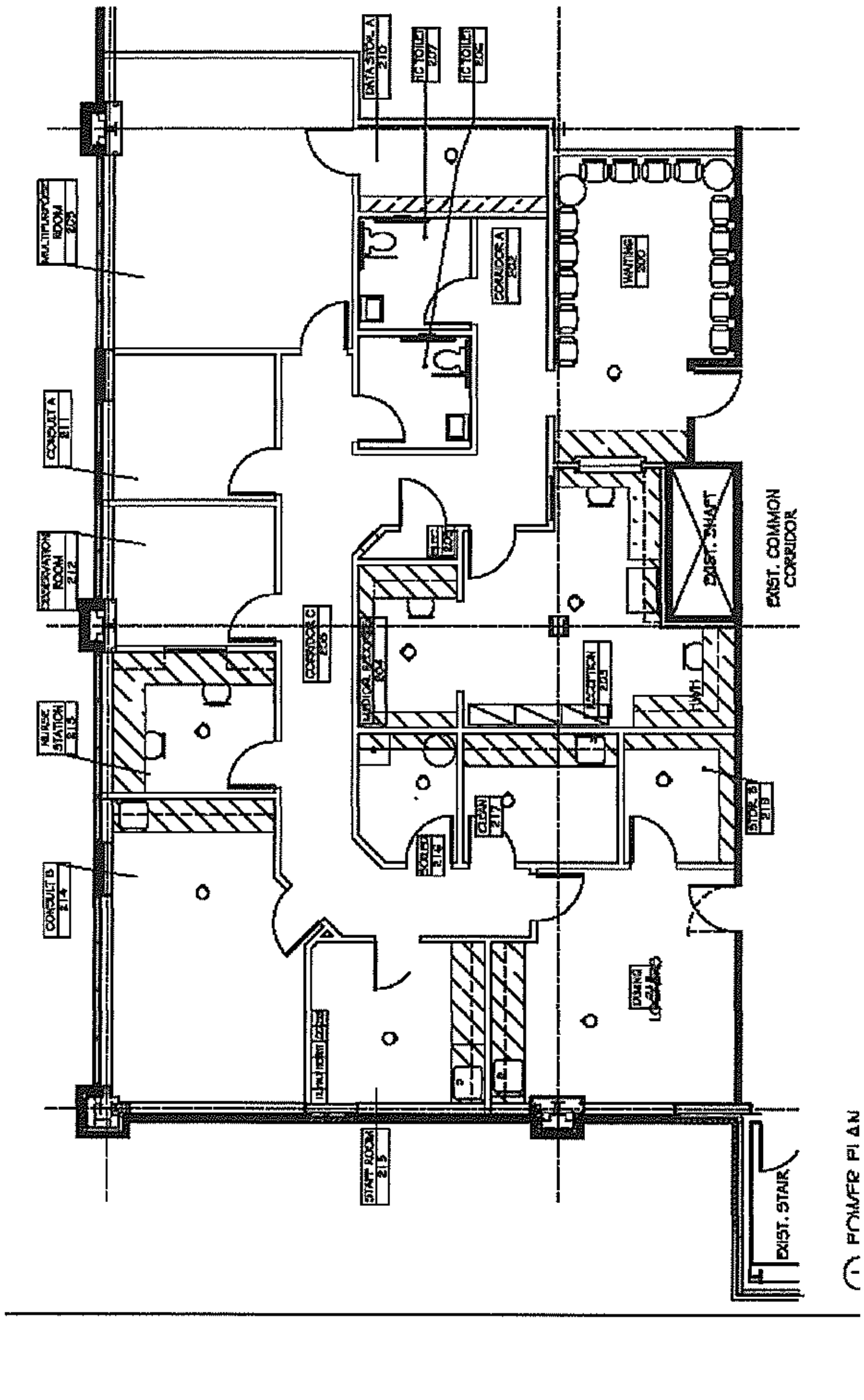
The proposed site is located at 2400 Tamarack Drive, South Windsor, CT. The building is new construction, and there has been no existing tenant prior to Walden's tenancy. The space is Suite 203, on the second floor of this steel and brick building structure. The space is 2,575 usable square feet. The space will be constructed with smoke and fire detection systems, as well as sprinklers. It will be constructed to satisfy all relevant regulatory and accreditation (OHCA, DPH, DCF, Joint Commission) requirements.

Construction is anticipated to be completed and ready for occupancy the 4th quarter of 2011. Services can commence upon OHCA approval and licensing inspections. Attached are the floorplans of the space to be leased, a draft lease with Evergreen Medical Associates II, LLC, the owner, and three vendor quotes for some of the expenditures WBC CT East is expecting to make at the location. In addition to furniture ($25,000) the Applicant is expecting to purchase communications equipment including phones and wiring ($15,000), 7 computer work stations at approximately $1,000 each ($7,000) and copying and printing equipment.

PROPOSED WALDEN BEHAVIORAL CARE-SUITE 203

±2,575 USEABLE SQ. FT.




MULTIPURPOSE ROOM 209
CONSULT A 211
OBSERVATION ROOM 212
NURSE STATION 213
CONSULT B 214
STAFF ROOM 215
DATA STOR. A 210
CORRIDOR A 202
WAITING 200
CORRIDOR C 205
STOR. B 218
CLEAN 217
EXIST. SHAFT
EXIST. COMMON CORRIDOR
EXIST. STAIR
POWER PLAN

LEASE AGREEMENT

Dated as of April 5, 2011

by and between

Evergreen Medical Associates II, LLC

Landlord

and

_____

Tenant

INDEX

LEASE AGREEMENT

THIS LEASE AGREEMENT (The "Lease") is made and entered into as of the _____day of , 2011 by and between **EVERGREEN MEDICAL ASSOCIATES II, LLC.,** a Connecticut limited liability company whose address for purposes hereof is c/o The CASLE Corporation, 200 Fisher Drive, Avon, Connecticut 06001 (hereinafter called "Landlord") and **_WBC CONNECTICUT EAST LLC**_____ a Connecticut limited liability company whose address for the purposes hereof is 2400 Tamarack Avenue South Windsor , CT 06074 (hereinafter collectively called "Tenant"). As used in this Lease, the terms set forth in Article VI hereof shall have the respective meanings indicated therein.

Subject to all of the terms and conditions of this Lease, and the Ground Lease and in consideration of the mutual covenants and obligations contained in this Lease, Landlord and Tenant agree as follows:

ARTICLE I

Section 1.1 **Leased Premises and Term.** Landlord does hereby lease, demise and let to Tenant and Tenant does hereby lease and take from Landlord the Leased Premises in the Building for a term beginning upon Substantial Completion of the Building and Premises ("Commencement Date") which is estimated to be on or about_____ ("Target Commencement Date") and continuing in full force and effect for five (5) years thereafter unless this Lease is terminated earlier or extended pursuant to the provisions hereof ("Lease Term"). Landlord will construct a new building and related common areas, in accordance with the plans attached hereto as Exhibit A on a parcel of land known as 2400 Tamarack Avenue, South Windsor, Connecticut, as more particularly described therein and is attached hereto as Exhibit C. The Leased Premises will contain approximately _____ square feet of Net Rentable Area and with a prorata share of common areas contain approximately _____ square feet of Gross Rentable Area as shown on Floor Plan attached hereto as Exhibit B.

Section 1.2 **Use.** The Leased Premises shall be used and occupied by Tenant solely for the purposes of office space, including medical offices for behavioral healthcare services, and related medical services and for no other purpose unless specifically approved by the Landlord or as set forth in Ground Lease.

Section 1.3 **Base Rental.** Annual Base Rental (hereinafter referred to as the "Base Rental") shall be payable by Tenant to Landlord in equal monthly installments commencing on the Commencement Date, and thereafter, for each month through and including the expiration date of this Lease, which Base Rental shall include an operating cost component. The Base Rental in the first Lease Year shall be $_____ per square foot of Gross Rentable Area including an estimate of first year Operating Costs of $_____ per square foot of Gross Rentable Area. The first year Base Rental shall be _____ or ($_____). The Tenant

shall also pay, as additional rent, all such other sums of money as shall become due and payable by Tenant to Landlord under the terms of this Lease. Landlord shall have the same remedies for default in the payment of additional rent as are available to Landlord in the case of default in the payment of Base Rental. The Base Rental for each year shall be due and payable in twelve (12) equal installments on the first day of each calendar month during each year of the Lease Term and any extensions or renewals thereof, and Tenant hereby agrees to pay such rent in such manner to Landlord at Landlord's address as provided herein (or at such other address as may be designated by Landlord from time to time) monthly in advance without demand. If the Commencement Date is a day other than the first day of a calendar month or in the event this Lease terminates on other than the last day of a calendar month, then the installments of Base Rental for such month or months shall be prorated and the installment or installments so prorated shall be paid in advance.

Section 1.4 **Operating Cost Adjustment.** The Base Rental payable hereunder shall be adjusted from time to time, no more often than once per twelve-month period, in accordance with the following provisions:

(a) The Base Rental shall include a component allocable to Operating Costs (as defined in Article 6.1 hereof) which shall be calculated at the end of the first calendar year of the Lease. At the end of each Calendar Year Landlord shall provide Tenant with a complete accounting of such costs and the parties will reconcile the rental payments allocated to Operating Costs to actual expenses. If the portion of Base Rental collected from Tenant allocated to Operating Costs is in excess of the actual Operating Costs for such Calendar Year, then Landlord shall promptly reimburse Tenant for such overpayment. If the portion of Base Rental collected from Tenant is less than the actual Operating Costs for such Calendar Year, then Tenant shall promptly reimburse Landlord for such underpayment. The budget will then be adjusted to fairly reflect estimates of Operating Costs based upon the actual Operating Expenses incurred in the previous year.

(b) Prior to October 1 of each Calendar Year after the first Calendar Year during Tenant's occupancy, Landlord shall provide an estimate of Operating Costs for the forthcoming calendar year. Tenant shall pay a Base Rental for such forthcoming calendar year adjusted upward or downward, as the case may be, by the amount of the difference between the prior Calendar Year's estimated or actual as the case may be Operating Costs per square foot of Net Rentable Area in the Building and the forthcoming Calendar Year's estimated Operating Costs per square foot of Net Rentable Area in the Building, times the Net Rentable Area of the Leased Premises.

Section 1.5 **Base Rental Adjustment.** At the commencement of the third, fifth, seventh and ninth Lease Years, the Base Rental not allocated to the Operating Costs as adjusted shall be increased by an amount equal to the product of the said Base Rental times 60% of the percentage increase, if any, in the Consumers Price Index, All Items/Boston Index (the "Index") over the Index at the last Base Rental adjustment or if the Index is no longer published the publication which replaces it.At the option of Landlord, it may use the corresponding month's prior to or after the precise anniversary month to facilitate preparation of the report.

Section 1.6 **Option to Extend.** Provided that Tenant is not in default under this Lease after the required notice and applicable cure period set forth herein, Tenant shall have two (2) options to extend the term of this Lease for a further period of five (5) years for each option period subject to all of the terms and conditions set forth in this Lease except for the Base Rental which shall increase at the beginning of the first renewal term in the second and fourth year of the Renewal Term and in the first, third and fifth year of the second renewal term by an amount equal to the product of said Base Rental as adjusted pursuant to Section 1.5 hereof times 60% of the percentage increase, if any, in the Consumers Price Index, All Items/Boston Index (the "Index") over the Index at the last Base Rental adjustment. At the option of Landlord, it may use the corresponding month's prior to or after the precise anniversary month to facilitate preparation of the report. Tenant shall provide Landlord written notice of its exercise of the first renewal option not less than nine (9) months prior to the expiration of the original term of the lease and shall provide Landlord written notice of its exercise of the second renewal option not less than nine (9) months prior to the expiration of the first renewal term.

ARTICLE II

Section 2.1 **Tenant Plans and Specifications and Budget.** Landlord shall design and construct improvements within the Leased Premises in accordance with the preliminary plans and specifications attached hereto as Exhibit B, as such plans shall be developed into "Final Plans", by The Casle Corporation and Tenant, as hereinafter described. Tenant shall promptly provide Landlord with any revisions to the preliminary plans attached hereto ("Revised Preliminary Plans"). Within 30 days of receipt of the Revised Preliminary Plans. Landlord shall prepare a preliminary budget based on the Revised Preliminary Plans ("Preliminary Budget") and deliver the same to Tenant, for Tenant's approval. Tenant shall promptly approve or disapprove the Preliminary Budget. If Tenant disapproves of the Preliminary Budget, Tenant may elect to eliminate certain Tenant Improvements. Upon approval of the Preliminary Budget, Landlord shall promptly prepare working drawings and engineering drawings, if applicable (collectively "Final Plans") and deliver the Final Plans to Tenant for Tenant's approval. Tenant may make the minimum changes necessary to correct any design problems and promptly deliver such changes to Landlord for its final approval. Landlord shall immediately thereafter competitively bid the Tenant Improvements with all costs presented for Tenant's approval on an "open book basis." Immediately thereafter, Landlord shall prepare a final budget based upon such successful bids ("Final Budget") and deliver the Final Budget to Tenant for Tenant's approval. If Tenant disapproves of such Final Budget, Tenant may elect to eliminate certain Tenant Improvements. If Tenant approves of the Final Budget, Landlord and Tenant will agree on the "Contract Price", as hereinafter defined, which shall be based upon the Final Budget. Landlord shall furnish and install within the Leased Premises the Tenant Improvements as hereinafter defined, in accordance with said Final Plans and all applicable codes and regulations. All Tenant Improvements shall be constructed pursuant to Article II and shall be performed by The Casle Corporation. The term "Tenant Improvements" shall mean all improvements shown in the Final Plans, and all signage, built-ins, related cabinets, reception desks, all telecommunication wiring, and all carpets and floor coverings, but, except as provided above, Tenant Improvements shall not include any personal property of Tenant.

Section 2.2 **Tenant Improvement Allowance.** In preparing the Leased Premises for occupancy by Tenant, subject to the provisions herein, Landlord shall be required to bear the expense of installing Tenant Improvements only to the extent that the actual costs less all rebates and other reductions are less than or equal to the "Tenant Improvement Allowance" of $60.00 per square foot of Net Rentable Area of the Leased Premises, unless any cost overruns are due to the acts or omissions of Landlord, its agents, employees or contractors. Upon Substantial Completion of the Leased Premises, Tenant shall pay all actual costs incurred less all rebated and other reductions in excess of such Tenant Improvement Allowance to Landlord as additional rent hereunder within thirty (30) days of being invoiced therefore, provided Tenant has given its prior written approval of each cost in excess of the Tenant Improvement Allowance. Landlord shall furnish to Tenant a full accounting of all such excess costs (itemized by construction category for labor, materials and taxes) which accounting shall include, without limitation draw requests signed by the general contractor and actual bills and invoices evidencing such costs. Landlord hereby agrees that "base building costs", as such term is generally recognized in the construction industry, shall be at Landlord's expense and shall not be deducted from the Tenant Improvement Allowance. Notwithstanding anything to the contrary stated herein, Tenant shall not be responsible for any costs in excess of the "Contract Price", as hereinafter defined, unless such costs were incurred as a result of a change order requested in writing by Tenant.

Section 2.3 **Construction, Architectural and General Contractors Fees.** Landlord shall receive no fee for supervision, profit, overhead or general conditions in connection with the Tenant Improvements. Within the Tenant Improvement Allowance set forth in Section 2.2, Landlord shall pay and be responsible for the architectural design fees incurred by Casle Corporation in building the Tenant Improvements. Casle's architectural design fee shall be $4.50 per square foot of Net Rentable Area. Casle's general contractor contract for Tenant Improvements shall (i) contain a contract price in an amount equal to the lesser of (x) actual cost for the Tenant Improvements, and (y) a guaranteed maximum price (regardless of the actual cost) approved by Tenant (the "Contract Price"); (ii) include a complete unit cost breakdown of all materials and labor, which unit costs also shall apply to all change orders; (iii) require insurance coverage in amounts and types mutually and reasonably acceptable to Landlord and Tenant; (iv) include a requirement that the Tenant Improvements shall be completed in accordance with a construction schedule to be approved by Landlord and Tenant; (v) include a general contractor's fee and overhead of eight percent (8%) of actual labor and materials costs to the subcontractors.

Section 2.3.1 **Change Orders**. Tenant may order changes or additions in the Final Plans during construction provided that (i) such changes or additions are approved in writing by Landlord and Landlord's architect, (ii) no delay in the progress of Landlord's work and no extra cost or expense to Landlord results from the making of such changes or additions Landlord shall have agreed to; and (iii) Landlord shall not proceed with any change or addition unless Tenant shall have approved the cost thereof in writing. Landlord shall notify Tenant in writing within five (5) business days of Tenant's change order request, of its approval or a detailed reason of its disapproval of such change order and a good faith estimate of the actual cost of such change order and the delay resulting there from. Tenant may, within three (3) days of its receipt of such estimate elect to rescind its request for such change order upon written notice to Landlord, subject to payment of reasonable costs of processing the change order request

and any delay in the work due to anticipation of the change in the work. The cost to Tenant of any approved change order shall be limited to the actual costs incurred as a result of such change order, excluding any overhead, profits, or fees to Landlord or Landlord's affiliates. Notwithstanding the foregoing, a delay caused by a change order initiated by the Tenant shall not delay the commencement date for payment of rent. In the event any change order shall increase the scope of the work beyond the contemplated by the Final Plans, Tenant shall pay to Landlord such increased cost within thirty (30) days after Substantial Completion of the Tenant Improvements and Tenant's receipt of paid invoices therefore.

Section 2.3.2 Warranty. Landlord warrants to Tenant, for one year after Commencement Date of the Lease, that the Tenant Improvements shall have been completed by Landlord in a good and workman-like manner, free from faulty materials, in accordance with all applicable legal requirements, and sound engineering standards, and in accordance with the Final Plans. Such warranty includes, without limitation, the repair or replacement (including labor), at Landlord's sole cost, of all materials, fixtures and equipment which are defective or which are defectively installed by Landlord in connection with the work. Landlord shall enforce in a commercially reasonable manner for the benefit of Tenant, all warranties from subcontractors and material suppliers for such materials, workmanship, fixtures and equipment in effect after the expiration of such twelve (12) month warranty period.

Section 2.3.3 Access to the Premises. Landlord, in its sole reasonable discretion, shall permit Tenant and Tenant's employees and agents to enter the Leased Premises prior to the Commencement Date so that Tenant may do such other work as may be required to make the Premises ready for Tenant's use and occupancy. In preparing the Premises, Landlord shall provide Tenant, its agents and contractors, with all necessary utilities for Tenant's work at no cost to Tenant. If Landlord permits such entry prior to the Commencement Date, it will be upon the condition that Tenant and its employees, agents, contractors, and suppliers shall work in harmony with Landlord and its employees, agents, contractors and suppliers and will not interfere with the performance of the work by Landlord or with Landlord's work, or with the work of any other tenant or occupants in the remainder of the Building. If at any time such entry shall cause or threaten to case such disharmony or interference, Landlord shall have the right to withdraw such license with notice to Tenant. Landlord in its sole judgment may withhold further access until such time as the Landlord can be assured that any work can proceed without delay or disruption. Tenant agrees that any such entry or occupation of the Premises shall be governed by all the terms, covenants, conditions and provisions of the Lease as to both parties, except for the covenant for the payment of rent, and further agrees that Landlord shall not be liable in any way for injury, loss or damage which may occur to any of Tenant's work or installations made in such Premises, or to any personal property placed therein, except with respect to the gross negligence or willful misconduct of Landlord, its agents, employees or contractors.

Section 2.4 Estimated Completion Date. Landlord agrees that the construction of the Tenant Improvements and other improvements contemplated by this Lease to be constructed within the Leased Premises and the Building and the appurtenant common areas (including the parking area) will be Substantially Completed on or before the Target Commencement Date, provided, however, in the event that the Leased Premises or any material portion of the Building or common areas should not be Substantially Completed within ninety

(90) days of the Target Commencement Date, for any reason within the Landlord's control, in addition to Tenant's rights at law and equity, Tenant shall have the option to terminate this Lease by written notice to Landlord. If such failure to Substantially Complete is due to a force majeure event, the provisions of Section 5.23 shall control.

ARTICLE III

Section 3.1 **Utilities**: As of Commencement Date, all utilities shall be available for Tenant's use at the Leased Premises. During the Lease Term, Landlord shall use its best efforts to furnish or cause public utilities to furnish the electricity and water to be utilized in operating any and all facilities services at the Leased Premises.

Section 3.2 **Services to be Furnished by Landlord:** In respect of the Leased Premises, Landlord shall furnish Tenant during the Lease Term in a first class manner:

(a) hot and cold potable water at those points of supply provided for general use of other tenants in the Building and water, sewer and any other utilities necessary for Tenant's use of the Leased Premises;

(b) central heat and air conditioning in season during Normal Business Hours (and at the request and expense of Tenant during other hours), at such temperatures and in such amounts as are considered by Landlord to be standard but in no event warmer than 75 degrees in summer and no cooler than 65 degrees in winter;

(c) routine maintenance and electric lighting service for all public areas and special service areas of the Building and other maintenance required herein;

(d) janitorial service as specified in Exhibit D Medical Cleaning Specification on a five (5) day week basis at no extra charge to Tenant unless Tenant's floor coverings or other improvements are deemed by Landlord to be other than building standard, in which case Tenant shall pay the additional cleaning cost attributable thereto upon presentation of a statement therefore by Landlord;

(e) personnel or equipment to maintain security for the Building;, provided, however, Landlord shall have no responsibility to prevent, and to the extent Tenant's insurance required hereunder pays Tenant for the same, shall not be liable to Tenant for any liability or loss to Tenant, its agents, employees and visitors arising out of losses due to theft, burglary, or damage or injury to persons or property caused by persons gaining access to the Building or the Leased Premises, unless such liability or loss is caused, in whole or in part, by the negligence or willful misconduct of Landlord, its agents, employees or contractors;

(f) electrical facilities to furnish sufficient power for typewriters, calculating machines, photocopying machines, personal computers and other machines of similar low electrical consumption;

(g) all building standard light bulbs and fluorescent tube replacement in all areas of the Leased Premises and all incandescent bulb replacement in public areas, toilet and rest room areas and stairwells;

(h) snow and ice removal from parking area, sidewalks, entrances and access ways;

(i) lighting of common areas, including the parking area, during early evening hours until 11:00p.m.;

(j) landscaping services in a manner comparable to other buildings of this type in the same geographical area; and

(k) access to and from the Leased Premises on a 24/7 basis.

Failure by Landlord to any extent to furnish or cause to be furnished the services described in Sections 3.1 and 3.2 of this Article III, or any cessation therefore, resulting from causes beyond the reasonable control of Landlord shall not render Landlord liable in any respect for damages to either person or property, nor be construed as an eviction of Tenant, nor result in an abatement of rent, nor relieve Tenant from fulfillment of any covenant or agreement contained in this Lease. Should any equipment or machinery which is used in providing such services cease to function properly for any reason, Tenant shall have no claim for rebate of rent or damages because of any interruption of service resulting there from, except as otherwise expressly provided herein. Landlord shall use its best efforts to restore any such services the provision of which has been interrupted to the building. Notwithstanding anything to the contrary stated herein, in the event any of the services described in Article III is interrupted for more than ten (10) consecutive business days and such interruption materially interferes with the conduct of Tenant's business at the Leased Premises, then rent shall equitably abate to the extent of such material interference and to the extent that Landlord maintains rent insurance which covers rent losses incurred in the event of such interruption.

Section 3.3 **Keys and Locks:** On or before the Commencement Date, Landlord shall furnish Tenant with keys and locks for the corridor doors entering the Leased Premises. All such keys shall remain the property of Landlord. No additional locks shall be allowed on any door of the Leased Premises without Landlord's permission and Tenant shall not make, or permit to be made, any duplicate keys, except those furnished by Landlord. Upon termination of this Lease, Tenant shall surrender to Landlord all keys of the Leased Premises, and give to Landlord the explanation of the combination of all locks for safes, safe cabinets and vault doors, if any, in the Leased Premises.

Section 3.4 **Building Directory and Graphics.** Landlord at its own cost and expense will furnish and install a suitable directory for the Building and establish suite numbers to facilitate locating and identifying the Leased Premises. Landlord shall provide and install all name plates, letters or numerals on entrance doors to the Leased Premises; all such name plates, letters and numerals shall be in the building standard graphics, and no others shall be used or permitted either within the interior of, or on the exterior of the Leased Premises. Any changes in the directory and suite signage will be at Tenant's expense.

Section 3.5 **Peaceful Enjoyment.** Landlord covenants that Tenant shall, and may peacefully have, hold and enjoy the Leased Premises, subject to the other terms hereof, provided that Tenant pays the rent to be paid by Tenant and performs all of the Tenant's covenants and agreements herein contained.

Section 3.6 **Parking.** Tenant shall have the nonexclusive right to park on the paved parking lot located adjacent to the Building.

Section 3.7 **Compliance with Laws.** Landlord shall, at its own cost and expense, comply with all laws, rules, orders, regulations, ordinances, building, fire or health codes and other similar requirements affecting real estate generally and the Building specifically, including environmental laws, (the "Laws"). Without limiting the generality of the foregoing, Landlord shall be required, at its own expense, to make all alterations and installments required by any applicable law which pertains to fire safety, including without limitation, the installation of sprinkler and/or smoke or fire detection systems which apply to tenants generally or to a general office use. Landlord shall cause the Building, the common areas, and the Tenant Improvements to comply with all Laws, including the Americans With Disabilities Act and any amendments thereto ("ADA").

ARTICLE IV

Section 4.1 **Payments by Tenant.** Tenant shall pay all rent and sums provided to be paid to Landlord hereunder at the times and in the manner herein provided, without demand, except as otherwise expressly stated herein.

Section 4.2 **Repairs by Landlord.** Unless otherwise stipulated herein, Landlord shall not be required to make any improvements to or repairs of any kind of character on the Leased Premises during the Lease Term, except such repairs which are necessary for normal maintenance operations and to assure that the Building continues to comply with all Laws, including the ADA. Landlord shall repair, including making replacements when necessary, and maintain in a first class condition all structural, mechanical, plumbing, life safety, sprinklers, HVAC and electrical components of the Building and Premises and be responsible for exterior and interior common area maintenance, including paving and patching of parking areas. Landlord shall be responsible for trash removal at the Building. If Tenant installs special leasehold improvements after the Commencement Date, Tenant shall be responsible for the maintenance and repair thereof.

Section 4.3 **Repairs by Tenant.** Tenant shall at its own cost and expense, repair or replace any damage or injury done to the Building or any part thereof, caused by Tenant or Tenant's agents, employees, or contractors; provided, however, if Tenant fails to make such repairs or replacements promptly after receipt of any required notice and expiration of any applicable cure periods, Landlord may, at its option, make such repairs or replacements, and Tenant shall pay the cost thereof to the Landlord upon receipt of detailed invoices therefore.

Section 4.4 Alterations, Improvements, Additions, Changes and Decoration. Without first obtaining the written consent of Landlord, which shall not be unreasonably withheld, conditioned or delayed, Tenant shall not make any alterations, improvements, additions or changes within the Leased Premises. Any and all such alterations, improvements and changes shall be (i) made at Tenant's sole cost, risk and expense, (ii) performed in a prompt, good and workmanlike manner and with labor and materials of at least as high quality as building standard, (iii) constructed in accordance with all applicable laws, rules and regulations and with plans and specifications therefore which shall have first been approved by the Landlord prior to the commencement of such work, which approval shall not be unreasonably withheld, conditioned or delayed, (iv) prosecuted diligently and continuously to completion so as to minimize interference with the normal business operations of other tenants in the Building and the performance of Landlord's obligations under this lease and any mortgage covering all or any part of the Building then in effect and (v) performed by a contractor or contractors approved by Landlord. Any and all such alternations, physical additions, improvements and changes, when made to the Leased Premises by Tenant, shall at once become the property of Landlord and shall be surrendered to Landlord upon termination of this Lease except, at Tenant's option, those fixtures which can be removed without damaging the Leased Premises. Landlord shall also notify Tenant at the time it gives consent, that Tenant must remove the alteration. All items of decoration to be situated within the Leased Premises visible from outside of the Leased Premises, as the case may be, including but not limited to window blinds, carpet, lamps, graphics, paintings, furniture, calendars, equipment and plants shall not be placed in or situated within the Leased Premises without obtaining the prior written approval of Landlord.

Section 4.5 Assignment and Subletting. Landlord shall have the right to transfer and assign in whole or in part, by operation of law or otherwise, its rights, benefits, privileges, duties and obligations hereunder and in the Building, whenever Landlord in its sole judgment deems it appropriate, and no further liability or obligations hereunder shall thereafter accrue against Landlord, and Tenant shall attorn to any such transferee. Tenant shall not assign or otherwise transfer, mortgage, pledge, hypothecate or otherwise encumber this Lease, or any interest therein and shall not sublet the Leased Premises or any part thereof, without the express written consent of Landlord which shall not be unreasonably withheld, conditioned or delayed. Unless otherwise agreed by Landlord, any such consent by Landlord shall not release Tenant from any of Tenant's obligations hereunder or be deemed to be a consent to any subsequent assignment, transfer, mortgage, pledge, hypothecation, encumbrance, subletting, occupation or use by another person. Notwithstanding anything to the contrary herein, Landlord's consent to an assignment or subletting shall automatically be deemed to have been given, so long as Tenant provides Landlord with at least thirty (30) days' advance notice of the assignment or sublease, if the assignee or subtenant is (i) a parent, subsidiary or "brother-sister" entity with respect to Tenant or (ii) the purchaser of all or substantially all of the assets of Tenant or (iii) an entity with which or into which Tenant merges.

Section 4.6 **Care of the Leased Premises and Prohibited Use.** Tenant shall not use or permit any other party to use all or any part of the Leased Premises for any purpose not authorized in this Lease. Tenant shall not do or permit anything to be done in or about the Leased Premises nor bring nor keep nor permit anything to be brought to or kept therein, which is prohibited by law or which will in any way increase the existing rate of or affect any fire or other insurance which Landlord carries upon the Building or any of its contents, or cause a cancellation of any insurance policy covering the Building or any part thereof or any of its contents. Tenant shall not do or permit anything to be done in or about the Leased Premises which will in any way obstruct or interfere with the rights of other tenants of the Building, or injure or annoy them or use or allow the Leased Premises to be used for any unlawful or objectionable purpose. Tenant shall not cause, maintain or permit any nuisance in, on or about the Leased Premises or the Building or commit or suffer to be committed any waste to, in, on, or about the Leased Premises or the Building. Further, Tenant agrees that no equipment which shall require for its use other than normal electrical current or other utility service or food, soft drink or other vending machine will be installed within the Leased Premises, without the prior written consent of the Landlord.

Section 4.7 **Laws and Regulations; Rules of Building.** Subject to Landlord's compliance with laws obligations herein, Tenant shall comply with all laws, ordinances, orders, rules and regulations (state, federal, municipal and other agencies or bodies having any jurisdiction thereof) relating to Tenant's manner of use, condition or occupancy of the Leased Premises. Tenant will comply with the reasonable rules of the Building adopted and altered by Landlord from time to time for the safety, care and cleanliness of the Leased Premises and the Building and for preservation of good order therein, all of which will be sent by Landlord to Tenant in writing and shall be thereafter carried out and observed by Tenant. The initial rules of the Building shall be provided to Tenant prior to occupancy in the Building. The rules regulating the Building shall apply to each tenant and be enforced in a non-discriminatory manner. Notwithstanding anything in this Lease to the contrary, Tenant shall not be required to make any repair, modification or addition to the Premises, the Building structure or the Building systems, except to the extent required because of Tenant's use of the Premises for other than customary business office operations.

Section 4.8 **Landlord's Access.** Landlord, its contractors, subcontractors, servants, employees and agents, shall have the right after reasonable notice to Tenant to enter upon the Leased Premises at reasonable times and in a manner not unreasonably interfering with Tenant's business to inspect the same, clean or make repairs, alterations or additions thereto, and after notice to Tenant, to show same to prospective tenants at any time during the last three (3) months of the Lease Term then in progress (initial or renewal, as the case may be) and to show same to prospective purchaser of the Building at any time during the Lease Term, and for any other reasonable purpose which Landlord may deem necessary or desirable. Other than as set forth in this Lease, Landlord shall not interfere with the conduct of Tenant's business.

Section 4.9 **Taxes.** Tenant shall pay all ad valorem and similar taxes or assessments levied upon or applicable to all of Tenant's Trade Fixtures and all other equipment, fixtures furniture and other property situated in the Leased Premises in excess of the improvements deemed or established by Landlord as building standard and all license and other

fees or charges imposed on the business conducted by Tenant on the Leased Premises. If Tenant's leasehold improvements exceed building standard and Landlord shall be required to pay a higher ad valorem tax with respect to the Building than would have been payable had Tenant's leasehold improvements been building standard, then Tenant shall pay to Landlord the amount by which the ad valorem taxes for the tax period exceed the amount of ad valorem taxes that otherwise would have been payable by Landlord. For the purposes of this Lease Landlord hereby certifies that the improvements to the Leased Premises set forth in the attached plans and specifications shall be deemed to be building standard.

Section 4.10 **Leasehold Improvements and Trade Fixtures.** Subject to the other provisions of this Lease, Landlord and Tenant agree that all Trade Fixtures installed in the Leased Premises shall be and remain the property of Tenant and may be removed by Tenant prior to or upon the expiration of the Lease Term; provided, however, that if any such Trade Fixture is affixed to the Leased Premises and therefore requires severance therefrom, such severance may be effected only if Tenant repairs any damage caused by such removal and restores the Leased Premises to such condition as existed prior to the installation of such Trade Fixtures. Any such removal and restoration shall be accomplished in good and workmanlike manner so as not to damage the Building or any improvements situated therein. Prior to installation of Trade Fixtures, Landlord shall notify Tenant if said Trade Fixtures are to be removed at the end of the Lease Term. Tenant agrees to remove, at Landlord's request upon the termination of this Lease or Tenant's right to possession of the Leased Premises (regardless of how same may occur) such Trade Fixtures and, if Tenant fails to do so, to pay Landlord upon demand of Landlord, the reasonable cost and expense incurred by Landlord in so doing. All such Trade Fixtures which are not removed by Tenant upon Landlord's request or by Landlord in accordance herewith shall become the property of Landlord upon the termination of this Lease or Tenant's right to possession of the Leased Premises (regardless of How same may occur). All other items shall be surrendered by Tenant coincident with its surrender of the Leased Premises, and Tenant shall have no (and hereby waives all) rights to any payment or compensation for such items.

Section 4.11 **Subordination to Mortgage, Notice to Mortgagee.** This Lease is subject and subordinate to any first lien mortgage or deed of trust which may now or hereafter encumber the Building and/or the Site and to all renewals, modifications, consolidations, replacements and extensions thereof. The subordination set forth herein shall be self-operative and effective without the necessity of execution of any further instruments by any party; provided, however, that in confirmation of such subordination, Tenant shall at Landlord's request execute promptly any appropriate certificate or instrument that Landlord's mortgagee may reasonably request; provided same does not alter the business terms of the lease or detract from or reduce Tenant's rights under the lease or at law or in equity,. Such instrument shall provide that Tenant's use and occupancy of the Premises shall not be disturbed by the mortgagee so long as Tenant performs all the obligations set forth in this Lease. In the event of the enforcement by the trustee of the remedies provided for by law or by such mortgage or deed of trust, upon request of any person or party succeeding to the interest of Landlord as a result of such enforcement, Tenant will automatically become the tenant of such successor in interest without change in the terms or provisions of this Lease.

Section 4.12 **Landlord's and Tenant's Mortgagee and Partners.** At Landlord's or Tenant's request, the other party will execute an estoppel certificate in a commercially reasonable form, certifying to such customary facts pertaining to the status of the Lease.

ARTICLE V

Section 5.1 **Condemnation.** If the Leased Premises shall be taken or condemned for any public purpose to such an extent as to render the Leased Premises untenantable, this Lease shall, at the option of either party hereto, forthwith cease and terminate. All proceeds from any taking or condemnation of the Leased Premises shall belong to and be paid to Landlord. The Tenant shall have the right to bring an action against the condemning authority for damages.

Section 5.2 **Fire or Casualty Damage.** In the event of a fire or other casualty in the Leased Premises, Tenant shall immediately give notice thereof to Landlord and Landlord shall restore the Premises. If the Leased Premises shall be partially destroyed by fire or other Casualty so as to render the Leased Premises wholly or partially untenantable, the rental provided for herein shall abate thereafter in proportion to the Premises rendered untenantable until such time as the Leased Premises are restored. In the event that Landlord fails to restore the Premises within ninety (90) days of casualty, then Tenant shall have the option to terminate this Lease upon notice to Landlord within thirty (30) days of the date of such casualty. In the event of substantial destruction by fire or other casualty of the Leased Premises in the last six months of the Term, unless the Lease is extended by notice to Landlord delivered by Tenant within thirty (30) days of the casualty, then this Lease shall forthwith terminate and all rent owed up to the time of such total destruction shall be paid by Tenant to Landlord.

Section 5.3 **Insurance.** Landlord shall maintain during the Lease Term fire and extended coverage insurance insuring the Building and Leased Premises (excluding Tenant's goods, furniture or property placed in the Leased Premises and Trade Fixtures) against damage or loss from fire or other casualty normally insured against under the terms of standard policies of fire and extended coverage insurance in the amount of the full replacement value of the Building and subject to commercially reasonable deductibles. Tenant shall be responsible for providing, at Tenant's own expense, all insurance coverage necessary for the protection against loss or damage from fire or other casualty of any Trade Fixture, and Tenant's goods, furniture or other property placed in the Leased Premises. Landlord shall not be obligated to insure any of Tenant's goods, Trade Fixtures, furniture or other property placed in or incorporated in the Leased Premises. In connection with the construction by Tenant of any improvements to the Leased Premises or any additions or alterations thereto, Tenant shall maintain insurance to the extent typically carried by tenants for property of this type.

Section 5.4 **Liability Insurance.** Landlord and Tenant shall each, at their respective expense, maintain a policy or policies of comprehensive general liability insurance, issued by an insurance company authorized to do business in the State of Connecticut. Such insurance shall afford minimum protection of not less than (a) $1,000,000 per occurrence/$1,000,000 aggregate for personal injury and $1,000,000 per occurrence/$1,000,000

aggregate for property damage, or (b) combined single limit of $3,000,000 per occurrence/$3,000,000 aggregate for personal injury and property damage. Each party shall list the other party on their respective policies as an additional insured. All policies to be issued by nationally reputable insurance companies licensed to do business in Connecticut.

Section 5.5 Surrender of Leased Premises. On the last day of the Lease Term, Tenant shall peaceably and quietly surrender the Leased Premises to Landlord, in good order, repair and clean condition equal to the condition when delivered to Tenant, except for ordinary wear and tear and damage by fire or other casualty contemplated in Section 5.2. If Tenant fails to do any of the foregoing, Landlord, in addition to other remedies available to it at law or in equity may, with or without notice, enter upon, reenter, possess or repossess itself thereof, by summary proceeding, ejectment or otherwise, and may dispossess and remove Tenant and all persons and property from the Leased Premises. Such dispossession and removal of Tenant shall not constitute a waiver by Landlord of any claims by Landlord against Tenant.

Section 5.6 Holding Over. In the event of holding over by Tenant after expiration of or termination of this Lease without the written consent of Landlord, Tenant shall pay as liquidated damages effective upon the commencement of the third month after expiration of the lease term 125% times the current due hereunder for the remaining hold-over period. No holding over by Tenant after the term of this Lease shall be construed to extend the Lease Term. In the event of any unauthorized holding over, Tenant shall also indemnify Landlord against all claims for damages by any other tenant to whom Landlord may have leased all or any part of the Leased Premises effective upon termination of this Lease. Any holding over with the consent of Landlord in writing shall thereafter convert this Lease to a lease from month to month.

Section 5.7 Intentionally Deleted

Section 5.8 Hold Harmless and Indemnities.

(a) Landlord shall not be liable to Tenant, Tenant's agents, servants, employees, contractors, customers or invitees for any damages to person or property caused by any act, omission or neglect of Tenant, its agents, servants, contractors, employees, customers or invitees. Tenant shall not be liable to Landlord or to Landlord's agents, servants, employees, contractors, customers or invitees for any damage to person or property caused by any act, omission or neglect of Landlord, its agents, servants, employees, contractors, customers or invitees.

(b) Landlord shall indemnify and save Tenant and Tenant's agents, contractors and employees ("Related Parties") harmless of and from all losses, costs, liabilities, claims, damages, expenses, penalties and fines (excluding indirect and consequential damages which shall be deemed not to include any damages arising out of claims asserted against Tenant by third parties), incurred in connection with or arising from: (i) any Landlord default hereunder; (ii) any breach of Landlord's representations or warranties hereunder; and (iii) any negligence or willful misconduct of Landlord or Landlord's Related Parties. If any action or proceeding shall be brought against Tenant based upon any such claim, Landlord, upon notice from Tenant, shall cause such actions or proceeding to be defended at Landlord's expense. This indemnity shall survive termination of this Lease.

(c) Tenant shall indemnify and save Landlord and Landlord's Related Parties harmless of and from all losses, costs, liabilities, claims, damages, expenses, penalties and fines (excluding indirect and consequential damages which shall be deemed not to include any damages arising out of claims asserted against Landlord by third parties) incurred in connection with or arising from: (i) any Tenant default hereunder; (ii) any breach of Tenant's representations or warranties hereunder; and (iii) any negligence or willful misconduct of Tenant or Tenant's Related Parties. If any action or proceeding shall be brought against Landlord based upon any such claim, Tenant, upon notice from Landlord, shall cause such actions or proceeding to be defended at Tenant's expense. This indemnity shall survive termination of this Lease.

