Addressing Eating Disorders in School Based Health Centers

Rebecca Malone, APRN, FNP-BC
Deborah Buccino, MD, FAAP
Community Health & Wellness Center

Course Objectives:

Objective 1: Describe the prevalence and health impacts of eating disorders using current data.

Objective 2: Identify at least three advantages of school-based health centers in addressing eating disorders and describe two specific intervention techniques.

Objective 3: Apply current clinical management guidelines by outlining key steps in assessment, diagnosis, management, and referral for eating disorders in a school-based setting.

Objective 4: Recognize unique risk factors and care considerations for LGBTQ+ youth with eating disorders and list two strategies to provide inclusive support.

Conflicts of interest:

We have no potential, actual or perceived educational, financial, or commercial conflicts of interest to disclose.

What are some myths you are aware of regarding eating disorders?

Myths regarding Eating Disorders:

- Only white girls from the suburbs
- People with eating disorders look unhealthy
- Eating disorders are a matter of choice
- Eating disorders are rare

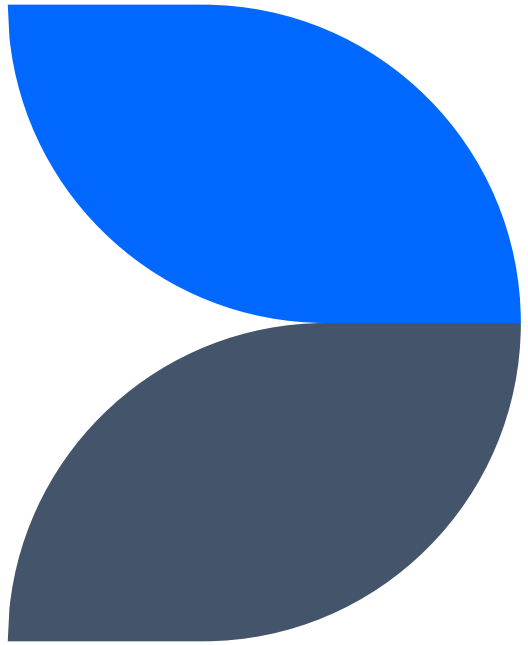
Incidence of Eating Disorders:

- 2.7% lifetime prevalence of eating disorders for adolescents (13-18yrs) ref-nimh.nih.gov/health/statistics/eating-disorders.
- Worldwide prevalence of eating disorders more than doubled from 2008-2018 (3.8% to 7.8%) -Alarming Increase of Eating Disorders in Children and Adolescents Pastore, Maria et al.The Journal of Pediatrics, Volume 263 December 2023.
- Eating disorders are the third most common chronic illness among adolescents after obesity and asthma -hopkinsmedicine.org

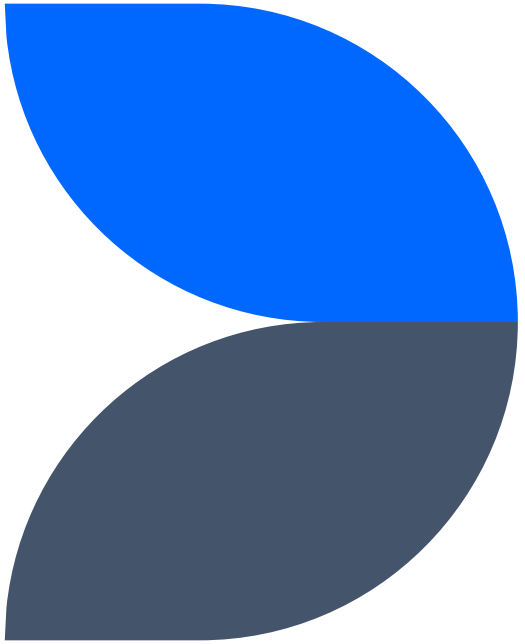
So why is it important to address Eating Disorders?

Why is it important to address Eating Disorders?

