HOW TO IDENTIFY AND ADDRESS EATING DISORDERS IN YOUR PRACTICE

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Disclosure Statement

I have no financial interest or other relationship with any manufacturer/s of any commercial product/s which may be discussed at this activity

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Epidemiology

- Eating disorders relatively common:
  - Anorexia .5% prevalence, estimate of disorder 1-3%; peak ages 14 and 18
  - Bulimia 1-5% adolescents, 4.5% college students
  - 90% of patients are female, >95% are Caucasian
Percentage of High School Students Who Described Themselves As Slightly or Very Overweight, by Sex,* Grade, and Race/Ethnicity,* 2015

* ≥ 85th percentile but <95th percentile for body mass index, based on sex- and age-specific reference data from the 2000 CDC growth charts

National Youth Risk Behavior Survey, 2015

Percentage of High School Students Who Were Overweight,* by Sex, Grade, and Race/Ethnicity,† 2015

* ≥ 85th percentile but <95th percentile for body mass index, based on sex- and age-specific reference data from the 2000 CDC growth charts

† M > F; 10th > 12th; B > W, H > W (Based on t-test analysis, p < 0.05.)

All Hispanic students are included in the Hispanic category. All other races are non-Hispanic.

Note: This graph contains weighted results.

National Youth Risk Behavior Survey, 2015

Percentage of High School Students Who Had Obesity,* by Sex, † Grade, † and Race/Ethnicity, † 2015

* ≥ 95th percentile for body mass index, based on sex- and age-specific reference data from the 2000 CDC growth charts

† M > F; 10th > 12th; B > W, H > W (Based on t-test analysis, p < 0.05.)

All Hispanic students are included in the Hispanic category. All other races are non-Hispanic.

Note: This graph contains weighted results.

National Youth Risk Behavior Survey, 2015
Percentage of High School Students Who Were Trying to Lose Weight, by Sex,* Grade, and Race/Ethnicity,* 2015

Percentage of HS Students Who did not Eat for >24 hours to Lose Weight or to Keep from Gaining Weight,*

Percentage of High School Students Who Took Diet Pills, Powders, or Liquids to Lose Weight or to Keep from Gaining Weight,*

* Without a doctor’s advice during the 30 days before the survey.

† F > M

National Youth Risk Behavior Survey, 2011

National Youth Risk Behavior Survey, 2015
Eating Disorders are complex!

- Complex biopsychosocial disease
- Predisposing factors include:
  - female sex, positive family history
- Personality traits: perfectionistic, difficulty communicating negative emotions, low self esteem
- Distorted body image is hallmark of these disorders (but not every patient acknowledges this).
**Psychological**
- Depression
- Anxiety
- Trauma
- Abuse
- Self-esteem (perception of self)

**Biological**
- Genetic?
- Brain-based reward system
- Neurophysiology of eating regulation
- Homeostasis of body weight/energy balance
- Stress response
- Circadian circulation

**Sociological**
- Media
- Cultural standards/cultural feeding practices
- Peer group size and time allotment for meal
- Family/peer influence on food selection/preference

**Environmental**
- Parenting Phenotype (limit-setting)
- Overt/covert parental control of food
- Parental perception of child's weight
- Exposure to maternal food restriction
- Availability of food preferences

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**EVOLUTION OF Eating Disorder Classification…**

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**Diagnosis of Eating Disorders – DSM IV**

- **Anorexia Nervosa** –
  - Weight ≥ 15% below expected
  - Fear of gaining weight
  - Body image distortion
  - Amenorrhea of at least 3 consecutive cycles
- **Bulimia Nervosa** –
  - Recurrent episodes of binge eating
  - Inappropriate compensatory behaviors
  - Binge eating / compensatory behaviors
    - [≥ 2x/week for 3 months]
  - Body image concerns
  - Disturbance not only during episodes of anorexia nervosa
- **Eating Disorder Not Otherwise Specified (EDNOS)**
- Feeding and Eating Disorders of Infancy and Early Childhood
- Binge Eating Disorder – In Appendix
Eating Disorder NOS—DSM IV
Definition and Diagnostic Criteria (307.50)

- Eating disorders that do not meet full criteria:
- Anorexia Nervosa with regular menses, normal weight range, or no obvious drive for thinness
- Bulimia Nervosa with binge eating/compensatory mechanisms less than twice weekly, or for less than 3 months
- For example: --Self induced vomiting after a small amount of food in a normal weight individual or repeatedly chewing, then spitting out food

Diagnosis of Eating Disorders – DSM 5

- Anorexia Nervosa (AN) – 15% below IBW and amenorrhea eliminated
- Bulimia Nervosa (BN) – binging 1x / week, no subtypes
- Binge Eating Disorder (BED) - official category
- Feeding and Eating Conditions Not Elsewhere Classified (FECNEC)
  - Atypical anorexia nervosa (not underweight)
  - Purging disorder (not binging)
  - Sub-threshold bulimia nervosa (<1x/week or <3 months)
  - Sub-threshold binge eating disorder (<1x/week or <3 months)
  - Night eating syndrome (nocturnal eating disorder)
  - Other FECNEC
- Avoidant / Restrictive Food Intake Disorder (ARFID) – Re-articulation and expansion of Feeding and Eating Disorders of Infancy and Early Childhood