Section 5.9 **Waiver of Subrogation Rights.** Anything in this Lease to the contrary notwithstanding, Landlord and Tenant each hereby waive any and all rights of recovery, claim, action or cause of action, against the other, its agents, officers, or employees, for any loss or damage that may occur to the Leased Premises or the Building, or any improvements thereto, or any personal property of such party therein, by reason of fire, the elements, or any other cause which could be insured against under the terms of standard fire and extended coverage insurance policies referred to in Section 5.3 hereof, regardless of cause or origin, including negligence of the other party hereto, its agents, offices or employees, and covenants that no insurer shall hold any right of subrogation against such other party and such insurer shall waive its rights of subrogation.

Section 5.10 **Default by Tenant.** If default shall be made in the payment of any sum to be paid by Tenant under this Lease and such default shall continue for ten (10) days after written notice to Tenant, or default shall be made in the performance or observance of any of the other covenants or conditions of this Lease which Tenant is required to observe and to perform and such default shall continue for thirty (30) days after written notice to Tenant plus such additional reasonable and necessary period given the nature of the cure and provided Tenant is diligently pursuing cure to completion, or if the interest of Tenant under the Lease shall be levied on under execution or other legal process, or if any petition shall be filed by or against Tenant to declare Tenant a bankrupt and the same is not discharged within sixty (60) days of filing the same, or if any petition shall be filed proposing the reorganization of Tenant under any federal or state bankruptcy or similar law and the same is not discharged within sixty (60) days of filing of the same, or if Tenant be declared insolvent according to law, or if any assignment of Tenant's property shall be made for the benefit of creditors, or if a receiver or trustee is appointed for Tenant or its property, and the same is not discharged within sixty (60) days of filing the same, or Tenant shall be dissolved or otherwise liquidated, then Landlord may treat the occurrence of any one or more of the foregoing events as a default under this Lease (provided that no such levy, execution, legal process of petition filed against Tenant shall constitute a default under this Lease if Tenant shall vigorously contest the same by appropriate proceedings and shall remove or vacate the same within sixty (60) days from the date of its creation, service or filing) and thereupon, at Landlord's option may have any one or more of the following described remedies in addition to all other rights and remedies provided at law or in equity:

(a) Landlord may terminate this Lease and forthwith repossess the Leased Premises and be entitled to recover forthwith as damages a sum of money equal to the total of (I) the cost

of recovering the Leased Premises, including reasonable attorney's fees, (ii) the unpaid rent earned at the time of termination, plus lesser of interest thereon at the maximum rate permitted by law or Prime Rate plus 7% per annum where there is no statutory limit imposed "Default Interest Rate" and (iii) any other sum of money or damages owned by tenant to Landlord, but less rents received during the Lease Term upon releasing the Leased Premises. The term "Prime Rate" means the Prime Rate as reported in the Money Rates section of The Wall Street Journal. For those days of the term of this Lease which are not business days, the Prime Rate for such days shall be the Prime Rate as reported in The Wall Street Journal on first business day preceding such day. If The Wall Street Journal ceases publication of the Prime Rate, then the Prime Rate shall mean the highest prime rate (or base rate) reported in such other publication as Landlord determines to be comparable to the Prime Rate reported by The Wall Street Journal.

(b) Landlord may terminate Tenant's right of possession (but not the Lease) and may repossess the Leased Premises in accordance with the summary process laws of the State of Connecticut. Landlord shall use its best efforts to relet the same for the account of Tenant for such rent and upon such terms as shall be reasonably satisfactory to Landlord. For the purpose of such reletting Landlord is authorized to decorate or to make any repairs, changes, alternations or additions in or to the Leased Premises that may be reasonably necessary. If the Leased Premises are relet and a sufficient sum shall not be realized from such reletting after paying (i) the unpaid Base Rental and additional rent due hereunder earned but unpaid at the time of reletting plus interest thereon at the Default Interest Rate, (ii) the cost of recovering possession, including reasonable attorney's fees, (iii) the cost and expenses of such decorations, repairs, changes, alterations and additions and (iv) the expenses of such reletting and of the collection of the rent accruing therefrom to satisfy the rent provided for in this Lease to be paid, then Tenant shall pay to Landlord as damages a sum equal to the amount of the rental reserved in this Lease for such period or periods, or if the Leased Premises has been relet, the Tenant shall satisfy and pay any such deficiency upon demand therefore from time to time. Tenant agrees that Landlord may file suit to recover any sums falling due under the terms of this Section 5.10 from time to time, and that no delivery to or recovery by Landlord of any portion due Landlord hereunder shall be any defense in any action to recover any amount not theretofore received by Landlord, nor shall such reletting be construed as an election on the part of the Landlord to terminate this Lease unless a written notice of such intention be given to Tenant by Landlord. Notwithstanding any such reletting without termination, Landlord may at any time thereafter elect to terminate this Lease for such previous default.

Section 5.11 Landlord Default. If default shall be made by Landlord in the performance of the conditions or covenants of this Lease, Tenant shall give Landlord written notice of the default, and if Landlord fails to cure such default within thirty (30) days after written notice thereof to Landlord (unless the default involves a hazardous condition or a critical service, which shall be cured immediately), plus such additional reasonable and necessary period given the nature of the cure and provided Landlord is diligently pursuing the cure to completion, then Landlord shall be deemed in default of this Lease and Tenant shall be entitled to its rights under law and equity, including those self-help rights in Section 5.12 hereof.

Section 5.12 Landlord's and Tenant's Right to Perform Other's Obligations. If one party fails to perform any one or more of its obligations hereunder, the other party shall have the right but not the obligation to perform all or any part of such obligations after receipt of any required default notice and expiration of any applicable cure period. Upon receipt of a demand therefore from performing party, the other shall reimburse the performing party for (i) the cost to the performing party of performing such obligations and reasonable profit plus (ii) interest thereon at the Default Interest Rate from the date such costs were incurred until paid in full.

Section 5.13 Attorneys' Fees. In the event either party defaults in the performance of any of the terms, conditions, agreements or conditions contained in this Lease and the other party places the enforcement of this Lease, or any part thereof, or the collection of any rent due or other services due, or to become due hereunder or recovery of the possession of the Leased Premises, in the hands of an attorney who files suit upon the same, all reasonable attorneys' fees for such action on either side shall be paid by the unsuccessful litigant.

Section 5.14 Alteration. This Lease may not be altered, changed or amended, except by an instrument in writing signed by both parties hereto.

Section 5.15 Non-Waiver. Failure of either party to declare any default immediately upon occurrence thereof, or delay in taking any action in connection therewith, shall not waive such default, but said party shall have the right to declare any such default at any time and take such action as might be lawful or authorized hereunder, either at law or in equity.

Section 5.16 Notices. Any notice or other communications to Landlord or Tenant required or permitted to be given under this Lease, (and copies of the same to be given to Landlord's mortgagees as below described), must be in writing and shall be effectively given if hand delivered to the addresses for Landlord and Tenant stated above or if sent by a reputable overnight carrier or United States Mail, certified or registered, return receipt requested, to said addresses. Any notice mailed shall be deemed delivered upon receipt or refusal. Either party shall have the right to change the address to which notices shall thereafter be sent by giving the other notice thereof.

Section 5.17 Interest. All amounts of money payable by either party under this Lease, if not paid when due, shall bear interest from the date due until paid at the Default Interest Rate.

Section 5.18 Merger of Estates. The voluntary or other surrender of this Lease by Tenant or a mutual cancellation thereof, shall not constitute a merger, and shall, at the option of Landlord, terminate all or any existing subleases or subtenancies, or may, at the option of Landlord, operate as an assignment to it of Landlord's interest in any or all such subleases or subtenancies.

Section 5.19 Legal Interpretation. This Lease and the rights and obligations of the Parties hereto shall be interpreted, construed and enforced in accordance with the laws of Connecticut. The determination that one or more provisions of this Lease is invalid, void, illegal

or unenforceable shall not affect or invalidate the remainder. All obligations of either party requiring any performance after the expiration of the Least Term shall survive the expiration of the Lease Term and shall be fully enforceable in accordance with the provisions pertaining thereto. Section titles appearing in this Lease are for convenient reference only and shall not be used to interpret or limit the meaning of any provision of this Lease.

Section 5.20 **Entire Agreement.** No oral statements or prior written material not specifically incorporated herein shall be of any force or effect Tenant agrees that in entering into and taking this Lease, it relies solely upon the representations and agreements contained in this Lease and no others.

Section 5.21 **Intentionally Deleted**

Section 5.22 **Recordation.** Tenant agrees not to record this Lease, but each party hereto agrees, on request of the other, to execute a short-form lease in recordable form and complying with applicable state laws. In no event shall such document set forth the rental or other charges payable to Landlord under this Lease; and any such document shall expressly state that it is executed pursuant to the provisions contained in the Lease and is not intended to vary the terms and conditions of the Lease.

Section 5.23 **Force Majeure.** Whenever a period of time is herein prescribed for the taking of any action by either party, there shall be excluded from the computation of such period of time, any delays due to strikes, riots, acts of God, shortages of materials, war, governmental laws, regulations or restrictions, or any other cause whatsoever beyond the reasonable control of the party claiming a force majeure, provided such party delivers notice to the other of the claimed force majeure within two (2) days of such party's actual notice of the force majeure event. Notwithstanding the foregoing, in the event Landlord's obligation to Substantially Complete the Building and Premises is delayed for more than one hundred eighty (180) days after the Target Commencement Date due to a force majeure event, Tenant shall have the right to terminate this Lease upon written notice to Landlord.

Section 5.24 **Consent and Approval.** Whenever consent or approval of either Landlord or Tenant is required for the action of the other, said consent or approval will not be unreasonably withheld or delayed.

Section 5.25 **Exclusivity.** Intentionally deleted.

Section 5.26 **Restrictive Covenant.** At any time during the term of this Lease, Landlord shall not lease, sublet or permit occupancy of any space within the Building to any acute care hospital, any physician (or any entity owned or controlled by one or more physicians) who is not a member of the medical staff of Eastern Connecticut Health Network, Inc. ("ECHN"), any affiliate of the foregoing, or any partner or joint venturer of the foregoing, without in each case the express written consent of Manchester Memorial Hospital or its successor affiliates. Landlord shall provide written notice of its intent to enter into a lease or other occupancy agreement with a tenant for space within the Building and shall provide Manchester Memorial Hospital or its successor affiliates with commercially reasonable

documentation with respect to the proposed tenant, sublessee or occupant which shall include, without limitation, a description of its use and expertise, the terms of the assignment, sublease or occupancy and reasonable financial information. Manchester Memorial Hospital or its successor affiliates shall have 14 business days from the date of receipt of such written notice and supporting documentation to inform Landlord of its consent or lack thereof.

Section 5.27 **Miscellaneous.** This Lease shall be binding upon and inure to the benefit of the successors and assigns of Landlord, and shall be binding upon and inure to the benefit of Tenant, its successors, and, to the extent assignment may be approved by Landlord hereunder, Tenant's assigns. The pronouns of any gender shall include the other genders and either the singular or the plural shall include the other.

ARTICLE VI

Section 6.1 **Definitions.** As used in this Lease, the following terms shall have the respective meanings indicated:

BUILDING shall mean the medical office building located at 2400 Tamarack Avenue, South Windsor, CT06074

COMMENCEMENT DATE shall mean "Substantial Completion" of Building and Premises.

GROSSRENTABLE AREA (GRA) of the Leased Premises shall mean the net rentable area and the prorata share of common areas.

GROUND LEASE shall mean that certain ground lease of even date herewith entered into between Evergreen Walk II, LLC., as ground lessor and Evergreen Medical Associates II, LLC , as ground lessee of the land on which the Building is located, as more particularly described therein and is attached as Exhibit C

LEASED PREMISES shall mean the second floor suite in the Building as outlined on the floor plan attached to this Lease as Exhibit A incorporated herein.

LEASE YEAR shall mean one full year from the first day of lease commencement and each succeeding full year upon the anniversary of the first lease year.

NET RENTABLE AREA (NRA) of the Leased Premises shall mean the gross area within the inside surface of the outer glass of the exterior walls to the mid-point of any walls separating portions of the Leased Premises from those of adjacent tenants and to the inside surface of walls separating the Leased Premises from common and service areas. The Leased Premises are stipulated for all purposes to contain _____ square feet of Net Rentable Area, and the total Gross Area for the Building is 28,875 square feet, subject to the final measurement of the Leased Premises and Building upon Substantial Completion.

NORMAL BUSINESS HOURS shall mean from seven a.m. to eight p.m., five days a week from Monday through Friday, inclusive, and from seven a.m. to one p.m. on Saturday, exclusive of the following holidays:

New Years Day
Memorial Day
Independence Day
Labor Day
Thanksgiving Day
Christmas Day

and any other holiday recognized and taken by tenants occupying at least one-half (1/2) of the Net Rentable Area of office space of the Building. Tenant shall be given a key to the building to permit access to the Leased Premises at all times other than Normal Business Hours. Should Tenant operate on a consistent basis during times outside of Normal Business Hours as defined herein, then Landlord shall determine any increased operating costs caused by such operation and charge to Tenant as additional rent hereunder an amount which reimburses Landlord for such increased operating costs.

OPERATING COSTS shall consist of all operating expenses of the building, which shall be computed on the accrual basis and shall include the cost of operating and maintaining the Building and Land. All operating expenses shall be determined in accordance with generally accepted accounting principles consistently applied. The term "operating expenses" as used herein shall mean all expenses, costs and disbursements (but not replacement of capital investment items nor specific costs specifically billed to and paid by specific tenants) of every kind and nature which Landlord shall pay or become obligated to pay because of or in connection with the operation of the building, including but not limited to, the following:

(a) Wages and salaries of all employees only to the extent that such employees are engaged in operation and maintenance or security of the Building at manager level and below, including taxes, insurance and benefits relating to such employees.

(b) All supplies and materials used in operation and maintenance of the Building.

(c) Cost of all use (not installation) utilities for the building, including the cost of water and power, heating, lighting, air conditioning and ventilating for the Building.

(d) Cost of all commercially reasonable maintenance, janitorial, and service agreements for the Building and the equipment therein, including alarm service, window cleaning and elevator maintenance.

(e) Cost of all commercially reasonable insurance relating to the Building, including cost of casualty and liability insurance applicable to the Building and Landlord's personal property used in connection therewith.

(f) All taxes and assessments and governmental charges whether Federal, state, county or municipal, and whether they be by taxing districts or authorities presently taxing the Leased Premises or by others, subsequently created or otherwise, and any other taxes and assessments attributable to the Building and the Land, but excluding taxes on rents, franchise taxes, income taxes, etc. It is agreed that Tenant will be responsible for ad valorem taxes on its personal property and on the value of leasehold improvements to the extent that same exceed building standard allowances. For the purposes of this Lease Landlord hereby certifies that the improvements to the Leased Premises set forth in the attached plans and specifications shall be deemed to be building standard.

(g) Cost of repairs and general maintenance (excluding repairs and general maintenance paid by proceeds of insurance or by Tenant or other third parties, and alterations attributable solely to tenants of the Building other than Tenant).

(h) Amortization of the cost of installation of capital repairs, repairs or improvements to the building necessary to maintain the building or which may be required by governmental authority. All such costs shall be amortized over the reasonable life of the capital investment items by an additional charge to be added to rent and paid by Tenant as additional rent, with the reasonable life and amortization schedule being determined in accordance with generally accepted accounting principles and in no event beyond the reasonable life of the Building.

(i) That part of Landlord's reasonable accounting costs applicable to the Building.

(j) All commercially reasonable fees, costs and charges paid to any person or entity that manages the Building.

Notwithstanding anything in this Lease to the contrary, the following expenses are excluded from Operating Costs:

(A) depreciation and amortization;
(B) expenses incurred by Landlord to prepare, renovate, repaint decorate or perform any other work in any space leased to an existing tenant or prospective tenant of the Building;
(C) expenses incurred by Landlord for repairs or other work occasioned by fire, windstorm, or other casualty or condemnation to the extent covered and reimbursed by insurance;
(D) expenses incurred by Landlord to lease space to new tenants or to retain existing tenants, including, without limitation, leasing commissions, advertising and promotional expenditures;
(E) expenses incurred by Landlord to resolve disputes, enforce or negotiate lease terms with prospective or existing tenants or in connection with any financing, sale or syndication of the Property;
(F) Interest, principal, points and fees, amortization or other costs associated with any debt and Base Rent and additional rent included within the definition of Operating Costs payable under this Lease, payable under any ground lease to

which this Lease is subject and all costs associated with any such debt or lease and any ground lease rent, irrespective of whether this Lease is subject or subordinate thereto;

(G) expenses for the replacement of any item covered under warranty. Landlord shall be obligated to obtain and enforce warranties on capital improvement items;

(H) cost to correct any penalty or fine incurred by Landlord due to Landlord's violation of any federal, state, or local law or regulation and any interest or penalties due for late payment by Landlord of any of the Operating Costs;

(I) cost of repairs necessitated by Landlord's negligence or willful misconduct;

(J) cost of correcting any latent defects or original design defects in Building construction, materials or equipment;

(K) expenses for any item or service which Tenant pays directly to a third party or separately reimburses Landlord and expenses incurred by Landlord to the extent the same are reimbursable or reimbursed from any other tenants, occupants of the property or third parties;

(L) expenses for any item or service not provided to Tenant, but provided exclusively to certain other tenants in the Building;

(M) a property management fee for the Building in excess of five percent (5%) of the gross rents of the Building (exclusive of tenant reimbursements and ancillary income from other tenants (e.g. income from antennae, or satellite dishes, paid parking, security deposits and interest thereon, etc.) for the relevant calendar year;

(N) the portion of employee expenses which reflects that portion of such employee's time which not spent directly and solely in the operation of the Property;

(O) Landlord's general corporate overhead and administrative expenses except as if it is solely for the Building;

(P) Fees paid to affiliates of Landlord to the extent that such fees exceed the customary amount charged for the services provided;

(Q) The operating expenses incurred by Landlord relative to any specialty service in the Building or on the Property;

(R) cost of sculptures, paintings, and other objects of art;

(S) items not customarily included as operating expenses for similar Class A Medical Buildings;

(T) Capital reserves.

Tenant at its expense shall have the right at all reasonable times to review and audit Landlord's books and records relating to this Lease for any year or years for which additional rental payments become due. If there is a discrepancy in the amount paid or payable by Tenant of greater than 5%, Landlord shall reimburse Tenant for the reasonable cost of such audit. Landlord shall provide a detailed statement of actual Operating Costs within ninety (90) days of the close of each Lease Year. Upon Tenant's request, Landlord shall provide Tenant with reasonable supporting documentation including receipted tax bills.

SUBSTANTIAL COMPLETION shall mean: (i) the shell and core of the Building are complete and in compliance with all laws and all of the Building systems are in good working order; (ii) Landlord has sufficiently completed all the Tenant Improvements required to be performed by Landlord in accordance with this Lease (except minor punch list items which Landlord shall thereafter promptly complete) such that Tenant can conduct normal business operations from the entire Premises and Landlord has notified Tenant of completion of the same; (iii) the Premises is broom clean and vacant; (iv) Landlord has obtained a certificate of occupancy for the Building, or a temporary certificate of occupancy, in which case Landlord shall pursue diligently the issuance of a final certificate of occupancy, for that portion of the Building that includes all of the Premises, or its equivalent; (v) parking is available on the paved lot adjacent to the Building and all exterior common areas are completed (including accessways and sidewalks); and (vi) Tenant has been delivered complete and uninterrupted access to the Premises (and other required portions of the Building and the property.)

TRADE FIXTURES shall mean any and all signs placed by Tenant within the Leased Premises pursuant to provisions hereof and any and all items of property used by Tenant in the Leased Premises, including but not limited to furniture and equipment. The term Trade Fixtures shall not included any permanent leasehold improvements, (all of which permanent leasehold improvements, as between Landlord and Tenant, shall become the property of Landlord upon the incorporation in or affixation to the Leased Premises) including but not limited to any floor, wall or ceiling coverings, any interior walls or partitions, any lighting fixtures, or any property a part of or associated with any electrical, plumbing or mechanical system, notwithstanding that the same may have been installed within the Leased Premises but except those fixtures that can be removed without damaging the Leased Premises.

Section 6.2 **Exhibits, Schedules and Supplements.** The Exhibits, Schedules and Supplements attached to this Lease are hereby incorporated herein and hereby made a part of this Lease.

ARTICLE VII

Section 7.1 **Environmental Indemnity.** Landlord shall defend, indemnify and hold harmless Tenant and Tenant's Related Parties from and against any and all claims, losses, damages, liabilities, judgments, costs and expenses (including attorneys' fees) which may be imposed upon, incurred by or asserted against Tenant or any of the Related Parties, as a result of or in connection with the presence or removal of hazardous substances in the Building, on the land or in the Premises, unless the hazardous substances were caused or generated by Tenant or its Related Parties. Tenant shall defend, indemnify and hold harmless Landlord and Landlord's Related Parties from and against any and all claims, losses, damages, liabilities, judgments, costs and expenses (including attorneys' fees) which may be imposed upon, incurred by or asserted against Landlord or any of the Related Parties, as a result of hazardous substances brought onto

the Premises, Building or land by Tenant or any of Tenant's Related Parties. These indemnities shall survive the termination of the Lease.

IN TESTIMONY WHEREOF, the parties hereto have executed this lease as of the day and year first above written.

LANDLORD:
EVERGREEN MEDICAL ASSOCIATES II, LLC

By:_____

David W. Sessions, Its Managing Member

TENANT:

_____

By:_____
Its President and CEO

STATE OF CONNECTICUT }
} ss:
COUNTY OF HARTFORD }

The foregoing instrument was acknowledged before me this _____day of _____, 2011 by David W. Sessions, Managing Member of EVERGREEN MEDICAL ASSOCIATES II, LLC, a Connecticut limited liability company on behalf of the said limited liability company.

_____
Notary Public

STATE OF CONNECTICUT }
} ss:
COUNTY OF HARTFORD }

The foregoing instrument was acknowledged before me this _____day of _____, 2011 by _____, Its _____ on behalf of, (**TENANT**_____) on behalf of said _____.

_____

Notary Public

Braintree

Rec'd: 10-12-2011

integrationpartners

80 Hayden Ave, Lexington MA 02421
Phone: 781-357-8100 Fax: 781-357-8500

Corporate and Remit office: 80 Hayden Ave Lexington MA 02421

Quote No.: WBC 09192011 MG03
Valid for: 30 DAYS

Sales Representative: Matt Gibbs
Date: 19-Sep-11

P.O. #:
Contact: Walter Henritze
Email: whenritze@waldenbehavioralcare.com
Ship To: Walden Behavioral Care
9 Hope Avenue
Suite 500
Waltham, MA 02453
Attn: Walter Henritze

Phone: 781-647-2921
Fax:
Contract:

Bill To: Walden Behavioral Care
880 Main Street
2nd Floor
Waltham, MA 02451
Attn: Accounts Payable

Phone:
Fax:

Walden Behavioral Care - Braintree Voice and Data

Qty.	Part No.	Manufacturer	Description	Unit Price	Ext. Price
			Braintree - Branch Office - Voice		
1	700476005	Avaya	IPO IP500 V2 CNTRL UNIT	$ 423.00	$ 423.00
1	700479710	Avaya	IPO IP500 V2 SYS SD CARD MUL	$ 33.00	$ 33.00
8	700461197	Avaya	IP PHONE 9620L CHARCOAL GRY	$ 332.00	$ 2,656.00
1	700500928	Avaya	IPO 7.0 USER/ADMIN SET DVD	$ 12.00	$ 12.00
4	700213440	Avaya	IPO ISDN RJ45/RJ45 3M RED	$ 3.00	$ 12.00
1	700476013	Avaya	IPO IP500 V2 COMB CARD ATM	$ 390.00	$ 390.00
1	700429202	Avaya	IPO IP500 RACK MNTG KIT	$ 39.00	$ 39.00
1	700289770	Avaya	IPO - PWR LEAD (EARTHED) US	$ 10.00	$ 10.00
1	205650	Avaya	IPO LIC IP500 VCE NTWKG ADD 4 LIC:CU	$ 452.00	$ 452.00
1	229423	Avaya	IPO LIC R6+ ESSNTL EDITION ADD 2CH	$ 260.00	$ 260.00
1	229445	Avaya	IPO LIC R6+ AV IP ENDPOINT 5	$ 228.00	$ 228.00
3	229444	Avaya	IPO LIC R6+ AV IP ENDPOINT 1	$ 49.00	$ 147.00
			Hardware total		$ 4,662.00
			Installation and Configuration - voice		$ 4,800.00
1	various	IPC	Maintenance 8 x 5 Full coverage - Switch and sets (12 months)	$ 621.00	$ 621.00
					$ 10,083.00
			Braintree - Data		
			Hardware		
1	SRX100H	Juniper	SRX services gateway 100 with 8xFE ports and high memory (1GB RAM, 1GB FLASH) External power supply and cord included.	$ 617.00	$ 617.00
1	AL4500E15-E6	Avaya	ERS 4524GT-PWR with 24 10/100/1000 802.3af PoE ports and 4 shared SFP ports, plus HiStack ports and RPS connector. Inc. Base Software License & 46cm stack cable. (N America power cord)	$ 2,402.00	$ 2,402.00
			Installation and configuration		
1	IPC Labor	IPC	Installation and configuration	$ 1,320.00	$ 1,320.00
			Maintenance	$ -	$ -
1	PAR-ND-SRX100	IPC / Juniper	Operate Specialist Annual NextDay Support for SRX100	$ 46.00	$ 46.00
1	GF4300CK8	IPC / Avaya	ERS 4524GT ERS 4526T-PWR Partner Assurance Technology Support - Base Next Bus Day-SLCK8	$ 78.00	$ 78.00
					$ 4,463.00

Sub-Total Investment: $ 14,546.00

*Total Investment: $ 14,546.00

* Note: Investment does not include sales tax,shipping and handling
Additional Comments

Authorized Signature

Insight

Insight
6820 S HARL AVE
TEMPE,AZ,85283-4318
Tel: 8004674448

SOLD-TO PARTY

WALDEN BEHAVIORAL CARE LLC
9 HOPE AVE STE 500
WALTHAM, MA 02453-2751

SHIP-TO ADDRESS

WALDEN BEHAVIORAL CARE LLC
9 HOPE AVE STE 500
WALTHAM MA 02453-2751

Quotation

Quotation Number 213206389
Creation Date 09/26/2011

PO Number / Date :

Customer No. : 10586773
Sales Rep : Emmanuel Putinja

Email : eputinja@insight.com
Telephone : 800-467-4448 X 2325

We deliver according to the following terms:

Terms of Payment : Net 30 days
Ship Via : Insight Assigned Carrier / Ground
Terms of Delivery : FOB ORIGIN
Currency : USD

Material	Description	Qty	UnitPrice	Extended Price
VS875UT#ABA	HP 500B - P E5700 3 GHz	1	369.99	369.99
AT023AT	HP memory - 1 GB - DIMM 240-pin - DDR3	1	13.99	13.99
27152	Cables to Go Cat6 550 MHz Snagless Patch Cable - patch cable - 7 ft	1	6.99	6.99
TLP74RB	Tripp Lite Protect It! TLP74RB - surge suppressor - 1.8 kW	1	10.99	10.99
269-14834	Microsoft Office Professional 2010 - License - 1 PC - PKC (microcase) - Win - English	1	334.99	334.99
NK571A8#ABA	HP LE2201w - LCD display - TFT - 22"	1	169.99	169.99

Sub Total	**906.94**
Tax	**56.68**
Freight	**49.43**
TOTAL	**1,013.05**

Lease Option: $ 31.90 / month.

Monthly payment based on 36 month lease. Payment includes freight cost if quoted above but does not include taxes. No advance payments required. Other terms and options available. Contact your account executive for details. Payment quoted subject to change.

Please contact us with any questions or for additional information about Insight's complete IT solution offering.Purchase orders should be made out to Insight Direct USA,Inc.. Again, thank you for considering Insight!

Sincerely,

Emmanuel Putinja
800-467-4448 **Ex: 2325**
eputinja@insight.com

000438

Insight

Quotation Number / Creation Date

213206389 / 09/26/2011

Material	Description	Qty	UnitPrice	Extended Price

Fax: 480-760-6572

Subject to Insight Terms & Conditions online at www.insight.com/TermsandConditions.

000439

KONICA MINOLTA

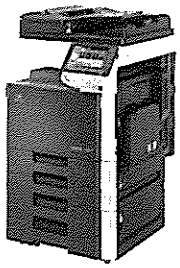
PROPOSAL PREPARED FOR:
Walden Bahavioral Care LLC

Overview of Recommendation:

Konica Minolta appreciates the opportunity again to provide a state of the art copier for your Connecticutt office. The proposal below is for a New Bizhub 223 Copier with Copy/Scan/ Print/Fax capabilities.

INCLUDED ITEMS:

OneNew Bizhub 223 Copy/Print/Scan/Fax including reversing document feeder



- ***23 Pages per Minute 70 Pages per Minute Scanning***
- **Installation, Operator Training, Network Install, Scanning Setup INCLUDED**
- **InnoVolt Power Filter Max power surge suppression**
- Bizhub V-Care Automatic Service Call/Meter Reading Available
- Web Based Fleet Management (order supplies, place service calls, etc.)
- Built-in Emperon Print System
- NO HIDDEN FEES

	PURCHASE PRICE
Bizhub 223 Copier	***$3,861.00***
Document Feeder	***930.00***
Copier Stand	***245.00***
Fax	***840.00***
Power Filter	***245.00***
Total	***$6,121.00***

Proposal Prepared by
Ron Giovino
617-831-2123
Expires 10/30/11

KONICA MINOLTA

Exhibit 21

13. B i. Please provide one year of actual results and three years of projections of **Total Facility** revenue, expense and volume statistics without, incremental to and with the CON proposal in the following reporting format:

Total Facility: Description	FY Actual Results	FY 2012 Projected W/out CON	FY 2012 Projected Incremental	FY 2012 Projected With CON	FY 2013 Projected W/out CON	FY 2013 Projected Incremental	FY 2013 Projected With CON	FY 2014 Projected W/out CON	FY 2014 Projected Incremental	FY 2014 Projected With CON
NET PATIENT REVENUE										
Non-Government	-	-	609,198	609,198	-	1,130,730	1,130,730	-	1,511,324	1,511,324
Medicare	-	-	-	-	-	-	-	-	-	-
Medicaid and Other Medical Assistance	-	-	100,928	100,928	-	187,333	187,333	-	250,388	250,388
Other Government	-	-	8,516	8,516	-	15,806	15,806	-	21,126	21,126
Total Net Patient Patient Revenue	$0	$0	$718,642	$718,642	$0	$1,333,869	$1,333,869	$0	$1,782,838	$1,782,838
Other Operating Revenue	-	-	-	-	-	-	-	-	-	-
Revenue from Operations	$0	$0	$718,642	$718,642	$0	$1,333,869	$1,333,869	$0	$1,782,838	$1,782,838
OPERATING EXPENSES										
Salaries and Fringe Benefits	-	-	490,404	490,404	-	792,417	792,417	-	891,104	891,104
Professional / Contracted Services	-	-	105,011	105,011	-	257,798	257,798	-	328,357	328,357
Supplies and Drugs	-	-	10,107	10,107	-	15,878	15,878	-	20,608	20,608
Bad Debts	-	-	18,614	18,614	-	34,227	34,227	-	45,648	45,648
Other Operating Expense	-	-	129,374	129,374	-	167,153	167,153	-	196,523	196,523
Subtotal	$0	$0	$753,511	$753,511	$0	$1,267,472	$1,267,472	$0	$1,482,239	$1,482,239
Depreciation/Amortization	-	-	1,000	1,000	-	1,000	1,000	-	1,000	1,000
Interest Expense	-	-	-	-	-	-	-	-	-	-
Lease Expense	-	-	6,000	6,000	-	8,000	8,000	-	10,000	10,000
Total Operating Expenses	**$0**	**$0**	**$760,511**	**$760,511**	**$0**	**$1,276,472**	**$1,276,472**	**$0**	**$1,493,239**	**$1,493,239**
Income (Loss) from Operations	$0	$0	($41,869)	($41,869)	$0	$57,397	$57,397	$0	$289,599	$289,599
Non-Operating Income	-	-	-	-	-	-	-	-	-	-
Income before provision for income taxes	$0	$0	($41,869)	($41,869)	$0	$57,397	$57,397	$0	$289,599	$289,599
Provision for income taxes	-	-	-	-	-	5,000	5,000	-	20,000	20,000
Net Income	**$0**	**$0**	**($41,869)**	**($41,869)**	**$0**	**$52,397**	**$52,397**	**$0**	**$269,599**	**$269,599**
Retained earnings, beginning of year	-	-	-	-	-	(41,869)	(41,869)	-	10,528	10,528
Retained earnings, end of year	$0	$0	($41,869)	($41,869)	$0	$10,528	$10,528	$0	$280,127	$280,127
FTEs	0	0	7.5	7.5	0	10.0	10.0	0	10.5	10.5
***Volume Statistics: Patient Days**				**2,735**			**5,252**			**7,072**

Provide projected inpatient and/or outpatient statistics for any new services and provide actual and projected inpatient and/or outpatient statistics for any existing services which will change due to the proposal.

Exhibit 22

12.C(ii). Please provide **three** years of projections of incremental revenue, expense and volume statistics **attributable to the pro**

Type of Service Description	Behavioral Health						
Type of Unit Description:	Days						
# of Months in Operation	12 Months						
FY 2012	(1)	(2)	(3)	(4)	(5)	(6)	(7)
FY Projected Incremental		Rate	Units	Gross Revenue Col. 2 * Col. 3	Allowances/ Deductions	Charity Care	Bad Debt
Total Incremental Expenses:	**$760,511**	479	2,735				
Total Facility by Payer Category:							
Medicare		$479	0	$0	$0		
Medicaid		$479	384	$184,097	$83,169		
CHAMPUS/TriCare		$479	32	$15,533	$7,017		
Total Governmental			417	$199,630	$90,186	$0	$0
Commericial Insurers		$479	2,303	$1,103,719	$498,622		
Uninsured		$479	16	$7,479	$3,379		
Total NonGovernment		$479	2,318	$1,111,198	$502,001	$0	$0
Total All Payers		$479	2,735	$1,310,829	$592,187	$0	$0

Note: (2) Blended rate based on all patient services provided
Note: (5) Allowances/Deductions includes Charity Care & Bad Debt

posal in the following reporting format:

(8) Net Revenue Col.4 - Col.5 -Col.6 - Col.7	(9) Operating Expenses Col. 1 Total * Col. 4 / Col. 4 Total	(10) Gain/(Loss) from Operations Col. 8 - Col. 9
$0	$0	$0
$100,928	$106,809	($5,880)
$8,516	$9,012	($496)
$109,444	$115,821	($6,376)
$605,097	$640,351	($35,254)
$4,100	$4,339	($239)
$609,198	$644,690	($35,493)
$718,642	$760,511	($41,869)

12.C(ii). Please provide **three** years of projections of incremental revenue, expense and volume statistics **attributable to the pro**

Type of Service Description	Behavioral Health						
Type of Unit Description:	Days						
# of Months in Operation	12 Months						
FY 2013	(1)	(2)	(3)	(4)	(5)	(6)	(7)
FY Projected Incremental		Rate	Units	Gross Revenue Col. 2 * Col. 3	Allowances/ Deductions	Charity Care	Bad Debt
Total Incremental Expenses:	**$1,276,472**	459	5,252				
Total Facility by Payer Category:							
Medicare		$459	0	$0	$0		
Medicaid		$459	738	$338,515	$151,182		
CHAMPUS/TriCare		$459	62	$28,562	$12,756		
Total Governmental			800	$367,077	$163,938	$0	$0
Commericial Insurers		$459	4,422	$2,029,501	$906,381		
Uninsured		$459	30	$13,752	$6,142		
Total NonGovernment		$459	4,452	$2,043,253	$912,523	$0	$0
Total All Payers		$459	5,252	$2,410,330	$1,076,461	$0	$0

Note: (2) Blended rate based on all patient services provided
Note: (5) Allowances/Deductions includes Charity Care & Bad Debt

posal in the following reporting format:

(8) Net Revenue Col.4 - Col.5 -Col.6 - Col.7	(9) Operating Expenses Col. 1 Total * Col. 4 / Col. 4 Total	(10) Gain/(Loss) from Operations Col. 8 - Col. 9
$0	$0	$0
$187,333	$179,272	$8,061
$15,806	$15,126	$680
$203,139	$194,398	$8,741
$1,123,120	$1,074,791	$48,328
$7,610	$7,283	$327
$1,130,730	$1,082,074	$48,656
$1,333,869	$1,276,472	$57,397

12.C(ii). Please provide **three** years of projections of incremental revenue, expense and volume statistics **attributable to the pro**

Type of Service Description	Behavioral Health						
Type of Unit Description:	Days						
# of Months in Operation	12 Months						
FY 2014	(1)	(2)	(3)	(4)	(5)	(6)	(7)
FY Projected Incremental		Rate	Units	Gross Revenue Col. 2 * Col. 3	Allowances/ Deductions	Charity Care	Bad Debt
Total Incremental Expenses:	**$1,493,239**	455	7,072				
Total Facility by Payer Category:							
Medicare		$455	0	$0	$0		
Medicaid		$455	993	$451,475	$201,087		
CHAMPUS/TriCare		$455	84	$38,093	$16,967		
Total Governmental			1,077	$489,568	$218,054	$0	$0
Commericial Insurers		$455	5,955	$2,706,731	$1,205,579		
Uninsured		$455	40	$18,341	$8,169		
Total NonGovernment		$455	5,995	$2,725,072	$1,213,748	$0	$0
Total All Payers		$455	7,072	$3,214,640	$1,431,802	$0	$0

Note: (2) Blended rate based on all patient services provided
Note: (5) Allowances/Deductions includes Charity Care & Bad Debt

posal in the following reporting format:

(8) Net Revenue Col.4 - Col.5 -Col.6 - Col.7	(9) Operating Expenses Col. 1 Total * Col. 4 / Col. 4 Total	(10) Gain/(Loss) from Operations Col. 8 - Col. 9
$0	$0	$0
$250,388	$209,715	$40,672
$21,126	$17,695	$3,432
$271,514	$227,410	$44,104
$1,501,152	$1,257,309	$243,843
$10,172	$8,520	$1,652
$1,511,324	$1,265,829	$245,495
$1,782,838	$1,493,239	$289,599

Exhibit 23

Attachment 23: Financial Assumptions for Financial Attachments I and II

Walden's fiscal year is January 1 to December 31.

FY 2012 is the first full year of operation of the new facility.

The unit of service is days.

The projected staffing, volume, revenue and expense information are based on Walden's existing operating programs in Waltham, Northampton and Worcester, Massachusetts sites.

The program growth assumptions are based on the experience of the existing programs in Waltham, Northampton and Worcester, Massachusetts.

The current payer agreements and rates that are in effect in Massachusetts will be extended to the Connecticut facility.

Attachment II

The projected rates (Column 2) of $479 for FY 2012, $459 for FY 2013 and $455 for FY 2014 are blended rates for the proposed services. Specific rates for each service are provided in Attachment 24.

Charity Care included in Allowances and Deductions (column 5)

Exhibit 24

Section 7.d. Rate Schedule

Service Type	Adult	Adolescent
Eating Disorder - Partial Hospitalization	$ 650.00	$ 650.00
Eating Disorder - Intensive Outpatient	$ 350.00	$ 400.00
Eating Disorder [Binge] - Intensive Outpatient	$ 350.00	N/A
Eating Disorder - Aftercare	N/A	$ 115.00
Crisis Evaluation	$ 500.00	$ 500.00
Comprehensive Evaluation	$ 1,000.00	$ 1,000.00

STATE OF CONNECTICUT

DEPARTMENT OF PUBLIC HEALTH

Office of Health Care Access

December 2, 2011

VIA FAX & EMAIL ONLY

Charles R. Rossignol
Director of Business Development
Waldon Behavioral Care
880 Main Street
Waltham, MA 02451

RE: Certificate of Need Application; Docket Number: 11-31731-CON
WBC Connecticut East, LLC
Establish Partial Hospital and Intensive Outpatient Eating Disorder Programs in South Windsor

Dear Mr. Rossignol:

On November 2, 2011, the Office of Health Care Access ("OHCA") received your initial Certificate of Need application filing on behalf of WBC Connecticut East, LLC ("Applicant"), for the establishment of Partial Hospital and Intensive Outpatient Eating Disorder programs in South Windsor.

OHCA has reviewed the CON application and requests the following additional information pursuant to General Statutes §19a-639a(c):

Page 2

1. The application identifies that thirty percent (30%) of Walden's patients come from New England states other than Massachusetts. Provide a table that illustrates the state of origin for the patients treated in Walden's individual programs: hospital, residential, partial hospitalization and intensive outpatient care.

2. Explain how the partial hospitalization ("PHP") and intensive outpatient ("IOP") care programs, currently being offered at existing clinic sites in Worcester, Northhampton and Braintree, are integrated with the hospital and residential programs located in Waltham.

Pages 4 & 5

3. Explain how the proposed South Windsor, CT, PHP and IOP will be integrated with the hospital and residential programs in Waltham.

Page 8

4. Please describe the relationship between Walden and Eastern Connecticut Health Network ("ECHN") in more detail.

5. Does Walden anticipate receiving referrals from physicians affiliated with ECHN?

6. Has Walden established or is it in the process of establishing referral arrangements with other Connecticut providers? Please explain the arrangement efforts that have been made to date. Identify those entities where arrangements have been finalized. Identify those entities with whom arrangements have been discussed, but have not yet been finalized.

7. In addition to receiving referrals from the provider community, the application points out that referrals to the proposed program will be from the educational systems and districts as well as insurance companies.

    a. Explain the process of how Walden will establish referral arrangements with area educational systems and districts.

    b. Explain what is meant by program referrals will be made from insurance companies.