- 5-6 times greater odds of attempting suicide (US Adults Udo et al, 2019)
- Patients with anorexia of 18 times more likely to die by suicide (Smith, A. R., Zuromski, K. L., & Dodd, D. R. (2018). Eating disorders and suicidality: what we know, what we don't know, and suggestions for future research. *Current opinion in psychology*, 22, 63–67. https://doi.org/10.1016/j.copsyc.2017.08.023
- Those with bulimia are 7 times more likely to die of suicide (Smith, A. R., Zuromski, K. L., & Dodd, D. R. (2018). Eating disorders and suicidality: what we know, what we don't know, and suggestions for future research. *Current opinion in psychology*, 22, 63–67. https://doi.org/10.1016/j.copsyc.2017.08.023
- Second highest mortality rate of any mental illness, someone dies from an eating disorder every 52 minutes (NEDA)



- Impacts on relationships and cognition
- Serious negative health consequences on heart function, osteoporosis, gastrointestinal function, immune system, and mood



Advantages of School Based Health Centers in screening and addressing Eating Disorders

- Signs often show up first in school
  - Changes in performance
  - Mood
  - Peer relationships
  - Weight loss
  - Dizziness
  - Syncope
  - Fatigue

What have you seen in your clinical settings?

Advantages of School Based Health Centers in screening and addressing Eating Disorders

- SBHC allows frequent non-judgmental contact
  a. Education
  b. Monitoring
  c. Intervention before defensive secretive behavior
  d. Intervention before medical status becomes urgent

EARLY DETECTION IS ASSOCIATED WITH IMPROVED PROGNOSIS

Advantages of School Based Health Centers in screening and addressing Eating Disorders

- Outlining a clear referral pathway for higher levels of care with collaborative partnerships
- Create collaborative team approach
  - School nurse
  - School counseling team
  - Consider 504
  - Nutrition support if available

School Environment Goals:

- Create a school environment where students of all body sizes feel welcome (not easy)
- Address Healthy Habits- NOT WEIGHT
- Media literacy- use of enhanced images
- Education for staff- biophysical nature of eating disorders (physical, physiological, functional)
- Create a collaborative team of support in the school

Warning Signs:

- avoid medical visits
- present with gastrointestinal problems, amenorrhea, or sports injuries
- seek assistance only with weight loss.

Health professionals should suspect an eating disorder if parents seek medical help for their child or adolescent because of unexplained weight loss or suspicion of self-induced vomiting

Anorexia Nervosa: Screening Elements and Warning Signs

Sources: Perkins et al.,[9] Adams and Shafer,[10] and American Medical Association.[11]

Screening Elements	Warning Signs
Body Image	* Distorted body image * Extreme dissatisfaction with body shape or weight * Profound fear of gaining weight or becoming fat
Eating and Related Behaviors	* Very low caloric intake * Fasting or restrictive dieting * Denial of hunger cues * Erratic meal patterns or frequent meal skipping * Poor appetite * Difficulty eating in front of others * Food seen as good or bad
Health History/Examination	* BMI less than 20th percentile * Unexplained weight change * Amenorrhea * Fainting episodes or frequent lightheadedness * Constipation or diarrhea * Bloating/nausea * Hypothermia; cold intolerance * Orthostatic hypotension (greater than 10 mm Hg after posture changes) * Bradycardia (resting heart rate of 60 beats/minute or less)
Physical Activity Behaviors	* Participation in physical activity with weight or size requirement (e.g., gymnastics, wrestling, ballet) * Overtraining or compulsive attitude about physical activity
Psychosocial	* Depressed affect * Frequent thoughts about food or weight * Feeling pressure from others to be a certain shape or weight * Perfectionist * History of physical or sexual abuse or other traumatizing life event

Bulimia Nervosa: Screening Elements and Warning Signs

Sources: Perkins et al.,[9] Adams and Shafer,[10] and American Medical Association.[11]