ARFID explained

- An ED with persistent failure to meet appropriate nutritional needs associated with one (or more) of the following:
- Significant loss of weight (or failure to achieve expected weight gain)
- Significant nutritional deficiency
- Dependence on enteral feeding or oral nutritional supplements
- Marked interference with psychosocial functioning
- The behavior is not better explained by lack of availability of food or by any culturally sanctioned practice.
- The behavior does not occur exclusively during the course of anorexia nervosa or bulimia nervosa, and there is no evidence of a disturbance in the way one’s body weight or shape is experienced.
Pathogenesis

- Vulnerable developmental stages parallel incidence: Age 10-14 puberty/maturational fears as weight spurt may be threatening
- Mid-adolescent autonomy issues can be acted out through eating disorder
- Late adolescent identity issues such as college transition may precipitate or exacerbate symptoms.
- Eating disorder offers an identity, albeit an unhealthy one

Altered Perceptions...
Recognition of Eating Disorders

- Weight loss, or failure to gain weight during expected growth period
- Pubertal delay
- Menstrual abnormality: 1° or 2° amenorrhea
- Cold intolerance
- Unusual behaviors: food obsessions, bathroom use following meals, laxative or diet supplement use

Common Symptoms of Anorexia Nervosa

- Constipation
- Headaches
- Fainting/dizziness
- Poor concentration
- Depression
- Social isolation
- Food obsessions

Common Symptoms of Bulimia

- Weight gain or large fluctuations in weight
- Bloating, fullness
- Reflux like symptoms: GI pain, burning (if vomiting)
- Palpitations (diet pill abuse)
- Irregular menses (sometimes)
Differential Diagnosis

- Malignancy, i.e. CNS tumor
- GI disorder: IBD, celiac disease
- Endocrine: IDDM, hyperthyroid, Addison disease
- Rheumatologic conditions ie SLE
- Chronic renal disease
- Psychiatric: OCD, depression, anxiety disorders often comorbid with the eating disorder

Physical Exam findings

- Sinus bradycardia; other cardiac arrhythmias
- Orthostatic changes
  - In pulse (＞20 beats per minute change)
  - In BP (drop of ＞10 mmHg systolic)
- Hypothermia
- Cachexia; facial wasting
- Cardiac murmur (1/3 with mitral valve prolapse)
- Dull, shining scalp hair
- Sialoadenitis
- Angular stomatitis
- Ulcerations, dental enamel erosions
- Dry yellow skin, lanugo

Physical Exam findings:

- Bruising/abrasions over spine related to excessive exercise
- Delayed or interrupted pubertal development
- Russell sign (callous on knuckles from self induced emesis)
- Cold extremities; acrocyanosis; poor perfusion
- Carotenemia
- Edema of extremities
- Flat or anxious affect
Suggested Laboratory Studies

- CBC, differential, ESR and/or CR protein
- Electrolytes
- Urinalysis
- Thyroid function tests
- EKG, may also be referred for Holter monitor and echocardiogram
- Menstrual profile (FSH/LH/estradiol/prolactin/testosterone)
- Amylase, Ca, Mg, Phosphorus
- Bone densitometry: DEXA scan

(**Often labs done to confirm objective findings of illness**)

Complications of Eating Disorders

- Cardiac: muscle atrophy, heart failure (rare)
- Endocrine: Anovulation, estrogen deficiency, (osteoporosis) low T3 total
- GI: Delayed gastric emptying and abnormal motility, constipation, postprandial discomfort, reflux
- Metabolic: Elevated cholesterol, electrolyte imbalance
- Renal: decreased GFR
- Psychiatric: depression, anxiety, personality disorders

Treatment of Eating Disorders

- Team approach essential for coordinated care
- Core team represented by psychiatry/psychology, social work and nutrition
- Adolescent medicine physician or primary care MD often coordinates care
- Consultations with endocrine, cardiology, gastroenterology useful
Treatment of Eating Disorders

- Initial intake to perform full H& P
- Treatment plan often depends on severity:
  - Mild and moderate cases receive outpatient services
  - Severe cases such as IBW<75%, severe bradycardia, hypotension, electrolyte imbalance referred for inpatient stabilization
- Partial hospitalization often recommended for more intensive care that might not meet criteria for inpatient care
- Severe cases benefit from long term, residential settings

Ultimate Treatment goals for all Eating Disorders

- Medical/physical stability and health restoration
- “Normalized” (non-restrictive) eating
- “Normalized” (not excessive) physical activity
- Absence of purging behavior
- Healthy coping mechanisms
- Improved mental health
- Supportive social structure in times of stress for relapse prevention

Psychotherapy

- Family based therapy (FBT): the Maudsley Model
  - Phase I – weight restoration
    - Refeeding the patient
    - No family issues discussed
  - Phase II – adolescent resumes control of eating
    - Negotiation for a new relationship
    - Explore issues in therapy
  - Phase III – establish healthy adolescent identity
    - Adolescent is within 90-100% IBW
    - Explore adolescent issues and termination
Prognosis
• Treatment often extends over several years!
• Early intervention has improved prognosis
• 50% full recovery, 30% partial
• 20% poor outcome
• Osteoporosis remains long term risk
• Mortality <5% with treatment