Pages 14 & 15

8. In addition to the actual number of patient days recorded by each service type in Table 8 of the application, please provide the corresponding number of patients to be treated by service type and location (i.e. Waltham and Northampton service sites) in the same format as presented in Table 7 of the application.

9. Please provide the projected service volume (i.e. number of patient days and the corresponding number of patients to be treated) by service type and location (i.e. Waltham and Northampton service sites) for fiscal years 2012, 2013 and 2014 in the same format as was presented for the proposed Connecticut services in Tables 6 and 7 of the application.

10. Describe the size and provide the last three completed fiscal year's utilization relating to the Waltham's hospital and residential programs.

11. Please provide the hospital and residential projected service volume (i.e. number of patient days and the corresponding number of patients to be treated) for fiscal years 2012, 2013 and 2014 in the same format as was presented for the proposed Connecticut services in Tables 6 and 7 of the application.

12. Describe the size and provide the projected first three fiscal year's utilization relating to the Applicant's Braintree PHP and IOP programs.

Page 19

13. Please provide the fair market value for the 2,575 net square feet of program space that will be leased from Evergreen Medical Associates II, LLC.

Page 20

14. Please provide a revised Financial Attachment 1 (Exhibit 21 of the Application) that illustrates the projections for the Walden Behavioral Care, Inc. and Subsidiary in each "fiscal year projected without the CON", the proposed Connecticut clinic services in each "fiscal year projected incremental", and the entire system operation in each "fiscal year projected with the CON". Essentially OHCA would like to see the relationship between the stated projected revenues and expenses for the proposed Connecticut clinic services with the projected revenues and expenses built from the actual 2010 fiscal year consolidated audited financial statement provided in Exhibit 19 of the CON application.

In responding to the questions contained in this letter, please repeat each question before providing your response. **Paginate and date** your response, i.e., each page in its entirety. Information filed after the initial CON application submission (i.e. completeness response letter, prefile testimony, late file submissions and the like) must be numbered sequentially from the Applicant's document preceding it. Please begin your submission using Page 454 and reference "Docket Number: 11-31731-CON." Submit one (1) original and four (4) hard copies of your response. In addition, please submit a scanned copy of your response, in an Adobe format (.pdf) including all attachments on CD. If available, a copy of the response in MS Word should also be copied to the CD.

If you have any questions concerning this letter, feel free to contact me by email or at (860) 418-7069.

Sincerely,

Jack A. Huber

Jack A. Huber
DPH - OHCA Health Care Analyst

Cc: Patricia A. Gerner, Esq., legal counsel for the Applicant

****
*** TX REPORT ***
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STATE OF CONNECTICUT
DEPARTMENT OF PUBLIC HEALTH
OFFICE OF HEALTH CARE ACCESS

FAX SHEET

TO: **CHARLES R. ROSSIGNOL**

FAX: **(781) 647-6755**

AGENCY: **WALDEN BEHAVIORAL CARE**

FROM: **JACK HUBER**

DATE: **12/2/2011** **Time:** **~3:20 pm**

NUMBER OF PAGES: **4**
(including transmittal sheet)

Comments: Transmitted: Walden Behavioral Care Completeness Letter
Docket Number: 11-31731-CON
Establish PHP & IOP Eating Disorder Program in South Windsor, CT

PLEASE PHONE Jack A. Huber at (860) 418-7069
IF THERE ARE ANY TRANSMISSION PROBLEMS.

STATE OF CONNECTICUT
DEPARTMENT OF PUBLIC HEALTH
Office of Health Care Access

Re: Certificate of Need Application :
Docket Number: 11-31731-CON :
WBC Connecticut East, LLC :

January 25, 2012

ANSWERS TO OHCA COMPLETENESS QUESTIONS

1. The application identifies that thirty percent (30%) of Walden's patients come from New England states other than Massachusetts. Provide a table that illustrates the state of origin for the patients treated in Walden's individual programs: hospital, residential, partial hospitalization and intensive outpatient care.

Walden's estimate of 30% of its admissions from states other than Massachusetts represented an unofficial estimate based on prior fiscal years' experience predating FY2011 when Walden still had room for out of state patients. Out of state admissions, as a percentage of total admissions, has been diminishing each year due to the significant increase of MA-based admissions with current programs (addition of beds in Walden's adult and adolescent residential programs), new service coming on-line at its Worcester-based clinic site in 2011, and new programs in its Waltham-based ambulatory service programs. These have resulted in a swelling of Walden's Massachusetts-based admissions, resulting in a corresponding percentage decrease for those admissions from out-of-state. Many of the Walden programs in MA are now near or at capacity.

Therefore, the following table, which is an accurate reflection of the first 9.5 months* of FY2011, demonstrates that currently only 11.7% of patients are currently from out of state.

Table 12: State of Origin*

YTD Summary Totals (Jan-Oct)	MA	CT	ME	NH	RI	VT	Other
Residential	1041	149	22	85	42	22	127
PHP	1754	55	0	69	41	0	14
IOP	2633	115	0	44	15	0	130
Inpatient Care	11,785	252	63	403	189	227	227
Total	17,213	571	85	601	287	249	498

2,291	Total out of state
19,504	Grand Total
11.7%	% out of state

*This table is a representation of the first 9.5 months of FY2011, which is all that is available at this time for the breakout in patient days according to different states. If annualized, the volume would be 24,637. The numbers for each state are calculated in a different program than the numbers used for total volumes. Therefore, there will be slight variations in the numbers that appear in this chart compared to the actual volume for FY2011 which is 24,476.

2. **Explain how the partial hospitalization ("PHP") and intensive outpatient ("IOP") care programs, currently being offered at existing clinic sites in Worcester, Northampton and Braintree, are integrated with the hospital and residential programs located in Waltham.**

All Walden programs are designed to both "stand alone" and be as part of an integrated system of care. Walden is able to provide a full continuum of care. Outpatient and partial hospital services that require frequent visits are located in the community while residential or inpatient services are available in Waltham, Massachusetts. Patients can transfer between levels as clinically required. Approximately 25%-30% of individuals treated in the Walden system utilize more than one program during a treatment episode and the various levels of care in the system have been developed to be able to provide a continuous treatment plan for individuals as their clinical needs change. While the intensity of treatment and clinical focus may change from level to level, the clinical philosophy, treatment approach (skills development), and adherence to an individual recovery plan (goals assessment and tracking) are consistent. Thus, the existing programs in Massachusetts operate as a 'continuum of care'. Each program type (i.e. Inpatient, Residential, PHP or IOP) has admission and discharge criteria, and distinct clinical programming, for that particular level of care. Clients from one level of care may be admitted to a different level of care in conjunction with either clinical improvement or decompensation during the course of their treatment. Clients from acute levels of care (inpatient or residential) are stepped 'down' to less intensive levels of care (PHP or IOP), as they improve in their condition. Conversely, they may step 'up' from less intensive to more intensive levels of care if their condition exacerbates during treatment. All admissions from a satellite clinic to a higher level of care in Waltham are handled through the Admissions Department in Waltham. Although Walden accepts outside referrals from outside of its treatment system, clients within the system are able to move through varying levels of care in conjunction with their individual treatment needs.

Note: Services are planned to open in Braintree MA during the first quarter 2012.

Pages 4 & 5

3. **Explain how the proposed South Windsor, CT, PHP and IOP will be integrated with the hospital and residential programs in Waltham.**

As described in the answer to Question 2, above, the South Windsor PHP and IOP are designed to both "stand alone" and be as part of an integrated system of care. Walden is able to provide a full continuum of care. Walden's Massachusetts-based hospital and residential services will be made available to CT clients on an as-needed basis. CT clients will access the MA-based services provided that they satisfy admission criteria, and the distance is acceptable to the client and relevant family members. Inpatient or residential care can be further away from home since the patient will be stationary. However, access to care will be much easier as initial evaluations to determine the appropriate level of care will take place in South Windsor. The provision of PHP and IOP services in CT will aid in determining whether additional acute services are needed in CT in the future.

4. **Please describe the relationship between Walden and Eastern Connecticut Health Network ("ECHN") in more detail.**

Walden and ECHN are planning a partnership arrangement where ECHN will own a minority share (15-17%) of WBC CT East, LLC. The two entities are currently holding discussions to finalize the agreement.

If CON approval is granted, Walden expects to construct formal referral relationships with ECHN to both receive potential clients from ECHN service providers, as well as refer clients to ECHN service providers for medical services as needed. Walden has already submitted a draft transfer agreement between WBC CT East and ECHN for Walden to use ECHN's flagship hospital, Manchester Hospital, for the provision of emergency medical services, if needed. (CON Application, Exhibit #17). It is also anticipated that Walden will refer patients to ECHN for medical/laboratory services, as needed (including inpatient medical care) which Walden will not provide.

Walden's South Windsor clinic site will lease space in a building from Evergreen Medical Associates, LLC. Other tenants in the building also provide medical services and are affiliated with ECHN.

5. **Does Walden anticipate receiving referrals from physicians affiliated with ECHN?**

Yes. Walden anticipates referrals from ECHN physicians due the anticipated affiliation (See Question #4 above) and also due to its location in an ECHN medical office building. We also anticipate referrals from physicians who are not affiliated with ECHN due to the unique nature of the program.

6. **Has Walden established or is it in the process of establishing referral arrangements with other Connecticut providers? Please explain the arrangement efforts that have been made to date. Identify those entities where arrangements have been finalized. Identify those entities with whom arrangements have been discussed, but have not yet been finalized.**

No formal relationships have yet been established. Among those discussed but not yet finalized are the following:

a) ECHN: We expect to receive referrals from ECHN for eating disorder clients, given the lack of existing PHP and IOP services.
b) Other providers of related, or similar to some extent, eating disorder services. These include the Renfrew Center and Hartford Hospital, including the Institute of Living.
c) Independently licensed clinicians and selected provider organizations which may practice in the area. Although no list for such clinicians or entities has been prepared at this time, we expect that it will include private practitioners (LICSW's, PhD's, Dietitians, PCPs, Family Practitioners, Pediatricians, Gastroenterologists, Gastric bypass surgical Centers, Dentists, etc). We also expect to have relationships with college heath resources in the region, including health service departments, counseling centers, Residential Life, RDs & RAs, Coaches and Deans. In high schools we will connect with Nurses and Guidance

Counselors. We have connections with all of these groups throughout MA. We also work with ERs and crisis teams.

d) Insurance companies – Through our Massachusetts-based services, we have all major insurance contracts. We will be working with representatives in these insurance companies in CT to extend our agreements to cover services provided in CT. Additionally, we have worked with insurance representatives from other states as the need arises.

7. **In addition to receiving referrals from the provider community, the application points out that referrals to the proposed program will be from the educational systems and districts as well as insurance companies.**

   a. **Explain the process of how Walden will establish referral arrangements with area educational systems and districts.**
   Educational systems and school districts have health services provided by selected departments within their service systems. These include health service departments at colleges and universities, boarding schools, school nurses within the public school system or school based clinics, etc.

   If the CON is approved, Walden will develop a list of resources, and a formal public education package for representatives of these organizations. Such materials will include service descriptions and formal contact information to gain additional information and make a potential referral.

   b. **Explain what is meant by program referrals will be made from insurance companies.**

   If the CON is approved, Walden will enter into contractual arrangements with insurance companies to become an approved, in-network provider for these services in CT. Once approved, insurance company representatives who are responsible for managing the medical/behavioral care of insured patients will be notified of Walden as a new in-network provider, and will be able to facilitate referrals to Walden for clients requiring the eating disorder services offered by Walden. Walden has developed excellent relationships with many insurance companies in Massachusetts, provides ongoing education to case managers and medical personnel, and works closely with insurance case managers around the needs of our mutual clients. Walden may also enter into private payment agreements with clients if insurance benefits are not available.

Pages 14 & 15

8. In addition to the actual number of patient days recorded by each service type in Table 8 of the application, please provide the corresponding number of patients to be treated by service type and location (i.e. Waltham and Northampton service sites) in the same format as presented in Table 7 of the application.

In the tables below, "Patient Volume" represents the number of persons who have received treatment in the given year. "Patient Days" reflects the number of days those patients have received treatment in the given year.

Table 13: Waltham Service Site

	Patient Days			Patient Volume		
Service Type	**FY2009**	**FY2010**	**FY2011**	**FY2009**	**FY2010**	**FY2011**
Adult PHP	2,095	2,430	2,243	236	280	227
Adult IOP	1,280	1,764	1,082	142	192	123
Binge IOP – start 2/2011	-	-	337	-	-	37
Adolescent PHP – start 6/2011	-	-	348	-	-	30
Adolescent IOP	815	955	983	46	63	55
Total	**4,190**	**5,149 ***	**4,993**	**424**	**535**	**472**

* Patient Days for FY2010 are slightly higher than those submitted in the CON application. There are an additional 17 patient days. This correction has been made from Walden's records.

Note: Utilization data for FY 2011 is now actual, not projected. The volume differs slightly from the data submitted in the Application when only partial actual/partial projected was available.

Table 14: Northampton Service Site

	Patient Days			Patient Volume		
Service Type	**FY2009**	**FY2010**	**FY2011**	**FY2009**	**FY2010**	**FY2011**
Adult PHP	963	1,212	953	88	102	95
Adult IOP	548	621	477	67	63	52
Binge IOP –start 2/2011	-	-	449	-	-	30
Adolescent PHP – start 2/2011	-	-	242	-	-	19
Adolescent IOP	-	40	61	-	3	8
Total	**1,511**	**1,873**	**2,182**	**155**	**168**	**204**

Note: Utilization data for FY 2011 is actual, not projected. The volume differs slightly from the data submitted in the Application when only partial actual/partial projected was available.

In addition, Walden operates a clinic in Worcester, Massachusetts. Data on the number of patient days and the patient volume is presented below in order to provide complete and accurate utilization information.

Table 15: Worcester Service Site

	Patient Days	Patient Volume
Service Type	**FY2011**	**FY2011**
Adult IOP - start 2/2011	560	55
Adolescent IOP -start 7/2011	110	10
Total	**670**	**65**

9. Please provide the projected service volume (i.e. number of patient days and the corresponding number of patients to be treated) by service type and location (i.e. Waltham and Northampton service sites) for fiscal years 2012, 2013 and 2014 in the same format as was presented for the proposed Connecticut services in Tables 6 and 7 of the application.

Table 16: Waltham Service Site

	Patient Days			Patient Volume		
Service Type	**FY2012 Projected**	**FY2013 Projected**	**FY2014 Projected**	**FY2012 Projected**	**FY2013 Projected**	**FY2014 Projected**
Adult PHP	1,335	1,335	1,335	134	134	134
Adult IOP	659	659	659	77	77	77
Binge IOP	312	312	312	25	25	25
Adolescent PHP	520	520	520	33	33	33
Adolescent IOP	1,086	1,086	1,086	87	87	87
Total	**3,912**	**3,912**	**3,912**	**355**	**355**	**355**

A decline in the number of patients and patient days is projected for the following reasons:

- The clinic site in Braintree MA will be opening in January 2012. The South Shore area (i.e. eastern portions of Massachusetts and south of Boston) has traditionally been a strong region of admissions to Walden's Waltham-based services. While we expect that opening the site will draw some referrals away from our Waltham location, we expect there to be net gains in admissions to Walden Behavioral Care, Inc, overall, as the site will draw additional patients from southeastern MA and Cape Cod regions that have been previously unserved.
- The projected utilization for FY 2012 to FY 2014 is held constant based on the assumption that at this time the local market (Waltham-Boston area) may be saturated.
- The projections are conservative for budget purposes.

Table 17: Northampton Service Site

Service Type	Patient Days FY2012 Projected	Patient Days FY2013 Projected	Patient Days FY2014 Projected	Patient Volume FY2012 Projected	Patient Volume FY2013 Projected	Patient Volume FY2014 Projected
Adult PHP	1,246	1,246	1,246	125	125	125
Adult IOP	689	689	689	80	80	80
Binge IOP	683	683	683	46	46	46
Adolescent PHP	358	358	358	23	23	23
Adolescent IOP	228	228	228	18	18	18
Total	**3,204**	**3,204**	**3,204**	**292**	**292**	**292**

The projected utilization for FY 2012 to FY 2014 is held constant. The projections are conservative for budget purposes.

Although not requested, projected utilization statistics for the existing Worcester service site are critical to an accurate assessment of the Walden Behavioral Services programs.

Table 18: Worcester Service Site

Service Type	Patient Days FY2012 Projected	Patient Days FY2013 Projected	Patient Days FY2014 Projected	Patient Volume FY2012 Projected	Patient Volume FY2013 Projected	Patient Volume FY2014 Projected
Adult PHP	780	780	780	78	78	78
Adult IOP	637	637	637	74	74	74
Adolescent IOP	520	520	520	42	42	42
Total	**1,937**	**1,937**	**1,937**	**194**	**194**	**194**

10. Describe the size and provide the last three completed fiscal year's utilization relating to the Waltham's hospital and residential programs.

Walden Behavioral Care has been operating an inpatient psychiatric service since 2003. Walden's services are comprised of a 23-bed psychiatric services unit, and a 22-bed eating disorder services unit (Residential Service). The data below is presented for the past three fiscal years. Walden's track record over the past eight years has reflected moderate growth in its inpatient services. The decline in inpatient days and admissions on our Alcott Unit in FY2011 is attributable to both a decline in admissions and average length of stay for this unit. Changes in admissions criteria, clinical programming and new clinical/administrative leadership of the hospital is expected to yield higher census on both units, with the larger impact being expected on the Alcott Unit.

Table 19: Waltham Hospital Services

Service Type	Patient Days FY2009	Patient Days FY2010	Patient Days FY2011	Patient Volume FY2009	Patient Volume FY2010	Patient Volume FY2011
Thoreau Psych Unit	7,042	7,010	7,190	879	832	887
Alcott Eating Disorder Unit	6,411	6,500	5,983	555	580	585
Total	13,453	13,510	13,128	1,434	1,412	1,472

Table 20: Waltham Residential Services

Service Type	Patient Days FY2009	Patient Days FY2010	Patient Days FY2011 Projected	Patient Volume FY2009	Patient Volume FY2010	Patient Volume FY2011 Projected
Adult Residential	2,418	2,977	2,955	166	208	209
Adolescent Residential	-	-	548	-	-	35
Total Patient Days	2,418	2,977	3,503	166	208	244

11. Please provide the hospital and residential projected service volume (i.e. number of patient days and the corresponding number of patients to be treated) for fiscal years 2012, 2013 and 2014 in the same format as was presented for the proposed Connecticut services in Tables 6 and 7 of the application.

Table 21: Waltham Hospital Services

Service Type	Patient Days FY2012 Projected	Patient Days FY2013 Projected	Patient Days FY2014 Projected	Patient Volume FY2012 Projected	Patient Volume FY2013 Projected	Patient Volume FY2014 Projected
Thoreau Psych Unit	7,280	7,280	7,280	899	899	899
Alcott Eating Disorder Unit	6,807	6,807	6,807	667	667	667
Total Patient Days	14,087	14,087	14,087	1,566	1,566	1,566

The projections are based on the following assumptions:

- As discussed in the response to Question 10, above, the increase in census in the Alcott Unit in FY 2012 is related to changes in admission criteria and programming on the unit.
- Admissions and patient days are projected to remain constant because occupancy will be at a maximum level (i.e., 85%-90%). It is difficult to achieve higher utilization without increasing the number of beds.

Table 22: Waltham Residential Services

Service Type	Patient Days FY2012 Projected	Patient Days FY2013 Projected	Patient Days FY2014 Projected	Patient Volume FY2012 Projected	Patient Volume FY2013 Projected	Patient Volume FY2014 Projected
Adult Residential	2,963	2,963	2,963	206	206	206
Adolescent Residential	1,600	1,600	1,600	97	97	97
Total Patient Days	4,563	4,563	4,563	303	303	303

The projected utilization for FY 2012 to FY 2014 is held constant. The projections are conservative for budget purposes.

12. Describe the size and provide the projected first three fiscal year's utilization relating to the Applicant's Braintree PHP and IOP programs.

Table 23: Braintree Service Site

Service Type	Patient Days FY2012 Projected	Patient Days FY2013 Projected	Patient Days FY2014 Projected	Patient Volume FY2012 Projected	Patient Volume FY2013 Projected	Patient Volume FY2014 Projected
PHP	867	1,040	1,196	87	104	120
IOP	416	499	574	48	58	67
Total	1,283	1,539	1,770	135	162	186

The clinic site in Braintree MA will be opening in January 2012. The South Shore area (i.e. eastern portions of Massachusetts and south of Boston) has traditionally been a strong region of admissions to Walden's Waltham-based services. While we expect that opening the site will draw some referrals away from our Waltham location, we expect there to be net gains in admissions overall, as the site will draw additional patients from southeastern MA and Cape Cod regions that have been previously unserved.

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13. Please provide the fair market value for the 2,575 net square feet of program space that will be leased from Evergreen Medical Associates II, LLC.

Total Rental: $ 100,600 a year, leased at $33.39 per square foot.

14. Please provide a revised Financial Attachment 1 (Exhibit 21 of the Application) that illustrates the projections for the Walden Behavioral Care, Inc. and Subsidiary in each "fiscal year projected without the CON", the proposed Connecticut clinic services in each "fiscal year projected incremental", and the entire system operation in each "fiscal year projected with the CON". Essentially OHCA would like to see the relationship between the stated projected revenues and expenses for the proposed Connecticut clinic services with the projected revenues and expenses built from the actual 2010 fiscal year consolidated audited financial statement provided in Exhibit 19 of the CON application.

The Revised Financial Attachment I is submitted as **Exhibit #25.**

Exhibit 25

13. B (i). Please provide one year of actual results and three years of ***Total Hospital Health System*** projections of revenue, expense and volume statistics without, incremental to and with the CON proposal in the following reporting format:

Total Hospital Health System: Description	FY 2010 Actual Results	FY 2011 Projected Results	FY 2012 Projected W/out CON	FY 2012 Projected Incremental	FY 2012 Projected With CON	FY 2013 Projected W/out CON	FY 2013 Projected Incremental	FY 2013 Projected With CON	FY 2014 Projected W/out CON	FY 2014 Projected Incremental	FY 2014 Projected With CON
NET PATIENT REVENUE											
Non-Government	11,910,115	12,156,068	14,687,050	609,198	15,296,248	15,274,532	1,130,730	16,405,262	15,885,513	1,511,324	17,396,837
Medicare	-	-	-	-	-	-	-	-	-	-	-
Medicaid and Other Medical Assistance	1,973,200	2,013,949	2,433,268	100,928	2,534,196	2,469,767	187,333	2,657,100	2,506,814	250,388	2,757,201
Other Government	166,489	169,927	205,307	8,516	213,823	208,387	15,806	224,193	211,512	21,126	232,639
Total Net Patient Patient Revenue	**$14,049,804**	**$14,339,944**	**$17,325,625**	**$718,642**	**$18,044,267**	**$17,952,686**	**$1,333,869**	**$19,286,555**	**$18,603,839**	**$1,782,838**	**$20,386,677**
Other Operating Revenue	212,438	20,182	32,475	-	32,475	33,287	-	33,287	34,119	-	34,119
Revenue from Operations	**$14,262,242**	**$14,360,126**	**$17,358,100**	**$718,642**	**$18,076,742**	**$17,985,973**	**$1,333,869**	**$19,319,842**	**$18,637,958**	**$1,782,838**	**$20,420,796**
OPERATING EXPENSES											
Salaries and Fringe Benefits	7,967,851	8,548,938	9,896,724	490,404	10,387,128	10,243,109	792,417	11,035,526	10,601,618	891,104	11,492,722
Professional / Contracted Services	2,225,288	1,824,878	2,136,694	105,011	2,241,705	2,211,478	257,798	2,469,276	2,288,880	328,357	2,617,237
Supplies and Drugs	446,773	400,448	509,332	10,107	519,439	527,159	15,878	543,037	545,609	20,608	566,217
Bad Debts	179,635	142,696	100,000	18,614	118,614	103,500	34,227	137,727	107,123	45,648	152,770
Other Operating Expense	2,699,576	3,023,023	2,882,182	129,374	3,011,556	2,983,058	167,153	3,150,212	3,087,465	196,523	3,283,988
Subtotal	**$13,519,123**	**$13,939,983**	**$15,524,932**	**$753,511**	**$16,278,443**	**$16,068,305**	**$1,267,472**	**$17,335,777**	**$16,630,695**	**$1,482,239**	**$18,112,934**
Depreciation/Amortization	76,995	63,352	35,094	1,000	36,094	36,322	1,000	37,322	37,594	1,000	38,594
Interest Expense	197,516	163,117	161,218	-	161,218	166,861	-	166,861	172,701	-	172,701
Lease Expense	-	-	-	6,000	6,000	-	8,000	8,000	-	10,000	10,000
Total Operating Expenses	**$13,793,634**	**$14,166,452**	**$15,721,244**	**$760,511**	**$16,481,755**	**$16,271,488**	**$1,276,472**	**$17,547,960**	**$16,840,990**	**$1,493,239**	**$18,334,228**
Income (Loss) from Operations	$468,608	$193,674	$1,636,856	($41,869)	$1,594,987	$1,714,485	$57,397	$1,771,882	$1,796,969	$289,599	$2,086,568
Non-Operating Income	-	-	-	-	-	-	-	-	-	-	-
Income before provision for income taxes	$468,608	$193,674	$1,636,856	($41,869)	$1,594,987	$1,714,485	$57,397	$1,771,882	$1,796,969	$289,599	$2,086,568
Provision for income taxes	(172,535)	60,500	646,000	-	646,000	676,500	5,000	681,500	708,500	20,000	728,500
Net Income	**$641,143**	**$133,174**	**$990,856**	**($41,869)**	**$948,987**	**$1,037,985**	**$52,397**	**$1,090,382**	**$1,088,469**	**$269,599**	**$1,358,068**
Retained earnings, beginning of year	(2,531,750)	(1,931,807)	(1,798,633)	-	(1,798,633)	(807,777)	(41,869)	(849,646)	230,208	10,528	240,736
Distributions (S Corp.)	(41,200)	-	-	-	-	-	-	-	-	-	-
Retained earnings, end of year	($1,931,807)	($1,798,633)	($807,777)	($41,869)	($849,646)	$230,208	$10,528	$240,736	$1,318,677	$280,127	$1,598,804
FTEs	**121.2**	**126.2**	**135.0**	**7.5**	**142.5**	**140.0**	**10.0**	**150.0**	**145.0**	**10.5**	**155.5**
***Volume Statistics: Patient Days**	**23,509**	**24,476**	**28,986**	**2,735**	**31,721**	**29,242**	**5,252**	**34,494**	**29,473**	**7,072**	**36,545**

Provide projected inpatient and/or outpatient statistics for any new services and provide actual and projected inpatient and/or outpatient statistics for any existing services which will change due to the proposal.

Greer, Leslie

From: klg1@aol.com
Sent: Thursday, February 16, 2012 2:12 PM
To: Huber, Jack
Cc: Greer, Leslie
Subject: WBC CT East Completeness Answers
Attachments: Walden Completeness Answers 1.17.12 (PAG).doc

Hi Jack,

I am not sure you ever received the Word version of the Completeness Answers filed by Walden Behavioral Care in Docket No. 11-31731-CON. The Word version should be attached to this email.

If you have any difficulty retrieving the Word document, please let me know. Otherwise, I will assume it has arrived safe and sound on your computer.

Thank you -
Pat

The Law Office of Patricia A. Gerner, LLC
240 Ramstein Road
P.O. Box 209
New Hartford, CT 06057
Phone: (860) 794-1907
Fax: (860) 489-9380

klg1@aol.com

STATE OF CONNECTICUT
DEPARTMENT OF PUBLIC HEALTH
Office of Health Care Access

Re: Certificate of Need Application :
Docket Number: 11-31731-CON :
WBC Connecticut East, LLC :

January 25, 2012

ANSWERS TO OHCA COMPLETENESS QUESTIONS

1. The application identifies that thirty percent (30%) of Walden's patients come from New England states other than Massachusetts. Provide a table that illustrates the state of origin for the patients treated in Walden's individual programs: hospital, residential, partial hospitalization and intensive outpatient care.

Walden's estimate of 30% of its admissions from states other than Massachusetts represented an unofficial estimate based on prior fiscal years' experience predating FY2011 when Walden still had room for out of state patients. Out of state admissions, as a percentage of total admissions, has been diminishing each year due to the significant increase of MA-based admissions with current programs (addition of beds in Walden's adult and adolescent residential programs), new service coming on-line at its Worcester-based clinic site in 2011, and new programs in its Waltham-based ambulatory service programs. These have resulted in a swelling of Walden's Massachusetts-based admissions, resulting in a corresponding percentage decrease for those admissions from out-of-state. Many of the Walden programs in MA are now near or at capacity.

Therefore, the following table, which is an accurate reflection of the first 9.5 months* of FY2011, demonstrates that currently only 11.7% of patients are currently from out of state.

Table 12: State of Origin*

YTD Summary Totals (Jan-Oct)	MA	CT	ME	NH	RI	VT	Other
Residential	1041	149	22	85	42	22	127
PHP	1754	55	0	69	41	0	14
IOP	2633	115	0	44	15	0	130
Inpatient Care	11,785	252	63	403	189	227	227
Total	17,213	571	85	601	287	249	498

2,291	Total out of state
19,504	Grand Total
11.7%	% out of state

*This table is a representation of the first 9.5 months of FY2011, which is all that is available at this time for the breakout in patient days according to different states. If annualized, the volume would be 24,637. The numbers for each state are calculated in a different program than the numbers used for total volumes. Therefore, there will be slight variations in the numbers that appear in this chart compared to the actual volume for FY2011 which is 24,476.

2. **Explain how the partial hospitalization ("PHP") and intensive outpatient ("IOP") care programs, currently being offered at existing clinic sites in Worcester, Northampton and Braintree, are integrated with the hospital and residential programs located in Waltham.**

All Walden programs are designed to both "stand alone" and be as part of an integrated system of care. Walden is able to provide a full continuum of care. Outpatient and partial hospital services that require frequent visits are located in the community while residential or inpatient services are available in Waltham, Massachusetts. Patients can transfer between levels as clinically required. Approximately 25%-30% of individuals treated in the Walden system utilize more than one program during a treatment episode and the various levels of care in the system have been developed to be able to provide a continuous treatment plan for individuals as their clinical needs change. While the intensity of treatment and clinical focus may change from level to level, the clinical philosophy, treatment approach (skills development), and adherence to an individual recovery plan (goals assessment and tracking) are consistent. Thus, the existing programs in Massachusetts operate as a 'continuum of care'. Each program type (i.e. Inpatient, Residential, PHP or IOP) has admission and discharge criteria, and distinct clinical programming, for that particular level of care. Clients from one level of care may be admitted to a different level of care in conjunction with either clinical improvement or decompensation during the course of their treatment. Clients from acute levels of care (inpatient or residential) are stepped 'down' to less intensive levels of care (PHP or IOP), as they improve in their condition. Conversely, they may step 'up' from less intensive to more intensive levels of care if their condition exacerbates during treatment. All admissions from a satellite clinic to a higher level of care in Waltham are handled through the Admissions Department in Waltham. Although Walden accepts outside referrals from outside of its treatment system, clients within the system are able to move through varying levels of care in conjunction with their individual treatment needs.

Note: Services are planned to open in Braintree MA during the first quarter 2012.

Pages 4 & 5

3. **Explain how the proposed South Windsor, CT, PHP and IOP will be integrated with the hospital and residential programs in Waltham.**

As described in the answer to Question 2, above, the South Windsor PHP and IOP are designed to both "stand alone" and be as part of an integrated system of care. Walden is able to provide a full continuum of care. Walden's Massachusetts-based hospital and residential services will be made available to CT clients on an as-needed basis. CT clients will access the MA-based services provided that they satisfy admission criteria, and the distance is acceptable to the client and relevant family members. Inpatient or residential care can be further away from home since the patient will be stationary. However, access to care will be much easier as initial evaluations to determine the appropriate level of care will take place in South Windsor. The provision of PHP and IOP services in CT will aid in determining whether additional acute services are needed in CT in the future.

4. **Please describe the relationship between Walden and Eastern Connecticut Health Network ("ECHN") in more detail.**

   Walden and ECHN are planning a partnership arrangement where ECHN will own a minority share (15-17%) of WBC CT East, LLC. The two entities are currently holding discussions to finalize the agreement.

   If CON approval is granted, Walden expects to construct formal referral relationships with ECHN to both receive potential clients from ECHN service providers, as well as refer clients to ECHN service providers for medical services as needed. Walden has already submitted a draft transfer agreement between WBC CT East and ECHN for Walden to use ECHN's flagship hospital, Manchester Hospital, for the provision of emergency medical services, if needed. (CON Application, Exhibit #17). It is also anticipated that Walden will refer patients to ECHN for medical/laboratory services, as needed (including inpatient medical care) which Walden will not provide.

   Walden's South Windsor clinic site will lease space in a building from Evergreen Medical Associates, LLC. Other tenants in the building also provide medical services and are affiliated with ECHN.

5. **Does Walden anticipate receiving referrals from physicians affiliated with ECHN?**

   Yes. Walden anticipates referrals from ECHN physicians due the anticipated affiliation (See Question #4 above) and also due to its location in an ECHN medical office building. We also anticipate referrals from physicians who are not affiliated with ECHN due to the unique nature of the program.

6. **Has Walden established or is it in the process of establishing referral arrangements with other Connecticut providers? Please explain the arrangement efforts that have been made to date. Identify those entities where arrangements have been finalized. Identify those entities with whom arrangements have been discussed, but have not yet been finalized.**

   No formal relationships have yet been established. Among those discussed but not yet finalized are the following:

   a) ECHN: We expect to receive referrals from ECHN for eating disorder clients, given the lack of existing PHP and IOP services.
   b) Other providers of related, or similar to some extent, eating disorder services. These include the Renfrew Center and Hartford Hospital, including the Institute of Living.
   c) Independently licensed clinicians and selected provider organizations which may practice in the area. Although no list for such clinicians or entities has been prepared at this time, we expect that it will include private practitioners (LICSW's, PhD's, Dietitians, PCPs, Family Practitioners, Pediatricians, Gastroenterologists, Gastric bypass surgical Centers, Dentists, etc). We also expect to have relationships with college heath resources in the region, including health service departments, counseling centers, Residential Life, RDs &

d) RAs, Coaches and Deans. In high schools we will connect with Nurses and Guidance Counselors. We have connections with all of these groups throughout MA. We also work with ERs and crisis teams.
e) Insurance companies – Through our Massachusetts-based services, we have all major insurance contracts. We will be working with representatives in these insurance companies in CT to extend our agreements to cover services provided in CT. Additionally, we have worked with insurance representatives from other states as the need arises.

7. In addition to receiving referrals from the provider community, the application points out that referrals to the proposed program will be from the educational systems and districts as well as insurance companies.

a. Explain the process of how Walden will establish referral arrangements with area educational systems and districts.

Educational systems and school districts have health services provided by selected departments within their service systems. These include health service departments at colleges and universities, boarding schools, school nurses within the public school system or school based clinics, etc.

If the CON is approved, Walden will develop a list of resources, and a formal public education package for representatives of these organizations. Such materials will include service descriptions and formal contact information to gain additional information and make a potential referral.

b. Explain what is meant by program referrals will be made from insurance companies.

If the CON is approved, Walden will enter into contractual arrangements with insurance companies to become an approved, in-network provider for these services in CT. Once approved, insurance company representatives who are responsible for managing the medical/behavioral care of insured patients will be notified of Walden as a new in-network provider, and will be able to facilitate referrals to Walden for clients requiring the eating disorder services offered by Walden. Walden has developed excellent relationships with many insurance companies in Massachusetts, provides ongoing education to case managers and medical personnel, and works closely with insurance case managers around the needs of our mutual clients. Walden may also enter into private payment agreements with clients if insurance benefits are not available.

Pages 14 & 15

8. In addition to the actual number of patient days recorded by each service type in Table 8 of the application, please provide the corresponding number of patients to be treated by service type and location (i.e. Waltham and Northampton service sites) in the same format as presented in Table 7 of the application.

In the tables below, "Patient Volume" represents the number of persons who have received treatment in the given year. "Patient Days" reflects the number of days those patients have received treatment in the given year.

Table 13: Waltham Service Site

	Patient Days			Patient Volume		
Service Type	**FY2009**	**FY2010**	**FY2011**	**FY2009**	**FY2010**	**FY2011**
Adult PHP	2,095	2,430	2,243	236	280	227
Adult IOP	1,280	1,764	1,082	142	192	123
Binge IOP – start 2/2011	-	-	337	-	-	37
Adolescent PHP – start 6/2011	-	-	348	-	-	30
Adolescent IOP	815	955	983	46	63	55
Total	**4,190**	**5,149 ***	**4,993**	**424**	**535**	**472**

* Patient Days for FY2010 are slightly higher than those submitted in the CON application. There are an additional 17 patient days. This correction has been made from Walden's records.

Note: Utilization data for FY 2011 is now actual, not projected. The volume differs slightly from the data submitted in the Application when only partial actual/partial projected was available.

Table 14: Northampton Service Site

	Patient Days			Patient Volume		
Service Type	**FY2009**	**FY2010**	**FY2011**	**FY2009**	**FY2010**	**FY2011**
Adult PHP	963	1,212	953	88	102	95
Adult IOP	548	621	477	67	63	52
Binge IOP –start 2/2011	-	-	449	-	-	30
Adolescent PHP – start 2/2011	-	-	242	-	-	19
Adolescent IOP	-	40	61	-	3	8
Total	**1,511**	**1,873**	**2,182**	**155**	**168**	**204**

Note: Utilization data for FY 2011 is actual, not projected. The volume differs slightly from the data submitted in the Application when only partial actual/partial projected was available.

In addition, Walden operates a clinic in Worcester, Massachusetts. Data on the number of patient days and the patient volume is presented below in order to provide complete and accurate utilization information.

Table 15: Worcester Service Site

	Patient Days	Patient Volume
Service Type	**FY2011**	**FY2011**
Adult IOP - start 2/2011	560	55
Adolescent IOP -start 7/2011	110	10
Total	**670**	**65**

9. Please provide the projected service volume (i.e. number of patient days and the corresponding number of patients to be treated) by service type and location (i.e. Waltham and Northampton service sites) for fiscal years 2012, 2013 and 2014 in the same format as was presented for the proposed Connecticut services in Tables 6 and 7 of the application.

Table 16: Waltham Service Site

	Patient Days			Patient Volume		
Service Type	**FY2012 Projected**	**FY2013 Projected**	**FY2014 Projected**	**FY2012 Projected**	**FY2013 Projected**	**FY2014 Projected**
Adult PHP	1,335	1,335	1,335	134	134	134
Adult IOP	659	659	659	77	77	77
Binge IOP	312	312	312	25	25	25
Adolescent PHP	520	520	520	33	33	33
Adolescent IOP	1,086	1,086	1,086	87	87	87
Total	**3,912**	**3,912**	**3,912**	**355**	**355**	**355**

A decline in the number of patients and patient days is projected for the following reasons:

- The clinic site in Braintree MA will be opening in January 2012. The South Shore area (i.e. eastern portions of Massachusetts and south of Boston) has traditionally been a strong region of admissions to Walden's Waltham-based services. While we expect that opening the site will draw some referrals away from our Waltham location, we expect there to be net gains in admissions to Walden Behavioral Care, Inc, overall, as the site will draw additional patients from southeastern MA and Cape Cod regions that have been previously unserved.
- The projected utilization for FY 2012 to FY 2014 is held constant based on the assumption that at this time the local market (Waltham-Boston area) may be saturated.

- The projections are conservative for budget purposes.

Table 17: Northampton Service Site

	Patient Days			Patient Volume		
Service Type	FY2012 Projected	FY2013 Projected	FY2014 Projected	FY2012 Projected	FY2013 Projected	FY2014 Projected
Adult PHP	1,246	1,246	1,246	125	125	125
Adult IOP	689	689	689	80	80	80
Binge IOP	683	683	683	46	46	46
Adolescent PHP	358	358	358	23	23	23
Adolescent IOP	228	228	228	18	18	18
Total	**3,204**	**3,204**	**3,204**	**292**	**292**	**292**

The projected utilization for FY 2012 to FY 2014 is held constant. The projections are conservative for budget purposes.

Although not requested, projected utilization statistics for the existing Worcester service site are critical to an accurate assessment of the Walden Behavioral Services programs.

Table 18: Worcester Service Site

	Patient Days			Patient Volume		
Service Type	FY2012 Projected	FY2013 Projected	FY2014 Projected	FY2012 Projected	FY2013 Projected	FY2014 Projected
Adult PHP	780	780	780	78	78	78
Adult IOP	637	637	637	74	74	74
Adolescent IOP	520	520	520	42	42	42
Total	**1,937**	**1,937**	**1,937**	**194**	**194**	**194**

10. Describe the size and provide the last three completed fiscal year's utilization relating to the Waltham's hospital and residential programs.

Walden Behavioral Care has been operating an inpatient psychiatric service since 2003. Walden's services are comprised of a 23-bed psychiatric services unit, and a 22-bed eating disorder services unit (Residential Service). The data below is presented for the past three fiscal years. Walden's track record over the past eight years has reflected moderate growth in its inpatient services. The decline in inpatient days and admissions on our Alcott Unit in FY2011 is attributable to both a decline in admissions and average length of stay for this unit. Changes in admissions criteria, clinical programming and new clinical/administrative

leadership of the hospital is expected to yield higher census on both units, with the larger impact being expected on the Alcott Unit.

