Eating Disorders: Identification, Treatment, & Referral In Family Practice

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Course Objectives

At the end of this educational session, the learner should be able to:

- Assess for common physical signs and symptoms of eating disorders
- Identify abnormal labs that indicate a patient may be engaging in ED behaviors
- Know when to refer and how to coordinate care with an eating disorder care team
Introduction

HISTORICAL OVERVIEW
STATISTICS

Saint Catherine of Siena

- Although not diagnosed, it is likely she had an Eating Disorder
- Fasted throughout most of her life until her death at the age of 33
Sir Richard Morton
1637-1698

- British physician credited with the first English language description of Anorexia Nervosa in 1689
- Reported two (2) adolescent cases, one female and one male which he described as occurrences of “nervosa consumption,” a “wasting away due to emotional turmoil.”

Louis – Victor Marcé
French Psychiatrist 1828-1864

- In 1860 he issued an early work on anorexia nervosa (On a form of hypochondriacal delirium occurring consecutive to dyspepsia and characterized by refusal of food).
- He provided the first psychological accounts of individuals suffering from anorexia nervosa in regards to obstinate behavioral characteristics.
<table>
<thead>
<tr>
<th>Sir William Gull Est. the term Anorexia Nervosa in 1873</th>
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</thead>
<tbody>
<tr>
<td>• “Miss A” pictured in 1866 and in 1870 after treatment</td>
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<tr>
<td>• One of the earliest AN case studies.</td>
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<table>
<thead>
<tr>
<th>Etiology of Eating Disorders</th>
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<tbody>
<tr>
<td><strong>Current thinking:</strong></td>
</tr>
<tr>
<td>• Interplay of multiple risk and protective factors:</td>
</tr>
<tr>
<td>- Genetics</td>
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<tr>
<td>- Socio-cultural</td>
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<tr>
<td>- Developmental</td>
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<tr>
<td>- Neurobiological</td>
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</table>
Psychological Meaning Behind ED

- Sense of being in control over an aspect of one’s life
- Can’t control others
  - parents divorce
  - kids teasing
  - perpetrators of abuse
- Psychotherapists help uncover the psychological aspects of the ED

Epidemiology

- It is more likely that the public is more aware of ED’s in recent years than that there is a true increase
- Prevalence rate of anorexia is 0.5-1%; incidence <0.1%
- Prevalence rate of bulimia is 3-8% in females 12-40 y/o incidence <0.1%
- In men, the prevalence of both disorders is about 1/10 that for women
According to the DSM-5, the types of eating disorders include:

- Anorexia Nervosa
  - Restricting Type
  - Binge Eating/Purging Type
- Bulimia Nervosa
- Binge Eating Disorder
- Avoidant/Restrictive Food Intake Disorder (ARFID)
- Other Specified Feeding or Eating Disorder (OSFED)
### Anorexia Nervosa (AN)

**A. Restriction of kcal intake, leads to LBW based on age, sex, development, trajectory, & physical health**
- Adults: less than 85% IBW
  - Child/Adol: less than 10th percentile BMI/Age
- Intense fear of gaining weight or being fat or persistent behavior that interferes with weight gain, despite significantly low weight

**B. Body image disturbances, undue influence of body weight or shape on self-evaluation, or persistent lack of recognition of the seriousness of current LBW**

*Amenorrhea is no longer in criteria*

### Anorexia Severity

**A. Adults – Based on current BMI**
- Mild  BMI 17-18.5 kg/m²
- Moderate BMI 16-16.99 kg/m²
- Severe BMI 15-15.99 kg/m²
- Extreme BMI <15 kg/m²

**B. Children/Adolescents – Based on BMI percentiles**
### Sub-Types of AN

<table>
<thead>
<tr>
<th>Restricting</th>
<th>Binge-Eating/ Purging Type</th>
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<tbody>
<tr>
<td>• Last 3 months has NOT engaged in:</td>
<td>• Last 3 months HAS engaged in:</td>
</tr>
<tr>
<td>o purging</td>
<td>o recurrent binge eating</td>
</tr>
<tr>
<td>o binge eating</td>
<td>o recurrent purging</td>
</tr>
<tr>
<td>• Weight loss mainly through diet &amp; fasting and/or excessive exercise</td>
<td>o Self-induced vomiting</td>
</tr>
<tr>
<td></td>
<td>o Misuse of laxatives, diuretics, or enemas</td>
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</tbody>
</table>

### Bulimia Nervosa (BN)

A. Recurrent episodes of binge eating. Episode of binge eating is characterized by both of the following:
   - Eating a larger amount of food than most people would eat in a similar time frame under similar circumstances
   - A sense of lack of control over eating during the episode

B. Recurrent compensatory behaviors to prevent wt gain:
   - Self-induced vomiting, laxative abuse, diuretics, fasting, etc.