Screening Elements	Warning Signs
Body Image	* Distorted body image * Extreme dissatisfaction with body shape or weight * Profound fear of gaining weight or becoming fat
Eating and Related Behaviors	* Wide variations in caloric intake * Fasting or restrictive dieting (episodic) * Binge eating * Unexplained disappearance of large quantities of food * Denial of hunger cues * Erratic meal patterns or frequent meal skipping * Poor appetite * Difficulty eating in front of others * Food seen as good or bad
Health History/Examination	* Unexplained weight change or fluctuations greater than 10 lbs * Irregular menses * Constipation or diarrhea * Bloating/nausea/abdominal pain * Dental caries * Orthostatic hypotension (changes greater than 10 mm Hg after posture changes)
Physical Activity Behaviors	* Participation in physical activity with weight or size requirement (e.g., gymnastics, wrestling, ballet) * Overtraining or compulsive attitude about physical activity
Psychosocial	* Depressed affect * Frequent thoughts about food or weight * Feeling pressure from others to be a certain shape or weight * Perfectionist * History of physical or sexual abuse or other traumatizing life event

So, what do we do in School Based Health?

- Safe environment free of judgement
- Regular check ins
- SCREENINGS
- Care Collaboration
- Keeping “finger on the pulse”

Screenings: SCOFF

(Morgan et al, 1999)

- S – Do you make yourself Sick (throw up) because you feel uncomfortably full? Y/N
- C – Do you worry you have lost Control over how much you eat? Y/N
- O – Have you recently lost more than One stone (approximately 14 pounds) in a 3-month period? Y/N
- F – Do you believe yourself to be Fat when others say you are too thin? Y/N
- F – Would you say you have thoughts and fears about Food and weight that dominate your life? Y/N

Scoring: • “Yes” responses: > 2 “Yes” responses: Eating disorder suspected, evaluate further

Screenings: The Modified ESP (Eating Disorder Screen in Primary Care)

- Are you concerned with your eating patterns?
- Do you ever eat in secret?
- Does your weight affect the way you feel about yourself?
- Have any members of your family suffered from an eating disorder?

Scoring: • 0-1 “Yes” responses: > 2 “Yes” responses: Eating disorder suspected, evaluate further

Clinical management

Identification and Management of Eating Disorders in Children & Adolescents, American Academy of Pediatrics, Laurie Hornberger, MD et al

DSM Criteria

Anorexia nervosa – restricted caloric intake, distorted perception of body weight, fear of gaining weight

Bulimia nervosa – binge eating that one can't control with vomiting, laxative use, fasting, excessive exercise

Binge eating disorder – binge eating one can't control w/o compensatory behavior

Avoidant/restrictive food intake disorder (ARFID) – disrupted eating pattern (lack of interest, sensory concerns or concern abt other unpleasant consequences of eating) that leads to marked weight loss or growth deficiency

Differential Diagnosis for Weight Loss and Disordered Eating Symptoms

GI: celiac, inflammatory bowel disease, GER, cyclic vomiting, constipation, eosinophilic esophagitis

Endocrine: thyroid, diabetes, adrenal insufficiency

Infectious: chronic infection (HIV, TB, parasite)

Psychiatric: depression, anxiety, substance use

Other: neoplasm, medication side effects

Patient History

Weight history, body image, diet history, exercise history, binging/purging

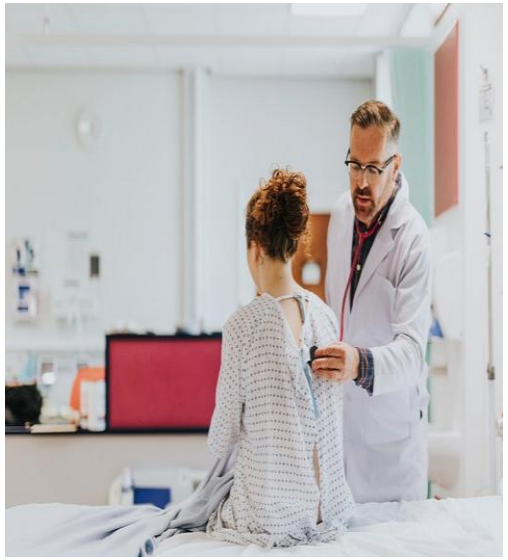
- Give me a sense of when you starting losing weight?
  - Was there a trigger?
  - What was your highest weight/ lowest weight
- Are there things about your body that stress you?
- How much of your day is spent thinking about food or your body?
- Do you count calories/fat/carbs?
- Do you feel guilty about eating? How do you manage that feeling?
- Do you have times when you eat a lot at once? Tell me more about that.
- Do you exercise? What do you do? How often? How intense?