Table 19: Waltham Hospital Services

Service Type	Patient Days FY2009	Patient Days FY2010	Patient Days FY2011	Patient Volume FY2009	Patient Volume FY2010	Patient Volume FY2011
Thoreau Psych Unit	7,042	7,010	7,190	879	832	887
Alcott Eating Disorder Unit	6,411	6,500	5,983	555	580	585
Total	13,453	13,510	13,128	1,434	1,412	1,472

Table 20: Waltham Residential Services

Service Type	Patient Days FY2009	Patient Days FY2010	Patient Days FY2011 Projected	Patient Volume FY2009	Patient Volume FY2010	Patient Volume FY2011 Projected
Adult Residential	2,418	2,977	2,955	166	208	209
Adolescent Residential	-	-	548	-	-	35
Total Patient Days	2,418	2,977	3,503	166	208	244

11. Please provide the hospital and residential projected service volume (i.e. number of patient days and the corresponding number of patients to be treated) for fiscal years 2012, 2013 and 2014 in the same format as was presented for the proposed Connecticut services in Tables 6 and 7 of the application.

Table 21: Waltham Hospital Services

Service Type	Patient Days FY2012 Projected	Patient Days FY2013 Projected	Patient Days FY2014 Projected	Patient Volume FY2012 Projected	Patient Volume FY2013 Projected	Patient Volume FY2014 Projected
Thoreau Psych Unit	7,280	7,280	7,280	899	899	899
Alcott Eating Disorder Unit	6,807	6,807	6,807	667	667	667
Total Patient Days	14,087	14,087	14,087	1,566	1,566	1,566

The projections are based on the following assumptions:

- As discussed in the response to Question 10, above, the increase in census in the Alcott Unit in FY 2012 is related to changes in admission criteria and programming on the unit.
- Admissions and patient days are projected to remain constant because occupancy will be at a maximum level (i.e., 85%-90%). It is difficult to achieve higher utilization without increasing the number of beds.

Table 22: Waltham Residential Services

	Patient Days			Patient Volume		
Service Type	FY2012 Projected	FY2013 Projected	FY2014 Projected	FY2012 Projected	FY2013 Projected	FY2014 Projected
Adult Residential	2,963	2,963	2,963	206	206	206
Adolescent Residential	1,600	1,600	1,600	97	97	97
Total Patient Days	4,563	4,563	4,563	303	303	303

The projected utilization for FY 2012 to FY 2014 is held constant. The projections are conservative for budget purposes.

12. Describe the size and provide the projected first three fiscal year's utilization relating to the Applicant's Braintree PHP and IOP programs.

Table 23: Braintree Service Site

	Patient Days			Patient Volume		
Service Type	FY2012 Projected	FY2013 Projected	FY2014 Projected	FY2012 Projected	FY2013 Projected	FY2014 Projected
PHP	867	1,040	1,196	87	104	120
IOP	416	499	574	48	58	67
Total	1,283	1,539	1,770	135	162	186

The clinic site in Braintree MA will be opening in January 2012. The South Shore area (i.e. eastern portions of Massachusetts and south of Boston) has traditionally been a strong region of admissions to Walden's Waltham-based services. While we expect that opening the site will draw some referrals away from our Waltham location, we expect there to be net gains in admissions overall, as the site will draw additional patients from southeastern MA and Cape Cod regions that have been previously unserved.

Page 19

13. Please provide the fair market value for the 2,575 net square feet of program space that will be leased from Evergreen Medical Associates II, LLC.

Total Rental: $ 100,600 a year, leased at $33.39 per square foot.

Page 20

14. Please provide a revised Financial Attachment 1 (Exhibit 21 of the Application) that illustrates the projections for the Walden Behavioral Care, Inc. and Subsidiary in each "fiscal year projected without the CON", the proposed Connecticut clinic services in each "fiscal year projected incremental", and the entire system operation in each "fiscal year projected with the CON". Essentially OHCA would like to see the relationship between the stated projected revenues and expenses for the proposed Connecticut clinic services with the projected revenues and expenses built from the actual 2010 fiscal year consolidated audited financial statement provided in Exhibit 19 of the CON application.

The Revised Financial Attachment I is submitted as **Exhibit #25.**

OHCA Main
Certificate of Need
Consumer Assistance Process
Facilities Plan
OHCA Forms
Freedom of Information
Hospital Financial Data
Laws and Regulations
OHCA Publications
Glossary
Contact OHCA
Legal Notices and Status Reports

TRYNConnecticut
H.I.P.A.A NOTICE
HealthCare Reform
Check the Calendar
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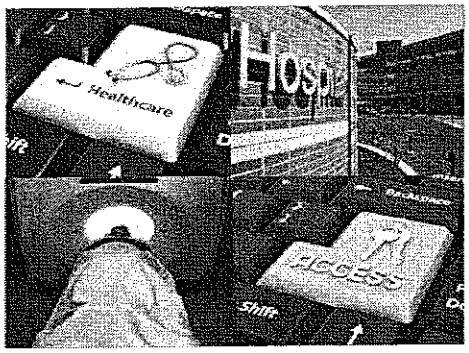
WE CAN'T ALERT YOU IF WE CAN'T REACH YOU



Welcome to the Office of Health Care Access. Our Mission is to ensure that the citizens of Connecticut have access to a quality health care delivery system.

CT State-Wide Health Care Facilities and Services Plan Advisory Body

Outpatient Data Work Group

News:

- **NEW !!!** On February 17, 2012 OHCA received the CON Application of Community Mental Health Affiliates, Inc. (CMHA) for the transfer of ownership of CMHA from Central Connecticut Health Alliance to CMHA. Filed under Docket No.: 12-31750-CON.
- **NEW !!!** On February 24, 2012, OHCA Deemed Complete the CON application of WBC Connecticut East, LLC to establish a Partial Hospital and Intensive outpatient program for the treatment of adults and adolescents with Eating Disorders in South Windsor, filed under Docket No.: 11-31731-CON.
- **NEW !!!** On February 23, 2012, OHCA deemed Complete the CON Application of MCI Healthcare LLC d/b/a Mountainside Treatment Center for the increase of licensed bed capacity by 16, filed under Docket No.: 11-31734-CON.
- **NEW !!!** On February 9, 2012 OHCA received the CON Application of Yale-New Haven Hospital and Saint Raphael Healthcare System d/b/a Hospital of Saint Raphael, Inc. for Yale-New Haven Hospital to acquire ownership of Saint Raphael Healthcare System, Inc. and certain associated assets. Filed under Docket No.: 12-31747-CON.
- On January 30, 2012, OHCA deemed Complete the CON Application of Eastern Connecticut Health Network for the acquisition of four MRI Scanners located in the towns of Enfield, Glastonbury, Middletown and South Windsor, as filed under Docket Number 11-31737-CON.
- On January 27, 2012 OHCA received the CON Application for Yale-New Haven Hospital's proposal to increase its licensed general hospital bed count by 70, from 896 to 966 licensed beds, at a total capital expenditure of $1,438,919, Docket Number 12-31745-CON.
- On January 17, 2012, OHCA deemed Complete the CON Application of Lawrence & Memorial Hospital for the acquisition of a PET-CT scanner to be located at its L&M Diagnostic Imaging at Crossroads in Waterford, as filed under Docket Number 11-31730-CON.
- On January 6, 2012, OHCA deemed Complete the CON Application of Eastern Connecticut Health Network and Manchester Memorial Hospital for the transfer of ownership of Evergreen Imaging Center to an affiliate of ECHN, as filed under Docket Number 11-31736-CON.
- On December 09, 2011 OHCA received the CON Application of Eastern Connecticut Health Network, Inc. and Mandell & Blau, M.D.s, P.C. for the Acquisition by Eastern Connecticut Health Network, Inc. of the Open MRI scanners currently operated by Mandell & Blau, M.D.'s P.C. under Docket No.: 11-31737-CON.

Hartford Hospital
A Hartford HealthCare Partner

facsimile transmittal

To:	Kimberly Martone, Director of Operations	**Fax:**	860-418-7053
From:	Mark Cesaro	**Date:**	4/5/2012
Re:	DN 11-31731	**Pages:**	3 (including cover page)
CC:			

☐ Urgent ☐ For Review ☐ Please Comment ☐ Please Reply ☐ Please Recycle

Note: Please see attached

Hartford Hospital
A Hartford HealthCare Partner

April 5, 2012

Kimberly Martone
Director of Operations.
Department of Public Health
Division of the Office of Health Care Access
410 Capitol Avenue, MS#13HCA
PO Box 340308
Hartford, Connecticut 06134-0308

Via Facsimile: (860) 418-7053

Re: DN 11-31731 WBC Connecticut East , LLC's Proposal to Establish a Partial Hospital and Intensive Outpatient Program for the Treatment of Eating Disorders in South Windsor, CT

Dear Ms. Martone:

This correspondence is regarding the above referenced Certificate of Need Application for the establishment of a partial hospital and intensive outpatient program for the treatment of eating disorders in South Windsor, Connecticut. We have reviewed the application as currently available on line and wish to raise concerns regarding determination of need. Specifically, the application fails to provide the Office of Health Care Access (OHCA) the information necessary to determine the need for the proposed program as it fails to take into consideration existing programs.

This information is usually provided to OHCA by the applicant in response to Section 2. Clear Public Need in the following sub-questions:

a.iv. How and where the proposed patient population is currently being served
a. v. All existing providers (name, address, services provided) of the proposed service in the towns above and in nearby towns
a.vi. The effect of the proposal on existing providers, explaining how current referral patterns will be affected by the proposal.

These questions are neither addressed by the applicant, nor are they responded to as "not applicable", they are simply absent. Therefore it is Hartford Hospital's opinion that OHCA has not been provided with the information necessary to render an informed decision.

There are presently two partial hospital and intensive outpatient programs for the treatment of eating disorders in operation in Connecticut. Hartford Hospital (HH) runs a program on the

Institute of Living Campus in Hartford and The Renfrew Center operates a program in Greenwich.

The HH program is very active and draws patients from the same geographic area as that established by the applicant as its "Primary Service Area". The HH program receives referrals from area hospitals and private practitioners and does not have a waiting list. There appears to be no unmet need. Given the close geographic proximity to the proposed program, the HH program will be negatively affected if this proposal is approved. Therefore, we request a public hearing on this matter to address our concerns.

I look forward to your response. I can be reached at 860 545-4686 or via e-mail at mcesaro@harthosp.org.

Sincerely Yours,

Mark Cesaro
Director, Planning

cc: Jack Huber
Office of Health Care Access

Huber, Jack

From: Huber, Jack
Sent: Wednesday, April 11, 2012 11:49 AM
To: KLG1@aol.com
Subject: FW: Docket 11-31731-CON Request for Public Hearing
Attachments: 31731.pdf

Good morning Pat – Please find attached a request from Hartford Hospital for a hearing with respect to the Walden proposal. Regards, Jack

Jack Huber
DPH – OHCA Health Care Analyst

From: Greer, Leslie
Sent: Thursday, April 05, 2012 5:14 PM
To: Huber, Jack
Cc: Lazarus, Steven; Riggott, Kaila; Yandow, Joanne; Horn, Marianne; Martone, Kim
Subject: Docket 11-31731-CON Request for Public Hearing

Attached is a hearing request for DN: 11-31731-CON WBC Connecticut East, LLC.

Leslie M. Greer
CT Department of Public Health
Office of Health Care Access
410 Capitol Avenue, MS#13HCA
Hartford, CT 06134
Phone: (860) 418-7013
Fax: (860) 418-7053
Website: www.ct.gov/ohca
Please consider the environment before printing this message

The Law Office of Patricia A. Gerner, LLC
240 Ramstein Road P.O. Box 209
New Hartford, CT 06057
Phone: (860) 794-1907 Fax: (860) 489-9380

Facsimile Transmittal

Date: APRIL 13, 2012

To: KIMBERLY MARTONE
DIRECTOR OF OPERATIONS
DPH/OHCA

Fax #: (860) 418-7053

Phone#: (860) 418-7001

From: Pat Gerner

Fax #: (860) 489-9380

Phone #: (860) 794-1907

Number of Pages 3
(including cover)

ATTACHED PLEASE FIND AN OBJECTION TO HEARING REQUESTED BY HARTFORD HOSPITAL IN DOCKET No. 11-31731.

STATE OF CONNECTICUT
DEPARTMENT OF PUBLIC HEALTH
Office of Health Care Access

Certificate of Need Application :
Docket Number: 11-31731-CON :
WBC Connecticut East, LLC : **April 13, 2012**

Via Facimile (860) 418-7053

OBECTION TO REQUEST FOR HEARING

Pursuant to Conn. Gen. Srat. 19a-639a, the Applicant, WBC CT East, LLC objects to the Request for Hearing dated April 5, 2012 submitted by Hartford Hospital. The docket in this case was deemed complete on February 24, 2012. Therefore, Hartford Hospital had until March 25, 2012 to request the hearing. The following statutes govern the request for a hearing:

> **Sec. 19a-639a. Certificate of need application process. Issuance of decision. Public hearings. Policies, procedures and regulations**. . . .
> (e) The office shall hold a public hearing on a properly filed and completed certificate of need application if three or more individuals or an individual representing an entity with five or more people submits a request, in writing, that a public hearing be held on the application. Any request for a public hearing shall be made to the office not later than thirty days after the date the office determines the application to be complete.

> **Sec. 19a-630. (Formerly Sec. 19a-145). Definitions.** As used in this chapter, unless the context otherwise requires . . . (6) "Days" means calendar days. . . . .

Based on the requirement in the law that a hearing must be held within 30 calendar days of the date when the application was deemed complete, the request of Hartford Hospital to hold a hearing on the above-captioned docket should be denied. The request for a hearing arrived on April 5, 2012, nearly two weeks after the required date.

Respectfully submitted,

Walden Behavioral Care, CT East, LLC

By: Patricia A. Gerner

Patricia A. Gerner, Esq.
The Law Office of Patricia A. Gerner, LLC
240 Ramstein Road: P.O. Box 209
New Hartford, CT 006057
Phone: (860) 794-1907
Fax: (860) 489-9380
Email: KLG1@aol.com

cc: Kimberly Martone
OHCA Director of Operations

cc: Steven Lazarus
OHCA Associate Health Care Analyst

cc: Jack Huber
OHCA Health Care Analyst

cc: Mark Cesaro
Director, Planning
Hartford Hospital

Greer, Leslie

From: Lazarus, Steven
Sent: Monday, April 16, 2012 12:16 PM
To: Riggott, Kaila; Yandow, Joanne; Martone, Kim; Greer, Leslie
Subject: FW: Letter of Support
Attachments: HH Letter of Support.pdf; Karen Goyette.vcf

I appears that when I replied to the original email the letter did not come through. Forwarding the actual message should come across with the original attachment. Please let me know if it's not attached.

Steve

Steven W. Lazarus
Associate Health Care Analyst
Connecticut Department of Public Health
Division of Office of Health Care Access
410 Capitol Avenue, MS 13HCA
Hartford, Connecticut 06134
Phone: (860) 418-7012 (Direct)
Fax: (860) 418-7053 (Main)

From: Karen Goyette [mailto:Karen.Goyette@harthosp.org]
Sent: Monday, April 16, 2012 11:59 AM
To: Huber, Jack; Lazarus, Steven
Cc: Mark Cesaro
Subject: Letter of Support

Steve and Jack - Please see the attached letter of support from HH. I am available to discuss any concerns. Thanks, Karen

Karen T. Goyette
Vice President, Strategic Planning & Business Development
Hartford HealthCare and Hartford Hospital
Office: 860.545.1532
Mobile: 860.462.0167
Fax: 860.545.2127
email: kgoyette@harthosp.org

For more information about Hartford HealthCare, click here: http://hartfordhealthcare.org/

Hartford Hospital
A Hartford HealthCare Partner

April 16, 2012

Kimberly Martone
Director of Operations
Department of Public Health
Division of the Office of Health Care Access
410 Capitol Avenue, MS#13HCA
PO Box 340308
Hartford, Connecticut 06134-0308

Via Facsimile: (860) 418-7053

Re: DN 11-31731 WBC Connecticut East , LLC's Proposal to Establish a Partial Hospital and Intensive Outpatient Program for the Treatment of Eating Disorders in South Windsor, CT

Dear Ms. Martone:

This correspondence is regarding the above referenced Certificate of Need Application and Hartford Hospital's April 5th letter to you concerning the need for additional services for the treatment of eating disorders in Connecticut. Hartford Hospital has had additional time to study the applicant's responses to OHCA's completeness questions and has determined the following:

- The proposed application would provide two services not presently included in the HH program:
  - Treatment of males suffering from eating disorders; and,
  - An intensive outpatient program for adolescents offered after school hours

Based upon these factors, Hartford Hospital is in support of this application and wishes to formally withdraw its request for a public hearing. Furthermore, Hartford Hospital looks forward to collaborating with the applicant on this service, if approved, as noted in its response to #6 of OHCA's completeness questions (page 000456) to improve the health status of residents within the East of the River community.

Sincerely Yours,

Karen T. Goyette
Vice President, Strategic Planning and Business Development

cc: Steven Lazarus, Office of Health Care Access
Jack Huber, Office of Health Care Access

ECHN
Eastern Connecticut Health Network
Healthier together.

FAX TRANSMISSION

To: Ms. Joanne Yanchula
From: Kevin Murphy
Fax: 860-509-7101
Date: 4/17/12
Phone:
Phone: 860-533-2925
Re: Letter of Support
Pages: 2 (incl. cover)

☐ Urgent ☐ For Review ☐ Please Comment ☐ Please Reply ☐ Please Recycle

Eastern Connecticut Health Network
71 Haynes Street
Manchester, CT 06040
860.533.3414
www.echn.org

April 16, 2012

(Via Facsimile and First Class Mail)

Joanne V. Yandow, Esq.
Hearing Officer
Department of Public Health
410 Capitol Avenue, MS #13HCA
P. O. Box 340308
Hartford, CT 06134

Re: WBC Connecticut East, LLC
OHCA Docket No. 11-31731-CON

Dear Commissioner Mullen,

I am writing on behalf of Eastern Connecticut Health Network ("ECHN") in support of the application now before the Office of Health Care Access, submitted by WBC Connecticut East, LLC. ("Walden"), to begin offering health services to persons suffering from eating disorders in South Windsor, CT. ECHN has been working with Walden for over a year now planning a service which would be beneficial to many patients seen by physicians at Manchester Hospital and our network. There is a growing need to offer health care services to persons suffering from numerous eating disorders.

ECHN believes that the service Walden will bring to Connecticut is unique, and that it is such a quality service that we will be referring many patients to the facility they hope to open in South Windsor. As you know from the Completeness Letter filed in this application, ECHN plans to hold approximately 16.4% interest in the service Walden will offer. If you have any questions about Walden, or the way the program will operate in conjunction with ECHN, please do not hesitate to call me at (860)533-2925.

Yours truly,

Kevin Murphy
Treasurer & Executive Vice President of Network/Business Development

P:\WORD\K Murphy\Correspondence\WBC CT East LLC Letter of Support from Kevin Murphy 4.16.12.docx

ECHN
Eastern Connecticut Health Network

Eastern Connecticut Health Network
71 Haynes Street
Manchester, CT 06040
860.533.3414
www.echn.org

April 16, 2012

(Via Facsimile and First Class Mail)

Joanne V. Yandow, Esq.
Hearing Officer
Department of Public Health
410 Capitol Avenue, MS #13HCA
P. O. Box 340308
Hartford, CT 06134

Re: WBC Connecticut East, LLC
OHCA Docket No. 11-31731-CON

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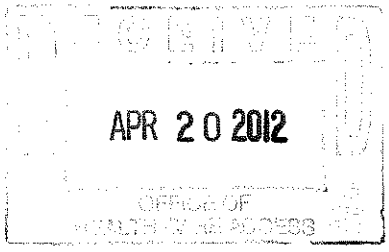
Yours truly,

Kevin Murphy
Treasurer & Executive Vice President of Network/Business Development

P:\WORD\K Murphy\Correspondence\WBC CT East LLC Letter of Support from Kevin Murphy 4 16 12.docx

The Law Office of Patricia A. Gerner, LLC
240 Ramstein Road P.O. Box 209
New Hartford, CT 06057
Phone: (860) 794-1907 Fax: (860) 489-9380

Facsimile Transmittal



Date: APRIL 20, 2012

To: JACK HUBER
STAFF ANALYST
DPH / OFFICE OF HEALTH CARE ACCESS

Fax #: (860) 418-7053

Phone#: (860) 418-7001

From: Pat Gerner

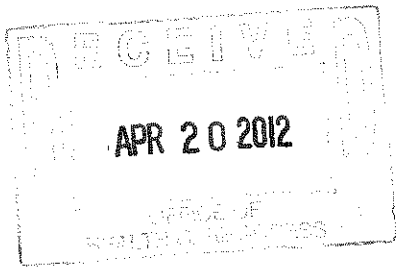
Fax #: (860) 489-9380

Phone #: (860) 794-1907

Number of Pages 3
(including cover)

RE: DOCKET NO: 11-31731-CON
WBC CONNECTICUT EAST, LLC

The Law Office of Patricia A. Gerner, LLC
240 Ramstein Road: P.O. Box 209
New Hartford, CT 06057
Phone: (860) 794-1907 Fax: (860) 489-9380



April 20, 2012

Jack Huber
Staff Analyst
Department of Public Health
Office of Health Care Access
410 Capitol Avenue, MS #13HCA
P. O. Box 340308
Hartford, CT 06134

Re: OHCA Docket No.: 11-31731
WBC Connecticut East, LLC Proposal to Establish an Eating Disorder Program
(Partial Hospital and Intensive Outpatient Program) in South Windsor, CT

Dear Mr. Huber,

As raised in a letter from Hartford Hospital dated April 5, 2012, the application in the above-captioned case was missing the answers to three sub-questions in Question 2: Clear Public Need. Although the answers had been drafted and appeared in drafts prior to the final draft, those answers were inadvertently left out of the CON application when it was submitted to OHCA. This was a clerical error that should have been seen prior to submission, but was not caught.

The Applicant, WBC Connecticut East, LLC was not attempting to hide the fact that there are two other programs in Connecticut that operate programs for the treatment of eating disorders; Hartford Hospital's program at the Institute of Living in Hartford and The Renfrew Center in Greenwich. The two programs were mentioned in the answer to Question 6 of the Completeness Questions (Answers to OHCA's Completeness Questions, 1/25/12, p. 456, Ans. 6.(b)).

The answers to Questions 2.(a)(iv) through 2(a)(vi) were written prior to the submission of the application. They are included with this letter as an attachment . Please let me know if you have any questions about this information.

Thank you for your attention to this matter.

Respectfully submitted:

WBC Connecticut East, LLC

By: Patricia A. Gerner
Patricia A. Gerner, LLC

Attachment: CON Application Answer 2.(a) (iv), (v) and (vi)

2. Clear Public Need

a. Provide the following regarding the proposal's location:

. . .

iv. How and where the proposed patient population is currently being served;

The current population currently has access to limited services in CT. These include:

a) The Institute of Living (IOL), located in Hartford CT, offering a PHP program for adults and adolescents.
b) Renfrew Centers, located locally in Old Greenwich CT, offering eating disorder treatment within the context of Day Treatment, IOP and regular Outpatient programs.

v. All existing providers (name, address, services provided) of the proposed service in the towns listed above and in nearby towns; and

a) Institute of Living, 200 Retreat Avenue, Hartford CT 06106, providing PHP services for adults and adolescents.
b) Renfrew Centers, 1445 E. Putnam Avenue - First Floor, Old Greenwich, CT 06870, offering some eating disorder programming within its Day Treatment, IOP and Outpatient programs.

vi. The effect of the proposal on existing providers, explaining how current referral patterns will be affected by the proposal.

Walden will provide a broader array of dedicated eating disorder resources than currently available in CT. In addition to those services which Walden will offer in CT, Walden also provides a complete continuum of eating disorder services (inpatient, residential, PHP and IOP) dedicated to the treatment of eating disorders in MA. These services are available to, and currently utilized by, clients in other New England states. Walden is also the only provider of eating disorder services to male patients. Walden expects that its services in CT will be complementary to those already available, and will provide a valuable resource for more intensive eating disorder services as needed.

The Law Office of Patricia A. Gerner, LLC
240 Ramstein Road: P.O. Box 209
New Hartford, CT 06057
Phone: (860) 794-1907 Fax: (860) 489-9380

April 20, 2012

Jack Huber
Staff Analyst
Department of Public Health
Office of Health Care Access
410 Capitol Avenue, MS #13HCA
P. O. Box 340308
Hartford, CT 06134

Re: OHCA Docket No.: 11-31731
WBC Connecticut East, LLC Proposal to Establish an Eating Disorder Program
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WBC Connecticut East, LLC

By: Patricia A. Gerner
Patricia A. Gerner, LLC

Attachment: CON Application Answer 2.(a) (iv), (v) and (vi)

2. Clear Public Need

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Walden will provide a broader array of dedicated eating disorder resources than currently available in CT. In addition to those services which Walden will offer in CT, Walden also provides a complete continuum of eating disorder services (inpatient, residential, PHP and IOP) dedicated to the treatment of eating disorders in MA. These services are available to, and currently utilized by, clients in other New England states. Walden is also the only provider of eating disorder services to male patients. Walden expects that its services in CT will be complementary to those already available, and will provide a valuable resource for more intensive eating disorder services as needed.

STATE OF CONNECTICUT
DEPARTMENT OF PUBLIC HEALTH
Office of Health Care Access

May 2, 2012

Charles R. Rossignol
Director of Business Development
Walden Behavioral Care
880 Main Street
Waltham, MA 02451

Re: Certificate of Need Application; Docket Number: 11-31731-CON
WBC Connecticut East, LLC.
Establish a Partial Hospital and an Intensive Outpatient Programs ("IOP") for Adults and Adolescents with Eating Disorders and a Distinct IOP Program for Adults with a Binge Eating Disorder with a total capital expenditure of $142,680
Notice of Public Hearing

Dear Mr. Rossignol,

With the receipt of the completed Certificate of Need ("CON") application information submitted by WBC Connecticut East, LLC ("Applicant") on November 2, 2011, the Office of Health Care Access ("OHCA") has initiated its review of the CON application identified above.

Pursuant to General Statutes § 19a-638a (f), OHCA may hold a hearing with respect to any Certificate of Need application.

This hearing notice is being issued pursuant to General Statutes § 19a-639a (f)

Applicant:	WBC Connecticut East, LLC.
Docket Number:	11-31731-CON
Proposal:	Establish a Partial Hospital and an Intensive Outpatient Programs ("IOP") for Adults and Adolescents with Eating Disorders and a Distinct IOP Program for Adults with a Binge Eating Disorder with a total capital expenditure of $142,680

Notice is hereby given of a public hearing to be held in this matter to commence on:

Date: May 22, 2012

Time: 10:00 a.m.

Place: Department of Public Health, Office of Health Care Access
Third Floor Hearing Room,
410 Capitol Avenue, Hartford, Connecticut

The Applicant is designated as party in this proceeding. Enclosed for your information is a copy of the hearing notice for the public hearing that will be published in the *Hartford Courant* pursuant to General Statutes § 19a-639a (f).

Sincerely,

Kimberly R. Martone
Director of Operations

Enclosure

cc: Henry Salton, Esq., Office of the Attorney General
Marianne Horn, Department of Public Health
Joanne Yandow, Department of Public Health
Wendy Furniss, Department of Public Health
Marielle Daniels, Connecticut Hospital Association

KRM:JAH:lmg

STATE OF CONNECTICUT

DEPARTMENT OF PUBLIC HEALTH
Office of Health Care Access

May 2, 2012 Requisition # 38458

Hartford Courant
285 Broad Street
Hartford, CT 06115

Gentlemen/Ladies:

Please make an insertion of the attached copy, in a single column space, set solid under legal notices, in the issue of your newspaper by no later than **Thursday, May 3, 2012.** Please provide the following **within 30 days** of publication:

- Proof of publication (copy of legal ad. acceptable) showing published date along with the invoice.

If there are any questions regarding this legal notice, please contact Jack Huber at (860) 418-7001.

KINDLY RENDER BILL IN DUPLICATE ATTACHED TO THE TEAR SHEET.

Sincerely,

Kimberly R. Martone
Director of Operations

Attachment

cc: Danielle Pare, DPH
Marielle Daniels, Connecticut Hospital Association

KRM:JAH:lmg

Hartford Courant **May 2, 2012**
Notice of Public Hearing; Docket Number: 11-31731-CON

PLEASE INSERT THE FOLLOWING:

Office of Health Care Access Public Hearing

Statute Reference:	19a-638
Applicant:	WBC Connecticut East, LLC
Town:	South Windsor
Docket Number:	11-31731-CON
Proposal:	Establish a Partial Hospital and an Intensive Outpatient Programs ("IOP") for Adults and Adolescents with Eating Disorders and a Distinct IOP Program for Adults with a Binge Eating Disorder with a total capital expenditure of $142,680
Date:	May 22, 2012
Time:	10:00 a.m.
Place:	Department of Public Health, Office of Health Care Access Third Floor Hearing Room 410 Capitol Avenue, Hartford, Connecticut

Any person who wishes to request status in the above listed public hearing may file a written petition no later than May 17, 2012 (5 calendar days before the date of the hearing) pursuant to the Regulations of Connecticut State Agencies §§ 19a-9-26 and 19a-9-27. If the request for status is granted, such person shall be designated as a Party, an Intervenor or an Informal Participant in the above proceeding. Please check OHCA's website at **www.ct.gov/dph/ohca** for more information or call OHCA directly at (860) 418-7001.

****
*** TX REPORT ***
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TRANSMISSION OK

TX/RX NO	2894
RECIPIENT ADDRESS	917816476755
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ST. TIME	05/02 15:27
TIME USE	00'40
PAGES SENT	5
RESULT	OK

STATE OF CONNECTICUT
DEPARTMENT OF PUBLIC HEALTH
OFFICE OF HEALTH CARE ACCESS

FAX SHEET

TO: CHARLES R. ROSSIGNOL

FAX: (781) 647-6755

AGENCY: WALDEN BEHAVIORAL CARE

FROM: JACK HUBER

DATE: 5/2/12 **TIME:**

NUMBER OF PAGES: 5
(including transmittal sheet

Comments: Docket 11-31731-CON Notice of Public Hearing

PLEASE PHONE IF THERE ARE ANY TRANSMISSION PROBLEMS.

Greer, Leslie

From: ADS <ADS@graystoneadv.com>
Sent: Wednesday, May 02, 2012 2:17 PM
To: Greer, Leslie
Subject: Re: 11-31731-CON Hearing Notice

Good day!

Thanks so much for your ad submission.
We will be in touch shortly and look forward to serving you.

If you have any questions or concerns, please don't hesitate to contact us at the number below.

We sincerely appreciate your business.

PLEASE NOTE: New Department of Labor guidelines allow web base advertising when hiring foreign nationals. To provide required documentation Graystone will retrieve & archive verification for the 1st and 30th days of posting for $115.00/web site. If required, notify Graystone when ad placement is approved.

Thank you,
Graystone Group Advertising

2710 North Avenue
Bridgeport, CT 06604
Phone: 800-544-0005
Fax: 203-549-0061
E-mail new ad requests to: ads@graystoneadv.com
http://www.graystoneadv.com/

From: "Greer, Leslie" <Leslie.Greer@ct.gov>
Date: Wed, 2 May 2012 13:43:56 -0400
To: ads <ads@graystoneadv.com>
Subject: 11-31731-CON Hearing Notice

To Whom It May Concern,
Please run the attached hearing notice in the Hartford Courant by May 3, 2012. For billing purposes make reference to requisition 38458. If you have any questions please call me.

Thank you,

Leslie M. Greer
CT Department of Public Health
Office of Health Care Access
410 Capitol Avenue, MS#13HCA
Hartford, CT 06134
Phone: (860) 418-7013
Fax: (860) 418-7053
Website: www.ct.gov/ohca
Please consider the environment before printing this message

Greer, Leslie

From: Robert Taylor <RTaylor@graystoneadv.com>
Sent: Monday, May 07, 2012 3:47 PM
To: Greer, Leslie
Subject: Re: 11-31731-CON Hearing Notice

Importance: High

Leslie,

Sorry, it did in fact run on Thursday.

The Courant listed it under a different account and we could not find the tearsheet.

The cost is $267.86

Thanks,

Robert Taylor
Graystone Group Advertising
www.graystoneadv.com
2710 North Avenue, Suite 200
Bridgeport, CT 06604
Phone: 203-549-0060
Fax: 203-549-0061

From: "Greer, Leslie" <Leslie.Greer@ct.gov>
Date: Mon, 7 May 2012 15:18:35 -0400
To: RTaylor <rtaylor@graystoneadv.com>
Subject: RE: 11-31731-CON Hearing Notice

Robert,
I thought I saw it in the paper on 5/3?? Just to make sure we are not charged 2x for publishing.
Leslie

From: Robert Taylor [mailto:RTaylor@graystoneadv.com]
Sent: Monday, May 07, 2012 3:06 PM
To: Greer, Leslie
Subject: 11-31731-CON Hearing Notice
Importance: High

Hi Leslie,

The notice was not published on May 3rd.

Would you like it published tomorrow?

Thanks,

Office of Health Care Access Public Hearing

Statute Reference: 19a-638
Applicant: WBC Connecticut East, LLC
Town: South Windsor
Docket Number: 11-31731-CON
Proposal: Establish a Partial Hospital and an Intensive Outpatient Pro grams ("IOP") for Adults and Adolescents with Eating Disor ders and a Distinct IOP Program for Adults with a Binge Eat ing Disorder with a total capital expenditure of $142,680
Date: May 22, 2012
Time: 10:00 a.m.
Place: Department of Public Health, Office of Health Care Access
Third Floor Hearing Room
410 Capitol Avenue, Hartford, Connecticut

Any person who wishes to request status in the above listed public hearing may file a written petition no later than May 17, 2012 '(5 calendar days before the date of the hearing) pursuant to the Regulations of Connecticut State Agencies §§ 19a-9-26 and 19a-9-27. If the request for status is granted, such person shall be designated as a Party, an Intervenor or an Informal Participant in the above proceeding. Please check OHCA's website at www.ct.gov/dph/ohca for more information or call OHCA directly at (860) 418-7001.

Appeared in: ***Hartford Courant*** on Thursday, 05/03/2012

Home

Back

STATE OF CONNECTICUT

DEPARTMENT OF PUBLIC HEALTH

Jewel Mullen, M.D., M.P.H., M.P.A.
Commissioner

Dannel Malloy
Governor

TO: Marianne Horn

FROM: Jewel Mullen, M.D., M.P.H., M.P.A., Commissioner

DATE: May 8, 2012

RE: WBC Connecticut East, LLC
Establishment of a Partial Hospital and Intensive Outpatient Program for the Treatment of Eating Disorders in South Windsor, Docket Number: 11-31731-CON

I hereby designate you to sit as a hearing officer in the above-captioned matter to rule on all motions and recommend findings of fact and conclusions of law upon completion of the hearing.

PHONE: (860) 509-7101 FAX: (860) 509-7111
410 CAPITOL AVENUE - MS#13COM, P.O. BOX 340308, HARTFORD, CONNECTICUT 06134-0308
Affirmative Action / Equal Employment Opportunity Employer

STATE OF CONNECTICUT

DEPARTMENT OF PUBLIC HEALTH

Office of Health Care Access

May 10, 2012

Charles R. Rossignol
Director of Business Development
Walden Behavioral Care
880 Main Street
Waltham, MA 02451

RE: Certificate of Need Application; Docket Number: 11-31731-CON
WBC Connecticut East, LLC
Proposal to Establish a Partial Hospital Program and an Intensive Outpatient Program for Adults and Adolescents with Eating Disorders and a Distinct Intensive Outpatient Program for Adults with a Binge Eating Disorder in South Windsor
Request for Prefiled Testimony and Interrogatories

Dear Mr. Rossignol:

The Office of Health Care Access ("OHCA") will hold a public hearing on Tuesday, May 22, 2012, at 10:00 a.m. in the Department of Public Health's third floor hearing room, 410 Capitol Avenue, Hartford, regarding the Certificate of Need ("CON") application identified above. Pursuant to the Regulations of Connecticut State Agencies § 19a-9-29 (e), any party or other participant is required to prefile in written form all substantive, technical, or expert testimony that it proposes to offer at the hearing. The Applicant's prefiled testimony must be submitted to OHCA no later than 12:00 p.m. on Thursday, May 17, 2012.

All persons providing prefiled testimony must be present at the public hearing to adopt their written testimony under oath and must be available for cross-examination for the entire duration of the hearing. If you are unable to meet the specified time for filing the prefiled testimony you must request a time extension in writing, detailing the reasons for not being able to meet the specified deadline. When submitting the prefiled testimony, please provide one original and six copies. Please number and date each page sequentially from the Applicant's document immediately preceding it.

Attached is OHCA's interrogatory that must be addressed by the Applicant in addition to providing prefiled testimony. In responding to an interrogatory, please repeat each question prior to providing a response. If a response is continued in an attachment or an appendix, the response must clearly list the page number of the attachment or appendix in which the response is continued. Conversely, the attachment or appendix should contain a page number reference to the original question.

Please contact Jack Huber at (860) 418-7069 if you have any questions concerning this request.

Sincerely,

Marianne Horn
Presiding Officer

Attachment

MH:jah

Cc: Patricia A. Gerner, Esq., legal counsel for the Applicant

INTERROGATORIES

For Public Hearing:

Certificate of Need Application; Docket Number: 11-31731-CON

WBC Connecticut East, LLC

Establishment of a Partial Hospital Program and an Intensive Outpatient Program for Adults and Adolescents with Eating Disorders and a Distinct Intensive Outpatient Program for Adults with a Binge Eating Disorder

Please prepare a response to each of the following:

1. Provide further details on how the Applicant determined that the Hartford, Tolland, Middlesex and New Haven County regions of Connecticut would constitute the primary service area for the proposed programs in South Windsor.

2. How does the Applicant plan to attract clients to the proposed location?

3. The Applicant is projecting a total facility census of 265, 491 and 660, respectively in the first three full operating years of the planned programs. What is the basis of your utilization projections paying particular attention to:

    a. Specific Connecticut eating disorder utilization data used in your analysis;
    b. The Connecticut towns where the majority of proposed program clients will originate;
    c. The relationships that have been developed with other Connecticut providers in the establishment of a referral base for the proposed facility; and
    d. The places where your prospective clients are currently being treated.

4. Provide further details on the proposed partnership between the Applicant and ECHN.

5. The proposal anticipates a population mix of 84.2% commercial insurance, 15.2% governmental coverage and 0.6% for the uninsured. What is the Applicant's business philosophy with regard to treating the uninsured and self-pay patients?

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*** TX REPORT ***
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TRANSMISSION OK

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PAGES SENT	4
RESULT	OK

STATE OF CONNECTICUT
DEPARTMENT OF PUBLIC HEALTH
OFFICE OF HEALTH CARE ACCESS

FAX SHEET

TO: PAT GERNER

FAX: 860-489-9380

AGENCY: COUNSEL FOR WBC CONNECTICUT EAST, INC.

FROM: JACK HUBER

DATE: 5/10/2012 **Time:** 12:15 p.m.

NUMBER OF PAGES: 4
(including transmittal sheet)

Comments: Transmitted: Request for Prefile Testimony & Interrogatory Responses
WBC Connecticut East, Inc.
Docket Number: 11-31731-CON
Establish PHP & IOP Eating Disorder Programs in
South Windsor, CT

PLEASE PHONE Jack A. Huber at (860) 418-7069

****
*** TX REPORT ***
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TRANSMISSION OK

TX/RX NO	2909
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ST. TIME	05/10 12:21
TIME USE	00'37
PAGES SENT	4
RESULT	OK

STATE OF CONNECTICUT
DEPARTMENT OF PUBLIC HEALTH
OFFICE OF HEALTH CARE ACCESS

FAX SHEET

TO: CHARLES R. ROSSIGNOL

FAX: (781) 647-6755

AGENCY: WALDEN BEHAVIORAL CARE

FROM: JACK HUBER

DATE: 5/10/2012 **Time:** 12:15 p.m.

NUMBER OF PAGES: 4
(including transmittal sheet)

Comments: Transmitted: Request for Prefile Testimony & Interrogatory Responses
WBC Connecticut East, Inc.
Docket Number: 11-31731-CON
Establish PHP & IOP Eating Disorder Programs in
South Windsor, CT

PLEASE PHONE Jack A. Huber at (860) 418-7069
IF THERE ARE ANY TRANSMISSION PROBLEMS.

STATE OF CONNECTICUT
DEPARTMENT OF PUBLIC HEALTH
OFFICE OF HEALTH CARE ACCESS

Docket No.: 11-31731-CON

WBC Connecticut East, LLC
Proposal to Establish a Partial Hospital Program and an Intensive Outpatient Program for Adults with Eating Disorders in South Windsor

May 17, 2012

ANSWERS TO INTERROGATORIES

1. **Provide further details on how the Applicant determined that the Hartford, Tolland, Middlesex and New Haven County regions of Connecticut would constitute the primary service area for the proposed programs in South Windsor.**

Response:
WBC Connecticut East, LLC is proposing to offer only outpatient services in South Windsor. Partial hospital services and intensive outpatient services will be offered to adults and adolescents (aged 12-17), as well as an aftercare program for adolescents and their families. The intensive outpatient program requires patients to be at the facility three (3) days per week and the partial hospital program requires patients to be at the facility five (5) days per week, which is why travel time is important. The primary service area represented by the identified counties reflects the region from which patients and their families can reasonably access services in South Windsor within one hour's travel time.

2. **How does the Applicant plan to attract clients to the proposed location?**

Response:
Because of its documented support from both Eastern Connecticut Health Network (ECHN)[1] and Hartford Hospital[2], Walden fully expects to receive referrals for its services from both institutions. As is also acknowledged, ECHN has an ownership interest in the facility. Walden Behavioral Care is currently providing successful outpatient programs

[1] *See* attached Letter of Support from Kevin Murphy, Treasurer and Executive Vice President at ECHN to Commissioner Mullen, attached as Exhibit A.

