

Eating Disorders in Children and Adolescents: Recognition and Referral

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Goals and Objectives

At the conclusion of the session, participants will be able to:

1. Screen for eating disorders.
2. Recognize when to refer for a specialized evaluation of an eating disorder.
3. Support patients and families during treatment for an eating disorder.

Anorexia Nervosa (AN)

- A. Restriction of energy intake relative to requirements, leading to a significantly low body weight in the context of age, sex, developmental trajectory, and physical health. **Significantly low weight** is defined as a weight that is less than minimally normal, or, for children and adolescents, less than that minimally expected.
- B. Intense fear of gaining weight or becoming fat, **or persistent behavior that interferes with weight gain**, even though at a **significantly low weight**.
- 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 persistent lack of recognition of the seriousness of the current low body weight.

Anorexia Nervosa Key Facts

- Lifetime Prevalence: ~1% for women
- Female/Male ratio: 10/1
- Peak onset: 13-18 years
- Recovery: ~50-60% recover; ~30% improved; ~7-15% chronic course
- Standardized mortality ratio (SMR = ratio of observed to expected deaths)
 - SMR for AN = 5.86 (about 20% due to suicide). **Highest of any psychiatric disorder.**
 - SMR for schizophrenia = 2.8 for males and 2.5 for females
 - SMR for bipolar disorder = 1.9 for males and 2.1 for females
 - SMR for unipolar depression = 1.5
- Psychiatric co-morbidity is high: anxiety disorders (up to 50%), depressive disorders (20–80%). About 25% have substance use disorders.

Bulimia Nervosa (BN)

- 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 what most individuals would eat in a similar period of time 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 behaviors in order to prevent weight gain, such as self-induced vomiting; misuse of laxatives, diuretics, or other medications; fasting; or excessive exercise.
- C. The binge eating and inappropriate compensatory behaviors both occur, on average, at least **once 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.

Bulimia Nervosa Key Facts

- Lifetime Prevalence: ~1.5 -3%
- Female/Male Ratio: 10:1
- Peak incidence: 16-20 years old in women
- Short-term success of treatment: 50-70%; High relapse rates: 30-85% at 6 months-6 years
- SMR = 1.9 (~20% due to suicide)
- Majority have a comorbid psychiatric disorder: up to 80% with anxiety disorder, up to 70% with mood disorder, and up to 37% with substance abuse.

Other Specified Feeding or Eating Disorder (OSFED)

Category applies to presentations in which symptoms characteristic of a feeding and eating disorder that cause clinically significant distress or impairment but do not meet the full criteria for any of the disorders. The clinician must communicate the reason that the presentation does not meet the criteria for any specific disorder.


Other Specified Feeding or Eating Disorder (OSFED)

Examples:

- Atypical anorexia nervosa: All of the criteria for AN are met, but the individual's weight is within or above the normal range.
- Bulimia nervosa of low frequency or limited duration.
- Binge-eating disorder of low frequency or limited duration
- Purging disorder: Recurrent purging behavior to influence weight or shape in the absence of binge eating
- Night eating syndrome: recurrent episodes of night eating, as manifested by eating after awakening from sleep or by excessive food consumption after the evening meal. There is awareness and recall.

Etiology: Eating Disorders

Unknown, but Multifactorial

- Biological
 - Genetic
 - Sociocultural
 - Psychological traits
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Screening Questions

from Morgan JF, Reid F, Lacey JH. BMJ 1999; 319: 1467-1468

1. Do you make yourself **vomit** because you feel uncomfortably full?
2. Do you worry that you have lost **control** over how much you eat?
3. Have you recently lost **15lbs** or more in a three month period?
4. Do you believe yourself to be **fat** when others say you are too thin?
5. Would you say that **food** dominates your life?