Patient History

- **ROS:** lightheadedness, energy level, easy bruising, cold intolerance, hair loss, constipation, diarrhea, abdom pain, chest pain, muscle cramps, joint pain, excessive thirst/urination, menstrual history
- **Psychosocial:** living situation, school/academics, friends, activities, screen time, caffeine and other substance use
- **Medications:** including supplements, laxatives, diuretics, stimulants
- **Mental Health:** previous mental healthcare, anxiety, depression, self-harm, trauma
- **Sexual Hx:** relationships, gender identity
- **Family history:** eating disorders, restrictive eating patterns, obesity, mental health disorders, substance use

Physical Exam

- Growth curves
- Vitals: low HR, orthostatic (> 20 pulse, >10BP), low temp
- Palatal scratches, abrasion/callous knuckles, parotid and submandibular enlargement
- CV: Murmur (MVP), acrocyanosis, dec cap refill,
- GI: epigastric tenderness, stool mass LLQ
- Skin: dry, lanugo, thinning hair, bruising/abrasions spine (excessive sit ups)
- Delayed/interrupted pubertal development



Medical Complications

- **Electrolytes:** Hyponatremia, hypokalemia, hypochloremia, metabolic acidosis
- **Cardiac:** Arrhythmia, decreased cardiac muscle mass, low voltage, MVP, pericardial effusion, CHF
- **Neurologic:** Cerebral atrophy, cognitive deficits, seizures
- **GI:** Delayed gastric motility, esophagitis, GI rupture, elevated transaminases, pancreatitis, superior mesenteric artery syndrome
- **Endocrine:** Amenorrhea, decreased bone density, growth retardation, sick thyroid
- **Hematologic:** Leukopenia, anemia, thrombocytopenia, elevated ferritin
- **Dental:** enamel loss and dental erosion
- **Psychiatric:** Depressed mood, anxiety, mood dysregulation
- Suicide

Laboratory Evaluation

- CBC, comprehensive metabolic, calcium, magnesium, phosphorus, TSH, , Vit D, urinalysis
- Consider B12, iron studies, zinc based on nutritional hx
- EKG – signif wt loss, cardiac symptoms (e.g. syncope)
- Pregnancy test if amenorrheic
- Consider targeted testing for differential diagnosis

Indications for Hospitalization

- HR < 50 daytime, 45 nighttime)
- BP < 90/45
- Temp < 96F
- 10% wt loss from stable weight over 3 months
- Electrolyte abnormalities
- Prolonged Qtc
- Acute medical complications such as cardiac failure, pancreatitis
- Failure of outpatient treatment

Treatment for Eating Disorders – Primary Care

- Psychoeducation
- Build team with nutritionist and mental health counselor
- Calcium 1200mg and Vit D3 2000IU
- Multivitamin with iron, minerals
- Reassure bloating improves with regular eating
- Constipation – nutrition first, fiber/osmotic if needed
- Dental health – dentist; water rinse followed by fluoride rinse

Treatment for Eating Disorders

- Collaborative Outpatient Care (medical provider, counselor, nutritionist)
- Family-based Treatment (FBT)
- Intensive Outpatient/ Day treatment/Partial Hospitalization
- Residential

Resources

Connecticut Children's Med Center Adolescent Dept
www.centerfordiscovery.com
www.waldeneatingdisorders.com/eating-disorder-treatment-programs
www.pinnaclebh.com – DBT focused IOP
www.Wellspring.org
www.accessmhct.com

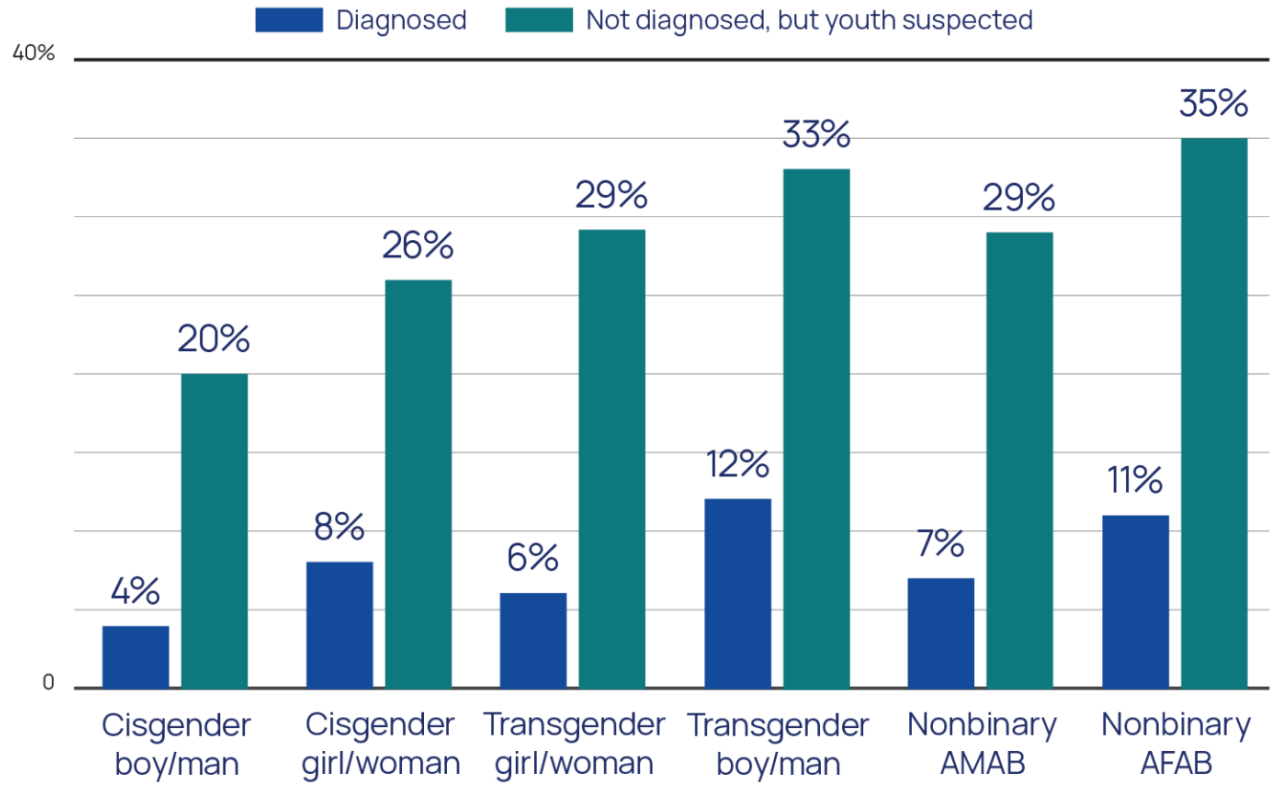
Do you feel there are special considerations for our LGBTQ+ students?

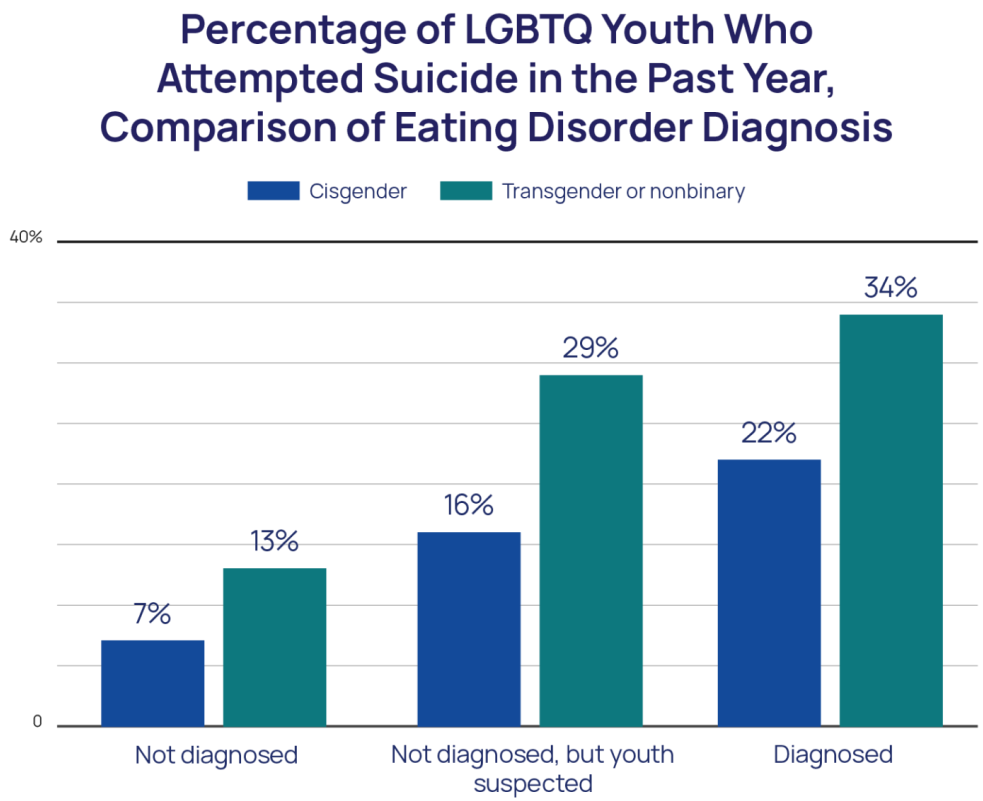
Special Considerations: LGBTQ+ Youth

- LGBTQ youth are at higher risk of eating disorders, disordered eating behaviors, and body dissatisfaction (compared to heterosexual and cisgender)
- Recent national survey of LGBTQ youth - 9 % diagnosed, additional 29% suspected might have eating disorder (source https://www.thetrevorproject.org/research-briefs/eating-disorders-among-lgbtq-youth-feb-2022/)

Children's Hosp of Philadephia - https://policylab.chop.edu/blog/lgbtq-youth-need-tailored-eating-disorder-treatments)

Percentage of LGBTQ Youth Who Reported an Eating Disorder by Gender Identity





LGBTQ youth who have ever been diagnosed with an eating disorder had nearly four times (aOR=3.94) greater odds of attempting suicide in the past year compared to those who have never suspected nor had an eating disorder diagnosis.

Special Considerations: LGBTQ+ Youth

- Increased psychological stress from feeling misunderstood and marginalized.
- Those struggling with gender and sexual identity often have increased appearance and physique expectations. Studies show gay and lesbian adolescents are more likely to use diet pills, fast, purge, and exercise excessively
- Those with gender dysphoria are more likely to engage in disordered eating to minimize incongruence between gender identify and sex-assigned at birth

Special Considerations: LGBTQ+ Youth

- LGBTQ+ individuals avoid seeking healthcare because of concern about how their gender and sexuality will be acknowledged and addressed
- Importance of gender inclusive environment of care, mention your pronouns when introducing, ask for chosen name and pronoun. Use gender neutral language.

Providing more inclusive care:

Engage regularly in training programs focused on cultural humility and competency.

Promote body neutrality, emphasizing health and well-being.

Be aware of common stressors LGBTQ+ youth experience and inquire about their struggles.

Connect youth with LGBTQ+ support networks and resources whenever possible.

- The Trevor Project is a suicide prevention non-profit organization dedicated to supporting LGBTQ+ youth.
- It Gets Better is a non-profit organization and a platform that empowers LGBTQ+ youth by sharing stories and providing educational resources.
- The Fenway Institute offers training programs aimed at promoting health equity and improving access to quality health care for LGBTQ+ communities.

Break Out:
Case Study- Choose one to discuss

1. 15 yo female with history of vasovagal syncope since age 10 yo. History of anxiety and depression treated for past 4 years- current meds: Wellbutrin 150 xl and Sertraline 75mg. Newly increased presyncope with heavy feeling, dizziness, tremulousness, occurring multiple times a week without position changes.

   Vitals:

   Supine 102/60 (72)

   Sitting 102/60 (72)

   Standing 104/64 (80)

   Glucose 108

Height 68.5 Weight today 147 (loss from 159 3 months ago) previously had no weight fluctuations for 1 year.

What questions do you want to ask?

Are there labs or other tests your interested in doing?

Who else do you want to collaborate with?

2. 15 yo female who emigrated from Ecuador 6 months prior. Severe stomach pain with constipation. Xrays show severe stool burden, pt reports not being able to pass stool easily for years. Start treatment for IBS with miralax, seems to improve slightly. Calprotectin is elevated, IGA elevated Celiac negative.

Starting to lose weight and the more dramatic weight loss over a 4 week period of greater than 10 pounds. Over a 6 month period- 40 pounds.

In office Vitals:

Weight 116

Supine 88/52-54

Sitting 90/50- 61

Standing 88/60-64

Reports Suicidal ideation and is sent to ER where she endorses purging behavior and taking diet pills in preparation for her Quinceanra.

Never misused laxatives.

What questions do you want to ask?

Are there labs or other tests you are interested in doing?

Who else do you want to collaborate with?

Discussion:

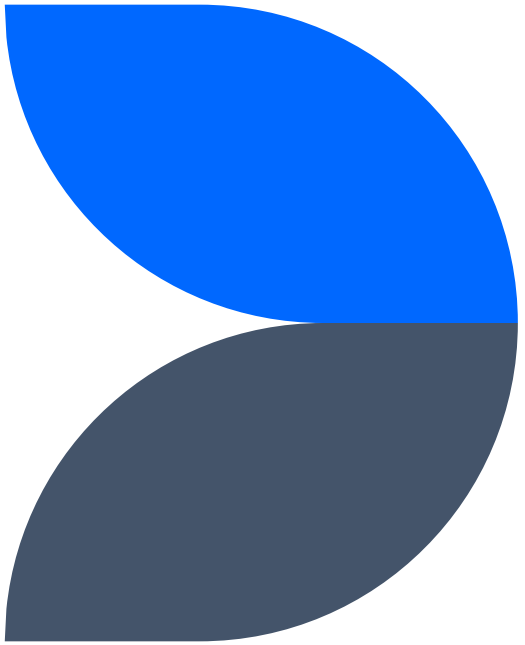
- Co-morbidities can make treatment and diagnosis more complex
- Collaboration with multi-disciplinary teams
- Patience, close follow up and developing relationships can help make diagnoses and plans of care.

Questions?

Comments?

Resources:

- National Eating Disorders Association (NEDA) https://www.nationaleatingdisorders.org/
- National Association of Anorexia Nervosa and Associated Disorders (ANAD) https://anad.org/
- National Institute of Mental Health (NIMH) https://www.nimh.nih.gov/health/publications/eating-disorders
- American Academy of Pediatrics Guideline https://publications.aap.org/pediatrics/article/147/1/e2020040279/33504/Identification-and-Management-of-Eating-Disorders



Thank you

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rmalone@chwctorr.org

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