[2] *See* attached Letter of Support from Karen T. Goyette. Vice President at Hartford Hospital to Kimberly Martone, Director of Operations at OHCA, attached as Exhibit B.

exists for the unique services it provides, including programs for binge eating disorders and treatment for males as well as females. Walden currently operates 3 successful programs in Braintree, Northampton and Worcester, Massachusetts that are similar to the one proposed. The service development model that has been used in Massachusetts will be employed in Connecticut.

Walden has already begun the process of adding Connecticut-based insurers to its extensive list of provider agreements. Walden is also developing its marketing plan to area medical professionals, behavioral healthcare providers and clinicians, and colleges and universities. Walden has a target prospect list of such providers, and is developing a calendar for a series of formal announcements, informational meetings and 'Open House' events to notify medical facilities and professionals who treat persons suffering from eating disorders about the availability of these new services.

3. **The Applicant is projecting a total facility census of 265, 491 and 660, respectively in the first three full operating years of the planned programs. What is the basis of your utilization projections paying particular attention to:**

    a. **Specific Connecticut eating disorder utilization data used in your analysis;**
    b. **The Connecticut towns where the majority of proposed program clients will originate;**
    c. **The relationships that have been developed with other Connecticut providers in the establishment of a referral base for the proposed facility; and**
    d. **The places where your prospective clients are currently being treated.**

Response:

a) Utilization for eating disorder treatment in Connecticut is based upon two primary factors:
    - Demand. As excerpted from the CON application, we utilized literature pertaining to established and documented prevalence of eating disorder data in the U.S. in general, and then applied those percentages to the service areas we plan to serve in Connecticut. Specifically,
        - Anorexia Nervosa (AN). Anorexia impacts 1 in 200 females (.5%), and 1 in 2,000 males (.05%) during their lifetime
        - Bulimia Nervosa (BN). Currently, there is consensus that Bulimia Nervosa, as defined by the DMS-IV-TR, impacts 2-3% of young women.
        - Binge Eating Disorder (BED). Using National Comorbidity Survey Replication data, Hudson and colleagues (2007) reported life time prevalence estimates for BED of 3.5% of women and 2.0% of men

during their lifespan, nearly twice as high as those reported for AN and BN combined.

Using these rates of prevalence, and applied to the Connecticut population size of over 2.4M as determined by US Census Bureau (2010) tables, demand for these eating disorder services is estimated at between 56,700 – 59,500 in the primary service area in Connecticut, and 40,400 -42,400 in the secondary service area in Connecticut.

- Utilization. Based on the above information, Walden's expected utilization is only a very small percentage (approximately .4% in year 1) of the total demand in the primary service area. This volume, and the projected patient volumes for years 2 and 3, is based on Walden's direct experience with its MA clinic openings over the past four years including the recent opening of the Worcester facility in 2011. The projections for Connecticut are conservative estimates derived from actual prior experience with volumes over the first few years of operation in new facilities owned by Walden Behavioral Care in Massachusetts.

b) Cities and towns of patient origin. The majority of client referrals are expected to come from the cities and towns within the primary service area, including Hartford, Middletown, New Haven, Mansfield (which includes Storrs), Windsor, South Windsor and Manchester. A complete listing of the towns in the primary service area can be found in the CON Application, Nov. 2, 2011, p.9. In addition to the these communities being generally located within an hour's drive of South Windsor, two of Walden's key referral sources (ECHN and Hartford Hospital) are also located within this primary service area.

c) Relationships with referral sources.
   - Walden has a partnership agreement with ECHN. In addition to ECHN's letter of support, Walden's partnership with ECHN is manifested in several business documents which are ready to be executed upon approval of the Certificate of Need. These include:
     - Letter of Intent (signed, and effective 12/20/11)
     - Operating Agreement – to be signed upon OHCA approval
     - Lease – to be signed upon OHCA approval
   - Walden is also appreciative of the letter of support received from Hartford Hospital.
   - In conjunction with these letters of support, Walden expects to receive referrals from the substantial provider networks associated with each of these providers, as well as other professionals who practice within the primary service area. These include private practitioners (LICSW's, PhD's, Dietitians, PCPs, Family Practitioners, Pediatricians, Gastroenterologists, Gastric bypass surgical Centers, Dentists, etc). We also expect to have relationships with college heath resources in the region, including health service departments, counseling centers, Resi Life, RDs & RAs, Coaches and Deans. In high schools we will connect with Nurses and Guidance Counselors. We have connections with all of these groups throughout MA. We also work with ERs and crisis teams.

- Walden has also received very favorable responses from meetings with potential referral sources in the area. As an example, during the week of May 7, Walden received a referral from a private physician's office located nearby to Walden's intended clinic site, seeking services for a patient in need.

d) Current treatment resources. The current population currently has access to limited services in CT. These include:
   - The Institute of Living (IOL), located in Hartford CT, offering a PHP program for adults and adolescents.
   - Renfrew Centers, located locally in Old Greenwich CT, offering eating disorder treatment within the context of Day Treatment, IOP and regular outpatient programs.
   - (*See* Exhibit C for answers regarding other providers in CT which were inadvertently left out of the CON application.)

Walden will provide a broader array of dedicated eating disorder resources than currently available in CT. Walden is also the only provider of eating disorder services to male patients. Walden expects that its services in CT will be complementary to those already available, and will provide a valuable resource for more intensive eating disorder services as needed.

4. Provide further details on the proposed partnership between the Applicant and ECHN.

Response:

ECHN will possess a 16.4% ownership interest in WBC Connecticut East LLC upon the execution of the Operating Agreement. The following documents, which more fully explain the proposed partnership between the Applicant and ECHN, are attached to this document as Exhibits D, E and F:

a) Letter of Intent (LOI) - (Exhibit D), signed, and effective 12/20/11.
b) Operating Agreement (Exhibit E) – to be signed upon approval of the Certificate of Need by OHCA. The Operating Agreement defines the manner in which Walden and ECHN will work together.
c) Lease (Exhibit F) – also to be signed upon OHCA approval with Evergreen Medical Associates II, LLC for space in a medical office building in South Windsor.

The Applicant also signed a transfer agreement with ECHN for patients who may need emergency medical care while at the South Windsor facility. See CON Application, Nov. 2, 2011, Exhibit 17, p. 377.

5. The proposal anticipates a population mix of 84.2% commercial insurance, 15.2% governmental coverage and 0.6% for the uninsured. What is the Applicant's business philosophy with regard to treating the uninsured and self-pay patients?

Response

Walden is committed to providing care to patients with limited financial means, and the uninsured through its policies and charity care plan. Walden will always work with the patient and related family members to establish an appropriate mechanism to pay for services provided. Walden will utilize tools such as payment plans, and sliding scale fee structures, to achieve a plan mutually acceptable to the patient/family and Walden. Walden has established a charity care cap amount within each fiscal year, the limits of which are set forth in the Operating Agreement, Exhibit D, p.2.

Respectfully submitted,

Stuart L. Koman

5/16/2012
Date:

EXHIBIT A

Reference: Interrogatories, p. 1, Footnote #1

ECHN
Eastern Connecticut Health Network

Eastern Connecticut Health Network
71 Haynes Street
Manchester, CT 06040
860.533.3414
www.echn.org

April 16, 2012

(Via Facsimile and First Class Mail)

Joanne V. Yandow, Esq.
Hearing Officer
Department of Public Health
410 Capitol Avenue, MS #13HCA
P. O. Box 340308
Hartford, CT 06134

Re: WBC Connecticut East, LLC
OHCA Docket No. 11-31731-CON

Dear Commissioner Mullen,

I am writing on behalf of Eastern Connecticut Health Network ("ECHN") in support of the application now before the Office of Health Care Access, submitted by WBC Connecticut East, LLC. ("Walden"), to begin offering health services to persons suffering from eating disorders in South Windsor, CT. ECHN has been working with Walden for over a year now planning a service which would be beneficial to many patients seen by physicians at Manchester Hospital and our network. There is a growing need to offer health care services to persons suffering from numerous eating disorders.

ECHN believes that the service Walden will bring to Connecticut is unique, and that it is such a quality service that we will be referring many patients to the facility they hope to open in South Windsor. As you know from the Completeness Letter filed in this application, ECHN plans to hold approximately 16.4% interest in the service Walden will offer. If you have any questions about Walden, or the way the program will operate in conjunction with ECHN, please do not hesitate to call me at (860)533-2925.

Yours truly,

Kevin Murphy
Treasurer & Executive Vice President of Network/Business Development

P:\WORD\K Murphy\Correspondence\WBC CT East LLC Letter of Support from Kevin Murphy 4 16 12.docx

EXHIBIT B

Reference: Interrogatories, p. 1, Footnote #2

Hartford Hospital
A Hartford HealthCare Partner

MAY 17 2012

April 16, 2012

Kimberly Martone
Director of Operations
Department of Public Health
Division of the Office of Health Care Access
410 Capitol Avenue, MS#13HCA
PO Box 340308
Hartford, Connecticut 06134-0308

Via Facsimile: (860) 418-7053

Re: DN 11-31731 WBC Connecticut East , LLC's Proposal to Establish a Partial Hospital and Intensive Outpatient Program for the Treatment of Eating Disorders in South Windsor, CT

Dear Ms. Martone:

This correspondence is regarding the above referenced Certificate of Need Application and Hartford Hospital's April 5th letter to you concerning the need for additional services for the treatment of eating disorders in Connecticut. Hartford Hospital has had additional time to study the applicant's responses to OHCA's completeness questions and has determined the following:

- The proposed application would provide two services not presently included in the HH program:
  - Treatment of males suffering from eating disorders; and,
  - An intensive outpatient program for adolescents offered after school hours

Based upon these factors, Hartford Hospital is in support of this application and wishes to formally withdraw its request for a public hearing. Furthermore, Hartford Hospital looks forward to collaborating with the applicant on this service, if approved, as noted in its response to #6 of OHCA's completeness questions (page 000456) to improve the health status of residents within the East of the River community.

Sincerely Yours,

Karen T. Goyette
Vice President, Strategic Planning and Business Development

cc: Steven Lazarus, Office of Health Care Access
Jack Huber, Office of Health Care Access

EXHIBIT C

Reference: Interrogatories, p. 4, Question 3(d)

Question 3.(d) of the Interrogatories asks where prospective clients are currently being treated. In response to this question, the Applicant has listed existing facilities which provide services for eating disorders in CT. The following information was prepared to be submitted in response to Question #2(a) of the CON Application dated 11/2/11, in sub-questions 2.(a) iv, 2.(a)v and 2(a)vi. The following answers should have appeared on page 12 of the Application, just prior to the beginning of Question #3.

---

2. Clear Public Need

a. Provide the following regarding the proposal's location:

. . . . . .

iv. How and where the proposed patient population is currently being served;

The current population currently has access to limited services in CT. These include:

a) The Institute of Living (IOL), located in Hartford CT, offering a PHP program for adults and adolescents.
b) Renfrew Centers, located locally in Old Greenwich CT, offering eating disorder treatment within the context of Day Treatment, IOP and regular Outpatient programs.

v. All existing providers (name, address, services provided) of the proposed service in the towns listed above and in nearby towns; and

a) Institute of Living, 200 Retreat Avenue, Hartford CT 06106, providing PHP services for adults and adolescents.
b) Renfrew Centers, 1445 E. Putnam Avenue - First Floor, Old Greenwich, CT 06870, offering some eating disorder programming within its Day Treatment, IOP and Outpatient programs.

vi. The effect of the proposal on existing providers, explaining how current referral patterns will be affected by the proposal.

Walden will provide a broader array of dedicated eating disorder resources than currently available in CT. In addition to those services which Walden will offer in CT, Walden also provides a complete continuum of eating disorder services (inpatient, residential, PHP and IOP) dedicated to the treatment of eating disorders in MA. These services are available to, and currently utilized by, clients in other New England states. Walden is also the only provider of eating disorder services to male patients. Walden expects that its services in CT will be complementary to those already available, and will provide a valuable resource for more intensive eating disorder services as needed.

EXHIBIT D

Reference: Interrogatories, p. 4, Question 4 (a)

ECHN
Eastern Connecticut Health Network

Eastern Connecticut Health Network
71 Haynes Street
Manchester, CT 06040
860.533.3414
www.echn.org

December 23, 2011

Stuart Koman, PhD
President and Chief Executive Officer
Walden Behavioral Care, LLC
9 Hope Avenue, Suite 500
Waltham, MA 02453

Re: WBC Connecticut East, LLC

Dear Dr. Koman:

Enclosed please find two original contracts which have been signed by our authorized representative.

Please have the two contracts signed by your authorized representative, return one to my attention and retain one for your files. You should send the fully executed contract to:

Peter Karl
ECHN
71 Haynes Street
Manchester, Ct 06040

Any payments due under the contract cannot be processed until a fully executed contract is received by our Finance Department.

If you have any questions, please do not hesitate to contact me at (860) 533-3458.

Very truly yours,

Stuart May

Stuart May

Eastern Connecticut Health Network, Inc.
71 Haynes Street
Manchester, Connecticut 06040

Eastern Connecticut Health Network
71 Haynes Street
Manchester, CT 06040
860.533.3414
www.echn.org

December 20, 2011

Stuart Koman, Ph.D.
President and Chief Executive Officer
Walden Behavioral Care, LLC
9 Hope Avenue, Suite 500
Waltham, MA 02453

2012-144

ORIGINAL

Re: WBC Connecticut East, LLC

Dear Stu:

I would like to confirm by this letter of intent our mutual understandings regarding the proposed acquisition by Eastern Connecticut Health Network, Inc. or its affiliate ("***ECHN***") of a sixteen and four-tenths percent (16.4%) interest in WBC Connecticut East, LLC ("***Walden-CT***"). Walden-CT has been established as a Connecticut limited liability company, the sole member of which is currently Walden Behavioral Care, LLC ("***Walden***").

Walden-CT plans to provide outpatient (and may provide inpatient) mental health or psychiatric services for the treatment of eating disorders, including, without limitation, anorexia nervosa, bulimia nervosa, binge eating disorder and night eating syndrome. Walden-CT's service area is expected to include the following Connecticut counties: Hartford County, Middlesex County, New London County, Tolland County and Windham County (the **"Restricted Area"**). Promptly following the receipt by Walden-CT of all regulatory approvals for operation as a health care facility providing outpatient mental health or psychiatric services for the treatment of eating disorders and subject to the terms, conditions and qualifications set forth in this letter of intent: (i) Walden-CT will enter into a lease (the ***"Lease")*** for space at Evergreen Walk in South Windsor (the "***Proposed Premises***") on terms and conditions mutually satisfactory to ECHN and Walden; and (ii) ECHN will acquire from Walden-CT a sixteen and four-tenths percent (16.4%) membership interest (the "***Membership Interest***") for a capital contribution of [redacted] consisting of a cash payment of [redacted] and the payment of pre-occupancy expenses in the amount of [redacted] as set forth in paragraph A.3. below, provided that such Membership Interest percentage shall be subject to adjustment as set forth in paragraph A.3. below. The execution and delivery of the Lease and the acquisition of the Membership Interest shall take place simultaneously at a closing expected to occur on or before March 1, 2012.

This letter of intent does not constitute a binding or legally-enforceable agreement to enter into the Lease or to effect the acquisition of the Membership Interest, to continue discussions related thereto, or for any other purpose, except as expressly set forth in Sections C and D below. The terms of this letter shall be confidential and shall not be disclosed except as permitted in Section C.

A. Conditions to the Proposed Transactions. ECHN and Walden have agreed that the proposed transactions are subject to the following conditions:

1. Walden will, on or before March 1, 2012, cause Walden-CT to complete the following actions to establish the operations of Walden-CT, all at Walden's sole cost and expense:

   (a) Establish and implement a staffing plan for the operations at the Proposed Premises, which plan shall be approved in advance by ECHN.

   (b) Negotiate contracts with third-party payors for payment for services provided at the Proposed Premises, the terms and conditions of which shall be reasonably satisfactory to ECHN, which contracts shall be ready for execution and performance upon the commencement of operations.

   (c) Obtain all regulatory approvals for operation as a health care facility providing outpatient mental health or psychiatric services for the treatment of eating disorders and for the sale of a minority interest therein to ECHN, including, without limitation, any certificate of need or license required under applicable law.

   (d) Prepare a business plan, which plan shall: (i) outline proposed operations for a period of not less than three (3) years, including management, marketing, staffing and program development; and (ii) be reasonably satisfactory to ECHN.

   (e) Enter into an agreement, on terms and conditions (including pricing) satisfactory to ECHN, pursuant to which Walden will permit Walden-CT to use and enjoy Walden's name, goodwill, patient protocols and other intellectual property, and will provide a variety of services necessary for the operation of Walden-CT (the "***Walden Agreement***").

2. ECHN shall, pending the execution and delivery of the Lease and its acquisition of the Membership Interest or the sooner termination of this letter of intent, cooperate and consult with Walden in its efforts to establish Walden-CT's business in Connecticut.

3. ECHN shall be solely responsible for and shall pay when due all pre-occupancy

expenses in connection with the Lease that may be charged by the landlord with respect to the period prior to the occupancy of the Proposed Premises by Walden-CT (the "Pre-Occupancy Expense"). Assuming that the date of occupancy is March 1, 2012 as currently anticipated, the Pre-Occupancy Expense shall have a deemed value of [redacted]. In the event that such date of occupancy is earlier or later than March 1, 2012, the Pre-Occupancy expense shall decrease or increase, respectively, at the rate of [redacted] per month, pro-rated for a portion of a month. If the Pre-Occupancy Expense is decreased or increased under the preceding sentence, then the capital contribution of ECHN to Walden-CT shall decrease or increase pro tanto, and its Membership Interest percentage shall be adjusted accordingly, as follows. Said Membership Interest percentage shall equal a fraction, the numerator of which is [redacted] minus or plus said decrease or increase in the Pre-Occupancy Expense, and the denominator of which is [redacted] minus or plus such amount.

4. Effective as of closing of the sale of the Membership Interest to ECHN, the operating agreement of Walden-CT shall be amended and restated in such manner as ECHN and Walden may agree. At a minimum, these amendments will include:

   (a) Such changes to the purposes of Walden-CT as may be necessary or appropriate to ensure that Walden-CT is operated consistent with ECHN's exempt purposes (including adoption of a charity care policy consistent with that of ECHN) and ECHN's ability to characterize its income from its investment in Walden-CT as related thereto.

   (b) Ownership by ECHN of the Membership Interest.

   (c) The right of ECHN to appoint one of the three members of the Board of Managers of Walden-CT with the right to vote on all matters to be voted on by the managers of Walden-CT. Such voting shall be on a proportional basis except for certain matters for which the vote of the ECHN manager shall be required, including without limitation the following:

      (i) Any decision with respect to the treatment of a material transaction for income tax or financial accounting purposes, which decision could impact ECHN's tax-exempt status or have a disproportionate impact on the members of Walden-CT.

      (ii) The adoption or implementation of policies, procedures, standards or regulations regarding clinical operations, clinical quality, patient satisfaction, quality assurance or reimbursement which ECHN reasonably believes may violate applicable standards of care or legal requirements.

      (iii) Lending any funds of Walden-CT.

(iv) Adoption of annual operating and capital budgets, and approval of unbudgeted annual expenditures in excess of [redacted].

(v) Entering into a transaction with a related party that is not clearly commercially reasonable on an arms-length basis.

(vi) Any amendment to the Walden Agreement.

(d) Mutually-satisfactory provisions regarding restrictions on the transferability of membership interests, exit mechanisms, capital contributions, and fundamental changes, which provisions shall include, at a minimum:

(i) No obligation for ECHN to make any additional capital contributions to Walden-CT.

(ii) Preemptive rights with respect to capital calls or the issuance of new membership interests.

(iii) A right of first refusal for ECHN to purchase any membership interest in Walden-CT being offered to a new member, and a right of first offer for ECHN to purchase from Walden any portion of its membership interest that Walden wishes to sell, unless Walden-CT is being sold in connection with the sale of Walden and all of its affiliates.

(iv) ECHN's right to approve the admission of any new member that competes with ECHN or whose ownership of a membership interest may reasonably be expected to have a material adverse impact on the reputation of Walden-CT or ECHN.

(v) So called drag-along and tag-along rights pursuant to which ECHN shall, at the request of Walden, and may, at its election, participate with Walden (and on the same terms and conditions as Walden) in any sale of membership interests of Walden-CT to a third party.

(vi) In the event that Walden wishes to sell Walden-CT to a third party, whether in an asset or membership interest sale, it shall first discuss such transaction with ECHN and allow ECHN a reasonable opportunity to itself make an offer to purchase Walden-CT. In the event that ECHN makes such an offer and it is not accepted by Walden, Walden shall not within one year thereafter (and before again inviting ECHN to make an offer to purchase Walden-CT) sell Walden-CT to a third party at a price and on other terms equal to or more favorable than those offered by ECHN.

(vii) The approval of ECHN would be required for: (x) any amendment to the Articles of Organization or operating agreement of Walden-CT; or (y) any

substantial change to the nature of Walden-CT's business.

(viii) Walden shall not be permitted to withdraw from Walden-CT. ECHN shall be permitted to withdraw from Walden-CT, without compensation, if it so chooses.

5. Each of ECHN and Walden will agree not to compete with Walden-CT while it is a member of Walden-CT and for one (1) year thereafter, with "competition" defined to include having an interest in, managing or otherwise operating any facility located within the Restricted Area and providing inpatient or outpatient mental health or psychiatric services for the treatment of eating disorders. In the event that the parties work together to establish a hospital-based service at one or more of the hospitals affiliated with ECHN (an "***ECHN Behavioral Health HOPD***"), Walden and Walden-CT will further agree not to compete with the ECHN Behavioral Health HOPD.

6. The Lease shall have a term of seven (7) years. Walden-CT shall have the right to terminate the Lease on the fourth anniversary thereof, provided that it shall pay to the landlord an early termination fee equal to the unamoritized balance of the tenant improvement expenses incurred by the landlord in connection with the Lease. In the event of such early termination, said early termination fee shall be borne equally by Walden and by ECHN.

6. The parties will exert their best efforts to enter into binding agreements regarding the transactions contemplated hereby by January 16, 2012 and to close such transactions by March 1, 2012.

B. Conditions to Closing. Either party may abandon its efforts to consummate the transactions contemplated hereby at any time, for any reason or no reason, and shall have no further obligations or liability of any kind hereunder, subject to the waiting period and other provisions of Sections C and D below. Without limiting the generality of the foregoing, the obligation of each party to proceed with the transactions contemplated hereby is subject to the negotiation and execution of the Lease, the Walden Agreement, a Membership Interest Purchase Agreement, an Amended and Restated Operating Agreement, and other documents, all containing terms, conditions, representations, warranties and closing conditions that are satisfactory to both parties. In addition, the obligation of each of Walden-CT and ECHN to close such transactions will be subject to completion of a due diligence investigation fully satisfactory to it in its sole discretion, and to the receipt of any required regulatory approvals.

C. Due Diligence and Confidentiality. ECHN and Walden have disclosed and will disclose confidential business, financial, employment and patient data to each other in connection with their discussions, negotiations and due diligence relating to the transactions described herein. Until the transactions contemplated hereby are either abandoned or closed, Walden will,

and will cause Walden-CT to, give ECHN and its representatives, and ECHN will give Walden and Walden-CT and their representatives, reasonable access to their respective premises, equipment and relevant business, financial and employment records during normal working hours so that each party can conduct such due diligence investigation as it reasonably deems necessary or appropriate to determine whether it wishes to participate in the transactions contemplated hereby. All non-public information disclosed by any party to the others will be held in strict confidence and used only to evaluate and to complete the transactions contemplated hereby and, if such transactions are consummated, for the proper business purposes of the recipient party. Any individually-identifiable health information will be kept confidential in full compliance with all applicable state and federal laws and regulations regarding the privacy and confidentiality of such information, including without limitation the Health Insurance Portability and Accountability Act of 1996. In the event that the transactions are abandoned, each party will promptly return all materials and information disclosed by the other party and destroy all notes, memoranda and other materials containing confidential information. The foregoing non-disclosure and non-use prohibitions will continue indefinitely, except for (i) information that becomes publicly available through no fault of the receiving party, and (ii) information that a party is by law required to disclose. The foregoing obligations of confidentiality shall be in addition to any such obligations assumed by the parties under any separate nondisclosure agreement entered between them. In the event of any inconsistency between the provisions herein and in such nondisclosure agreement, the provisions more protective of confidentiality shall apply.

D. Standstill and Termination. In the event either party wishes to terminate negotiations and abandon the transactions contemplated hereby, it shall give advance written notice of at least twenty-five (25) days to the other party. Pending the effective date of such abandonment, Walden and Walden-CT shall conduct no discussions with, provide no information to, and entertain no offers from, any other party regarding the sale of all or part of the Membership Interest or the assets of Walden-CT, and ECHN shall conduct no discussions with, provide no information to, and entertain no offers from, any other party regarding any transaction incompatible with the transactions contemplated herein.

If this letter accurately states our understandings, please so indicate by signing the enclosed copy of this letter and returning it to me no later than December 27, 2011, after which this letter of intent shall be withdrawn and of no further force or effect.

Very truly yours,

Eastern Connecticut Health Network, Inc.

By: Peter J. Karl

765\2604\2573624.12

Its: President and CEO

ACCEPTED AND AGREED:

Walden Behavioral Care, LLC and
WBC Connecticut East, LLC

By:_____
Stuart Koman, Ph.D.
Its: President and CEO

EXHIBIT E

Reference: Interrogatories, p. 4, Question 4 (b)

PJH Draft: 4/24/12

AMENDED AND RESTATED

OPERATING AGREEMENT

OF

WBC CONNECTICUT EAST, LLC

Dated as of _____ __, 2012

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WBC CONNECTICUT EAST, LLC

AMENDED AND RESTATED OPERATING AGREEMENT

THIS AMENDED AND RESTATED OPERATING AGREEMENT is made as of _____ __, 2012 by and among the undersigned parties.

WHEREAS, by Articles of Organization filed with the Secretary of State of the State of Connecticut on April 14, 2011, WBC Connecticut East, LLC (the "Company") was formed as a limited liability company under the laws of the State of Connecticut; and Walden Behavioral Care, Inc., a Delaware corporation ("Walden") executed an Operating Agreement dated as of April 14, 2011 (the "Original Agreement") under which the Company has been operated;

WHEREAS, Walden has contributed to the Company cash, certain intellectual property, including rights to use certain trademarks and trade names and the goodwill associated therewith;

WHEREAS, Eastern Connecticut Health Network, Inc., a Connecticut not-for-profit corporation ("ECHN") has this date agreed to purchase Units (as defined below) in the Company pursuant to a Unit Purchase Agreement of even date herewith by and among the Company, Walden and ECHN (the "Purchase Agreement");

WHEREAS, as a condition to, and in connection with the transactions contemplated by the Purchase Agreement, the parties hereto have agreed that the Original Agreement shall be amended and restated in its entirety;

NOW THEREFORE, in consideration of the mutual promises contained herein and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties hereto, intending to be legally bound, do hereby covenant and agree as follows:

ARTICLE I
DEFINITIONS

For purposes of this Agreement, unless the context otherwise requires:

"Act" shall mean the Connecticut Limited Liability Company Act, Conn. Gen. Stat. Tit. 34, Ch. 613, §§ 34-100 - 34-299 et. seq, as from time to time in effect in the State of Connecticut, or any corresponding provision or provisions of any succeeding or successor law of the State of Connecticut.

"Adjustment Date" shall have the meaning set forth in Section 3.6 (C) hereof.

"Affiliate" shall mean, with respect to any Person, any other Person which, at the time Affiliate status is being determined, controls, is controlled by, or is under common control with, such Person. For purposes of this definition, the terms "controls," "is controlled by" or "is under

common control with" shall mean the possession, direct or indirect, of the power to direct or cause the direction of the management and policies of a Person, whether through the ownership of voting securities, by contract or otherwise.

"Agreement" shall mean this Amended and Restated Operating Agreement, as the same may be further amended from time to time.

"Allocation Rules" shall have the meaning set forth in Section 2.3 hereof.

"Articles of Organization" shall mean the Articles of Organization of the Company filed with the Secretary of State of the State of Connecticut on April 14, 2011, as the same may be further amended from time to time in accordance with this Agreement and the Act.

"Asset Bid" shall have the meaning set forth in Section 8.2 hereof.

"Board of Managers" shall mean the Board of Managers designated to manage the Company as provided in Article IV hereof.

"Capital Account" shall have the meaning set forth in Section 3.6 (A) hereof.

"Capital Contribution" or "Contribution" shall mean, with respect to a Member, the total amount of any cash and the agreed value of other property contributed, or services rendered and contributed, to the Company in his, her or its capacity as a Member.

"Charity Care Cap Amount" shall mean, with respect to any fiscal year of the Company, the lesser of (i) five percent (5%) of the Company's net revenues (based on collections, not charges) and (ii) $25,000.

"Code" shall have the meaning set forth in Section 2.3 hereof.

"Company" shall mean WBC Connecticut East, LLC, a Connecticut limited liability company.

"ECHN" shall have the meaning set forth in the introductory recitals of this Agreement.

"ECHN Manager" shall have the meaning set forth in Section 4.1 (B) hereof.

"Excess Deficit Balance" shall have the meaning set forth in Section 6.3 hereof.

"First Asset Purchase Offer" shall have the meaning set forth in Section 8.1 hereof.

"First Asset Purchase Offer Date" shall have the meaning set forth in Section 8.2 hereof.

"First Purchase Member" shall have the meaning set forth in Section 7.3 (A) hereof.

"First Purchase Offer" shall have the meaning set forth in Section 7.3 (A) hereof.

"First Purchase Offer Date" shall have the meaning set forth in Section 7.2 (B) hereof.

"First Purchase Units" shall have the meaning set forth in Section 7.2 (A) hereof.

"First Refusal Members" shall have the meaning set forth in Section 7.1 (A) hereof.

"First Refusal Offer" shall have the meaning set forth in Section 7.1 (A) hereof.

"First Refusal Offer Date" shall have the meaning set forth in Section 7.1 (A) hereof.

"First Refusal Units" shall have the meaning set forth in Section 7.1 (A) hereof

"First Refusal Transferor" shall have the meaning set forth in Section 7.1 (A) hereof.

"Gross Asset Value" shall have the meaning set forth in Section 3.6 (B) hereof.

"Independent Third Party" shall mean any Person unaffiliated with, and unrelated to, the Members or any of their Affiliates.

"Landlord" shall mean Evergreen Medical Associates II, LLC or any successor landlord thereto under the Lease.

"Lease" shall mean that certain Lease Agreement dated as of December 22, 2011 by and between the Landlord and the Company.

"Lease Distribution Amount" shall have the meaning set forth in Section 6.12 hereof.

"Lease Payment Distribution" shall have the meaning set forth in Section 6.12 hereof.

"Lease Termination Amount" shall mean the amount payable under Section 1.1(a) of the Lease.

"Lease Termination Deficit Amount" shall have the meaning set forth in Section 3.4 (C) hereof.

"Majority Member" shall mean any Member who, at the time of inquiry, holds, directly or indirectly, in its own name or together with its Affiliates, more than fifty percent (50%) of the Units then issued and outstanding.

"Manager" or "Managers" shall mean any or all of those individuals elected to the Board of Managers to manage the business of the Company as provided in Article IV hereof.

"Member" or "Members" shall mean any Person from time to time designated as a Member on Schedule A attached hereto, and any Person which becomes a Member of the Company pursuant to the terms of this Agreement or the Act.

"Member Bid" shall have the meaning set forth in Section 7.2 (B) hereof.

"Member Bid Price" shall have the meaning set forth in Section 7.2 (B) hereof.

"Membership Percentage" means, means the fraction, expressed as a percentage, equal to the quotient of (x) the number of Units held by a Member divided by (y) the total number of Units held by all Members.

Member's Portion" shall have the meaning set forth in Section 3.7 hereof.

"Member Purchase Period" shall have the meaning set forth in Section 3.7 hereof.

"Minority Member" shall mean any Member who, at the time of inquiry, holds, directly or indirectly, in its own name or together with its Affiliates, less than fifty percent (50%) the Units then issued and outstanding.

"Oversubscription" shall have the meaning set forth in Section 3.7 hereof.

"Permitted Transfer" shall mean:

A. As applied to ECHN, any Transfer of any Unit between ECHN and any of its Affiliates; and

B. As applied to Walden,

(i) any Transfer of any Unit between Walden and any of its Affiliates;

(ii) any Transfer by Walden which may occur in connection with (1) the sale, transfer or other disposition, in a single transaction or series of related transactions, by Walden or any subsidiary of Walden of all or substantially all the assets of Walden and its subsidiaries taken as a whole, or (2) the sale or disposition (whether by merger or otherwise) of one or more subsidiaries of Walden if substantially all of the assets of the Company and its subsidiaries taken as a whole are held by such subsidiary or subsidiaries; or

(iii) any Transfer by Walden which may occur in connection with the sale, transfer or other disposition, in a single transaction or series of related transactions, of a majority, by voting power, of the capital stock of Walden; or

(iv) any Transfer by Walden which may occur in connection with any merger or consolidation of Walden in which the shares of capital stock of Walden outstanding immediately prior to such merger or consolidation no longer represent (and/or are not converted into or exchanged for shares of capital stock that represent), immediately following such merger or consolidation, a majority, by voting power, of the capital stock of the surviving or resulting corporation or other entity.

"Permitted Transferee" shall mean any Transferee who receives Units in a Permitted Transfer.

"Person" means any individual, partnership, corporation, limited liability company, trust or other entity.

"Profits" or "Losses" of the Company for any fiscal year or other period shall mean the Company's taxable income or loss, as the case may be, for such year or period except that (i) items that are required by Section 703(a)(1) of the Code to be separately stated shall be included; (ii) items of income that are exempt from inclusion in gross income for federal income tax purposes shall be treated as income, and related deductions that are disallowed under Section 265 of the Code shall be treated as deductions; (iii) non-deductible expenditures of the Company that are described in Section 705(a)(2)(B) of the Code, and organization and syndication expenditures and disallowed losses to the extent that such expenditures or losses are treated as expenditures described in Section 705(a)(2)(B) of the Code pursuant to Regulations § 1.704-1(b)(2)(iv)(i) and not otherwise taken into account in computing taxable income or loss under this provision shall be treated as deductions; (iv) in the event the Gross Asset Value of any Company property is adjusted pursuant to Section 3.6B and 3.6C, the amount of such upward (or downward) adjustment shall be taken into account as gain (or loss) from the disposition of such property; and (v) items of gain, loss, depreciation, amortization, or depletion that would be computed for federal income tax purposes by reference to the adjusted basis of an item of Company property for federal income tax purposes shall be determined by reference to the Gross Asset Value of such item of property. In the event the Gross Asset Value of any item of Company property differs from its adjusted basis for federal income tax purposes, the amount of depreciation, depletion, or amortization for a period with respect to such property shall be computed so as to bear the same relationship to the Gross Asset Value of such property as the depreciation, depletion, or amortization computed for federal income tax purposes with respect to such property for such period bears to the adjusted basis of such property. If the adjusted basis of such property is zero, the depreciation, depletion, or amortization with respect to such property shall be computed by using a method consistent with the method that would be used for federal income tax purposes if the adjusted basis of such property were greater than zero.

"Prospective Transferee" shall have the meaning set forth in Section 7.1 (A) hereof.

"Purchase Agreement" shall have the meaning set forth in the introductory recitals of this Agreement.

"Reduction Items" shall have the meaning set forth in Section 6.3 hereof.

"Regulatory Allocations" shall have the meaning set forth in Section 6.9 hereof.

"Restricted Area" shall mean and encompass all of the following counties within the State of Connecticut: Hartford County, Middlesex County, New London County, Tolland County and Windham County.

"Tag-Along Notice" shall have the meaning set forth in Section 7.3 (A) hereof.

"Tag-Along Units" shall mean any Units which may be proposed for Transfer or Transferred pursuant to Section 7.3 hereof.

"Tax Matters Member" shall have the meaning set forth in Section 11.4 hereof.

"Terms" shall mean any and all material terms of a proposed Transfer, including without limitation, the purchase price offered by any Prospective Transferee, the manner in which such purchase price shall be paid and the structure of the proposed Transfer.

"Transfer" (whether used as a noun or a verb) shall mean and refer to any sale, assignment, pledge, encumbrance or other transfer or exchange, whether voluntarily or by operation of law, of a Unit in the Company.

"Transferee" shall mean any Person which received Units in a Transfer.

"Transferor" shall mean any Member or any other Person which proposes to Transfer, or Transfers any Unit.

"Treasury" shall have the meaning set forth in Section 2.3 hereof.

"Unit" shall mean an undivided interest in the ownership of the Company which shall entitle the holder thereof to receive all benefits, and to exercise all rights, of membership in the Company as are set forth in this Agreement and, to the extent not inconsistent with this Agreement, such benefits and rights of membership as are provided under the Act, including without limitation the right to receive distributions and to participate in the management of the Company, in each case and at all times subject to such obligations as are set forth in this Agreement and, to the extent not inconsistent with this Agreement, such obligations as are set forth in the Act.

"Walden" shall have the meaning set forth in the introductory recitals of this Agreement.

"Walden Services Agreement" shall mean that certain Services Agreement of even date herewith by and between Walden and the Company under which, in consideration of the fees stated therein, Walden will provide the Company with certain administrative, management and other services.

ARTICLE II
FORMATION

2.1 Formation and Name of the Company; Filing of Articles and Other Instruments. The undersigned parties hereby ratify and confirm the authority of Stuart Koman to execute the Articles of Organization and to file the Articles of Organization in accordance with the Act, and to form thereby a Connecticut limited liability company under the name of WBC Connecticut East, LLC. The undersigned parties also hereby authorize the President and the Secretary of the Company, acting singly, to execute such other documents and instruments and take all such other actions as may be deemed by the Board of Managers to be necessary or appropriate to continue the Company under the laws of the State of Connecticut. Each of the President and the Secretary

of the Company, acting singly, shall also be authorized to execute and deliver any and all such documents and instruments, and to take appropriate action, as may be required from time to time for the Company to qualify to conduct business as a limited liability company under the laws of any other jurisdiction in which the Company elects to do business.

2.2 Applicable State Law. It is the intent of the parties hereto that all questions with respect to the construction of this Agreement and the rights and liabilities of the parties shall be determined in accordance with the provisions of the Act, and such other laws of the State of Connecticut as may be applicable.

2.3 Applicable Tax Law. References herein to the "Code" are to the Internal Revenue Code of 1986; references to the "Regulations" are to regulations adopted, or where applicable, proposed but not adopted, by the United States Treasury Department ("Treasury") applicable to the Code; and references to the "Allocation Rules" are to such provisions of the Regulations or applicable tax law that may apply to the allocation of tax benefits among Members, including, but not limited to, Regulations applicable to Sections 704 and 752 of the Code, or any successor provisions of the Code, as any of the foregoing may be amended from time to time. The Members intend that the Company should be taxed as a partnership for federal and state income tax purposes.

2.4 Business of the Company. The Company has been formed to provide outpatient and inpatient mental health or psychiatric services for the treatment of eating disorders, including, without limitation, anorexia nervosa, bulimia nervosa, binge eating disorder and night eating syndrome. In furtherance of its business, the Company shall refer all patients seeking financial assistance or charity care to ECHN for financial counseling. ECHN shall provide such financial counseling to all such patients and ECHN shall make a recommendation to the Company, based on EHCN's current charity care procedures and standards, as to whether patients are eligible for charity care. The Company shall be bound by ECHN's recommendations and shall provide charity care to the Company's patients on the basis of those recommendations, provided, however, that notwithstanding the recommendations of ECHN, the Company shall not be obligated to charity care to patients if and to the extent that the aggregate cost of such care for all such patients in any fiscal year exceeds the Charity Care Cap Amount for such year. In furtherance of its business, the Company shall also participate in appropriate community outreach, education and preventive health programs. Subject to the provisions of Sections 3.3 (I) and 4.1 (I) hereof, the Company may also engage in any lawful act or activity for which a limited liability company may be formed under the Act.

2.5 Principal Office; Registered Office and Resident Agent. Unless and until otherwise designated by the Board of Managers, the principal office of the Company in the State of Connecticut shall be 2400 Tamarack Avenue, Suite 203, South Windsor, Connecticut 06074. Unless and until otherwise designated by the Board of Managers, the registered office of the Company in the State of Connecticut shall be 50 Weston Street, Hartford, Connecticut 06120-1537, and the name of the Company's registered agent shall be the Corporation Service Company.

2.6 Term. The Company shall continue until the Company is dissolved and its affairs closed as provided in Article X hereof.

ARTICLE III
RIGHTS AND OBLIGATIONS OF MEMBERS

3.1 Members. The full name and business address of each Member the amount or value of each such Member's respective Capital Contribution, and each such Member's respective ownership of Units in the Company are shown on Schedule A hereto, as it may be amended from time to time. No Member shall be liable for any debts, liabilities, contracts or obligations of the Company except as expressly agreed to herein or otherwise in writing.

3.2 Single Class of Members. The Company shall have a single class of Members.

3.3 Meetings of Members.

A. Place of Meetings. All meetings of the Members shall be held at such place within the State of Connecticut as shall be stated in a notice of meeting. Notwithstanding the foregoing, with the consent of all of the Members, meetings may be held outside the State of Connecticut at such place as may be agreed to by the Members.

B. Meetings. A meeting of the Members, for any purpose or purposes, may be called by the holder(s) of record of not less than ten percent (10%) of the Units entitled to vote at such meeting, by the President, or by the Board of Managers. Any call shall state the purpose or purposes of the proposed meeting.

C. Notice of Meetings. Notice of each meeting stating the place, day, hour and the purpose or purposes of the meeting shall be given to each Member entitled to vote at such meeting not less than seven (7) nor more than thirty (30) days before the meeting. Business transacted at any meeting of Members shall be limited to the purposes stated in the notice of the meeting or any written waiver thereof.