If the answer is yes to 2 or more consider referral for Eating Disorder evaluation



Medical Evaluation

If you suspect that your patient has an eating disorder - *Common Red Flags include:*

Significant weight loss (even if starting out overweight) and/or plateauing on the growth curve
Primary or secondary amenorrhea
Bradycardia, dizziness, and/or syncope
GI complaints – loss of appetite, reflux, recurrent abdominal pain or vomiting
Abnormal eating or excessive exercise

STEP ONE: COMPREHENSIVE HISTORY AND EATING DISORDER SCREENING QUESTIONS (2 or more positive answers is a positive screen)

Ask the patient *AND* the caregiver separately/privately:

1. Do you make yourself **vomit** because you feel uncomfortably full?
2. Do you worry that you have lost **control** over how much you eat?
3. Have you recently lost **15lbs** or more in a three month period?
4. Do you believe yourself to be **fat** when others say you are too thin?
5. Would you say that **food** dominates your life?

*Screening Questions for Eating Disorders Morgan JF, Reid F, Lacey JH. BMJ 1999; 319: 1467-1468

STEP TWO: MEDICAL EVALUATION

1. Obtain height and weight in a gown
2. Perform Physical Exam
3. Obtain Vital Signs to include: Temperature, Orthostatic Blood Pressure and Pulse
4. Obtain EKG
5. Order Lab Work:
 - BMP, Ca, Mg, Phos, pregnancy test, AST, ALT, TSH, CBC with platelets and differential, celiac panel, CRP, ESR, urinalysis, urine drugs of abuse screen

STEP THREE: INTERPRETATION (Yes to any of the following is suggestive of medical instability)

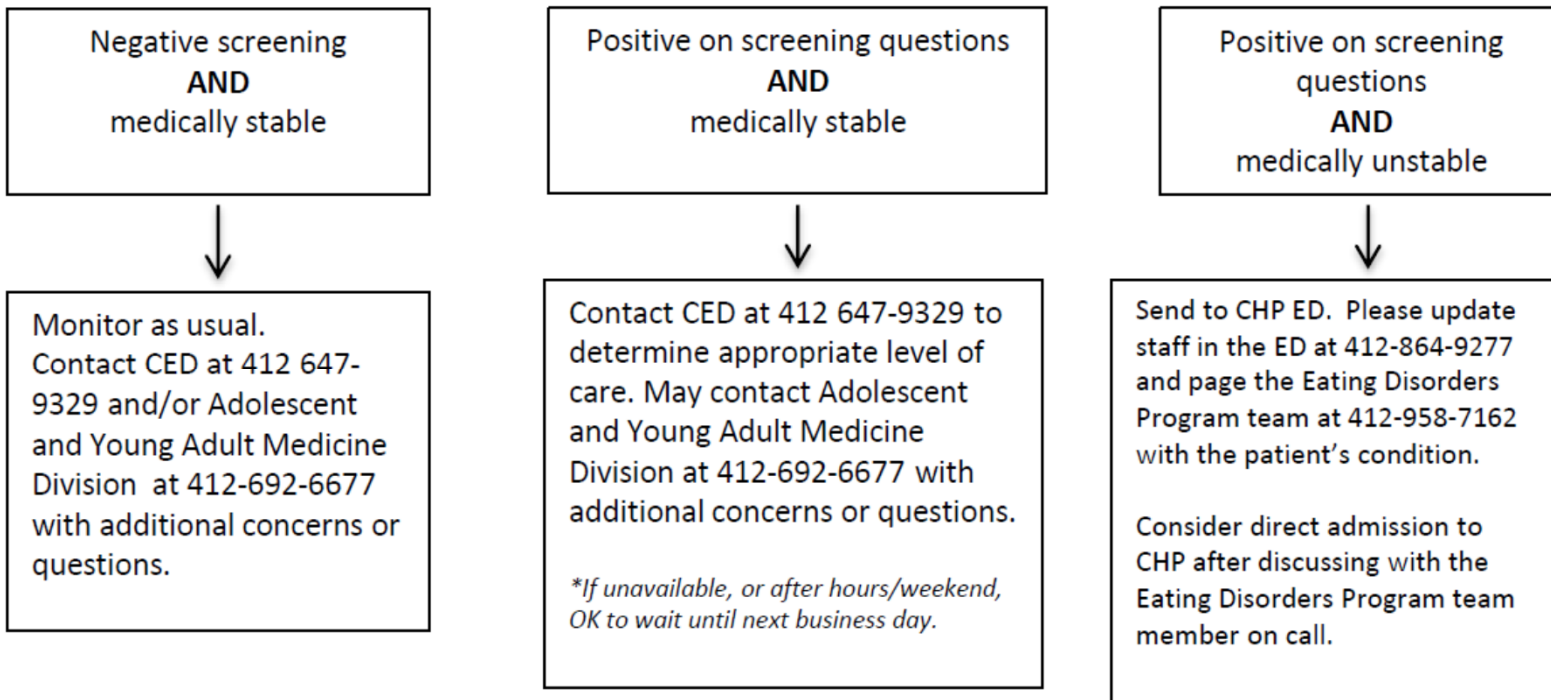
1. <75% of ideal body weight
2. Vital sign instability including: HR <50 bpm awake; <45 bpm with sleep; Hypotension (<80/50 mm Hg); Orthostatic changes in BP (>10mmHg) or pulse (>20 beats per minute); Temperature <36C
3. Electrolyte disturbances (hypokalemia, hyponatremia, hypophosphatemia)
4. Dehydration
5. Arrhythmia, prolonged QTc
6. Eating disorder behaviors: Food refusal; Uncontrollable, intractable vomiting; Severe laxative abuse – interferes with functioning or leads to medical instability; Weight loss despite intensive treatment
7. Other medical complications due to eating disorder or malnutrition (e.g., esophageal tear, syncope, seizures)
8. Comorbidities that interfere with treatment of the eating disorder outside of a hospital setting