C. Binge eating & other behaviors occur ≥1/wk x 3 mo

D. Self-evaluation unduly influenced by body shape & wt

E. Disturbance occurs outside of episodes of anorexia
### Bulimia Severity

<table>
<thead>
<tr>
<th>Level</th>
<th>Behaviors average</th>
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<tbody>
<tr>
<td><strong>Mild</strong></td>
<td>1-3 times weekly</td>
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<tr>
<td><strong>Moderate</strong></td>
<td>4-7 times weekly</td>
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<tr>
<td><strong>Severe</strong></td>
<td>8-13 times weekly</td>
</tr>
<tr>
<td><strong>Extreme</strong></td>
<td>14 (+) times weekly</td>
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### Binge Eating Disorder (BED)

**A. Recurrent episodes of binge eating characterized by:**
- Eating in a discrete period of time (within 2 hours)
- A sense of lack of control over eating during episode

**B. Episodes are associated with three or more factors:**
- Eating much more rapidly than normal
- Eating until feeling uncomfortably full
- Eating large amounts of food when not physically hungry
- Eating alone, feeling embarrassed
- Feeling disgusted, depressed, or guilty afterwards
**BED Continued**

C. Marked distress regarding binges

D. Binges occur, on average, at least once a week for 3 months

E. Binges are not associated with recurrent use of inappropriate compensatory behaviors

**Binge Eating Disorder Severity**

- **Mild**: 1-3 binge eating episodes per week
- **Moderate**: 4-7 episodes per week
- **Severe**: 8-13 episodes per week
- **Extreme**: 14 (+) episodes per week
**Avoidant/Restrictive Food Intake Disorder (ARFID)**

A. Eating/feeding disturbance - persistent failure to meet nutrition needs associated with (1+) of the following:
   1. Significant weight loss, failure to gain, or flattened growth
   2. Significant nutritional deficiency
   3. Dependence on enteral feeding or oral nutritional supplement
   4. Marked interference with psychosocial functioning

B. Not better explained by lack of food availability or cultural practices

C. Does not occur during course of AN/BN & no evidence of any disturbance in body weight and body image

**Not attributable to any medical/psychiatric conditions**

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**Other Specified Feeding or Eating Disorder (OSFED)**

- **Atypical Anorexia Nervosa**
- **Subthreshold Bulimia Nervosa**
- **Subthreshold Binge-Eating Disorder**
- **Purging Disorder**
- **Night Eating Syndrome**

*All cause serious emotional & psychological suffering &/or serious problems with work, school relationships*
Unspecified Feeding or Eating Disorder (UFED)

- Symptoms characteristic of a feeding & eating disorder (FED) & cause clinical significant distress/impairment in social, occupational, other important functioning

- However DO NOT meet full criteria for any disorders in the FED diagnostic class

- Used when clinician does not to specify the reason criteria are not met for a specific FED

- This includes times when there is insufficient information to make a more specific diagnosis (e.g. in emergency room setting)

Pica

A. Persistent eating of nonnutritive, nonfood substances over the period of at least 1 month.

B. Eating of nonnutritive, nonfood substances is inappropriate to developmental level of individual.

C. Eating behavior is not part of a culturally supported or socially normative practice.

D. If eating behavior occurs in the context of another mental disorder (e.g. cognitive disability, ASD) or medical condition (e.g. pregnancy), it is sufficiently severe to warrant additional clinical attention.
Rumination Disorder

A. Repeated regurgitation of food over the period of at least one month. Regurgitated food may be re-chewed, re-swallowed, or spit out.

B. Not attributable to an associated gastrointestinal or other medical condition (e.g. reflux).

C. Does not occur exclusively during the course of AN, BN, BED, or ARFID.

D. If symptoms occur in the context of another mental disorder (e.g. cognitive disability), they are sufficiently severe to warrant additional clinical attention.

Clinical Presentation

BEHAVIORS
SIGN & SYMPTOMS
INFLUENCING FACTORS
<table>
<thead>
<tr>
<th>General Behaviors/Signs/Symptoms</th>
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<tbody>
<tr>
<td>- Preoccupation with food (cooking/recipes), weight, calories</td>
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<tr>
<td>- Abuse of laxatives, diet pills, diuretics, emetics</td>
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<tr>
<td>- Fluid loading – water, coffee, sugar-free drinks</td>
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<tr>
<td>- Excessive gum-chewing, sugar free hard candy</td>
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<tr>
<td>- Weighing self multiple times daily</td>
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<td>- Avoidance of social situations</td>
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<tr>
<td>- Excessive exercise</td>
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<tr>
<td>- Abnormal Labs</td>
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<tr>
<td>- Body checking</td>
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<tr>
<td>- Label reading</td>
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</table>

<table>
<thead>
<tr>
<th>Anorexia Behaviors/Signs/Symptoms</th>
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<tr>
<td>- Excuses for not eating/ denial of hunger</td>
</tr>
<tr>
<td>- Chewing &amp; spitting</td>
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<tr>
<td>- Denial of low weight</td>
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<tr>
<td>- Fatigue/fainting</td>
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<tr>
<td>- Distorted body image</td>
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<tr>
<td>- Thin, dull, and dry hair, skin, and nails</td>
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<tr>
<td>- Osteoporosis</td>
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<td>- Intense, dramatic mood swings</td>
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<tr>
<td>- Anemia</td>
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<tr>
<td>- PCM</td>
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<tr>
<td>- Edema</td>
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<tr>
<td>- Hypothermia</td>
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<tr>
<td>- Lanugo</td>
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<tr>
<td>- GI issues</td>
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<tr>
<td>- Amenorrhea (hormonal abnormalities)</td>
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AN Behaviors, S/S

- Less gray matter yields an increase in:
  - Rigid, black/white thinking
  - Obsessional thoughts/behaviors
  - Belief in negative thoughts
### Bulimia Behaviors/Signs/Symptoms

- Visits to the bathroom after meals
- Sneaking/Stealing food (10%)
- Impulsivity
- Weight fluctuations
- Chronic sore throat, GERD esophageal tears
- Calluses or scars on the knuckles or hands
- Enlarged parotids

### Bulimia Signs/Symptoms

- Broken blood vessels in eyes and/or face
- Fluid retention, swelling, bloating
- Cardiac Abnormalities
- Discolored and/or damaged teeth
- Cardiac abnormalities
- Abnormal Labs
- NOT underweight
Binge Eating Signs/Symptoms

- Eating normally when around friends, family, others
- Bingeing occurs in secrecy (shame/guilt)
- Eating to the point of discomfort/pain
- No regular meals/structure
- Weight gain/elevated BMI
- Eating feels out of control
- Eating when not hungry
- Eating quickly
- Hiding food
- Wrappers
- Dieting
Depression
Anxiety
Binge/Purger
Restrictor

Comorbidity

Depression
Anxiety
VS.

Restrictor
Prefers order
Compulsivity
Perfectionism

Depression
Anxiety

Substance Abuse

Impulsivity
Lability

Comorbidity

Blood
anemia

Heart
irregular heart beat, heart muscle weakened, heart failure, low pulse and blood pressure

Body Fluids
dehydration, low potassium, magnesium, and sodium

Intestines
constipation, irregular bowel movements (BMM), bloating, diarrhea, abdominal cramping

Blood
irregular or absent period

Brain
depression, fear of gaining weight, anxiety, dizziness, shame, low self-esteem

Cheeks
swelling, soreness

Mouth
cavities, tooth enamel erosion, gum disease, teeth sensitive to hot and cold foods

Throat & Esophagus
scorched, irritated, can tear and rupture, blood in vomit

Muscles
fatigue

Stomach
ulcers, pain, can rupture, delayed emptying

Skin
abrasion of knuckles, dry skin
Comorbidity

Sociocultural Influence

- Media
  - TV Shows – “Biggest Loser”, “America’s Next Top Model”
  - Actors/Musicians
  - Magazines – Glamour, Vogue, Shape
  - Internet – “thinspiration” websites, facebook, fitness/kcal counting apps

- Fashion
  - Models
  - Clothing, mannequins

- Toys
Media Influence

- Environment/media
- Ann Becker MD PhD

Fiji
- 1995 Intro of Satellite TV
- 1998 ED’s emerge
Psychological & Developmental Influence
Influence of Developmental Experiences

- Weight preoccupied parents
- Sports, dance, & other physical activities
- Teasing
- Traumatic experiences

Patients with Anorexia

- Stereotype: Families are enmeshed, over-protective, avoidant of conflict, helicopter parenting style
- Temperament is classically risk avoidant, emotionally restrained, compliant/conventional, perseverative, with decreased resiliency, and preferring order and routine (OCD)
- Straight A students whose grades have started to fail
Patients With Bulimia

- Stereotype: families have a lack of parental affection, parental impulsivity, alcoholism, negativity/hostility, neglectful, and chaotic
- Emotionally labile
- Tendency toward substance abuse, self-harm

Limits of Family Models

- Eating disorders occur in all kinds of families
- “Stereotypes are not confirmed
- Individual and family problems not always evident
- Lack of specificity
  - Why an ED?
Biological Influence

Etiology: Biological Theories

- **Focus on the role of the hypothalamus**
  - Support for this theory comes from neurotransmitter studies showing an increase in Corticotropin Releasing Factor (CRF) in the CSF of anorexic patients
  - When administered to rats, CRF leads to a reduced food intake, feeding time, & feeding episodes; it also leads to an increase in grooming time & grooming episodes
- The occurrence of amenorrhea before weight loss also suggests a hypothalamic disturbance (occurs in 20% of patients)
### Gene & Environment Interaction

<table>
<thead>
<tr>
<th>Social Pressures</th>
<th>Developmental</th>
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<tbody>
<tr>
<td>AN</td>
<td>BN</td>
</tr>
<tr>
<td>Neurobiology</td>
<td>Genetics</td>
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### Assessment

**How to Ask Questions**

**Nutrition Assessment**
### Asking Questions

**Open-ended questions yield more information**
- What has your eating been like in the last year?
- Relating to food and your body, what worries you?
- How do you feel about your weight?
- How do you feel when you reach a goal weight?
- Tell me about your ability to concentrate lately.

- In the last year how many diets have you been on?
- Do you worry that food will go straight to certain areas?
- Are you dissatisfied with your weight?
- Are you more vigilant when a goal weight is achieved?
- Have you struggled to focus at work or school lately?

### More Questions to Ask

- Do you experience guilt or shame around eating?
- Do you label foods as “good” and “bad”?
- If you eat “bad” food do you berate yourself & compensate by restricting, purging, or adding extra exercise?
- If you see yourself as thin, do you still obsess about various body parts being too big?
- What methods do you use to manage your weight?
- Is it difficult for you to eat in public?
- Do you punish yourself with exercise/restricting if weight isn’t low enough?
- Do you exercise >45 min 5x/week to burn kcals?
- Will you exercise even if you are ill or injured?
Nutrition Assessment

LABS TO ORDER
REFEEDING SYNDROME
### Essential Labs/Testing

- EKG (prolonged QT interval, Bradycardia)
- Electrolytes, especially K+, Mag, Phos
- TSH, T3, T4 (T3 is low)
- Liver Function Tests
- CBC
- BMP (Glucose elevated liver enzyme, Serum Amylase)
- Urinalysis
- Others

### Refeeding Syndrome

- Body goes from Catabolic to Anabolic state
- Hypomagnesemia, Hypocalcemia, Hypophosphatemia
- Leads to delirium, coma and death
- **It is essential to monitor Potassium, Magnesium, and phosphorus more during refeeding stage**
Treatment

ASSEMBLING A TEAM
CLINICAL MANAGEMENT
OUTCOMES

Multidisciplinary Treatment Team

Doctor
Therapist
Dietitian
Clinical Management

**Treatment Focus**
- **Nutritional Therapy** – restoring/stabilizing weight & normalized eating
- **Psychotherapy** – Addressing psychological/family issues.
- **Medication** – Mood stabilization

Treatment is often outpatient, often with intensive day treatment

In the U.S., about half of all patients with AN who seek treatment are hospitalized

**Hospitalization is indicated when:**
- severely malnourished
- dehydrated
- suffering from an electrolyte imbalance
- facing other physically threatening complications
- outpatient treatment has been ineffective
- there is risk of suicide
- psychosis is present
- no motivation to recover

**Benefits of inpatient vs. outpatient treatment are unclear:**
- Adequate controlled studies have not been performed

Herpertz-Dahlmann and Salbach-Andrae, 2009
### Nutrition Management
- Trays sent to unit
- Kcals – “Start low and go slow”
- Daily weights
- Ensure replacement
- 2-hour door lock
- Exercise parameters

### Mealtime Guidelines
- Light hearted conversation
- Provide distractions from the food
- Avoid comments related to food, calories, body
- Avoid being the food police
- Discretely monitor for behaviors during mealtime

**Self selection process begins:**
- Meal plan education
- Check trays x 24 hours

**Pt selects food from cafe, eats on the unit x 24-48 hours**

**Patient eats in dining room**
### Mealtime Behaviors

- Cutting/shredding food into small pieces
- Moving food around the plate
- Hiding food in napkins, pockets, etc.
- “Accidentally” dropping food on floor
- Comparing one’s plate to another

- Overconsumption of fluids
- Bargaining for different foods
- Talking about food/calories/body
- Not eating in a timely manner, stalling
- Misuse of condiments

### Approaching a Suspected ED Sufferer

**If you suspect ED is present or developing:**

- Communicate concerns using observations
- Use “I” language vs. “You” language
- Review ED warning signs that are not outwardly noticeable
- Directly ask if the person has ever been treated for ED
- Encourage therapy or hospitalization to treat
- Get family involved in the conversation
- Provide support for meals
Comments to Avoid

- “You look so much better”
- “You are looking much healthier”
- “I’m glad you’re starting to put on some weight”
- “I’m glad to see you eating again”
- “We need to bulk you up”
- “Have you lost more weight?”
- “You don’t look like you have an eating disorder”
- “You are so thin”
- “You look good today”
- “Just eat something”

Anorexia Nervosa Medications

No specific medication is helpful:

- **Antidepressants**
  - Fluoxetine
  - Amytriptyline

- **Cyproheptadine**
  - Periactin

- **Olanzapine**
  - Zyprexa

- **Benzodiazepines**

### Bulimia Nervosa Medications

- **SSRI**
  - Fluoxetine is only FDA approved medication
  - TCA
  - Topamax – Dosed 250-300
  - Vyvanse

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### Clinical Management

- **Family Based Therapy (FBT), or the “Maudsley Method,”**
  - Proven effective in 50-75% of adolescents who achieved weight restoration and maintained it for up to five years.
  - Response rate of 90% in one trial of adolescents with short history of illness
- **FBT focuses on family strengths**
- **Supports parents in their efforts to restore child’s weight**
- **Parents slowly but surely return responsibility for eating back to the child**

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*(Eisler et al, 1997)*
Family Based Therapy

- **Stage One**: Parents take over control of food
  - All food is fair game
  - Allow three dislikes
- **Stage Two**: Child gains responsibility
  - Once weight (≥90% IBW), eating, & exercise habits are healthy/stable
- **Stage Three**: Address effect of ED on school & social life


Individual Treatment

**Cognitive Behavioral Therapy**

- **Anxiety & depression**
  - AN – restore weight
  - BN – eat regularly & decrease bingeing

**Nutrition Therapy**

- Help those with AN deal with emotions restarting & other negative events
- Those with BN will try to not tolerate negative emotions
  - Use ED to avoid ETOH/drugs

Concordance Rates in Twin Studies

**Anorexia Nervosa**
- MZ 52%-66%
- DZ 0%-11%

**Bulimia Nervosa**
- MZ 23%-83%
- DZ 0%-29%

(Garfinkel & Garner, 1982; Holland et al 1984; Treasure & Holland, 1989; Wade et al, 2000)

Course and Outcome

- AN has highest mortality rate in psychiatry:
  - Long-term follow-up studies of AN show death rates of over 10% beyond 10 years, 7% at 10 years, and 18-30% at 30 years

- Those who improve may continue to display symptoms of illness, such as a distorted body image

- Fewer than 25% have a good psychological outcome (e.g., no abnormal eating behaviors)

- Poor outcome is generally associated with:
  - longer duration of illness
  - older age at onset
  - prior psych hospitalizations
  - poor premorbid adjustment
  - comorbid personality disorder

References


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- www.AboutOurKids.org
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- www.something-fishy.com
- www.thebodypositive.com

Books

- Strober and Schneider “Just A Little Too Thin”, 2005
- Pipher “Hunger Pains - The Modern Woman’s Tragic Quest For Thinness”, 1995
- Natenshon “When Your Child Has An Eating Disorder”, 1999
Questions & Discussion

Thank You!