D. Quorum. Members holding a majority of the Units entitled to vote, either present in person or represented by proxy, shall constitute a quorum at all meetings of the Members for the transaction of business. If a quorum shall not be present or represented at any meeting of the Members, the Members entitled to vote, present in person or represented by proxy, shall have power to adjourn the meeting from time to time, without notice other than announcement at the meeting, until a quorum shall be present or represented. At such adjourned meeting at which a quorum shall be present or represented, any business may be transacted which might have been transacted at the meeting as originally notified. If adjournment is for more than thirty (30) days, a notice of the adjourned meeting shall be given to each Member entitled to vote at the meeting.

E. Telephone Participation in Meetings. One or more Members may participate in a meeting of the Members by means of conference telephone or similar communications equipment by means of which all Members participating in the meeting can hear one another. Participation in a meeting pursuant to this section shall constitute presence in person at the meeting.

F. Voting; General Matters. Each holder of Units shall have one vote per Unit upon all matters submitted to a vote of the Members. When a quorum is present at any meeting, the vote of the Members holding a majority of the Units entitled to vote and present in person or represented by proxy shall decide any question brought before such meeting, except when the

vote of a greater number or higher percentage is required under this Agreement, by the Articles of Organization or by law.

G. Proxies. Every Member entitled to vote at a meeting or to express consent without a meeting may authorize another Person or Persons (who may or may not be a Member) to act for the Member by proxy, executed in writing by the Member or by a duly authorized attorney in-fact. No proxy shall be valid after one year from the date thereof, unless otherwise provided in the proxy.

H. Consent Action. Any action required or permitted to be taken at a meeting of Members may be taken without a meeting if written notice of the proposed action is given to all Members at least two (2) days prior to the date of such action and written consents to such action are executed by Members whose votes would be sufficient to take such action at a meeting of the Members. The Secretary shall notify all Members of any action taken by written consent and shall file such consents with the records of Members' meetings.

I. ECHN Protective Provisions. As long as ECHN and/or any of its Affiliates own any Units, the Company shall not, either directly or indirectly by amendment, merger, consolidation or otherwise, undertake any of the following actions without affirmative vote or the written consent of ECHN and/or any of its Affiliates, voting or consenting, as the case may be, separately as a class:

(i) the admission of any new Member that competes with ECHN in the Restricted Area or whose ownership of Units may reasonably be expected to have a material adverse impact on the reputation of ECHN or the Company;

(ii) any amendment to the Articles of Organization or this Agreement, other than such amendments to Schedule A to this Agreement which may be required to reflect certain administrative matters arising in the ordinary course of business, including without limitation, any additional Capital Contributions which may be made by Members from time to time, the admission of new Members and/or the issuance of additional Units;

(iii) any increase or decrease in the number of Managers to be elected to serve on the Board of Managers as provided in Section 4.1 (b) hereof; or

(iv) any substantial change to the nature of the Company's business.

3.4 Capital Contributions.

A. Initial Capital Contributions. As of the date hereof, each of the Members has made an initial Capital Contribution to Company in the amount so designated and set forth opposite such Member's name on Schedule A hereto and such initial Capital Contribution has been reflected in the Capital Account of such Member.

B. Additional Voluntary Capital Contributions; Issuance of Additional Units. In the event that the Board of Managers determines, in good faith, that the Company requires additional funds for one or more proper business purposes, then, subject to the provisions of Section 3.3 (I) and Section 3.7 hereof, the Company may solicit and accept additional Capital Contributions

from, and may issue additional Units to, any Person (whether or not then a Member) that the Board of Managers may select, in its sole discretion. If the Person making such an additional Capital Contribution is not a Member then, prior to the acceptance of such Capital Contribution and the issuance of any additional Units, such Person shall execute such documents as the Board of Managers may deem necessary or appropriate to admit such Person as a Member, including any joinder agreement or other document binding such Person to the terms of this Agreement.. Nothing in this Section 3.4 (B) shall be construed to require any Member to make any additional Capital Contribution.

C. Mandatory Capital Contribution: Lease Termination. In the event that (i) the Lease is terminated pursuant to Section 1.1(a) thereof and, as a consequence of such termination, the Company is obligated to pay the Landlord a Lease Termination Amount, and (ii) the Board of Managers determines that the Lease Payment Distribution, if any, available for payment pursuant to Section 6.12 hereof will be insufficient to pay the Landlord the Lease Termination Amount in full, then the Board of Managers may, by notice to Walden and ECHN, make a mandatory capital call and thereby require Walden and ECHN to each make an additional Capital Contribution to the Company in an amount equal to [redacted] of the difference between the Lease Termination Amount and any Lease Payment Distribution (the "Lease Termination Deficit Amount"). Such additional Capital Contributions shall be made by Walden and ECHN in full within ten (10) days of receipt of such call notice. In the event that either Walden or ECHN fails to make such additional Capital Contribution within such ten (10) day period, then the Board of Managers may issue a notice of default to the Member who has failed to make such payment. In the event that such payment is not made within five (5) days following such Member's receipt of a notice of default, then the Board of Managers may elect to declare such Member to be in default of this Agreement and such Member's Units shall be deemed cancelled and such Member's Capital Account shall be deemed forfeited. Such cancellation and forfeiture shall not be deemed an election of remedies, however, and the Company and/or the others Members shall retain any and all such other rights and remedies against the defaulting Member as the Company and/or the other Members may otherwise have at law or in equity.

3.5 Return of Capital Contribution. No Member shall have the right to demand a return of its Capital Contributions, except as otherwise provided herein. No Member shall be personally liable for the return of any portion of any other Member's Capital Contributions, and any return of Capital Contributions shall be made solely from the assets of the Company.

3.6 Capital Account.

A. Definition of Capital Account. The Capital Account of a Member as of any date shall equal the amount of the Member's paid-in Capital Contributions (X) increased by (i) any additional cash Contributions such Member may make (including any mandatory Capital Contributions which may be made by Walden and ECHN pursuant to Section 3.4 (C) hereof), (ii) the fair market value of any asset contributed by such Member to the Company (as determined immediately prior to such Contribution) net of any liabilities secured by such asset that the Company is considered to assume or take subject to pursuant to Section 752 of the Code, (iii) such Member's allocated share of Company Profits and (iv) the amount of any Company liabilities that are assumed by such Member (within the meaning of Regulations § 1.704-1(b)(2)(iv)(C)), but excluding liabilities assumed in connection with the distribution of Company property and excluding increases in such Member's share of Company liabilities pursuant to

Section 752 of the Code, and (Y) decreased by (i) such Member's allocated share of Company Losses, (ii) cash distributed by the Company to such Member, (iii) the Gross Asset Value of any Company property distributed to such Member (as determined immediately prior to such distribution) net of any liabilities secured by such asset that such Member is considered to assume or take subject to pursuant to Section 752 of the Code, (iv) the amount of any liabilities of such Member that are assumed by the Company but excluding liabilities assumed in connection with the contribution of property to the Company and excluding decreases in such Member's share of Company liabilities pursuant to Section 752 of the Code. In the event that the foregoing fails to provide guidance as to the maintenance of Capital Accounts with respect to any Company item, then such item shall be allocated in a manner which is consistent with the underlying economic agreement of the Members and, wherever possible, so as to cause the allocation to be respected pursuant to applicable provisions of the Code and the Allocation Rules, as determined by the Members.

B. Gross Asset Value. "Gross Asset Value" means, with respect to any asset, the adjusted basis of the asset for federal income tax purposes, except as follows:

(i) The initial Gross Asset Value of any asset contributed by a Member to the Company shall be the gross fair market value of such asset, as determined by the contributing Member and the Board of Managers;

(ii) If the Board of Managers shall so elect, the Gross Asset Values of all Company assets shall be adjusted to equal their respective gross fair market values (or, if greater, the amount of any nonrecourse indebtedness to which such assets are subject within the meaning of Section 7701(g) of the Code), as determined by the Board of Managers, immediately prior to any Adjustment Date.

(iii) If the Gross Asset Value of an asset has been determined or adjusted, (a) income, gain, loss and deductions with respect to such asset shall be computed with respect to the Gross Asset Value, and not the adjusted basis of such asset, and (b) such Gross Asset Value shall thereafter be adjusted in the same manner as would the asset's adjusted basis for federal income tax purposes.

C. Adjustment Date. "Adjustment Date" means the date on which any of the following occurs: (i) the acquisition of one or more Units in the Company by any new or existing Member in exchange for more than a de minimis Capital Contribution of money or property where such contribution alters the interest of any Member; (ii) the distribution by the Company to a retiring or continuing Member of more than a de minimis amount of money or Company property where such distribution alters the interest of any Member; or (iii) the liquidation of the Company (within the meaning of Regulations § 1.704-1(b)(2)(ii)(g), but not including a liquidation of the Company that is deemed to occur pursuant to Regulations § 1.708-1(b)(1)(iv) in the event of a termination of the Company pursuant to Section 708(b)(1)(B) of the Code. At the election of the Board of Managers, upon the distribution by the Company of any assets in-kind to any Member other than in consideration of an interest in the Company, only the Gross Asset Value of the assets actually distributed shall be adjusted.

D. Transfer of Units in the Company. If any Unit in the Company is transferred in accordance with the terms of this Agreement, the Transferee of such Unit shall succeed to the Capital Account of the Transferor to the extent the same relates to the Transferred Unit.

E. Other Adjustments. The provisions of this Agreement relating to the maintenance of Capital Accounts are intended to comply with the Allocation Rules. In the event that the Board of Managers shall determine that it is prudent to modify the manner in which Capital Accounts are computed in order to comply with the Allocation Rules, the Members hereby agree that they will not unreasonably withhold their consent to any modification that is reasonably required to so comply, provided that such modification is not likely to materially affect the amounts distributable to any Member.

F. Negative Capital Account. No Member shall be liable to restore any deficit in such Member's Capital Account.

3.7 Preemptive Right to Acquire Additional Units. In the event that the Company proposes to issue any additional Units in the Company pursuant to Section 3.4 B hereof, then the Company shall first give written notice to each Member of the Company's intention, and shall offer thereby each Member the opportunity to purchase, at the same price and on the same terms as first proposed, a portion thereof which bears the same proportion to the aggregate of all such Units so offered as the total number of Units which are then held by such Member bears to the aggregate number of Units held by all Members (the Member's Portion). Such offer shall (i) describe the Units so offered; (ii) specify the quantity, the price and payment terms with respect thereto; and (iii) in the event that the Company is prepared to accept in payment therefor consideration other than cash or cash equivalents, the cash value of such consideration as determined in good faith by the Board of Managers. Each Member may, within thirty (30) days after the giving of such offer (the "Member's Purchase Period"), by written notice to the Company, elect to purchase its Member's Portion, or any lesser portion, and may also indicate that such Member is also prepared to purchase all or any remaining portion of the Units so offered which other Members do not elect to purchase under this Section 3.7 (the "Oversubscription"), provided, however, that if the Oversubscription elections made by all Members exceed the number of Units which are available for purchase through such Oversubscription, then each Member making an Oversubscription election, shall be entitled to purchase through such Member's Oversubscription election that portion of the total number of Units which are available for purchase through Oversubscription which bears the same proportion to the aggregate number of Units which are available for Oversubscription as the Member's Portion of such Member bears to the aggregate Member's Portions of all Members who have made Oversubscription elections. The Company shall sell to those Members making such elections, such portion of the Units so offered, in accordance with the elections made by such Members and upon the terms specified in the Company's offer, provided, however, that if the Company had been prepared to accept in payment therefor consideration other than cash or cash equivalents, and a Member so elects, such Member may instead tender the cash value thereof in payment therefor and provided, further, that no Member shall be under any obligation to purchase such Units before the consideration therefor has been received by the Company from the other purchasers. Following the expiration of the Member Purchase Period, the Company may proceed with the original transaction on the terms specified with respect to any Units not purchased by the Members, provided that such transaction is consummated within the six (6)

month period following the expiration of the Member Purchase Period. After such six (6) month period, any issuance shall again be subject to the preemptive rights described in this Section 3.7.

ARTICLE IV
MANAGEMENT

4.1 Board of Managers.

A. Powers. Except as expressly otherwise reserved to the Members or as otherwise provided under this Agreement, by the Articles of Organization or by law, the overall management and control of the business and affairs of the Company shall be vested in the Board of Managers.

B. Number of Managers; Election and Tenure. The number of Managers to serve on the Board of Managers of the Company shall initially be fixed at three (3). Subject to the provisions of Section 3.3 (I) hereof, the number of Managers may be increased or decreased from time to time any meeting of the Members by the affirmative vote of Members holding a majority of the Units entitled to vote. As long as ECHN and/or any of its Affiliates own any Units, ECHN and its Affiliates, voting exclusively and as a separate class, shall be entitled to elect one member of the Board of Managers (the "ECHN Manager"). The balance of Managers to be elected to the Board of Managers shall be elected by the affirmative vote of Members holding a majority of the Units entitled to vote, voting together as a single class. Any Manager may be removed with or without cause, by the vote of Members holding a majority of the Units entitled to vote, voting together as a single class, taken either at a special meeting of such Members duly called for that purpose or pursuant to a written consent of Members; provided, however, that as long as ECHN and/or any of its Affiliates own any Units, the ECHN Manager may be removed, with or without cause, only by the vote of ECHN and its Affiliates, voting exclusively and as a separate class, or pursuant to a written consent of Members executed by ECHN and its Affiliates. Any vacancy on the Board of Managers, whether caused by the death, resignation or removal of a Manager shall be filled only, by the vote of a majority of the holders of the Units, voting together as a single class, taken either at a special meeting of such Members duly called for that purpose or pursuant to a written consent of Members; provided, however that as long as ECHN and/or any of its Affiliates own any Units, any vacancy caused by the death, resignation or removal of the ECHN Director shall be filled only by the vote of ECHN and its Affiliates, voting exclusively and as a separate class, or pursuant to a written consent of Members executed by ECHN and its Affiliates. At any meeting held for the purpose of electing a Manager, the presence in person or by proxy of the holders of a majority of the Units entitled to elect such Manager shall constitute a quorum for the purpose of electing such Manager. Each Manager shall serve until his or her successor is elected and qualified or until his or her earlier death, resignation or removal.

C. Meetings. Regular meetings of the Board of Managers may be held without call or notice at such times and such places within or without the State of Connecticut as the Board may, from time to time, determine, provided that notice of the first regular meeting following any such determination shall be given to Managers absent from such determination. Following notice given in accordance with Section 4.1 (D), special meetings of the Board of Managers may be held at any time and at any place designated in the call of the meeting when called by the President, the Secretary or any Manager. Members of the Board of Managers may participate in

a meeting of the Board by means of a conference telephone or similar communications equipment by means of which all persons participating in the meeting can hear each other at the same time, and participation by such means shall constitute presence in person at the meeting.

J. D. Notice of Meeting. It shall be sufficient notice to a Manager to give such Manager notice at least one (1) day before the meeting. Notice shall be given by the President or the Secretary at the request of the President, the Secretary or the Manager calling the meeting. The requirement of notice to any Manager may be waived by a written waiver of notice, executed by such Manager before or after the meeting or meetings, and filed with the records of the meeting, or by attendance at the meeting without protesting prior thereto or at its commencement the lack of notice. A notice of a special meeting of the Board of Managers shall specify the purposes of the meeting and no other business may be transacted at such meeting. A waiver of notice of a meeting of the Board of Managers need not specify the purposes of the meeting.

E. Agenda. Any lawful business may be transacted at a meeting of the Board of Managers, notwithstanding the fact that the nature of the business may not have been specified in the notice or waiver of notice of the meeting.

F. Quorum. At any meeting of the Board of Managers, a majority of the Managers then in office shall constitute a quorum for the transaction of business. Any meeting may be adjourned by a majority of the votes cast upon the question, whether or not a quorum is present, and the meeting may be held as adjourned without further notice.

G. Action at Meeting Generally. Except as otherwise provided under Section 4.1 I hereof, any motion adopted by vote of the majority of the Managers present at a meeting at which a quorum is present shall be the act of the Board of Managers. The assent in writing of any Manager to any vote or action of the Managers taken at any meeting, whether or not a quorum was present and whether or not the Manager had or waived notice of the meeting, shall have the same effect as if the Manager so assenting was present at such meeting and voted in favor of such vote or action.

H. Action Without Meeting. Any action by the Board of Managers may be taken without a meeting if all of the Managers consent to the action in writing and the consents are filed with the records of the meetings of the Board of Managers. Such consent shall be treated for all purposes as a vote of the Managers at a meeting.

I. Certain Matters Requiring the Approval of the ECHN Manager. Notwithstanding the provisions of Section 4.1 (G) hereof, as long as ECHN and/or any of its Affiliates owns any Units, none of the following actions may be deemed adopted or approved by the Board of Managers unless the majority vote of the Board, or the written consent, adopting or approving any such action includes the vote or consent of the ECHN Manager:

(i) the adoption of any binding determination or election with respect to the treatment of any material transaction for income tax or financial accounting purposes, which determination or election could reasonably be expected to have (x) an adverse impact on the tax-exempt status of ECHN

or its Affiliates, (y) a material and disproportionate impact on the Units held by ECHN and/or its Affiliates or (z) a material and disproportionate impact on the status or rights of ECHN and/or its Affiliates as Members;

(ii) the adoption or implementation of any policies, procedures, standards or regulations regarding clinical operations, clinical quality, patient satisfaction, quality assurance or reimbursement which the ECHN Manager reasonably believes may violate applicable standards of care or legal requirements;

(iii) the extension of any loans or advances to any Person, other than endorsement of negotiable instruments for deposit or collection in the ordinary course of business, and customary advances for reimbursable employee business expenses in the ordinary course of business;

(iv) the adoption and approval of annual operating or capital budgets for the Company, or the approval of expenditures in any fiscal year which, individually or in the aggregate, are in excess of [redacted] and which are not included in, or anticipated by, any annual operating or capital budget so adopted and approved;

(v) the entry into, or approval of, any transaction with any Member or its Affiliates other than those transactions which are clearly on an "arms-length" basis and on terms no less favorable to the Company than those which could be obtained at the time from an Independent Third Party; or

(vi) the adoption or approval of any amendment or modification of the Walden Services Agreement.

4.2 Officers.

A. Enumeration. The officers of the Company may include a President, a Treasurer, a Secretary and such other officers and agents, with such duties and powers as the Board of Managers may, in its discretion, determine.

B. Election. The President, the Treasurer, the Secretary and any all other officers and agents which the Board of Managers may designate shall each be elected by the Board of Managers.

C. Qualification. An officer need not be a Member. Any two or more offices may be held by the same individual.

D. Tenure. Except as otherwise provided by this Agreement, the term of office of each officer shall be until his or her successor is elected and qualified or until his or her earlier death resignation or removal.

E. Removal. Any officer may be removed from office, with or without cause, by the Board of Managers at any time.

F. Resignation. Any officer may resign by delivering written or electronic notice thereof to the Company at its principal office or to the President or the Secretary, and such resignation shall be effective upon receipt unless it is specified to be effective at some other time or upon the happening of some event.

G. Vacancies. A vacancy in any office arising from any cause may be filled for the unexpired portion of the term by the Board of Managers.

H. President. The President shall have such duties and powers as are commonly incident to such office and such additional duties and powers as the Board of Managers shall from time to time designate. Except as otherwise voted by the Board of Managers, the President shall preside at all meetings of the Members and the Board of Managers.

I. Treasurer. The Treasurer, subject to the direction and under the supervision and control of the Board of Managers, shall have general charge of the financial affairs of the Company. The Treasurer shall have custody of all funds, securities and valuable papers of the Company, except as the Board of Managers may otherwise provide. The Treasurer shall keep or cause to be kept full and accurate records of account which shall be the property of the Company, and which shall be always open to the inspection of each elected officer and the Board of Managers of the Company. The Treasurer shall deposit or cause to be deposited all funds of the Company in such depository or depositories as may be authorized by the Board of Managers. The Treasurer shall have the power to endorse for deposit or collection all notes, checks, drafts, and other negotiable instruments payable to the Company. The Treasurer shall have the power to borrow money and enter into and execute arrangements as to advances, loans and credits to the Company. The Treasurer shall perform such other duties as are incidental to the office, and such other duties as may be assigned by the Board of Managers.

J. Secretary. The Secretary shall record, or cause to be recorded, all proceedings of the meetings of the Members and the Board of Managers in the record books of the Company. The record books shall be open for inspection to the extent herein provided. The Secretary shall notify the Members and Managers, when required by this Agreement, of their respective meetings, and shall perform such other duties as the Board of Managers may from time to time prescribe. The Secretary shall certify the proceedings of the Members and the Board of Managers, when required. In the absence of the Secretary at any such meeting, a temporary secretary shall be chosen who shall record the proceedings of the meeting in the aforesaid books.

K. Other Powers and Duties. Subject to this Agreement and to such limitations as the Board of Managers may from time to time prescribe, the officers shall each have such powers and duties as generally pertain to their respective offices, as well as such powers and duties as from time to time may be conferred by the Board of Managers.

4.3 Protection to Third Party Contractors. No person dealing with the Company, or its assets, whether as mortgagee, assignee, purchaser, lessee, grantee or otherwise, shall be required to investigate the authority of any of the officers of the Company purporting to act on behalf of the Company, in selling, assigning, leasing, mortgaging or conveying any Company assets or any part thereof, nor shall any such assignee, lessee, purchaser, mortgagee, or grantee

be required to inquire as to whether the approval of the Members for any such sale, assignment, lease, mortgage or transfer has been first obtained. Any such person shall be conclusively protected in relying upon a certificate of authority signed by a duly authorized officer of the Company in accepting any instrument signed by any of them in the name and on behalf of the Company.

ARTICLE V
RELATIONS OF MEMBERS TO THE COMPANY

5.1 Loans to the Company. From time to time, subject to and conditioned upon the request and approval of the Board of Managers and the provisions of Section 4.1 (I), if applicable, a Member, Manager, officer and/or any Affiliate thereof may make loans to the Company. Such loans shall not be treated as a Capital Contribution to the Company for any purpose hereunder; nor shall such loans entitle a Member to any increase in the Member's share of the profits and losses or cash distributions of the Company. The amount of any such loan, with interest thereon, may be in such amount and at such interest rate as may be approved by the Board of Managers, subject to the provisions of Section 4.1 (I), if applicable.

5.2 Dealings with Members and Affiliates. Subject the provisions of Section 4.1 (I), if applicable, the Company may enter into agreements or contracts with any Person (including any Member, any Manager, officer and/or any Affiliate) to undertake and carry out the business of the Company in an independent capacity (as distinguished from such Person's capacity, if any, as a Member, Manager or officer), and the Company may become obligated to pay reasonable compensation to such Person on account of any such agreement or contract, provided that such contract or agreement is approved by the Board of Managers, subject to the provisions of Section 4.1 I, if applicable.

5.3 Restrictions on Certain Activities. As long as ECHN and/or its Affiliates own any Units and for a period of one (1) year thereafter, neither ECHN nor any of its Affiliates shall, directly or indirectly, in its own name or on behalf of any other Person, hold any interest in, manage or otherwise operate any business other than the Company, which provides inpatient or outpatient mental health or psychiatric services for the treatment of eating disorders within the Restricted Area. As long as Walden and/or its Affiliates own any Units and for a period of one (1) year thereafter, neither Walden nor any of its Affiliates shall, directly or indirectly, in its own name or on behalf of any other person or entity, hold any interest in, manage or otherwise operate any business, other than the Company, which provides inpatient or outpatient mental health or psychiatric services for the treatment of eating disorders within the Restricted Area. In the event that the Company and/or its Affiliates establish in the future a hospital-based service at one more of the hospitals affiliated with ECHN, then similar restrictions on competition would also extend and apply to any business, other than the Company, which would provide such hospital services.

5.4 Standard of Care and Indemnification. The Company (i) shall indemnify and hold harmless to the fullest extent permitted by law, each Member, Manager and officer, past or present, of the Company acting on behalf of the Company; and (ii) may, with the approval of the Board of Managers, indemnify and hold harmless to the fullest extent permitted by law, any employee or agent, past or present, of the Company acting on behalf of the Company, in each

case, from and against any and all claims and liabilities, including attorneys' fees, to which such Person shall become subject by reason of such Person having been a Member, Manager, officer, agent or employee of the Company or by reason of any action alleged to have been taken or admitted by him, her or it in such capacity, and shall reimburse each such Person for all legal and other expenses reasonably incurred by him, her or it in connection with any such claim or liability; provided, however, that no such Member, Manager, officer, agent or employee shall be indemnified against, or reimbursed for, any expense incurred in connection with any claim or claims made against any Member, Manager, officer, agent or employee (1) by the Company or (2) which the Company has determined to have resulted from: any breach of such person's duty of loyalty to the Company or its Members; acts or omissions not in good faith or which involve intentional misconduct or known violation of law; or for a transaction from which the person seeking indemnification derived improper personal benefit.

ARTICLE VI

ALLOCATIONS AND DISTRIBUTIONS

6.1 Allocation of Profits and Losses. For each fiscal year, Profits and Losses (and each item thereof) shall be allocated pro rata to each Member in accordance with their respective Membership Percentages as indicated on Schedule A.

6.2. Other Tax Items. All other tax items of the Company shall be allocated among the Members as provided in the Code and Regulations for a partnership.

6.3 Qualified Income Offset. In the event that any Member unexpectedly receives any adjustment, allocation, or distribution described in Regulations § 1.704-1(b)(2)(ii)(d)(4)-(6) ("Reduction Items") that, after taking into account all other allocations and adjustments under this Agreement, results in a deficit balance in such Member's Capital Account as of the end of the taxable year in excess of the amount, if any that such Member is obligated to restore or treated as obligated to restore to the Company pursuant to Regulations § 1.704-1(b)(2)(ii)(c) or (h), 1.704-2(g)(1), or 1.704-2(i)(5) (an "Excess Deficit Balance"), then items of income and gain for such year (and, if necessary, subsequent years) will be reallocated to each such Member in the amount and in the proportions needed to eliminate such Excess Deficit Balance as quickly as possible. Solely for purposes of computing such Excess Deficit Balance, the Member's Capital Account shall be reduced by the amount of any Reduction Items that are reasonably expected as of the end of such taxable year.

6.4 Limitation Against Allocation of Losses. Notwithstanding any other provisions of the Agreement, no loss or deduction shall be allocated to any Member to the extent such allocation would cause or increase an Excess Deficit Balance in the Capital Account of such Member. Any such loss or deduction shall be reallocated away from such Member and to the other Members in accordance with this Agreement, but only to the extent that such reallocation would not cause or increase Excess Deficit Balances in the Capital Accounts of such other Members.

6.5 Section 704 Adjustments. Notwithstanding any provision of this Agreement to the contrary, in accordance with Section 704(c) of the Code and Section 1.704-1(b)(2)(iv)(g) of the Regulations, income, gain, loss and deduction with respect to any property contributed to the Company shall, solely for tax purposes, be allocated among the Members so as to take account of any variation between the adjusted basis of such property and its initial Gross Asset Value (as defined in Section 3.6). The Company may select any reasonable method or methods for making such allocations including, without limitation, any method described in Regulations § 1.704-3(b), (c), or (d). In the event the Gross Asset Value of any Company property is adjusted pursuant to Section 3.6 hereof, subsequent allocations of income, gain, loss, and deduction with respect to such property shall take account of any variation between such property's adjusted basis for federal income tax purposes and such Gross Asset Value in the same manner as under Section 704(c) of the Code and the Regulations thereunder

6.6 Nonrecourse Deductions and Chargeback. Nonrecourse deductions (within the meaning of Regulations § 1.704-2(b)(1) and (c)) shall be allocated among the Members in the same manner as deductions that are not nonrecourse deductions. If there is a net decrease in partnership minimum gain (as defined in Regulations §1.704-2(d)) for any taxable year of the

Company, then before any other allocations are made for such taxable year, the Members shall be allocated items of income and gain for such year (and, if necessary, for subsequent years) to the extent required by Regulations § 1.704-2(f).

6.7 Member Nonrecourse Deductions and Chargeback. Notwithstanding any other provisions of this Agreement, all partner nonrecourse deductions (within the meaning of Regulations § 1.704-2(i)(1) and (2)) for each taxable year of the Company shall be allocated to the Members who bear the economic risk of loss with respect to the debt giving rise to such deductions, in accordance with Regulations §1.704-2(i). If there is a net decrease in partner nonrecourse debt minimum gain (within the meaning of Regulations §1.704-2(i)(3)) for any taxable year of the Company, then after taking into account allocations pursuant to the second sentence of Section 6.6 but before any other allocations are made for such taxable year, the Members shall be allocated items of income and gain for such year (and, if necessary, for subsequent years) to the extent required by Regulations §1.704-2(i)(4).

6.8 Gross Income Allocation. If, at the end of any taxable year, the Capital Accounts of any Members have Excess Deficit Balances after taking into account all other allocations and adjustments under this Agreement, then items of income and gain for such year shall be reallocated to such Members in the amount and in the proportions necessary to eliminate such Excess Deficit Balances as quickly as possible

6.9 Regulatory Allocations. The allocations set forth in Sections 6.3, 6.4, 6.6, 6.7, and 6.8 hereof (the "Regulatory Allocations") are intended to comply with certain requirements of Regulations Section 1.704-1(b). Notwithstanding any other provisions of this Section 6 (other than the Regulatory Allocations), the Regulatory Allocations shall be taken into account in allocating Profits and Losses, and items of income, gain, loss and deduction among the Members so that, to the extent possible, each Member shall have a Capital Account balance that, when increased by the amounts of all distributions made to such Member, is equal to what such balance (as so adjusted) would have been if the Regulatory Allocations had not occurred.

6.10 Proration in the Event of a Transfer. If any Unit in the Company is Transferred during a single year, then each item of Company income, gain, loss, deduction, or credit attributable to the Transferred Unit shall be prorated between the Transferor and Transferee for Federal income tax purposes as required or permitted by the Code or Regulations, using any convention or method permitted by the Code or Regulations in making such proration as may be appropriate (all as determined by the Board of Managers); provided, however, extraordinary gain or loss (if any) shall be allocated to the holder of the Unit on the date of the disposition giving rise to the extraordinary gain or loss.

6.11 Allocations upon Admissions or Redemptions. If the interest of a Member in the Company is changed during a taxable year for any reason other than the Transfer of all or a portion of Units to another Person, then such Member's share of each item of Company income, gain, loss, deduction, or credit shall be determined for Federal income tax purposes by taking into account each such Member's varying interests in the Company and using any convention or method permitted by the Code or the Regulations (all as determined by the Board of Managers).

6.12 Lease Payment Distributions. In the event that the Lease is terminated pursuant to Section 1.1(a) thereof and, as a consequence of such termination, the Company is obligated to pay to the Landlord a Lease Termination Amount, then, the Company may apply available cash of the Company to pay the Lease Termination Amount, in whole or in part, and such payment

shall be treated as a distribution by the Company to the Members (a "Lease Payment Distribution"). The Lease Payment Distribution shall be in an amount (the "Lease Distribution Amount") as the Board of Managers deems reasonable and, in this regard, the Board of Managers may take into account all such matters as it considers appropriate, including, but not limited to, (i) any agreement or instrument to which the Company is a party or by which it is bound which, by its terms, may restrict distributions, (ii) the Company's obligations to other creditors and (iii) the need to retain funds or establish such reserves as may be reasonably needed by the Company for any purpose, including the conduct of the business affairs of the Company. The Lease Payment Distribution shall be paid directly to the Landlord, but shall be deemed to have been, and shall be accounted for as, a distribution of fifty percent (50%) of the Lease Distribution Amount to Walden and a distribution of fifty percent (50%) of the Lease Distribution Amount to ECHN. The Capital Accounts of Walden and ECHN shall be adjusted accordingly to reflect such distributions, but will not affect the Membership Percentages of the Members.

6.13 Distribution of Cash Flow Other Than in Liquidation. Other than Lease Payment Distributions to be made as provided under Section 6.12 and distributions in liquidation in accordance with Section 6.14 hereof, net cash flow of the Company shall be distributed at such times as the Board of Managers considers appropriate. Such distributions shall be in such amounts as the Board of Managers deems reasonable and in this regard, the Board of Managers may take into account all such matters as it considers appropriate, including, but not limited to, (i) any agreement or instrument to which the Company is a party or by which it is bound which, by its terms, may restrict distributions, (ii) the Company's obligations to creditors and (iii) the need to retain funds or establish such reserves as may be reasonably needed by the Company for any purpose, including the conduct of the business affairs of the Company. Any distributions to Members made pursuant to this Section 6.13 shall be made pro rata in proportion to each Member's Membership Percentage.

6.14 Distribution in Liquidation. Upon dissolution (as described in Article X), the Board of Managers shall proceed, without unnecessary delay, to distribute the assets of the Company after paying or making due provision for all liabilities to creditors of the Company, including, without limitation, any obligation with the Company may have from and after dissolution to pay to the Landlord a Lease Termination Amount. After paying or making due provision for all liabilities to creditors of the Company, including, without limitation any Lease Termination Amount, and making the adjustments required under Section 10.3, the Company shall distribute the assets of the Company to Members pro rata in accordance with and to the extent of their Capital Accounts and then in proportion each Member's Membership Percentage.

ARTICLE VII
TRANSFER OF UNITS

7.1 Right of First Refusal with Respect to Transfers by a Minority Member.

A. Right of First Refusal Offer. If any Minority Member proposes to Transfer any Units in a Transfer which is neither a Permitted Transfer nor a Transfer of Tag-Along Units made in accordance with Section 7.3 hereof, then such Minority Member (the "First Refusal Transferor") shall first offer such Units to the Company and to the other Members by delivering

a written offer (the "First Refusal Offer") to the Company and to the other Members (the "First Refusal Members"), which First Refusal Offer shall set forth (i) the number of Units proposed for Transfer (the "First Refusal Units"), (ii) the name and address of each bona fide prospective purchaser (the "Prospective Transferee"), including in the case of any Prospective Transferee who is not an individual, the names and addresses of the individuals directly or indirectly controlling such Prospective Transferee, and (iii) the Terms of the proposed Transfer. Such First Refusal Offer when made to the Company and the First Refusal Members shall remain irrevocable until the earliest of (i) the date on which such offer is accepted by the Company and/or the First Refusal Members, as provided in Section 7.1 (B) and (C) hereof, as to all of the First Refusal Units, (ii) the date on which the Company and each of the First Refusal Members have waived, by written notice to the First Refusal Transferor, their rights under this Section 7.1 to purchase the First Refusal Units or (iii) sixty (60) days following the First Refusal Offer Date (defined below).

B. Company Election to Purchase. Within thirty (30) days after the date of delivery of the First Refusal Offer to the Company (the "First Refusal Offer Date"), the Company may elect to purchase all or any portion of the First Refusal Units. The Company shall exercise its election to purchase such First Refusal Units by giving written notice to the First Refusal Transferor, specifying (i) a date for the closing of the purchase, which date shall be not more than forty-five (45) days after the First Refusal Offer Date, and (ii) the number of First Refusal Units which the Company elects to purchase.

C. Member Election to Purchase. In the event that the Company does not elect to purchase any of the First Refusal Units, or in the event that the Company elects to purchase less than all of the First Refusal Units, then within the five (5) day period commencing thirty (30) days after the First Refusal Offer Date, the First Refusal Members may elect to purchase any First Refusal Units which are not subject to an election to purchase made by the Company pursuant to Section 7.1 (B) hereof. If acceptances are received for more than the total remaining First Refusal Units, then the First Refusal Units subject to such acceptances shall be reduced on a pro-rata basis to the extent necessary to satisfy such acceptances, such reduction to be in proportion to the number of Units held by each of the First Refusal Members tendering acceptances. First Refusal Members may exercise their election to purchase the First Refusal Units pursuant to this Section 7.1 (C) by giving written notice to the Company and the First Refusal Transferor indicating the number of First Refusal which they elect to purchase and, if the Company has not specified a date for the closing of the purchase, specifying a closing date which shall not be more than forth-five (45) days after the First Refusal Offer Date.

D. Minimum Purchase Requirement. Notwithstanding the provisions of Section 7.1 (B) or (C) hereof, no election to purchase any of the First Refusal Units shall be effective unless elections have been made under Section 7.1 (B) and/or (C) to purchase, in the aggregate, all and not less than all of the First Refusal Units.

E. Cash Value. Should any First Refusal Offer contain Terms by which any of the First Refusal Units are to be Transferred for consideration other than cash or cash equivalents, then the cash value of such First Refusal Offer shall be determined in good faith by the Board of

Managers and the Company and the First Refusal Members shall have the opportunity to accept such First Refusal Offer as provided in this Section 7.1 at the cash value so determined.

F. Purchase Terms. Except to the extent that a First Refusal Offer contains Terms by which the First Refusal Units are to be sold for consideration other than cash or cash equivalents and, pursuant to Section 7.1 (E) hereof, the Company and/or the First Refusal Members elect to accept such First Refusal Offer at its cash value as determined pursuant to Section 7.1 (E), the Company and/or the First Refusal Members shall purchase the First Refusal Units upon the Terms set forth in the First Refusal Offer delivered pursuant to Section 7.1 (A) hereof.

G. Right to Proceed with Transfer. If (a) the First Refusal Units are not purchased by the Company and/or the First Refusal Members pursuant to the foregoing provisions of this Section 7.1 or the Company and the First Refusal Members, by written notice to the First Refusal Transferor, waive their rights to purchase the First Refusal Units pursuant to the foregoing provisions of this Section 7.1, then the First Refusal Transferor may Transfer such First Refusal Units to the Prospective Transferee or Transferees upon the Terms set forth in the First Refusal Offer, provided that such Prospective Transferee or Transferees also execute and deliver to the Company a counterpart of this Agreement and such other documents as the Board of Managers may reasonably require in order to confirm such Transferee's obligation to be bound by the terms of this Agreement. If the First Refusal Transferor fails to make any such Transfer within one hundred twenty (120) days after the First Refusal Offer Date, such First Refusal Units shall again become subject to all of the restrictions set forth in this Section 7.1 and the First Refusal Transferor shall not transfer such First Refusal Units without first submitting an additional First Refusal Offer to the Company and the First Refusal Members in accordance with this Section 7.1. If, in the course of the negotiations with a Prospective Transferee, new Terms are agreed upon which are different in price or in any other material respect from the Terms specified in the original First Refusal Offer, the First Refusal Transferor shall not Transfer such First Refusal Units without first submitting another First Refusal Offer to the Company and the First Refusal Members which shall set forth such new Terms, and the Company and the First Refusal Members shall have the right to accept such First Refusal Offer on such new Terms in accordance with this Section 7.1.

H. Excepted Transactions. Notwithstanding any other provision of this Section 7.1, the provisions of this Section 7.1 shall not apply to any Transfer of the type described in Section 7.4 hereof.

7.2 Right of First Offer with respect to Transfers by a Majority Member.

A. Right of First Offer. If any Majority Member proposes to Transfer any Units in a Transfer which is not a Permitted Transfer, then such Majority Member shall first offer such Units to the other Members by delivering a written offer (the "First Purchase Offer") to the other Members (the "First Purchase Members"), which First Purchase Offer shall set forth the number of Units proposed for Transfer (the "First Purchase Units").

B. Member Election to Purchase. Within thirty (30) days after the date of delivery of the First Purchase Offer to the First Purchase Members (the "First Purchase Offer Date"), the First Purchase Members may bid to purchase all or any portion of the First Purchase Units by giving notice (a "Member Bid") to the Majority Member proposing the Transfer and to the other First Purchase Members specifying (i) the number of First Purchase Units which such First Purchase Member is prepared to purchase, (ii) the price at which such First Purchase Member is prepared to purchase such First Purchase Units (a "Member Bid Price") and (iii) a closing date which shall not be less than seventy-five (75) days, and not more than ninety (90) days, after the First Purchase Offer Date. In the event that Member Bids are made for more than the number of First Purchase Units available for bid by all of the First Purchase Members, then the number of First Purchase Units subject to each Member Bid shall be reduced on a pro-rata basis, such reduction to be in proportion to the number of Units held by each of the First Purchase Members submitting Member Bids. In the event that more than one Member Bid is made, and those Member Bids specify different Member Bid Prices or different closing dates, then all of the Member Bids shall be deemed to have been made at the highest Member Bid Price set forth in any Member Bid submitted, and the closing date for purchase of the First Purchase Units under all of the Member Bids shall be deemed to be the earliest closing date specified in any Member Bid submitted, provided, however, that any First Purchase Member who is not prepared to pay such Member Bid Price or to close the purchase of First Purchase Units by such date may withdraw his or its Member Bid by notice to the Majority Member proposing the Transfer and the other First Purchase Members given not later than sixty (60) days following the First Purchase Offer Date.

C. Acceptance or Rejections of Bids. The Majority Member proposing the Transfer may, but is not obligated to, accept any Member Bid, provided, however, if such Majority Member accepts any Member Bid, then such Majority Member must accept all of the Member Bids made in accordance with this Section 7.2. Within forty-five (45) days after the First Purchase Offer Date, the Majority Member proposing the Transfer shall give notice to each First Purchase Member who submits a Member Bid indicating whether the Member Bids, if any, shall be accepted or rejected. In the event that the Majority Member proposing the Transfer fails to give such notice within such forty-five (45) day period, then any and all Member Bids shall be deemed to have been rejected by such Majority Member.

D. Restrictions on Subsequent Transfers. In the event that a Majority Member makes a First Purchase Offer in accordance with Section 7.2 (A) but subsequently rejects, or is deemed to have rejected all Member Bids, then, from and after the date of such rejection or deemed rejection, such Majority Member shall be free, in its sole discretion, to Transfer any or all of the First Purchase Units without limitation or further restriction, provided, however, that such Majority Member shall not Transfer any such First Purchase Units at a price below that specified in any Member Bid without first making an additional First Purchase Offer to all of the other Members in accordance with this Section 7.2. Upon any such additional First Purchase Offer, the other Members shall again have the right to bid to purchase such First Purchase Units in accordance with this Section 7.2.