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When and how to refer



Levels of Care at UPMC Center for Eating Disorders

Inpatient

- Western Psychiatric Institute and Clinic: ages 14 and older
- CHP: medical stabilization only

Partial Hospital Program (PHP): Monday –Friday 9am – 3:30pm

- Wexford: ages 12-18 years; FBT informed
- Oakland: ages 14 and older; CBT based and DBT informed

Intensive Outpatient Program (IOP): 9 hours/week

- Wexford: M/W/Th 4-7pm
- Oakland: M/T/Th 4-7pm

Outpatient Treatment




Inpatient Treatment

Goals

- Stabilizing nutrition
- Restoring minimally adequate body weight
- Alleviating related physical symptoms
- Reducing of eating disorder behaviors

Types of Treatment

- Group therapy
 - Skills training
 - Medication management
 - Nutritional education and meal support
 - Family therapy
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Consider Hospitalization:

- Low weight (<75% IBW): Weight Restoration is critical for treatment of low weight patients
- To stabilize and treat medical complications
- To interrupt binge-purge cycle, vomiting, or laxative abuse posing medical risks
- Acute issue with co-morbid psychiatric disorder

Indications for hospitalization: Children and adolescents

TABLE 4 American Academy of Pediatrics Criteria for Inpatient Hospitalization in Eating Disorders

Anorexia Nervosa	Bulimia Nervosa
Heart rate <50 beats/min daytime; < 45 beats/min nighttime	Syncope
Systolic blood pressure <90 mm Hg	Serum potassium <3.2 mmol/L
Orthostatic changes in pulse (>20 beats/min) or blood pressure (>10 mm Hg)	Serum chloride <88 mmol/L
Arrhythmia	Esophageal tears
Temperature <96°F	Cardiac arrhythmias including prolonged QTc
<75% ideal body weight or ongoing weight loss despite intensive management	Hypothermia
Body fat <10%	Suicide risk
Refusal to eat	Intractable vomiting
Failure to respond to outpatient treatment	Hematemesis
	Failure to respond to outpatient treatment

Indications for hospitalization: Psychological indications

- Poor motivation or insight (inability to recognize the seriousness of severe weight loss)
- Lack of cooperation with outpatient treatment
- Inability to eat independently or need for nasogastric feeding
- Suicidal plan, marked suicidal ideation
- Severe coexisting psychiatric disease
- Anti-therapeutic family environment, especially if abuse present

Partial Hospital Program (PHP)

Intended for patients who:

- Require close monitoring and supervised meals
- Have failed to benefit from less intensive care
- Are acutely ill, but do not require inpatient hospitalization
- Need step-down care after inpatient hospitalization

Types of Treatment


- Two supervised meals and one snack daily
- Nutritional counseling
- Close medical monitoring
- Psychological treatments include:
 - Cognitive behavioral therapy
 - Interpersonal therapy
 - Dialectical behavior therapy
 - Family based therapy

Intensive Outpatient (IOP)

Intended for patients who:

- Would benefit from the structure of an evening program
- Would benefit from support in continued recovery after returning to work or school

Types of Treatment

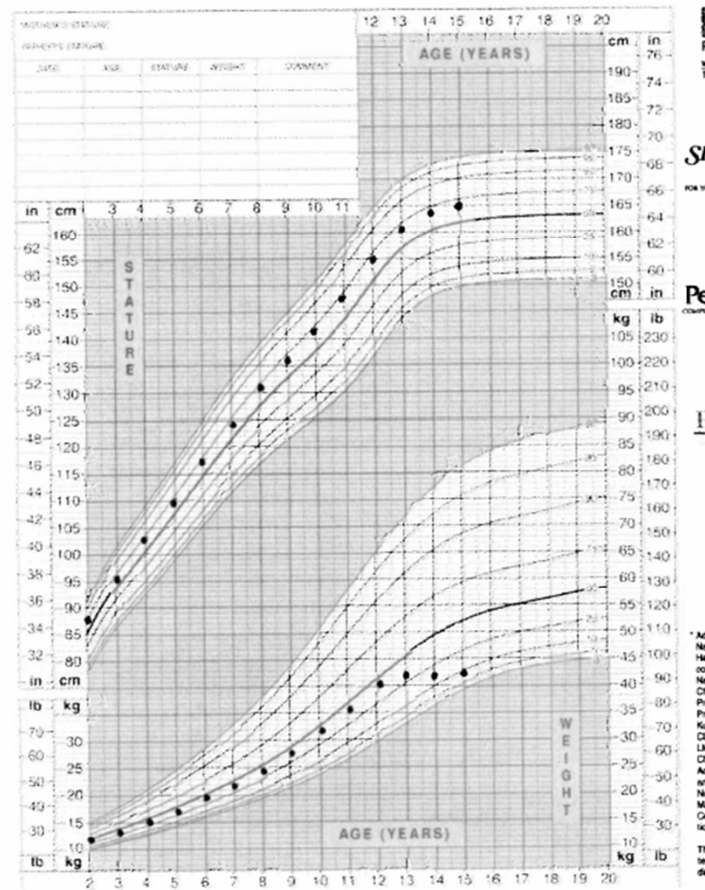
- Two groups and one meal session per evening
 - Nutritional counseling
 - Close medical monitoring
 - Psychological treatments include:
 - Cognitive behavioral therapy
 - Interpersonal therapy
 - Dialectical behavior therapy
 - Family based therapy
- 

A is a 15 year old female who is new to your clinic and comes in for a WCC. The chart shows that she is 65 inches tall and weighs 95 pounds. She denies any problems or concerns. Her mother does express some concern that A has not gotten her menstrual cycle for a while. She began her menstrual cycle at age 12 and it was regular until about 8 months ago when it stopped.

Review of systems is negative except for a few things. She is cold often but it's winter so she figured everyone was. She doesn't get much sleep at night which she attributes to staying up late doing school work. She is in 10th grade and does well in school. She wants to go to college to study neuroscience. She sometimes wakes up through the night and has trouble falling back asleep, which she suspects is due to worrying about school. She has also had a couple of episodes when she felt light headed but denies passing out. These episodes happened back in the summer during soccer practices. It was hot and she thinks she wasn't drinking enough water.

A's Growth Chart

GIRLS: 2 TO 20 YEARS
CDC US GROWTH CHARTS* Name _____ Record # _____



What do you want to do next?

- A. Ask focused questions to help identify an eating disorder.
- B. Tell the patient and her mother she might have an eating disorder, has to eat more, and you'll see her back in a year.
- C. Send them to an endocrinologist and an OB-GYN. Maybe a cardiologist too since she almost passed out a few times.

Screening Questions for Eating Disorders

1. Do you make yourself **vomit** because you feel uncomfortably full?
 - A's response "No."
2. Do you worry that you have lost **control** over how much you eat?
 - A's response "No."
3. Have you recently lost **15lbs** or more in a three month period?
 - A's response "No."
 - Mom's response "No, but she has gotten taller and hasn't gained any weight in a while."
4. Do you believe yourself to be **fat** when others say you are too thin?
 - A's response "No., not fat exactly"
 - Mom's response "She often says she hates how her clothes look on her."
5. Would you say that **food** dominates your life?
 - A's response "No."
 - Mom's response "She is very particular about what she eats. Lots of salads and she cut out sweets and desserts last year."

What do you want to do next?

- A. Discuss with the patient and her mother your concern that she has an eating disorder. We don't know exactly why some people get these but we do know that it's no one's fault.
- B. Discuss the need to check some lab work and get an EKG, check orthostatic vital signs, get height and weight in a gown, and do a thorough physical exam.
- C. Discuss that she will need a team of providers to help with treatment, and this will include mental health treatment. Provide her with referral information to get an evaluation by an eating disorder specialist.
- D. Discuss the need for close medical monitoring and schedule a return appointment within the next 4 weeks.
- E. All of the Above.

Results


A is 78% of ideal body weight. Vital signs are stable. She is not orthostatic and does not have dizziness upon standing

On physical exam she is clearly underweight. There is slight lanugo on her arms, back, and face.

Electrolytes are normal. TSH and liver function tests are slightly elevated.

EKG shows normal sinus rhythm with bradycardia (heart rate = 52 bpm).

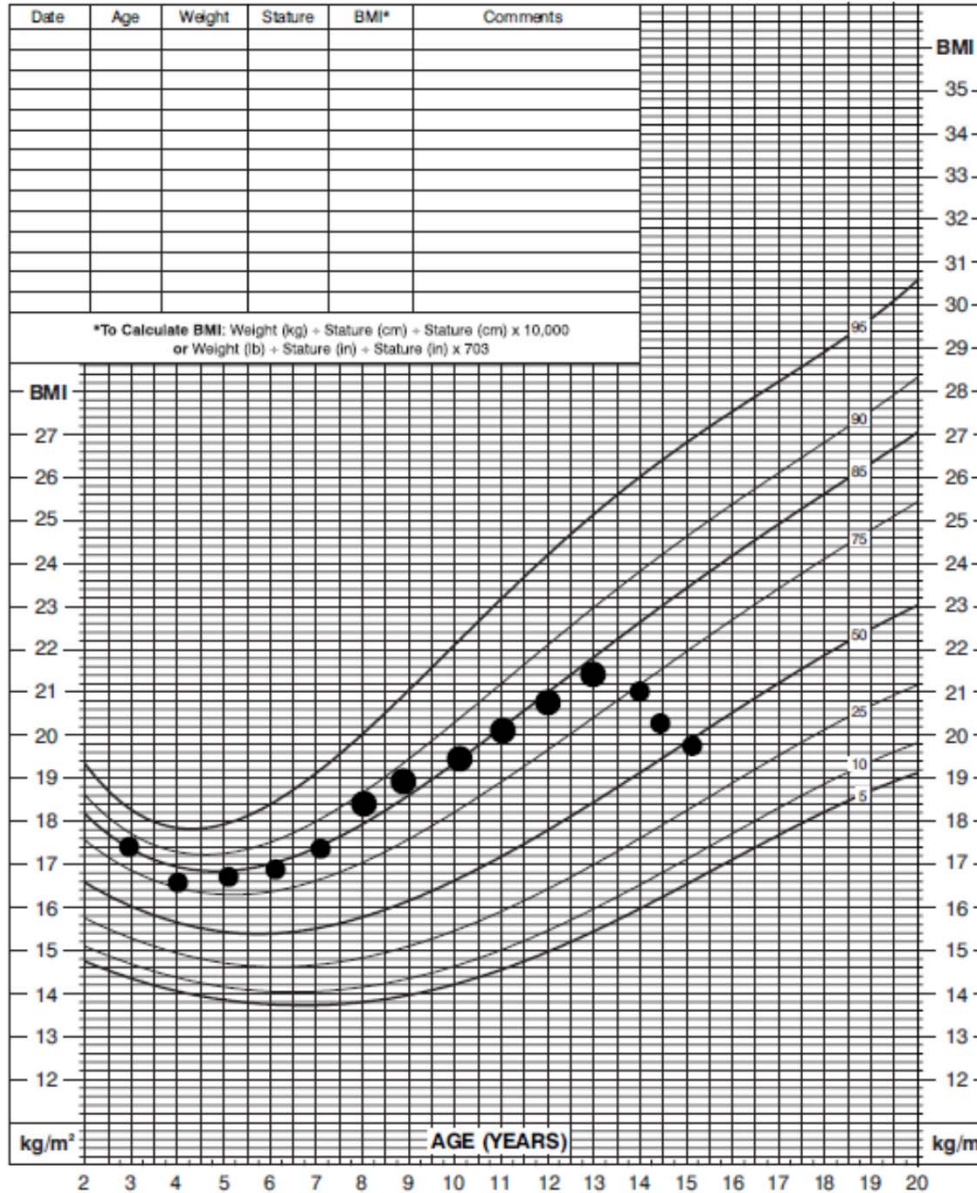
What level of care does she need?

- A. Inpatient
 - B. Residential
 - C. Partial Hospital Program
 - D. Intensive Outpatient Program
 - E. Outpatient Treatment
- 

2 to 20 years: Boys
Body mass index-for-age percentiles

NAME _____

RECORD # _____



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At the conclusion of the session, participants will be able to:

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Family Based Therapy for Eating Disorders (FBT)



Treatment of Eating Disorders: The Role of the Family

Attitudes about the role of families in the treatment of eating disorders have changed dramatically since anorexia nervosa (AN) was first described in the 19th century

Early theorists (e.g., Gull) asserted that limiting parent-child contact during AN treatment was important for recovery

- Based on the assumption that parental “complicity” in eating disorder behaviors enabled progression of the illness

The “Maudsley Model”

Developed at the Maudsley Hospital in London

- Manualized by Jim Lock and Daniel Le Grange → Family-Based Treatment (FBT) for eating disorders. Designed to be delivered for a 6-12 month period with 10-20 sessions total.

Assumptions

- Adolescent embedded in the family
- Adolescent with AN is regressed
- Family must focus on refeeding to free adolescent from eating disorder

The goal of Maudsley family therapy is to mobilize and empower parents to refeed their sick child

- Family issues unrelated to the eating disorder are deferred
- 

Principles of FBT

1. Agnostic view of cause of illness
 - No one is to blame but the family is responsible for recovery
 - Work with strengths
2. Families are the experts
 - Therapist is an “expert consultant” and parents make most decisions
 - Induce anxiety when necessary
3. Parents are empowered in ensuring weight restoration
 - The family has skills and knowledge about their child
4. Illness is externalized
 - Respect the adolescent without negotiating with the ED
5. Focus on symptoms initially
 - Behavioral change comes first

Phase 1: Weight restoration and/or cessation of eating disorder behaviors

Usually 8-10 weekly sessions

Therapist acts to promote a strong alliance between parents to facilitate weight gain

Therapist acts to absolve parents from responsibility of causing illness

Therapist acts to mobilize siblings to support the patient



Phase 2: Transitioning control of eating back to the adolescent

Begins when steady weight gain is present and typically weight is at least 90% of ideal body weight. Parents feel empowered and patient eats without significant struggle.

Parents work to transition control of eating and exercise back to the adolescent

Sessions 11-16

- Slowly transfer food/weight control to the adolescent
- Encourage normal adolescent activities

Phase 3: Adolescent issues and termination

Begins when stable weight nearing normal levels for the particular patient is achieved, self-starvation has stopped, and exercise is at medically safe intensity

Sessions 17-20: Focus is on the establishment of a healthy relationship between patient and parents that does not focus on disordered eating

- Appropriate boundaries
- Increased autonomy for adolescent
- Need for parents to reorganize their life after adolescent's prospective departure (e.g., leaving for college)
- Termination

Who Benefits from FBT?

Adolescents with a short duration of AN (< 3 years)

- Older adolescents (aged ≥ 17 years) and those with a longer duration of illness fare much more poorly

Family must be willing to invest the time and effort necessary to refeed an underweight child

- Parents and siblings need to be on-board

Greatest benefit in those who respond quickly (within first 4 weeks)

FBT has been studied only in moderately underweight AN patients

- Individuals with expected IBW of < 75% referred for inpatient treatment prior to enrolling in the trial

Members of the Treatment Team

Primary clinician → Therapist experienced in the treatment of adolescent eating disorders, e.g., social worker, psychologist, psychiatrist

Consultants → Medical providers, dietitian

Family

Patient



Role of the Primary Clinician

Guide the family and patient through the treatment process

- Help family see patient and eating disorder as separate entities

Distribute the following information to the rest of the treatment team after each session:

- Patient's weight
- New problems noted
- Treatment recommendations

Ideally, the primary clinician would have at least one collaborating therapist for consultation and support



Role of the Medical Provider

Help establish diagnosis

Identify any acute and chronic medical complications and treat as appropriate

Consultant to parents – empower to make decisions for their child

Consultant to primary therapist – update on medical status and family interactions

What do I say to patients with eating disorders?

Health – physical and mental:

- "Food is your medicine."
- "Your health is non-negotiable."
- "Your attention/concentration seems better today."
- "Your body needs energy to rebuild."
- Ask about any improvement in mood, sleep, or energy.

Nutritional stabilization and weight gain:

- "Your treatment progress is on target."
- Provide encouragement to eat 100%

Acknowledge/validate the struggle AND encourage change:

- "Eating is simple, but not easy. I'm here to help you through this and to help you eat 100%."
- "Refeeding is painful AND the only way to get back to your life is by doing what you need to do to get yourself healthier."

What to avoid for patients with eating disorders?

Negotiating with the eating disorder:

- Adjusting target weight based on their anxiety

Focusing on body shape/size/appearance:

- "You look good / healthy."
- "You're gaining weight really well."
- "You look like you're normal (healthy) weight."

Drawing attention to the amount or type of food they are eating (unless it is medically concerning)

- "You should eat a cheeseburger!"

Discussing your own weight, eating habits, or exercise routines

Minimizing how difficult it is to eat

- "Just eat, what's the big deal?"
- 

Final Thoughts

- Best chance of recovery is with early identification and aggressive treatment.
- Team members need to be on the same page.

Questions



References/Resources

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References/Resources

UPMC Center for Eating Disorders: Intake line 412-647-9329; <http://www.chp.edu/our-services/eating-disorders>; <http://www.upmc.com/Services/behavioral-health/eating-disorders/why-upmc/Pages/default.aspx>

**Inclusion on the list below does not mean we are endorsing these sites. CED is not responsible for the content of these sites.*

AED – Academy For Eating Disorders <http://www.aedweb.org/>

NEDA - National Eating Disorders Association <http://www.nationaleatingdisorders.org>

ANAD - National Association of Anorexia Nervosa and Associated Disorders <http://www.anad.org>

ANRED – Anorexia Nervosa and Related Eating Disorders <http://www.anred.com>

NAMI – National Alliance for the Mentally Ill <http://www.nami.org/>

NIMH -National Institute of Mental Health <http://www.nimh.nih.gov/publicat/eatingdisorders.cfm>

EDAP - Eating Disorders Awareness & Prevention <http://www.nationaleatingdisorders.org/>

Eating Disorder Referral and Information Center <http://www.edreferral.com>

Maudsley Parents <http://maudsleyparents.org/>

The New Maudsley Approach <http://thenewmaudsleyapproach.co.uk/>