E. Excepted Transactions. Notwithstanding any other provision of this Section 7.2, the provisions of this Section 7.2 shall not apply to any Transfer of the type described in Section 7.4 hereof.

7.3 Tag-Along Rights with respect to Transfers by a Majority Member.

A. Notice of Tag-Along Rights. If any Majority Member proposes to Transfer any Units pursuant to a Transfer which is not a Permitted Transfer, then, in addition to the right of first offer set forth in Section 7.2 hereof, each of the other Members shall also have right to participate in the any Transfer of Units undertaken by such Majority Member on the same Terms as such Majority Member, whether such sale is a sale of First Purchase Units made to other Members pursuant to Section 7.2 hereof or is a sale of Units made thereafter to a third party. Not less than forty-five (45) days prior to the date of the closing of a sale of Units by such Majority Member, such Majority Member shall give notice of the proposed Transfer (a "Tag-Along Notice") to each of the other Members, which Tag-Along Notice shall set forth (i) the number and class of Units proposed for Transfer by such Majority Member, (ii) a description of the proposed Transfer, (iii) the name and address of each Prospective Transferee, including in the case of any Prospective Transferee who is not an individual, the names and addresses of the individuals directly or indirectly controlling such Prospective Transferee, and (iv) any and all other Terms of the proposed Transfer.

B. Election to Tag-Along. Within thirty (30) days after the date of delivery of the Tag-Along Notice to the other Members, each of such other Members shall have right to elect, by delivery of notice to the Majority Member proposing the Transfer, to participate in the Transfer of Units proposed by the Majority Member. In the event that any such Member elects to participate in the Transfer, the number of Tag-Along Units which may be Transferred by such Member shall be equal to that number of Units which bears the same proportion to the aggregate number of Units then held by such Member as the number of Units proposed for Transfer by the Majority Member bears to the aggregate number of Units then held by the Majority Member; provided however, if the Prospective Transferee notifies the Majority Member and those other Members who have elected to sell Tag-Along Units that such Prospective Transferee is unwilling or unable to purchase all of the Units proposed for sale, then the number of Units to be sold shall be reduced, on a pro-rata basis, to the maximum number of Units which such Prospective Transferee is willing and able to purchase, such reduction to be in proportion to the number of Units held by such Majority Member and each such other Member participating in the Transfer.

C. Revised Terms. If, during negotiations between the Majority Member and any Prospective Transferee, terms of a Transfer are agreed upon which are different in price or in any other material respect from the Terms described in the Tag-Along Notice, then any Member may revoke any prior election made in accordance with Section 7.3 (B) to participate in such Transfer and the Majority Member shall deliver to each of the other Members, whether or not those Members had made a prior election pursuant to Section 7.3 (B), an additional Tag-Along Notice in accordance with Section 7.3 (A), which Tag-Along Notice shall reflect the revised Terms of the proposed Transfer, and each of the other Members may then elect to participate in the proposed Transfer on such revised Terms, in the same manner as provided in Section 7.3 (A) and (B).

D. Excepted Transactions. Notwithstanding any other provision of this Section 7.3, the provisions of this Section 7.3 shall not apply to any Transfer of the type described in Section 7.4 hereof.

7.4 Drag-Along Obligation to Transfer. If any Independent Third Party offers to purchase, or to acquire for cash, cash equivalents or marketable securities, whether or not in connection with a merger or consolidation of the Company, all of the Units of the Company in an arms-length transaction, and (i) the Majority Member has complied with its obligation to make a First Purchase Offer to the other Members pursuant to Section 7.2 hereof, and (ii) thereafter Members holding a majority of the Units elect to sell all of their Units to the Independent Third Party pursuant to its offer, then, at the request of the Majority Member, each other Member shall be obligated to sell all of his or its Units to such Independent Third Party, or transfer or exchange such Units in connection with such transaction, on the terms set forth in such offer. In the event that any such Member fails or refuses to comply for any reason with the provisions of this Section 7.4, the Company, the other Members and the Independent Third Party, at their option, may elect to proceed with the transaction notwithstanding such failure or refusal and, in such event and upon tender of the specified consideration to any such Member, the rights of any such Member with respect to his or its Units shall terminate.

7.5 Permitted Transfers. Notwithstanding the restrictions contained in Sections 7.1, 7.2 and 7.4 hereof, any Member may Transfer all or a portion of its Units in a Permitted Transfer, provided that the Permitted Transferee executes and delivers a counterpart of this Agreement and such other documents as the Board of Managers may reasonably require in order to confirm such Permitted Transferee's obligation to be bound by the terms of this Agreement in the same manner and to the same extent as the Member making such Permitted Transfer.

7.6 Effect of Transfer. Any Member who shall Transfer all or a portion of its Units shall cease to be a Member of the Company with respect to such Transferred Units, and shall no longer have any of the rights or privileges of a Member with respect thereto. However, notwithstanding the foregoing, any outstanding obligation of the Transferor to make any mandatory Capital Contribution pursuant to Section 3.4 (C) or (D) hereof shall continue to be an obligation of the Transferor as well as that of the Transferee, and shall be extinguished only when and to the extent that such Capital Contributions are made to the Company by the Transferor or the Transferee. From and after the date of any Transfer of Units pursuant to the terms of this Article VII, the Transferee shall have the same rights, and shall be bound by the same obligations, under this Agreement as the Transferor of the Units.

ARTICLE VIII
RIGHT OF FIRST OFFER ON SALE OF COMPANY ASSETS

8.1 Sale of Assets; First Offer. In the event that the Company proposes to sell, transfer of otherwise dispose of all or substantially all the assets of the Company and its subsidiaries, taken as a whole, in a single transaction or series of related transactions or (ii) proposes to sell, transfer of otherwise dispose (whether by merger or otherwise) of one or more subsidiaries of the Company if substantially all of the assets of the Company and its subsidiaries,

taken as a whole, are held by such subsidiary or subsidiaries (other than a sale, transfer, or other disposition is to a wholly owned subsidiary of the Company), then, as long as ECHN and/or any of its Affiliates own any Units at the time of any such proposed sale transfer or other disposition, then, prior to undertaking any such sale, transfer or other disposition, the Company shall first offer to sell and transfer such assets or such subsidiary or subsidiaries, as the case may be, for purchase by ECHN by delivering a written offer (a "First Asset Purchase Offer") to ECHN, which First Asset Purchase Offer shall set forth and describe in reasonable detail the assets or subsidiary or subsidiaries, as the case may be,
proposed for sale, transfer or other disposition.

8.2 Election to Purchase Assets. Within thirty (30) days after the date of delivery of the First Asset Purchase Offer to ECHN (the "First Asset Purchase Offer Date"), ECHN may bid to purchase all or any portion of the assets or subsidiary or subsidiaries, as the case may be, proposed for sale, transfer or other disposition the Company by giving notice to the Company (an "Asset Bid") specifying (i) in reasonable detail the assets or subsidiary or subsidiaries, as the case may be, which ECHN is prepared to purchase, (ii) the price at which ECHN is prepared to purchase such the assets or subsidiary or subsidiaries, as the case may be, (the "Asset Bid Price") and (iii) a closing date which shall not be not more than ninety (90) days, after the First Asset Purchase Offer Date.

8.3. Acceptance or Rejections of an Asset Bid. The Company may, but is not obligated to, accept an Asset Bid made in accordance with Section 8.2. Within thirty (30) days after the First Asset Purchase Offer Date, the Company shall give notice to ECHN indicating whether the Asset Bid shall be accepted or rejected. In the event that the Company fails to give such notice within such thirty (30) day period, then the Asset Bid shall be deemed to have been rejected by the Company.

8.4. Restrictions on a Subsequent Sale of Assets. In the event that the Company makes a First Asset Purchase Offer in accordance with Section 8.1 but subsequently rejects, or is deemed to have rejected an Asset Bid, then, for a period of one (1) year after the date of such rejection or deemed rejection, the Company shall be free, in its sole discretion, to sell, transfer or otherwise dispose of the assets or subsidiary or subsidiaries, as the case may be, which were subject to the First Asset Purchase Offer, without limitation or further restriction, provided, however, that, as long as ECHN and/or any of its Affiliates own any Units, the Company shall not sell, transfer or otherwise dispose of such assets or such subsidiary or subsidiaries, at a price below that specified in any prior Asset Bid, or on terms substantially more favorable to the transferee than those stated in any prior Asset Bid, without first making an additional First Asset Purchase Offer to ECHN in accordance with Section 8.1. Upon any such additional First Purchase Offer, ECHN shall again have the right to bid to purchase such assets or subsidiary or subsidiaries, as the case may be, in accordance with this Article VIII.

ARTICLE IX
WITHDRAWAL

9.1 Withdrawal of ECHN. ECHN may at any time elect to withdraw as a Member by giving the Company notice of such withdrawal. Such withdrawal shall be effective upon

delivery of such withdrawal notice. Upon any such withdrawal, any and all Units held by ECHN and shall be cancelled and ECHN shall forfeit any and all rights it might otherwise have under this Agreement, including any and all rights which it might have otherwise had with respect to Capital Accounts, allocations of Profits and Losses or distributions pursuant to Sections 6.13 or 6.14 hereof, other than any distributions which may have been declared by the Board of Managers prior to the effective date of such withdrawal but which remain unpaid as of such date, which declared but unpaid distributions shall be paid as and when paid to all other remaining Members Promptly following any such withdrawal, the Capital Account of ECHN shall be reallocated among the remaining Members in proportion to the Capital Accounts of the remaining Members as stated immediately prior to such withdrawal. Notwithstanding any other provision of this Article IX to the contrary, in the event that, at the time of withdrawal, ECHN has any obligation, whether liquidated and pending or unmatured and contingent, to make any mandatory Capital Contribution to the Company pursuant to Section 3.4 C or D hereof, then that obligation shall continue to be an obligation of ECHN notwithstanding such withdrawal, and shall be extinguished only when and to the extent that such mandatory Capital Contribution is made to the Company by the ECHN.

9.2 Restrictions upon Withdrawal by Walden. As long as ECHN owns any Units, Walden shall not be entitled to withdraw as Members. The foregoing restriction shall not limit or adversely affect in any way, however, the rights of Walden to vote in favor of the dissolution and termination of the Company as provided in Article X hereof.

ARTICLE X
DISSOLUTION AND TERMINATION OF THE COMPANY

10.1 Continuation of the Company. Notwithstanding the death, withdrawal, bankruptcy or dissolution of a Member or the occurrence of any other event which terminates the membership of a Member, the Company shall not be dissolved and the business of the Company shall be continued until the Company is dissolved and terminated as provided in Section 10.2 hereof.

10.2 Cause of Termination. The Company shall be dissolved, and its affairs wound up upon the first to occur of any of the following events:

A. the vote of the holders of a majority of the Units then outstanding; or

B. any event which shall make it unlawful for the existence of the Company to continue.

10.3 Winding up; Distribution of Assets. Upon dissolution, the Board of Managers shall proceed without unnecessary delay to wind up the affairs of the Company (which may include a call for mandatory Capital Contributions under Section 3.4 D hereof) and (i) following receipt of any mandatory Capital Contributions which may be called for under Section 3.4 D hereof, (ii) making paying or due provision for all liabilities to creditors of the Company, and (iii) after adjusting the Capital Accounts of all Members as provided in Section 3.6, the Board of

Managers shall effect the distribution of the assets of the Company to the Members in accordance with Article VI.

10.4 Date of Termination. The Company shall terminate when all property owned by the Company (after the payment of all Company liabilities or after due provision has been made for the payment of such liabilities) shall have been distributed to the Members.

ARTICLE XI GENERAL PROVISIONS

11.1 Fiscal Year. Except as may be otherwise fixed from time to time by the Board of Managers, the Company's fiscal year shall end on the last day of the month of December in each year.

11.2 Books of Account. The Treasurer shall keep, or cause to be kept, books of account in which shall be entered fully and accurately all transactions of the Company. Said books shall at all times be maintained at the principal office of the Company and shall be open to the inspection and examination of any Member or his, her or its representatives. The books shall be kept in accordance with generally accepted accounting principles.

11.3 Other Records. The Board of Managers shall maintain, or shall cause to be maintained, at the principal office if the Company, such documents and other records as may be required to be maintained under the Act.

11.4 Tax Matters Member. Walden shall be the Company's tax matters member ("Tax Matters Member"), and shall hold such position until such time as the Board of Managers appoints a different Member to such position. The Tax Matters Member shall have all powers and responsibilities provided in Code Section 6221, et seq. The Tax Matters Member shall keep all Members informed of all notices from government taxing authorities which may come to the attention of the Tax Matters Member. The Company shall pay and be responsible for all reasonable third-party costs and expenses incurred by the Tax Matters Member in performing those duties. Each Member shall be responsible for any costs incurred by that Member with respect to any tax audit or tax related administrative or judicial proceeding against such Member, even if it relates to the Company. The Tax Matters Member may not compromise any dispute with the Internal Revenue Service without the approval of the Board of Managers.

11.5 Notices. Any notice or other communication required or permitted to be given in connection with this Agreement shall be in writing (or in the form of an electronic transmission) addressed as provided below and shall be deemed effective (i) when delivered by hand, (ii) when transmitted electronically (iii) when delivered by overnight courier service with confirmed receipt or (iv) when delivered following deposit with the U.S. Postal Service if mailed by first class U.S. mail, postage prepaid and registered or certified, with a return receipt requested:

If to the Company to:

WBC Connecticut East, LLC
c/o Walden Behavioral Care, 880 Main Street – 2nd Floor
Waltham, MA 02451
Attn: Stuart Koman, President
Email Address: skoman@waldenbehavioralcare.com

If to any Member to:

The address of such Member as listed on Schedule A hereto; and

in any case at such other address as the addressee shall have specified by written notice. All periods of notice shall be measured from the effective date of delivery thereof.

11.6 Binding on Successors and Assigns. Subject to the foregoing provisions, this Agreement shall inure to the benefit of and be binding upon the Members, their successors, heirs, permitted assignees, executors, trustees, administrators and receivers.

11.7 Amendments. Except as otherwise expressly provided herein, including, without limitation, the provisions of Section 3.1 (I) hereof, this Agreement may be amended only with the vote of the holders of a majority of the Units then outstanding; provided, however, that in no event shall this Agreement be amended so as to affect adversely the rights of any Member in a manner different from any other Member.

11.8 Severability of Provisions. Each provision of this Agreement shall be considered severable. If for any reason any provision or provisions herein are determined to be invalid and contrary to any existing or future law, such invalidity shall not impair the operation of or affect those portions of this Agreement which are valid. If for any reason any provision or provisions of this Agreement would cause the Members in their capacities as such to be bound by the obligations of the Company under the laws of the State of Connecticut as the same may now or hereafter exist, such provision or provisions shall be deemed void and of no effect.

11.9 Members Independently Bound. Each Member shall become bound by this Agreement immediately upon his, her or its execution hereof, and independently of the execution hereof by any other Member.

11.10 Parties in Interest. Nothing herein shall be construed to be to the benefit of any third party, nor is it intended that any provision shall be for the benefit of any third party.

11.11 Computation of Time. In computing any period of time pursuant to this Agreement, the day of the act, event or default from which the designated period of time begins to run shall be included, unless it is a Saturday, Sunday or a legal holiday, in which event the period shall begin to run on the next day which is not a Saturday, Sunday or a legal holiday, and such period shall run until the last day of the designated period of time, unless it is a Saturday, Sunday or legal holiday, in which event the period shall run until the end of the next day thereafter which is not a Saturday, Sunday or legal holiday.

11.12 Counterparts. This Agreement may be signed in any number of counterparts, each of which shall be an original for all purposes, but all of which taken together shall constitute only one Agreement. The production of any executed counterpart of this Agreement shall be sufficient for all purposes without producing or accounting for any other counterpart thereof.

11.13 Titles and Captions. All article, section and paragraph titles or captions contained in this Agreement are for convenience only and shall not be deemed part of the context nor affect the interpretation of this Agreement.

11.14 Pronouns and Plurals. All pronouns and any variations thereof shall be deemed to refer to the masculine, feminine, neuter, singular or plural as the identity of the Person or Persons may require.

11.15 Entire Agreement. This Agreement contains the entire understanding between and among the parties and supersedes any prior understandings and agreements among them respecting the subject matter of this Agreement.

11.16 Governing Law. This Agreement shall be governed by, and construed and enforced in accordance with, the laws of the State of Connecticut without giving effect to the its conflicts of laws principles.

[SIGNATURE PAGE TO FOLLOW]

SIGNATURE PAGE TO WBC CONNECTICUT EAST, LLC
AMENDED AND RESTATED
OPERATING AGREEMENT

IN WITNESS WHEREOF, each of the Members has caused this Agreement to be executed as of the date set forth above by its duly authorized representative.

WALDEN BEHAVIORAL CARE, INC.

By: _____
Stuart Koman, President

EASTERN CONNECTICUT HEALTH
NETWORK, INC.

By: _____
Peter J. Karl, President and CEO

SCHEDULE A

MAY 17 2012

Name and Address of Member	Capital Contributions	Number of Units	Membership Percentage
Walden Behavioral Care, Inc. 880 Main Street, 2nd Floor Waltham, MA 02451 Attention: Stuart Koman, President Email: skoman@waldenbehavioralcare.com	[redacted]	[redacted]	[83.584%]
Eastern Connecticut Health Network, Inc. 71 Haynes Street Manchester, CT 06040 Attention: Stuart Koman, President Email:	[redacted]	[redacted]	[16.416%]
TOTAL	[redacted]	[redacted]	100.000%

*Representing the agreed value of Walden's initial contributions to the Company, including (i) a non-exclusive license to Walden's intellectual property; (ii) the payment of certain pre-operation expenses and the performance of certain pre-operation tasks; and (iii) waiver of service fees under the Walden Services Agreement for a period of one year.

EXHIBIT F

Reference: Interrogatories, p. 4, Question 4 (c)

LEASE AGREEMENT

Dated as of December 22, 2011

by and between

EVERGREEN MEDICAL ASSOCIATES II, LLC

Landlord

And

WBC CONNECTICUT EAST, LLC

Tenant

INDEX

LEASE AGREEMENT

THIS LEASE AGREEMENT (The "Lease") is made and entered into as of the 22nd day of December 2011 by and between **EVERGREEN MEDICAL ASSOCIATES II, LLC.,** a Connecticut limited liability company whose address for purposes hereof is c/o The CASLE Corporation, 200 Fisher Drive, Avon, Connecticut 06001 (hereinafter called "Landlord") and **WBC CONNECTICUT EAST LLC** a Connecticut limited liability company whose address for the purposes hereof is 2400 Tamarack Avenue South Windsor, CT 06074 (hereinafter collectively called "Tenant"). As used in this Lease, the terms set forth in Article VI hereof shall have the respective meanings indicated therein.

Subject to all of the terms and conditions of this Lease, and the Ground Lease and in consideration of the mutual covenants and obligations contained in this Lease, Landlord and Tenant agree as follows:

ARTICLE I

Section 1.1 **Leased Premises and Term.** Landlord does hereby lease, demise and let to Tenant and Tenant does hereby lease and take from Landlord the Leased Premises in the Building for a term beginning on March 1, 2012 and continuing in full force and effect for seven (7) years thereafter unless this Lease is terminated earlier or extended pursuant to the provisions hereof ("Lease Term"). Landlord will construct a new building and related common areas, in accordance with the plans attached hereto as Exhibit A on a parcel of land known as 2400 Tamarack Avenue, South Windsor, Connecticut, as more particularly described therein and is attached hereto as Exhibit C. The Leased Premises will contain approximately 2,606square feet of Net Rentable Area and with a prorata share of common areas contain approximately 2,996 square feet of Gross Rentable Area as shown on Floor Plan attached hereto as Exhibit B.

Section 1.1(a) **Option To Terminate.** Provided that Tenant is not in default under this Lease, Tenant shall have the option to terminate this Lease effective upon the completion of the fourth (4th) lease year hereunder provided that Tenant provides written notice to Landlord no later than the end of the third lease year hereunder. And provided further that the Tenant shall pay to Landlord the unamortized balance of the tenant improvements in the amount of $105,750.00.

Section 1.2 **Use.** The Leased Premises shall be used and occupied by Tenant solely for the purposes of office space, including medical offices for behavioral healthcare services, and related medical services and for no other purpose unless specifically approved by the Landlord or as set forth in Ground Lease.

Section 1.3 **Base Rental.** Annual Base Rental (hereinafter referred to as the "Base Rental") shall be payable by Tenant to Landlord in equal monthly installments

commencing on the Commencement Date, and thereafter, for each month through and including the expiration date of this Lease, which Base Rental shall include an operating cost component. The Base Rental in the first Lease Year shall be [redacted] per square foot of Gross Rentable Area plus an estimate of first year Operating Costs of [redacted] per square foot of Gross Rentable Area. The first year Base Rental shall be [redacted] or [redacted] or [redacted] per month.. The Tenant shall also pay, as additional rent, all such other sums of money as shall become due and payable by Tenant to Landlord under the terms of this Lease. Landlord shall have the same remedies for default in the payment of additional rent as are available to Landlord in the case of default in the payment of Base Rental. The Base Rental for each year shall be due and payable in twelve (12) equal installments on the first day of each calendar month during each year of the Lease Term and any extensions or renewals thereof, and Tenant hereby agrees to pay such rent in such manner to Landlord at Landlord's address as provided herein (or at such other address as may be designated by Landlord from time to time) monthly in advance without demand. If the Commencement Date is a day other than the first day of a calendar month or in the event this Lease terminates on other than the last day of a calendar month, then the installments of Base Rental for such month or months shall be prorated and the installment or installments so prorated shall be paid in advance.

Section 1.4 **Operating Cost Adjustment.** The Base Rental payable hereunder shall be adjusted from time to time, no more often than once per twelve-month period, in accordance with the following provisions:

(a) The Base Rental shall include a component allocable to Operating Costs as defined in Article 6.1 hereof) which shall be calculated at the end of the first calendar year of the Lease. At the end of each Calendar Year Landlord shall provide Tenant with a complete accounting of such costs and the parties will reconcile the rental payments allocated to Operating Costs to actual expenses. If the portion of Base Rental collected from Tenant allocated to Operating Costs is in excess of the actual Operating Costs for such Calendar Year, then Landlord shall promptly reimburse Tenant for such overpayment. If the portion of Base Rental collected from Tenant is less than the actual Operating Costs for such Calendar Year, then Tenant shall promptly reimburse Landlord for such underpayment. The budget will then be adjusted to fairly reflect estimates of Operating Costs based upon the actual Operating Expenses incurred in the previous year.

(b) Prior to October 1 of each Calendar Year after the first Calendar Year during Tenant's occupancy, Landlord shall provide an estimate of Operating Costs for the forthcoming calendar year. Tenant shall pay a Base Rental for such forthcoming calendar year adjusted upward or downward, as the case may be, by the amount of the difference between the prior Calendar Year's estimated or actual as the case may be Operating Costs per square foot of Net Rentable Area in the Building and the forthcoming Calendar Year's estimated Operating Costs per square foot of Net Rentable Area in the Building, times the Net Rentable Area of the Leased Premises.

Section 1.5 **Base Rental Adjustment.** At the commencement of the third, fifth, and seventh Lease Years, the Base Rental not allocated to the Operating Costs as adjusted

shall be increased by an amount equal to the product of the said Base Rental times 60% of the percentage increase, if any, in the Consumers Price Index, All Items/Boston Index (the "Index") over the Index at the last Base Rental adjustment or if the Index is no longer published the publication which replaces it.. At the option of Landlord, it may use the corresponding month's prior to or after the precise anniversary month to facilitate preparation of the report.

Section 1.6 **Option to Extend.** Provided that Tenant is not in default under this Lease after the required notice and applicable cure period set forth herein, Tenant shall have two (2) options to extend the term of this Lease for a further period of five (5) years for each option period subject to all of the terms and conditions set forth in this Lease except for the Base Rental which shall increase at the beginning of the first renewal term in the second and fourth year of the Renewal Term and in the first, third and fifth year of the second renewal term by an amount equal to the product of said Base Rental as adjusted pursuant to Section 1.5 hereof times 60% of the percentage increase, if any, in the Consumers Price Index, All Items/Boston Index (the "Index") over the Index at the last Base Rental adjustment. At the option of Landlord, it may use the corresponding month's prior to or after the precise anniversary month to facilitate preparation of the report. Tenant shall provide Landlord written notice of its exercise of the first renewal option not less than nine (9) months prior to the expiration of the original term of the lease and shall provide Landlord written notice of its exercise of the second renewal option not less than nine (9) months prior to the expiration of the first renewal term.

ARTICLE II

Section 2.1 **Tenant Plans and Specifications and Budget.** Landlord shall design and construct improvements within the Leased Premises in accordance with the preliminary plans and specifications attached hereto as Exhibit B, as such plans shall be developed into "Final Plans", by The Casle Corporation and Tenant, as hereinafter described. Tenant shall promptly provide Landlord with any revisions to the preliminary plans attached hereto ("Revised Preliminary Plans"). Within 30 days of receipt of the Revised Preliminary Plans. Landlord shall prepare a preliminary budget based on the Revised Preliminary Plans ("Preliminary Budget") and deliver the same to Tenant, for Tenant's approval. Tenant shall promptly approve or disapprove the Preliminary Budget. If Tenant disapproves of the Preliminary Budget, Tenant may elect to eliminate certain Tenant Improvements. Upon approval of the Preliminary Budget, Landlord shall promptly prepare working drawings and engineering drawings, if applicable (collectively "Final Plans") and deliver the Final Plans to Tenant for Tenant's approval. Tenant may make the minimum changes necessary to correct any design problems and promptly deliver such changes to Landlord for its final approval. Landlord shall immediately thereafter competitively bid the Tenant Improvements with all costs presented for Tenant's approval on an "open book basis." Immediately thereafter, Landlord shall prepare a final budget based upon such successful bids ("Final Budget") and deliver the Final Budget to Tenant for Tenant's approval. If Tenant disapproves of such Final Budget, Tenant may elect to eliminate certain Tenant Improvements. If Tenant approves of the Final Budget, Landlord and Tenant will agree on the "Contract Price", as hereinafter defined, which shall be based upon the Final Budget. Landlord shall furnish and install within the Leased Premises the Tenant Improvements as hereinafter defined, in accordance with said Final Plans and all applicable codes and regulations. All Tenant Improvements shall be constructed pursuant to Article II and

shall be performed by The Casle Corporation. The term "Tenant Improvements" shall mean all improvements shown in the Final Plans, and all signage, built-ins, related cabinets, reception desks, all telecommunication wiring, and all carpets and floor coverings, but, except as provided above, Tenant Improvements shall not include any personal property of Tenant.

Section 2.2 **Tenant Improvement Allowance.** In preparing the Leased Premises for occupancy by Tenant, subject to the provisions herein, Landlord shall be required to bear the expense of installing Tenant Improvements only to the extent that the actual costs less all rebates and other reductions are less than or equal to the "Tenant Improvement Allowance" of [redacted] per square foot of Net Rentable Area of the Leased Premises, unless any cost overruns are due to the acts or omissions of Landlord, its agents, employees or contractors. Upon Substantial Completion of the Leased Premises, Tenant shall pay all actual costs incurred less all rebated and other reductions in excess of such Tenant Improvement Allowance to Landlord as additional rent hereunder within thirty (30) days of being invoiced therefor, provided Tenant has given its prior written approval of each cost in excess of the Tenant Improvement Allowance. Landlord shall furnish to Tenant a full accounting of all such excess costs (itemized by construction category for labor, materials and taxes) which accounting shall include, without limitation draw requests signed by the general contractor and actual bills and invoices evidencing such costs. Landlord hereby agrees that "base building costs", as such term is generally recognized in the construction industry, shall be at Landlord's expense and shall not be deducted from the Tenant Improvement Allowance. Notwithstanding anything to the contrary stated herein, Tenant shall not be responsible for any costs in excess of the "Contract Price", as hereinafter defined, unless such costs were incurred as a result of a change order requested in writing by Tenant.

Section 2.3 **Construction, Architectural and General Contractors Fees.** Landlord shall receive no fee for supervision, profit, overhead or general conditions in connection with the Tenant Improvements. Within the Tenant Improvement Allowance set forth in Section 2.2, Landlord shall pay and be responsible for the architectural design fees incurred by Casle Corporation in building the Tenant Improvements. CASLE's architectural design fee shall be [redacted] per square foot of Net Rentable Area. CASLE's general contractor contract for Tenant Improvements shall (i) contain a contract price in an amount equal to the lesser of (x) actual cost for the Tenant Improvements, and (y) a guaranteed maximum price (regardless of the actual cost) approved by Tenant (the "Contract Price"); (ii) include a complete unit cost breakdown of all materials and labor, which unit costs also shall apply to all change orders; (iii) require insurance coverage in amounts and types mutually and reasonably acceptable to Landlord and Tenant; (iv) include a requirement that the Tenant Improvements shall be completed in accordance with a construction schedule to be approved by Landlord and Tenant; (v) include a general contractor's fee and overhead of eight percent (8%) of actual labor and materials costs to the subcontractors.

Section 2.3.1 **Change Orders**. Tenant may order changes or additions in the Final Plans during construction provided that (i) such changes or additions are approved in writing by Landlord and Landlord's architect, (ii) no delay in the progress of Landlord's work and no extra cost or expense to Landlord results from the making of such changes or additions Landlord shall have agreed to; and (iii) Landlord shall not proceed with any change or addition unless Tenant shall have approved the cost thereof in writing. Landlord shall notify Tenant in

writing within five (5) business days of Tenant's change order request, of its approval or a detailed reason of its disapproval of such change order and a good faith estimate of the actual cost of such change order and the delay resulting therefrom. Tenant may, within three (3) days of its receipt of such estimate elect to rescind its request for such change order upon written notice to Landlord, subject to payment of reasonable costs of processing the change order request and any delay in the work due to anticipation of the change in the work. The cost to Tenant of any approved change order shall be limited to the actual costs incurred as a result of such change order, excluding any overhead, profits, or fees to Landlord or Landlord's affiliates. Notwithstanding the foregoing, a delay caused by a change order initiated by the Tenant shall not delay the commencement date for payment of rent. In the event any change order shall increase the scope of the work beyond the contemplated by the Final Plans, Tenant shall pay to Landlord such increased cost within thirty (30) days after Substantial Completion of the Tenant Improvements and Tenant's receipt of paid invoices therefore.

Section 2.3.2 Warranty. Landlord warrants to Tenant, for one year after Commencement Date of the Lease, that the Tenant Improvements shall have been completed by Landlord in a good and workman-like manner, free from faulty materials, in accordance with all applicable legal requirements, and sound engineering standards, and in accordance with the Final Plans. Such warranty includes, without limitation, the repair or replacement (including labor), at Landlord's sole cost, of all materials, fixtures and equipment which are defective or which are defectively installed by Landlord in connection with the work. Landlord shall enforce in a commercially reasonable manner for the benefit of Tenant, all warranties from subcontractors and material suppliers for such materials, workmanship, fixtures and equipment in effect after the expiration of such twelve (12) month warranty period.

Section 2.3.3 Access to the Premises. Landlord, in its sole reasonable discretion, shall permit Tenant and Tenant's employees and agents to enter the Leased Premises prior to the Commencement Date so that Tenant may do such other work as may be required to make the Premises ready for Tenant's use and occupancy. In preparing the Premises, Landlord shall provide Tenant, its agents and contractors, with all necessary utilities for Tenant's work at no cost to Tenant. If Landlord permits such entry prior to the Commencement Date, it will be upon the condition that Tenant and its employees, agents, contractors, and suppliers shall work in harmony with Landlord and its employees, agents, contractors and suppliers and will not interfere with the performance of the work by Landlord or with Landlord's work, or with the work of any other tenant or occupants in the remainder of the Building. If at any time such entry shall cause or threaten to case such disharmony or interference, Landlord shall have the right to withdraw such license with notice to Tenant. Landlord in its sole judgment may withhold further access until such time as the Landlord can be assured that any work can proceed without delay or disruption. Tenant agrees that any such entry or occupation of the Premises shall be governed by all the terms, covenants, conditions and provisions of the Lease as to both parties, except for the covenant for the payment of rent, and further agrees that Landlord shall not be liable in any way for injury, loss or damage which may occur to any of Tenant's work or installations made in such Premises, or to any personal property placed therein, except with respect to the gross negligence or willful misconduct of Landlord, its agents, employees or contractors.

Section 2.4 **Estimated Completion Date.** Landlord agrees that the construction of the Tenant Improvements and other improvements contemplated by this Lease to be constructed within the Leased Premises and the Building and the appurtenant common areas (including the parking area) will be Substantially Completed on or before the Target Commencement Date, provided, however, in the event that the Leased Premises or any material portion of the Building or common areas should not be Substantially Completed within ninety (90) days of the Target Commencement Date, for any reason within the Landlord's control, in addition to Tenant's rights at law and equity, Tenant shall have the option to terminate this Lease by written notice to Landlord. If such failure to Substantially Complete is due to a force majeure event, the provisions of Section 5.23 shall control.

ARTICLE III

Section 3.1 **Utilities**: As of Commencement Date, all utilities shall be available for Tenant's use at the Leased Premises. During the Lease Term, Landlord shall use its best efforts to furnish or cause public utilities to furnish the electricity and water to be utilized in operating any and all facilities services at the Leased Premises.

Section 3.2 **Services to be Furnished by Landlord:** In respect of the Leased Premises, Landlord shall furnish Tenant during the Lease Term in a first class manner:

(a) hot and cold potable water at those points of supply provided for general use of other tenants in the Building and water, sewer and any other utilities necessary for Tenant's use of the Leased Premises;

(b) central heat and air conditioning in season during Normal Business Hours (and at the request and expense of Tenant during other hours), at such temperatures and in such amounts as are considered by Landlord to be standard but in no event warmer than 75 degrees in summer and no cooler than 65 degrees in winter;

(c) routine maintenance and electric lighting service for all public areas and special service areas of the Building and other maintenance required herein;

(d) janitorial service as specified in Exhibit D Medical Cleaning Specification on a five (5) day week basis at no extra charge to Tenant unless Tenant's floor coverings or other improvements are deemed by Landlord to be other than building standard, in which case Tenant shall pay the additional cleaning cost attributable thereto upon presentation of a statement therefor by Landlord;

(e) personnel or equipment to maintain security for the Building; provided, however, Landlord shall have no responsibility to prevent, and to the extent Tenant's insurance required hereunder pays Tenant for the same, shall not be liable to Tenant for any liability or loss to Tenant, its agents, employees and visitors arising out of losses due to theft, burglary, or damage or injury to persons or property caused by persons gaining access to the Building or the Leased Premises, unless such liability or loss is caused, in whole or in part, by the negligence or willful misconduct of Landlord, its agents, employees or contractors;

(f) electrical facilities to furnish sufficient power for typewriters, calculating machines, photocopying machines, personal computers and other machines of similar low electrical consumption;

(g) all building standard light bulbs and fluorescent tube replacement in all areas of the Leased Premises and all incandescent bulb replacement in public areas, toilet and rest room areas and stairwells;

(h) snow and ice removal from parking area, sidewalks, entrances and access ways;

(i) lighting of common areas, including the parking area, during early evening hours until 11:00p.m.;

(j) landscaping services in a manner comparable to other buildings of this type in the same geographical area; and

(k) access to and from the Leased Premises on a 24/7 basis.

Failure by Landlord to any extent to furnish or cause to be furnished the services described in Sections 3.1 and 3.2 of this Article III, or any cessation therefore, resulting from causes beyond the reasonable control of Landlord shall not render Landlord liable in any respect for damages to either person or property, nor be construed as an eviction of Tenant, nor result in an abatement of rent, nor relieve Tenant from fulfillment of any covenant or agreement contained in this Lease. Should any equipment or machinery which is used in providing such services cease to function properly for any reason, Tenant shall have no claim for rebate of rent or damages because of any interruption of service resulting therefrom, except as otherwise expressly provided herein. Landlord shall use its best efforts to restore any such services the provision of which has been interrupted to the building. Notwithstanding anything to the contrary stated herein, in the event any of the services described in Article III is interrupted for more than ten (10) consecutive business days and such interruption materially interferes with the conduct of Tenant's business at the Leased Premises, then rent shall equitably abate to the extent of such material interference and to the extent that Landlord maintains rent insurance which covers rent losses incurred in the event of such interruption.

Section 3.3 **Keys and Locks:** On or before the Commencement Date, Landlord shall furnish Tenant with keys and locks for the corridor doors entering the Leased Premises. All such keys shall remain the property of Landlord. No additional locks shall be allowed on any door of the Leased Premises without Landlord's permission and Tenant shall not make, or permit to be made, any duplicate keys, except those furnished by Landlord. Upon termination of this Lease, Tenant shall surrender to Landlord all keys of the Leased Premises, and give to Landlord the explanation of the combination of all locks for safes, safe cabinets and vault doors, if any, in the Leased Premises.

Section 3.4 **Building Directory and Graphics.** Landlord at its own cost and expense will furnish and install a suitable directory for the Building and establish suite numbers to facilitate locating and identifying the Leased Premises. Landlord shall provide and install all

name plates, letters or numerals on entrance doors to the Leased Premises; all such name plates, letters and numerals shall be in the building standard graphics, and no others shall be used or permitted either within the interior of, or on the exterior of the Leased Premises. Any changes in the directory and suite signage will be at Tenant's expense.

Section 3.5 **Peaceful Enjoyment.** Landlord covenants that Tenant shall, and may peacefully have, hold and enjoy the Leased Premises, subject to the other terms hereof, provided that Tenant pays the rent to be paid by Tenant and performs all of the Tenant's covenants and agreements herein contained.

Section 3.6 **Parking.** Tenant shall have the nonexclusive right to park on the paved parking lot located adjacent to the Building.

Section 3.7 **Compliance with Laws.** Landlord shall, at its own cost and expense, comply with all laws, rules, orders, regulations, ordinances, building, fire or health codes and other similar requirements including applicable "Joint Commission", Connecticut Dept of Public Health (DPH) and Connecticut Dept. of Children and Families (DCF) regulations affecting real estate generally and the Building specifically and its use, including environmental laws, (the "Laws"). Tenant shall, at its own cost and expense, comply with the clinical program requirements of the Joint Commission, and the regulations of the State of Connecticut DPH and DCF. Without limiting the generality of the foregoing, Landlord shall be required, at its own expense, to make all alterations and installments required by any applicable law which pertains to fire safety, including without limitation, the installation of sprinkler and/or smoke or fire detection systems which apply to tenants generally or to a general office use , Landlord shall cause the Building, the common areas, and the Tenant Improvements to comply with all Laws, including the Americans With Disabilities Act and any amendments thereto ("ADA").

ARTICLE IV

Section 4.1 **Payments by Tenant.** Tenant shall pay all rent and sums provided to be paid to Landlord hereunder at the times and in the manner herein provided, without demand, except as otherwise expressly stated herein.

Section 4.2 **Repairs by Landlord.** Unless otherwise stipulated herein, Landlord shall not be required to make any improvements to or repairs of any kind of character on the Leased Premises during the Lease Term, except such repairs which are necessary for normal maintenance operations and to assure that the Building continues to comply with all Laws, including the ADA. Landlord shall repair, including making replacements when necessary, and maintain in a first class condition all structural, mechanical, plumbing, life safety, sprinklers, HVAC and electrical components of the Building and Premises and be responsible for exterior and interior common area maintenance, including paving and patching of parking areas. Landlord shall be responsible for trash removal at the Building. If Tenant installs special leasehold improvements after the Commencement Date, Tenant shall be responsible for the maintenance and repair thereof.

Section 4.3 **Repairs by Tenant.** Tenant shall at its own cost and expense, repair or replace any damage or injury done to the Building or any part thereof, caused by Tenant or Tenant's agents, employees, or contractors; provided, however, if Tenant fails to make such repairs or replacements promptly after receipt of any required notice and expiration of any applicable cure periods, Landlord may, at its option, make such repairs or replacements, and Tenant shall pay the cost thereof to the Landlord upon receipt of detailed invoices therefor.

Section 4.4 **Alterations, Improvements, Additions, Changes and Decoration.** Without first obtaining the written consent of Landlord, which shall not be unreasonably withheld, conditioned or delayed, Tenant shall not make any alterations, improvements, additions or changes within the Leased Premises. Any and all such alterations, improvements and changes shall be (i) made at Tenant's sole cost, risk and expense, (ii) performed in a prompt, good and workmanlike manner and with labor and materials of at least as high quality as building standard, (iii) constructed in accordance with all applicable laws, rules and regulations and with plans and specifications therefor which shall have first been approved by the Landlord prior to the commencement of such work, which approval shall not be unreasonably withheld, conditioned or delayed, (iv) prosecuted diligently and continuously to completion so as to minimize interference with the normal business operations of other tenants in the Building and the performance of Landlord's obligations under this lease and any mortgage covering all or any part of the Building then in effect and (v) performed by a contractor or contractors approved by Landlord. Any and all such alternations, physical additions, improvements and changes, when made to the Leased Premises by Tenant, shall at once become the property of Landlord and shall be surrendered to Landlord upon termination of this Lease except, at Tenant's option, those fixtures which can be removed without damaging the Leased Premises. Landlord shall also notify Tenant at the time it gives consent, that Tenant must remove the alteration. All items of decoration to be situated within the Leased Premises visible from outside of the Leased Premises, as the case may be, including but not limited to window blinds, carpet, lamps, graphics, paintings, furniture, calendars, equipment and plants shall not be placed in or situated within the Leased Premises without obtaining the prior written approval of Landlord.

Section 4.5 **Assignment and Subletting.** Landlord shall have the right to transfer and assign in whole or in part, by operation of law or otherwise, its rights, benefits, privileges, duties and obligations hereunder and in the Building, whenever Landlord in its sole judgment deems it appropriate, and no further liability or obligations hereunder shall thereafter accrue against Landlord, and Tenant shall attorn to any such transferee. Tenant shall not assign or otherwise transfer, mortgage, pledge, hypothecate or otherwise encumber this Lease, or any interest therein and shall not sublet the Leased Premises or any part thereof, without the express written consent of Landlord which shall not be unreasonably withheld, conditioned or delayed. Unless otherwise agreed by Landlord, any such consent by Landlord shall not release Tenant from any of Tenant's obligations hereunder or be deemed to be a consent to any subsequent assignment, transfer, mortgage, pledge, hypothecation, encumbrance, subletting, occupation or use by another person. Notwithstanding anything to the contrary herein, Landlord's consent to an assignment or subletting shall automatically be deemed to have been given, so long as Tenant provides Landlord with at least thirty (30) days' advance notice of the assignment or sublease, if

the assignee or subtenant is (i) a parent, subsidiary or "brother-sister" entity with respect to Tenant or (ii) the purchaser of all or substantially all of the assets of Tenant or (iii) an entity with which or into which Tenant merges.

Section 4.6 **Care of the Leased Premises and Prohibited Use.** Tenant shall not use or permit any other party to use all or any part of the Leased Premises for any purpose not authorized in this Lease. Tenant shall not do or permit anything to be done in or about the Leased Premises nor bring nor keep nor permit anything to be brought to or kept therein, which is prohibited by law or which will in any way increase the existing rate of or affect any fire or other insurance which Landlord carries upon the Building or any of its contents, or cause a cancellation of any insurance policy covering the Building or any part thereof or any of its contents. Tenant shall not do or permit anything to be done in or about the Leased Premises which will in any way obstruct or interfere with the rights of other tenants of the Building, or injure or annoy them or use or allow the Leased Premises to be used for any unlawful or objectionable purpose. Tenant shall not cause, maintain or permit any nuisance in, on or about the Leased Premises or the Building or commit or suffer to be committed any waste to, in, on, or about the Leased Premises or the Building. Further, Tenant agrees that no equipment which shall require for its use other than normal electrical current or other utility service or food, soft drink or other vending machine will be installed within the Leased Premises, without the prior written consent of the Landlord.

Section 4.7 **Laws and Regulations; Rules of Building.** Subject to Landlord's compliance with laws obligations herein, Tenant shall comply with all laws, ordinances, orders, rules and regulations (state, federal, municipal and other agencies or bodies having any jurisdiction thereof) relating to Tenant's manner of use, condition or occupancy of the Leased Premises. Tenant will comply with the reasonable rules of the Building adopted and altered by Landlord from time to time for the safety, care and cleanliness of the Leased Premises and the Building and for preservation of good order therein, all of which will be sent by Landlord to Tenant in writing and shall be thereafter carried out and observed by Tenant. The initial rules of the Building shall be provided to Tenant prior to occupancy in the Building. The rules regulating the Building shall apply to each tenant and be enforced in a non-discriminatory manner. Notwithstanding anything in this Lease to the contrary, Tenant shall not be required to make any repair, modification or addition to the Premises, the Building structure or the Building systems, except to the extent required because of Tenant's use of the Premises for other than customary business office operations.

Section 4.8 **Landlord's Access.** Landlord, its contractors, subcontractors, servants, employees and agents, shall have the right after reasonable notice to Tenant to enter upon the Leased Premises at reasonable times and in a manner not unreasonably interfering with Tenant's business to inspect the same, clean or make repairs, alterations or additions thereto, and after notice to Tenant, to show same to prospective tenants at any time during the last three (3) months of the Lease Term then in progress (initial or renewal, as the case may be) and to show same to prospective purchaser of the Building at any time during the Lease Term, and for any

other reasonable purpose which Landlord may deem necessary or desirable. Other than as set forth in this Lease, Landlord shall not interfere with the conduct of Tenant's business.

Section 4.9 **Taxes.** Tenant shall pay all ad valorem and similar taxes or assessments levied upon or applicable to all of Tenant's Trade Fixtures and all other equipment, fixtures furniture and other property situated in the Leased Premises in excess of the improvements deemed or established by Landlord as building standard and all license and other fees or charges imposed on the business conducted by Tenant on the Leased Premises. If Tenant's leasehold improvements exceed building standard and Landlord shall be required to pay a higher ad valorem tax with respect to the Building than would have been payable had Tenant's leasehold improvements been building standard, then Tenant shall pay to Landlord the amount by which the ad valorem taxes for the tax period exceed the amount of ad valorem taxes that otherwise would have been payable by Landlord. For the purposes of this Lease Landlord hereby certifies that the improvements to the Leased Premises set forth in the attached plans and specifications shall be deemed to be building standard.

Section 4.10 **Leasehold Improvements and Trade Fixtures.** Subject to the other provisions of this Lease, Landlord and Tenant agree that all Trade Fixtures installed in the Leased Premises shall be and remain the property of Tenant and may be removed by Tenant prior to or upon the expiration of the Lease Term; provided, however, that if any such Trade Fixture is affixed to the Leased Premises and therefore requires severance therefrom, such severance may be effected only if Tenant repairs any damage caused by such removal and restores the Leased Premises to such condition as existed prior to the installation of such Trade Fixtures. Any such removal and restoration shall be accomplished in good and workmanlike manner so as not to damage the Building or any improvements situated therein. Prior to installation of Trade Fixtures, Landlord shall notify Tenant if said Trade Fixtures are to be removed at the end of the Lease Term. Tenant agrees to remove, at Landlord's request upon the termination of this Lease or Tenant's right to possession of the Leased Premises (regardless of how same may occur) such Trade Fixtures and, if Tenant fails to do so, to pay Landlord upon demand of Landlord, the reasonable cost and expense incurred by Landlord in so doing. All such Trade Fixtures which are not removed by Tenant upon Landlord's request or by Landlord in accordance herewith shall become the property of Landlord upon the termination of this Lease or Tenant's right to possession of the Leased Premises (regardless of How same may occur). All other items shall be surrendered by Tenant coincident with its surrender of the Leased Premises, and Tenant shall have no (and hereby waives all) rights to any payment or compensation for such items.

Section 4.11 **Subordination to Mortgage, Notice to Mortgagee.** This Lease is subject and subordinate to any first lien mortgage or deed of trust which may now or hereafter encumber the Building and/or the Site and to all renewals, modifications, consolidations, replacements and extensions thereof. The subordination set forth herein shall be self-operative and effective without the necessity of execution of any further instruments by any party; provided, however, that in confirmation of such subordination, Tenant shall at Landlord's request execute promptly any appropriate certificate or instrument that Landlord's mortgagee may reasonably request; provided same does not alter the business terms of the lease or detract from or reduce Tenant's rights under the lease or at law or in equity,. Such instrument shall

provide that Tenant's use and occupancy of the Premises shall not be disturbed by the mortgagee so long as Tenant performs all the obligations set forth in this Lease. In the event of the enforcement by the trustee of the remedies provided for by law or by such mortgage or deed of trust, upon request of any person or party succeeding to the interest of Landlord as a result of such enforcement, Tenant will automatically become the tenant of such successor in interest without change in the terms or provisions of this Lease.

Section 4.12 **Landlord's and Tenant's Mortgagee and Partners.** At Landlord's or Tenant's request, the other party will execute an estoppel certificate in a commercially reasonable form, certifying to such customary facts pertaining to the status of the Lease.

ARTICLE V

Section 5.1 **Condemnation.** If the Leased Premises shall be taken or condemned for any public purpose to such an extent as to render the Leased Premises untenantable, this Lease shall, at the option of either party hereto, forthwith cease and terminate. All proceeds from any taking or condemnation of the Leased Premises shall belong to and be paid to Landlord. The Tenant shall have the right to bring an action against the condemning authority for damages.

Section 5.2 **Fire or Casualty Damage.** In the event of a fire or other casualty in the Leased Premises, Tenant shall immediately give notice thereof to Landlord and Landlord shall restore the Premises. If the Leased Premises shall be partially destroyed by fire or other Casualty so as to render the Leased Premises wholly or partially untenantable, the rental provided for herein shall abate thereafter in proportion to the Premises rendered untenantable until such time as the Leased Premises are restored. In the event that Landlord fails to restore the Premises within ninety (90) days of casualty, then Tenant shall have the option to terminate this Lease upon notice to Landlord within thirty (30) days of the date of such casualty. In the event of substantial destruction by fire or other casualty of the Leased Premises in the last six months of the Term, unless the Lease is extended by notice to Landlord delivered by Tenant within thirty (30) days of the casualty, then this Lease shall forthwith terminate and all rent owed up to the time of such total destruction shall be paid by Tenant to Landlord.

Section 5.3 **Insurance.** Landlord shall maintain during the Lease Term fire and extended coverage insurance insuring the Building and Leased Premises (excluding Tenant's goods, furniture or property placed in the Leased Premises and Trade Fixtures) against damage or loss from fire or other casualty normally insured against under the terms of standard policies of fire and extended coverage insurance in the amount of the full replacement value of the Building and subject to commercially reasonable deductibles. Tenant shall be responsible for providing, at Tenant's own expense, all insurance coverage necessary for the protection against loss or damage from fire or other casualty of any Trade Fixture, and Tenant's goods, furniture or other property placed in the Leased Premises. Landlord shall not be obligated to insure any of Tenant's goods, Trade Fixtures, furniture or other property placed in or incorporated in the Leased Premises. In connection with the construction by Tenant of any improvements to the

Leased Premises or any additions or alterations thereto, Tenant shall maintain insurance to the extent typically carried by tenants for property of this type.

Section 5.4 Liability Insurance. Landlord and Tenant shall each, at their respective expense, maintain a policy or policies of comprehensive general liability insurance, issued by an insurance company authorized to do business in the State of Connecticut. Such insurance shall afford minimum protection of not less than (a) $1,000,000 per occurrence/$1,000,000 aggregate for personal injury and $1,000,000 per occurrence/$1,000,000 aggregate for property damage, or (b) combined single limit of $3,000,000 per occurrence/$3,000,000 aggregate for personal injury and property damage. Each party shall list the other party on their respective policies as an additional insured. All policies to be issued by nationally reputable insurance companies licensed to do business in Connecticut.

Section 5.5 Surrender of Leased Premises. On the last day of the Lease Term, Tenant shall peaceably and quietly surrender the Leased Premises to Landlord, in good order, repair and clean condition equal to the condition when delivered to Tenant, except for ordinary wear and tear and damage by fire or other casualty contemplated in Section 5.2. If Tenant fails to do any of the foregoing, Landlord, in addition to other remedies available to it at law or in equity may, with or without notice, enter upon, reenter, possess or repossess itself thereof, by summary proceeding, ejectment or otherwise, and may dispossess and remove Tenant and all persons and property from the Leased Premises. Such dispossession and removal of Tenant shall not constitute a waiver by Landlord of any claims by Landlord against Tenant.

Section 5.6 Holding Over. In the event of holding over by Tenant after expiration of or termination of this Lease without the written consent of Landlord, Tenant shall pay as liquidated damages effective upon the commencement of the third month after expiration of the lease term 125% times the current due hereunder for the remaining hold-over period. No holding over by Tenant after the term of this Lease shall be construed to extend the Lease Term. In the event of any unauthorized holding over, Tenant shall also indemnify Landlord against all claims for damages by any other tenant to whom Landlord may have leased all or any part of the Leased Premises effective upon termination of this Lease. Any holding over with the consent of Landlord in writing shall thereafter convert this Lease to a lease from month to month.

Section 5.7 Intentionally Deleted

Section 5.8 Hold Harmless and Indemnities.

(a) Landlord shall not be liable to Tenant, Tenant's agents, servants, employees, contractors, customers or invitees for any damages to person or property caused by any act, omission or neglect of Tenant, its agents, servants, contractors, employees, customers or invitees. Tenant shall not be liable to Landlord, or to Landlord's agents, servants, employees, contractors, customers or invitees for any damage to person or property caused by any act, omission or neglect of Landlord, its agents, servants, employees, contractors, customers or invitees.

(b) Landlord shall indemnify and save Tenant and Tenant's agents, contractors and employees ("Related Parties") harmless of and from all losses, costs, liabilities, claims, damages,

expenses, penalties and fines (excluding indirect and consequential damages which shall be deemed not to include any damages arising out of claims asserted against Tenant by third parties), incurred in connection with or arising from: (i) any Landlord default hereunder; (ii) any breach of Landlord's representations or warranties hereunder; and (iii) any negligence or willful misconduct of Landlord or Landlord's Related Parties. If any action or proceeding shall be brought against Tenant based upon any such claim, Landlord, upon notice from Tenant, shall cause such actions or proceeding to be defended at Landlord's expense. This indemnity shall survive termination of this Lease.

(c) Tenant shall indemnify and save Landlord and Landlord's Related Parties harmless of and from all losses, costs, liabilities, claims, damages, expenses, penalties and fines (excluding indirect and consequential damages which shall be deemed not to include any damages arising out of claims asserted against Landlord by third parties) incurred in connection with or arising from: (i) any Tenant default hereunder; (ii) any breach of Tenant's representations or warranties hereunder; and (iii) any negligence or willful misconduct of Tenant or Tenant's Related Parties. If any action or proceeding shall be brought against Landlord based upon any such claim, Tenant, upon notice from Landlord, shall cause such actions or proceeding to be defended at Tenant's expense. This indemnity shall survive termination of this Lease.

Section 5.9 **Waiver of Subrogation Rights.** Anything in this Lease to the contrary notwithstanding, Landlord and Tenant each hereby waive any and all rights of recovery, claim, action or cause of action, against the other, its agents, officers, or employees, for any loss or damage that may occur to the Leased Premises or the Building, or any improvements thereto, or any personal property of such party therein, by reason of fire, the elements, or any other cause which could be insured against under the terms of standard fire and extended coverage insurance policies referred to in Section 5.3 hereof, regardless of cause or origin, including negligence of the other party hereto, its agents, offices or employees, and covenants that no insurer shall hold any right of subrogation against such other party and such insurer shall waive its rights of subrogation.

Section 5.10 **Default by Tenant.** If default shall be made in the payment of any sum to be paid by Tenant under this Lease and such default shall continue for ten (10) days after written notice to Tenant, or default shall be made in the performance or observance of any of the other covenants or conditions of this Lease which Tenant is required to observe and to perform and such default shall continue for thirty (30) days after written notice to Tenant plus such additional reasonable and necessary period given the nature of the cure and provided Tenant is diligently pursuing cure to completion, or if the interest of Tenant under the Lease shall be levied on under execution or other legal process, or if any petition shall be filed by or against Tenant to declare Tenant a bankrupt and the same is not discharged within sixty (60) days of filing the same, or if any petition shall be filed proposing the reorganization of Tenant under any federal or state bankruptcy or similar law and the same is not discharged within sixty (60) days of filing of the same, or if Tenant be declared insolvent according to law, or if any assignment of Tenant's property shall be made for the benefit of creditors, or if a receiver or trustee is appointed for Tenant or its property, and the same is not discharged within sixty (60) days of filing the same, or Tenant shall be dissolved or otherwise liquidated, then Landlord may treat the occurrence of any one or more of the foregoing events as a default under this Lease (provided that no such

levy, execution, legal process of petition filed against Tenant shall constitute a default under this Lease if Tenant shall vigorously contest the same by appropriate proceedings and shall remove or vacate the same within sixty (60) days from the date of its creation, service or filing) and thereupon, at Landlord's option may have any one or more of the following described remedies in addition to all other rights and remedies provided at law or in equity:

(a) Landlord may terminate this Lease and forthwith repossess the Leased Premises and be entitled to recover forthwith as damages a sum of money equal to the total of (I) the cost of recovering the Leased Premises, including reasonable attorney's fees, (ii) the unpaid rent earned at the time of termination, plus lesser of interest thereon at the maximum rate permitted by law or Prime Rate plus 7% per annum where there is no statutory limit imposed "Default Interest Rate" and (iii) any other sum of money or damages owned by tenant to Landlord, but less rents received during the Lease Term upon releasing the Leased Premises. The term "Prime Rate" means the Prime Rate as reported in the Money Rates section of The Wall Street Journal. For those days of the term of this Lease which are not business days, the Prime Rate for such days shall be the Prime Rate as reported in The Wall Street Journal on first business day preceding such day. If The Wall Street Journal ceases publication of the Prime Rate, then the Prime Rate shall mean the highest prime rate (or base rate) reported in such other publication as Landlord determines to be comparable to the Prime Rate reported by The Wall Street Journal.

(b) Landlord may terminate Tenant's right of possession (but not the Lease) and may repossess the Leased Premises in accordance with the summary process laws of the State of Connecticut. Landlord shall use its best efforts to relet the same for the account of Tenant for such rent and upon such terms as shall be reasonably satisfactory to Landlord. For the purpose of such reletting Landlord is authorized to decorate or to make any repairs, changes, alternations or additions in or to the Leased Premises that may be reasonably necessary. If the Leased Premises are relet and a sufficient sum shall not be realized from such reletting after paying (i) the unpaid Base Rental and additional rent due hereunder earned but unpaid at the time of reletting plus interest thereon at the Default Interest Rate, (ii) the cost of recovering possession, including reasonable attorney's fees, (iii) the cost and expenses of such decorations, repairs, changes, alterations and additions and (iv) the expenses of such reletting and of the collection of the rent accruing therefrom to satisfy the rent provided for in this Lease to be paid, then Tenant shall pay to Landlord as damages a sum equal to the amount of the rental reserved in this Lease for such period or periods, or if the Leased Premises has been relet, the Tenant shall satisfy and pay any such deficiency upon demand therefore from time to time. Tenant agrees that Landlord may file suit to recover any sums falling due under the terms of this Section 5.10 from time to time, and that no delivery to or recovery by Landlord of any portion due Landlord hereunder shall be any defense in any action to recover any amount not theretofore received by Landlord, nor shall such reletting be construed as an election on the part of the Landlord to terminate this Lease unless a written notice of such intention be given to Tenant by Landlord. Notwithstanding any such reletting without termination, Landlord may at any time thereafter elect to terminate this Lease for such previous default.

Section 5.11 Landlord Default. If default shall be made by Landlord in the performance of the conditions or covenants of this Lease, Tenant shall give Landlord written notice of the default, and if Landlord fails to cure such default within thirty (30) days after

written notice thereof to Landlord (unless the default involves a hazardous condition or a critical service, which shall be cured immediately), plus such additional reasonable and necessary period given the nature of the cure and provided Landlord is diligently pursuing the cure to completion, then Landlord shall be deemed in default of this Lease and Tenant shall be entitled to its rights under law and equity, including those self-help rights in Section 5.12 hereof.

Section 5.12 Landlord's and Tenant's Right to Perform Other's Obligations. If one party fails to perform any one or more of its obligations hereunder, the other party shall have the right but not the obligation to perform all or any part of such obligations after receipt of any required default notice and expiration of any applicable cure period. Upon receipt of a demand therefore from performing party, the other shall reimburse the performing party for (i) the cost to the performing party of performing such obligations and reasonable profit plus (ii) interest thereon at the Default Interest Rate from the date such costs were incurred until paid in full.

Section 5.13 Attorneys' Fees. In the event either party defaults in the performance of any of the terms, conditions, agreements or conditions contained in this Lease and the other party places the enforcement of this Lease, or any part thereof, or the collection of any rent due or other services due, or to become due hereunder or recovery of the possession of the Leased Premises, in the hands of an attorney who files suit upon the same, all reasonable attorneys' fees for such action on either side shall be paid by the unsuccessful litigant.

Section 5.14 Alteration. This Lease may not be altered, changed or amended, except by an instrument in writing signed by both parties hereto.

Section 5.15 Non-Waiver. Failure of either party to declare any default immediately upon occurrence thereof, or delay in taking any action in connection therewith, shall not waive such default, but said party shall have the right to declare any such default at any time and take such action as might be lawful or authorized hereunder, either at law or in equity.

Section 5.16 Notices. Any notice or other communications to Landlord or Tenant required or permitted to be given under this Lease, (and copies of the same to be given to Landlord's mortgagees as below described), must be in writing and shall be effectively given if hand delivered to the addresses for Landlord and Tenant stated above or if sent by a reputable overnight carrier or United States Mail, certified or registered, return receipt requested, to said addresses. Any notice mailed shall be deemed delivered upon receipt or refusal. Either party shall have the right to change the address to which notices shall thereafter be sent by giving the other notice thereof.

Section 5.17 Interest. All amounts of money payable by either party under this Lease, if not paid when due, shall bear interest from the date due until paid at the Default Interest Rate.

Section 5.18 Merger of Estates. The voluntary or other surrender of this Lease by Tenant or a mutual cancellation thereof, shall not constitute a merger, and shall, at the option

of Landlord, terminate all or any existing subleases or subtenancies, or may, at the option of Landlord, operate as an assignment to it of Landlord's interest in any or all such subleases or subtenancies.

Section 5.19 **Legal Interpretation.** This Lease and the rights and obligations of the Parties hereto shall be interpreted, construed and enforced in accordance with the laws of Connecticut. The determination that one or more provisions of this Lease is invalid, void, illegal or unenforceable shall not affect or invalidate the remainder. All obligations of either party requiring any performance after the expiration of the Least Term shall survive the expiration of the Lease Term and shall be fully enforceable in accordance with the provisions pertaining thereto. Section titles appearing in this Lease are for convenient reference only and shall not be used to interpret or limit the meaning of any provision of this Lease.

Section 5.20 **Entire Agreement.** No oral statements or prior written material not specifically incorporated herein shall be of any force or effect Tenant agrees that in entering into and taking this Lease, it relies solely upon the representations and agreements contained in this Lease and no others.

Section 5.21 **Intentionally Deleted**

Section 5.22 **Recordation.** Tenant agrees not to record this Lease, but each party hereto agrees, on request of the other, to execute a short-form lease in recordable form and complying with applicable state laws. In no event shall such document set forth the rental or other charges payable to Landlord under this Lease; and any such document shall expressly state that it is executed pursuant to the provisions contained in the Lease and is not intended to vary the terms and conditions of the Lease.

Section 5.23 **Force Majeure.** Whenever a period of time is herein prescribed for the taking of any action by either party, there shall be excluded from the computation of such period of time, any delays due to strikes, riots, acts of God, shortages of materials, war, governmental laws, regulations or restrictions, or any other cause whatsoever beyond the reasonable control of the party claiming a force majeure, provided such party delivers notice to the other of the claimed force majeure within two (2) days of such party's actual notice of the force majeure event. Notwithstanding the foregoing, in the event Landlord's obligation to Substantially Complete the Building and Premises is delayed for more than one hundred eighty (180) days after the Target Commencement Date due to a force majeure event, Tenant shall have the right to terminate this Lease upon written notice to Landlord.

Section 5.24 **Consent and Approval.** Whenever consent or approval of either Landlord or Tenant is required for the action of the other, said consent or approval will not be unreasonably withheld or delayed.

Section 5.25 **Exclusivity.** Intentionally deleted.

Section 5.26 **Restrictive Covenant.** At any time during the term of this Lease, Landlord shall not lease, sublet or permit occupancy of any space within the Building to any

acute care hospital, any physician (or any entity owned or controlled by one or more physicians) who is not a member of the medical staff of Eastern Connecticut Health Network, Inc. ("ECHN"), any affiliate of the foregoing, or any partner or joint venturer of the foregoing, without in each case the express written consent of Manchester Memorial Hospital or its successor affiliates. Landlord shall provide written notice of its intent to enter into a lease or other occupancy agreement with a tenant for space within the Building and shall provide Manchester Memorial Hospital or its successor affiliates with commercially reasonable documentation with respect to the proposed tenant, sublessee or occupant which shall include, without limitation, a description of its use and expertise, the terms of the assignment, sublease or occupancy and reasonable financial information. Manchester Memorial Hospital or its successor affiliates shall have 14 business days from the date of receipt of such written notice and supporting documentation to inform Landlord of its consent or lack thereof.

Section 5.27 **Miscellaneous.** This Lease shall be binding upon and inure to the benefit of the successors and assigns of Landlord, and shall be binding upon and inure to the benefit of Tenant, its successors, and, to the extent assignment may be approved by Landlord hereunder, Tenant's assigns. The pronouns of any gender shall include the other genders and either the singular or the plural shall include the other.

ARTICLE VI

Section 6.1 **Definitions.** As used in this Lease, the following terms shall have the respective meanings indicated:

BUILDING shall mean the medical office building located at 2400 Tamarack Avenue, South Windsor, CT 06074

COMMENCEMENT DATE shall mean "Substantial Completion" of Building and Premises.

GROSSRENTABLE AREA (GRA) of the Leased Premises shall mean the net rentable area and the protata share of common areas.

GROUND LEASE shall mean that certain ground lease of even date herewith entered into between Evergreen Walk II, LLC., as ground lessor and Evergreen Medical Associates II, LLC , as ground lessee of the land on which the Building is located, as more particularly described therein and is attached as Exhibit C

LEASED PREMISES shall mean the second floor suite in the Building as outlined on the floor plan attached to this Lease as Exhibit A incorporated herein.

LEASE YEAR shall mean one full year from the first day of lease commencement and each succeeding full year upon the anniversary of the first lease year.

NET RENTABLE AREA (NRA) of the Leased Premises shall mean the gross area within the inside surface of the outer glass of the exterior walls to the mid-point of any walls separating portions of the Leased Premises from those of adjacent tenants and to the inside surface of walls separating the Leased Premises from common and service areas. The Leased Premises are stipulated for all purposes to contain 2,996 square feet of Net Rentable Area, and the total Gross Area for the Building is 28,875 square feet, subject to the final measurement of the Leased Premises and Building upon Substantial Completion.

NORMAL BUSINESS HOURS shall mean from seven a.m. to eight p.m., five days a week from Monday through Friday, inclusive, and from seven a.m. to one p.m. on Saturday, exclusive of the following holidays:

New Years Day
Memorial Day
Independence Day
Labor Day
Thanksgiving Day
Christmas Day

and any other holiday recognized and taken by tenants occupying at least one-half (1/2) of the Net Rentable Area of office space of the Building. Tenant shall be given a key to the building to permit access to the Leased Premises at all times other than Normal Business Hours. Should Tenant operate on a consistent basis during times outside of Normal Business Hours as defined herein, then Landlord shall determine any increased operating costs caused by such operation and charge to Tenant as additional rent hereunder an amount which reimburses Landlord for such increased operating costs.

OPERATING COSTS shall consist of all operating expenses of the building, which shall be computed on the accrual basis and shall include the cost of operating and maintaining the Building and Land. All operating expenses shall be determined in accordance with generally accepted accounting principles consistently applied. The term "operating expenses" as used herein shall mean all expenses, costs and disbursements (but not replacement of capital investment items nor specific costs specifically billed to and paid by specific tenants) of every kind and nature which Landlord shall pay or become obligated to pay because of or in connection with the operation of the building, including but not limited to, the following:

(a) Wages and salaries of all employees only to the extent that such employees are engaged in operation and maintenance or security of the Building at manager level and below, including taxes, insurance and benefits relating to such employees.

(b) All supplies and materials used in operation and maintenance of the Building.

(c) Cost of all use (not installation) utilities for the building, including the cost of water and power, heating, lighting, air conditioning and ventilating for the Building.

(d) Cost of all commercially reasonable maintenance, janitorial, and service agreements for the Building and the equipment therein, including alarm service, window cleaning and elevator maintenance.

(e) Cost of all commercially reasonable insurance relating to the Building, including cost of casualty and liability insurance applicable to the Building and Landlord's personal property used in connection therewith.

(f) All taxes and assessments and governmental charges whether Federal, state, county or municipal, and whether they be by taxing districts or authorities presently taxing the Leased Premises or by others, subsequently created or otherwise, and any other taxes and assessments attributable to the Building and the Land, but excluding taxes on rents, franchise taxes, income taxes, etc. It is agreed that Tenant will be responsible for ad valorem taxes on its personal property and on the value of leasehold improvements to the extent that same exceed building standard allowances. For the purposes of this Lease Landlord hereby certifies that the improvements to the Leased Premises set forth in the attached plans and specifications shall be deemed to be building standard.

(g) Cost of repairs and general maintenance (excluding repairs and general maintenance paid by proceeds of insurance or by Tenant or other third parties, and alterations attributable solely to tenants of the Building other than Tenant).

(h) Amortization of the cost of installation of capital repairs, repairs or improvements to the building necessary to maintain the building or which may be required by governmental authority. All such costs shall be amortized over the reasonable life of the capital investment items by an additional charge to be added to rent and paid by Tenant as additional rent, with the reasonable life and amortization schedule being determined in accordance with generally accepted accounting principles and in no event beyond the reasonable life of the Building.

(i) That part of Landlord's reasonable accounting costs applicable to the Building.

(j) All commercially reasonable fees, costs and charges paid to any person or entity that manages the Building.

Notwithstanding anything in this Lease to the contrary, the following expenses are excluded from Operating Costs:

(A) depreciation and amortization;
(B) expenses incurred by Landlord to prepare, renovate, repaint decorate or perform any other work in any space leased to an existing tenant or prospective tenant of the Building;
(C) expenses incurred by Landlord for repairs or other work occasioned by fire, windstorm, or other casualty or condemnation to the extent covered and reimbursed by insurance;

(D) expenses incurred by Landlord to lease space to new tenants or to retain existing tenants, including, without limitation, leasing commissions, advertising and promotional expenditures;
(E) expenses incurred by Landlord to resolve disputes, enforce or negotiate lease terms with prospective or existing tenants or in connection with any financing, sale or syndication of the Property;
(F) Interest, principal, points and fees, amortization or other costs associated with any debt and Base Rent and additional rent included within the definition of Operating Costs payable under this Lease, payable under any ground lease to which this Lease is subject and all costs associated with any such debt or lease and any ground lease rent, irrespective of whether this Lease is subject or subordinate thereto;
(G) expenses for the replacement of any item covered under warranty. Landlord shall be obligated to obtain and enforce warranties on capital improvement items;
(H) cost to correct any penalty or fine incurred by Landlord due to Landlord's violation of any federal, state, or local law or regulation and any interest or penalties due for late payment by Landlord of any of the Operating Costs;
(I) cost of repairs necessitated by Landlord's negligence or willful misconduct;
(J) cost of correcting any latent defects or original design defects in Building construction, materials or equipment;
(K) expenses for any item or service which Tenant pays directly to a third party or separately reimburses Landlord and expenses incurred by Landlord to the extent the same are reimbursable or reimbursed from any other tenants, occupants of the property or third parties;
(L) expenses for any item or service not provided to Tenant, but provided exclusively to certain other tenantsin the Building;
(M) a property management fee for the Building in excess of five percent (5%) of the gross rents of the Building (exclusive of tenant reimbursements and ancillary income from other tenants (e.g. income from antennae, or satellite dishes, paid parking, security deposits and interest thereon, etc.) for the relevant calendar year;
(N) the portion of employee expenses which reflects that portion of such employee's time which not spent directly and solely in the operation of the Property;
(O) Landlord's general corporate overhead and administrative expenses except as if it is solely for the Building;
(P) Fees paid to affiliates of Landlord to the extent that such fees exceed the customary amount charged for the services provided;
(Q) The operating expenses incurred by Landlord relative to any specialty service in the Building or on the Property;
(R) cost of sculptures, paintings, and other objects of art;
(S) items not customarily included as operating expenses for similar Class A Medical Buildings;
(T) Capital reserves.

Tenant at its expense shall have the right at all reasonable times to review and audit Landlord's books and records relating to this Lease for any year or years for which additional rental payments become due. If there is a discrepancy in the amount paid or payable by Tenant of greater than 5%, Landlord shall reimburse Tenant for the reasonable cost of such audit. Landlord shall provide a detailed statement of actual Operating Costs within ninety (90) days of the close of each Lease Year. Upon Tenant's request, Landlord shall provide Tenant with reasonable supporting documentation including receipted tax bills.

SUBSTANTIAL COMPLETION shall mean: (i) the shell and core of the Building are complete and in compliance with all laws and all of the Building systems are in good working order; (ii) Landlord has sufficiently completed all the Tenant Improvements required to be performed by Landlord in accordance with this Lease (except minor punch list items which Landlord shall thereafter promptly complete) such that Tenant can conduct normal business operations from the entire Premises and Landlord has notified Tenant of completion of the same; (iii) the Premises is broom clean and vacant; (iv) Landlord has obtained a certificate of occupancy for the Building, or a temporary certificate of occupancy, in which case Landlord shall pursue diligently the issuance of a final certificate of occupancy, for that portion of the Building that includes all of the Premises, or its equivalent; (v) parking is available on the paved lot adjacent to the Building and all exterior common areas are completed (including accessways and sidewalks); and (vi) Tenant has been delivered complete and uninterrupted access to the Premises (and other required portions of the Building and the property.)

TRADE FIXTURES shall mean any and all signs placed by Tenant within the Leased Premises pursuant to provisions hereof and any and all items of property used by Tenant in the Leased Premises, including but not limited to furniture and equipment. The term Trade Fixtures shall not included any permanent leasehold improvements, (all of which permanent leasehold improvements, as between Landlord and Tenant, shall be come the property of Landlord upon the incorporation in or affixation to the Leased Premises) including but not limited to any floor, wall or ceiling coverings, any interior walls or partitions, any lighting fixtures, or any property a part of or associated with any electrical, plumbing or mechanical system, notwithstanding that the same may have been installed within the Leased Premises but except those fixtures that can be removed without damaging the Leased Premises.

Section 6.2 **Exhibits, Schedules and Supplements.** The Exhibits, Schedules and Supplements attached to this Lease are hereby incorporated herein and hereby made a part of this Lease.

ARTICLE VII

Section 7.1 **Environmental Indemnity.** Landlord shall defend, indemnify and hold harmless Tenant and Tenant's Related Parties from and against any and all claims, losses, damages, liabilities, judgments, costs and expenses (including attorneys' fees) which may be imposed upon, incurred by or asserted against Tenant or any of the Related Parties, as a result of or in connection with the presence or removal of hazardous substances in the Building, on the land or in the Premises, unless the hazardous substances were caused or generated by Tenant or its Related Parties. Tenant shall defend, indemnify and hold harmless Landlord and Landlord's Related Parties from and against any and all claims, losses, damages, liabilities, judgments, costs

and expenses (including attorneys' fees) which may be imposed upon, incurred by or asserted against Landlord or any of the Related Parties, as a result of hazardous substances brought onto the Premises, Building or land by Tenant or any of Tenant's Related Parties. These indemnities shall survive the termination of the Lease.

IN TESTIMONY WHEREOF, the parties hereto have executed this lease as of the day and year first above written.

LANDLORD:
EVERGREEN MEDICAL ASSOCIATES II, LLC

By:_____

David W. Sessions, Its Managing Member

TENANT:
WBC CONNECTICUT EAST, LLC

By:_____
Its Manager and CEO

STATE OF CONNECTICUT }
} ss:
COUNTY OF HARTFORD }

The foregoing instrument was acknowledged before me this _____day of _____, 2011 by David W. Sessions, Managing Member of EVERGREEN MEDICAL ASSOCIATES II, LLC, a Connecticut limited liability company on behalf of the said limited liability company.

_____
Notary Public

STATE OF CONNECTICUT }
} ss:
COUNTY OF HARTFORD }

The foregoing instrument was acknowledged before me this _____day of _____, 2011 by _____, Its _____ on behalf of, (TENANT_____) on behalf of said _____.

_____
Notary Public

STATE OF CONNECTICUT
DEPARTMENT OF PUBLIC HEALTH
OFFICE OF HEALTH CARE ACCESS

Docket No.: 11-31731-CON

WBC Connecticut East, LLC
Proposal to Establish a Partial Hospital Program and an Intensive Outpatient Program for Adults with Eating Disorders in South Windsor

May 17, 2012

Prefile Testimony of Dr. Stuart Koman

Good morning Hearing Officer Horn and OHCA staff. My name is Dr. Stuart Koman. I am the Chief Executive Officer of Walden Behavioral Care, and I will serve as the Executive Director of our proposed clinic in South Windsor, CT. Walden is eager to work collaboratively with the Connecticut Department of Public Health to establish needed eating disorder services to patients and their families who struggle with this insidious disease. While other providers in CT offer partial hospital services for some of the eating disorders, there is no provider in our primary service area which currently provides intensive outpatient care, specialty programs for binge eating disorder or specialty programs for adolescents and their families.

For almost ten years, Walden has worked successfully with the Massachusetts Departments of Public Health and Mental Health, insurers and medical providers to bring a much-needed continuum of eating disorder services into existence. Today, Walden delivers its eating disorder services to male and female, adolescents and adult patients through its inpatient and residential programs, as well as three licensed outpatient clinic sites similar to the one proposed in South Windsor. As you may know, approximately 4% of the population struggles with an eating disorder of anorexia nervosa, bulimia nervosa, or binge eating. Because of this large demand for treatment, our services in Massachusetts receive admissions from across New England and the northeast United States. It is the shortage of specific eating disorder services in Connecticut which precipitates our partnership with ECHN to bring these much-needed services to the area.

I am here this morning to speak on behalf of our application to the Office of Health Care Access. We hope our material provided today and in earlier submissions will satisfactorily address your questions. Walden is also very pleased to have the support of both ECHN, our partner in this initiative, and Hartford Hospital. Two letters of support are attached to my testimony; one from ECHN and one from Hartford Hospital. Both of these letters were previously mailed to OHCA directly. They represent very important links in an array of clinical and medical support systems which will help

maximize our patients' chances for lasting success. We look forward to a very robust relationship with ECHN for not only receipt of eating disorder patient referrals from them, but referrals of our patients for related medical services to them.

I will be happy to answer any questions you may have, and thank you for the opportunity to appear before you this morning. Kevin Murphy from ECHN is here with me this morning, and would like to address you as well.

Respectfully submitted,

Stuart L Koman, PhD

5/16/2012
Date

ECHN
Eastern Connecticut Health Network

Eastern Connecticut Health Network
71 Haynes Street
Manchester, CT 06040
860.533.3414
www.echn.org

April 16, 2012

(Via Facsimile and First Class Mail)

Joanne V. Yandow, Esq.
Hearing Officer
Department of Public Health
410 Capitol Avenue, MS #13HCA
P. O. Box 340308
Hartford, CT 06134

Re: WBC Connecticut East, LLC
OHCA Docket No. 11-31731-CON

Dear Commissioner Mullen,

I am writing on behalf of Eastern Connecticut Health Network ("ECHN") in support of the application now before the Office of Health Care Access, submitted by WBC Connecticut East, LLC. ("Walden"), to begin offering health services to persons suffering from eating disorders in South Windsor, CT. ECHN has been working with Walden for over a year now planning a service which would be beneficial to many patients seen by physicians at Manchester Hospital and our network. There is a growing need to offer health care services to persons suffering from numerous eating disorders.

ECHN believes that the service Walden will bring to Connecticut is unique, and that it is such a quality service that we will be referring many patients to the facility they hope to open in South Windsor. As you know from the Completeness Letter filed in this application, ECHN plans to hold approximately 16.4% interest in the service Walden will offer. If you have any questions about Walden, or the way the program will operate in conjunction with ECHN, please do not hesitate to call me at (860)533-2925.

Yours truly,

Kevin Murphy
Treasurer & Executive Vice President of Network/Business Development

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Hartford Hospital
A Hartford HealthCare Partner

MAY 17 2012

April 16, 2012

Kimberly Martone
Director of Operations
Department of Public Health
Division of the Office of Health Care Access
410 Capitol Avenue, MS#13HCA
PO Box 340308
Hartford, Connecticut 06134-0308

Via Facsimile: (860) 418-7053

Re: DN 11-31731 WBC Connecticut East , LLC's Proposal to Establish a Partial Hospital and Intensive Outpatient Program for the Treatment of Eating Disorders in South Windsor, CT

Dear Ms. Martone:

This correspondence is regarding the above referenced Certificate of Need Application and Hartford Hospital's April 5th letter to you concerning the need for additional services for the treatment of eating disorders in Connecticut. Hartford Hospital has had additional time to study the applicant's responses to OHCA's completeness questions and has determined the following:

- The proposed application would provide two services not presently included in the HH program:
  - Treatment of males suffering from eating disorders; and,
  - An intensive outpatient program for adolescents offered after school hours

Based upon these factors, Hartford Hospital is in support of this application and wishes to formally withdraw its request for a public hearing. Furthermore, Hartford Hospital looks forward to collaborating with the applicant on this service, if approved, as noted in its response to #6 of OHCA's completeness questions (page 000456) to improve the health status of residents within the East of the River community.

Sincerely Yours,

Karen T. Goyette
Vice President, Strategic Planning and Business Development

cc: Steven Lazarus, Office of Health Care Access
Jack Huber, Office of Health Care Access

STATE OF CONNECTICUT
DEPARTMENT OF PUBLIC HEALTH
OFFICE OF HEALTH CARE ACCESS

Docket No.: 11-31731-CON

WBC Connecticut East, LLC : May 22, 2012

Prefile Testimony of Kevin Murphy

Good morning Hearing Officer Horn and OHCA staff. My name is Kevin Murphy. I am the Treasurer and Executive Vice President of Network and Business Development at Eastern Connecticut Health Network ("ECHN"). I am here this morning to support the application of Walden Behavioral Care to establish an eating disorder service to be located in South Windsor, CT. ECHN not only supports the application, but has an ownership interest in the facility, as you will see from the documents which are being submitted this morning in response to your Interrogatories.

ECHN is anxious to have this eating disorder service available in the State of Connecticut because we know that there is no other program in Connecticut which treats adolescent males suffering from an eating disorder, and because we know of the excellence of the programs Walden has established in Massachusetts. Walden Behavioral Care has been been highly successful in treating these very debilitating illnesses. (Add any other information you believe will be helpful).

I will be happy to answer any questions you may have, and thank you for the opportunity to appear before you this morning.

Respectfully submitted,

Kevin Murphy Date: