

# Community Management of Adolescent Eating Disorders

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# Conflicts of Interest

- ▶ Nothing to declare

# LEARNING OBJECTIVES

- ▶ Screening
  - ▶ How to recognize eating disorders in your practice
  - ▶ Cases - atypical presentations
- ▶ Initial assessment and workup
- ▶ What to follow
- ▶ Helping families set limits
- ▶ When to refer
  - ▶ Specialty clinics
  - ▶ ER/Hospitalization



But I don't see  
patients with  
eating  
disorders...

# Eating Disorders (ED)

- ▶ 2<sup>nd</sup> most common chronic illness in adolescents
  - ▶ 2 incidence peaks: mid adolescence and early adulthood
  - ▶ More common in industrialized societies and higher SES
- ▶ Prevalence of ED is ~4% in Canada
  - ▶ In Quebec ~3 % (30 000 people) of women aged 13-30
  - ▶ These numbers can triple if you include partial forms
  - ▶ Highest overall mortality of any mental health illness - 10-15%





# Impact of the Pandemic

Figure 1A - Interrupted time series of new AN/AAN cases per month (January 2015 to November 2020) at all sites

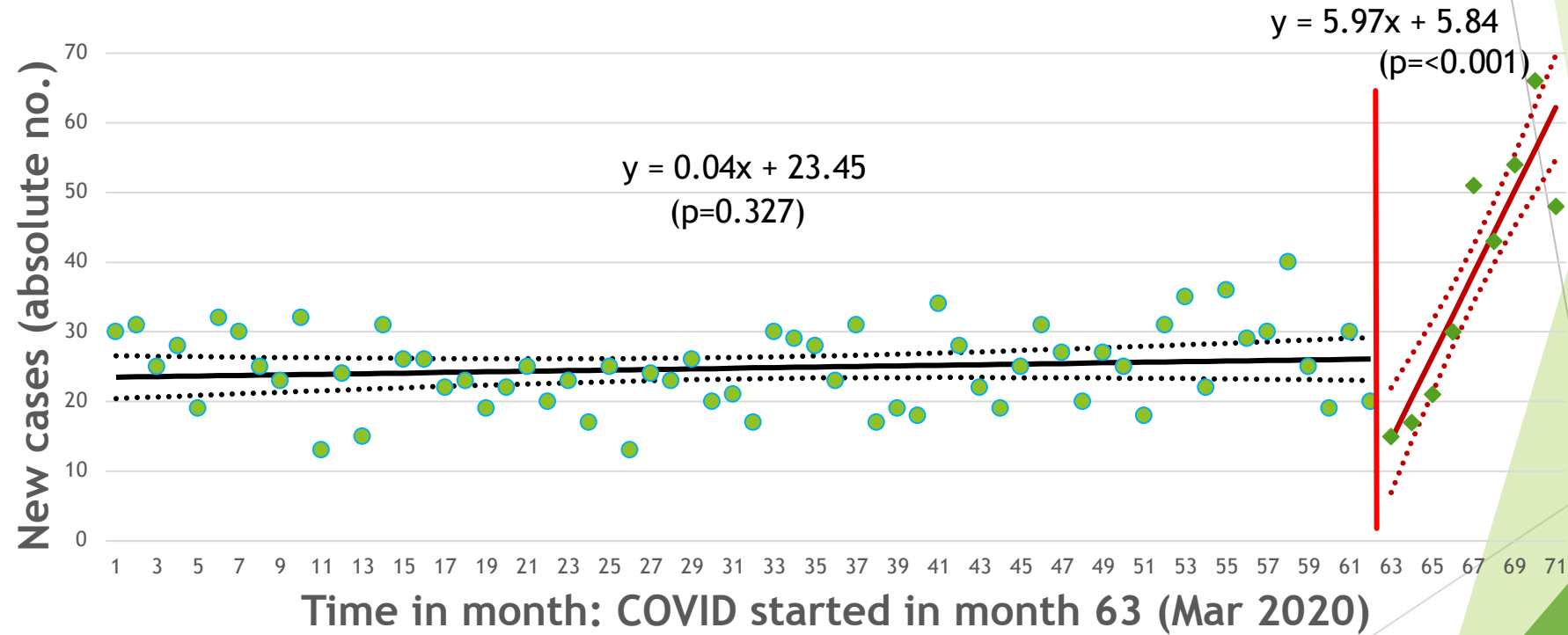
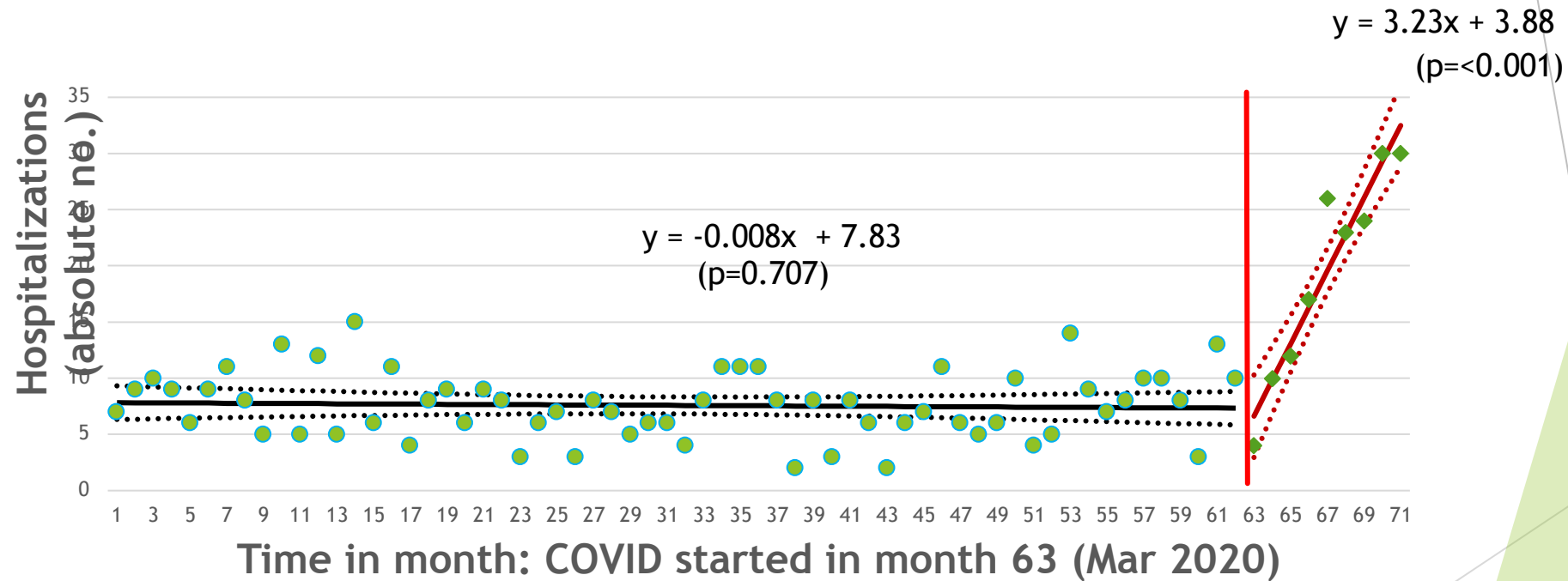


Figure 1B - Interrupted time series of new AN/AAN cases requiring hospitalization per month (January 2015 to November 2020) at all sites





# National Data

- ▶ In the 5-year period preceding the pandemic, the mean number of newly-diagnosed cases was 24.5/month and the trend was stable over time ( $\beta$ coeff=0.043,  $p=0.33$ ).
- ▶ During the pandemic, the mean number of newly diagnosed cases increased to 40.6/month ( $p<0.001$ ) and demonstrated a steep upward trend coinciding with the onset of confinement measures ( $\beta$ coeff=5.97,  $p<0.001$ ).
- ▶ Similarly, hospitalizations for new cases increased from **7.5 to 20.0/month** ( $p<0.001$ ) with a steeply rising linear trend ( $\beta$ coeff -0.008 vs. 3.23,  $p<0.001$ ).

# National Data

- ▶ Markers of AN severity were compared before and during the pandemic for newly-diagnosed patients
  - ▶ Shorter duration of symptoms (7.0-months vs. 9.8-months,  $p=0.0001$ )
  - ▶ A higher percentage of body weight lost (19% vs. 17%,  $p=0.01$ )
  - ▶ A faster rate of weight loss (2.1kg/mo vs. 1.6 kg/mo,  $p=0.0001$ ).
  - ▶ More profound bradycardia at diagnosis (57 bpm vs. 63 bpm,  $p=0.0001$ )
  - ▶ A greater proportion meeting threshold for medical admission (46% vs. 33%,  $p=0.0001$ ).

# *Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5)*

- ▶ 12 distinct eating disorder diagnosis in the “*Feeding and Eating Disorder*” section:
  - ▶ Anorexia Nervosa
  - ▶ Bulimia Nervosa
  - ▶ Binge Eating Disorder
  - ▶ ARFID
  - ▶ Rumination Disorder
  - ▶ PICA
  - ▶ OSFED - 5 subtypes
  - ▶ UFED

# Eating Disorders

- ▶ **2 subgroups:**
  - ▶ **Restrictive type eating disorders:**
    - ▶ Insufficient nutritional intake
    - ▶ Ex: Anorexia nervosa
      - ▶ Subtypes of AN where patients also binge/purge
  - ▶ **Binge type eating disorders:**
    - ▶ Episodes of overeating with loss of control (binges)
    - ▶ Binges can be followed by attempts to minimize the effects of overeating (purges)
      - ▶ Vomiting, restriction, excessive exercise
    - ▶ Ex: Bulimia nervosa
- ▶ **Important distinction as treatment different**



# Atypical Presentations

# Adolescent Anorexia Stereotype

- ▶ White, female
- ▶ High SES
- ▶ High performer
- ▶ Athletic (ballet, gymnast)
- ▶ Life stressor/bullying/family conflicts
- ▶ Presents with dramatic weight loss
  - ▶ Thin in appearance



# Case 1 - Kelly





# Kelly - 14

- ▶ For several years she has disliked her body. She was never overweight but she feels she would be happier in general if she weighed <100 lbs. **She is very scared to gain weight.**
- ▶ Over the last year, she has had a restricted diet. During the week she eats very little but over the last 6 months has started bingeing every weekend and then making herself throw up afterwards
- ▶ When you examine her growth curve **her weight is identical** to when she was 12.5 and her height velocity has now begun to slow down. Her BMI has dropped from the 50<sup>th</sup> ile to the 20<sup>th</sup> percentile.
- ▶ Her exam and vital signs are normal
- ▶ She feels she does not have an eating disorder since she has “*not lost any weight - just stayed the same*”

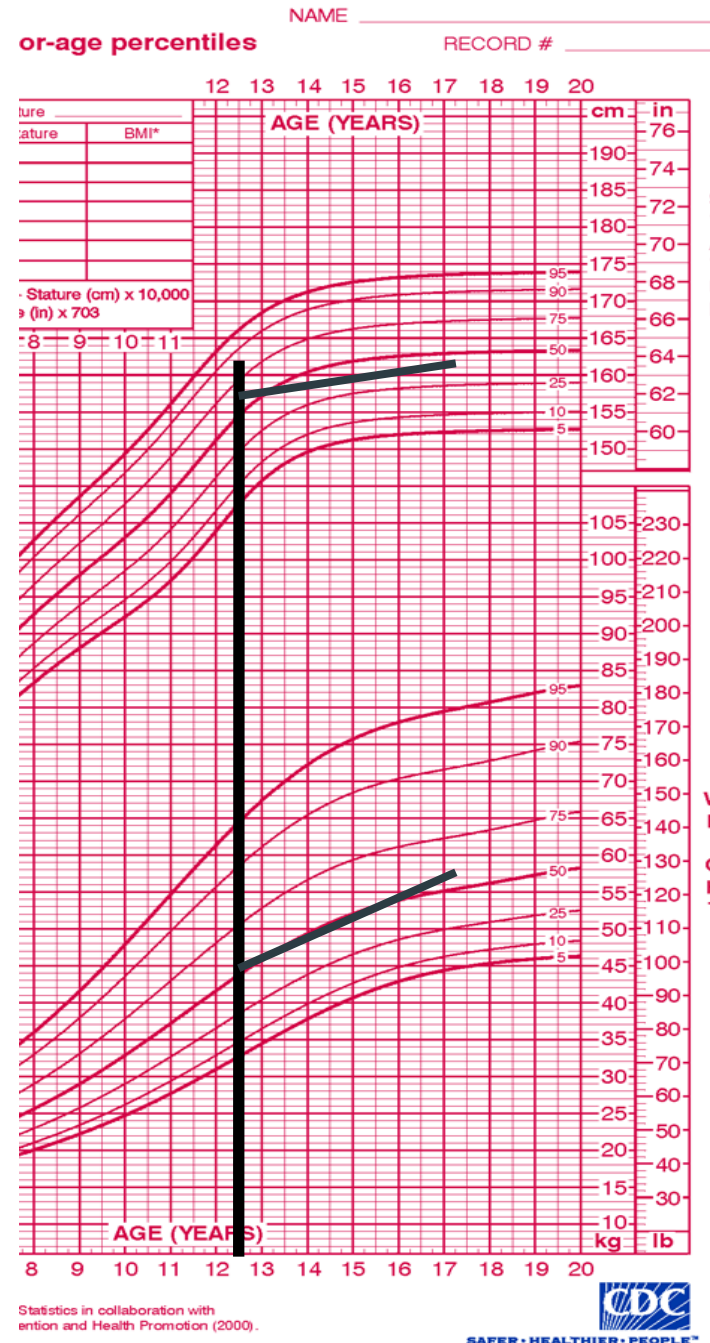


# Anorexia Nervosa

- ▶ Intense fear of gaining weight or **persistent behavior that interferes with weight gain**, even though at a significantly low weight
- ▶ Disturbance in the way in which one's body weight or shape is experienced, undue influence of body weight or shape or **persistent lack of recognition of the seriousness of the current low body weight**
- ▶ Restriction of energy intake relative to requirements, leading to a significantly **low body weight**
  - ▶ Interpreted in the context of age, sex, and *development trajectory*

# Peds vs. Adult ED

- ▶ Adolescence is a period of growth and development
  - ▶ A STABLE WEIGHT IS ABNORMAL
- ▶ Maintaining the same weight is the equivalent of weight loss
- ▶ Soon after menarche:
  - ▶ Height growth basically stops
  - ▶ Weight continues to increase
    - ▶ Normal growth between ages 14-15 include an ~8-10 lbs weight gain



## CASE 2 - Laurie



# Laurie, 15

- ▶ She has been **overweight all her life**. At her annual check up her doctor recommended HAL . Over the summer she started to exercise more and “eat healthy”. By the fall she had lost 30 lbs and **exercising daily for one hour without exception**. Her family and friends were proud and supportive. In the past she had been bullied about her weight and now her mood has really improved.
- ▶ You are seeing her now in October. Her BMI has gone from the 95%ile to the 50%ile. **She has lost 60 lbs**. Her parents are proud of her efforts but are concerned she is pushing too hard as she often complains of dizziness after her workouts and is **eating less and less**. Last week she fainted.
- ▶ She does not feel she has lost “that much” and wants to reach her goal of 120 lbs. She can think of **nothing scarier than gaining weight** and going back to being obese and bullied.
- ▶ **Her HR=40. She has a normal BMI**

# Otherwise Specified Feeding and Eating Disorders (OSFED)

- ▶ Symptoms characteristic of an ED but do not meet the full criteria for any of the disorders. This category is used in situations in which the clinician *CAN communicate the specific reason that the presentation does not meet criteria*
- ▶ Subtypes:
  - ▶ Atypical AN
  - ▶ BN Low Frequency
  - ▶ BED Low Frequency
  - ▶ Purging Disorder
  - ▶ Night Eating Disorder

# Atypical Anorexia (AAN)

- ▶ All of the criteria for anorexia nervosa are met, *except that despite significant weight loss, the individual's weight is within or above the normal range*
- ▶ More common with obesity epidemic
- ▶ Difficult population to diagnose and treat
  - ▶ Often missed diagnosis
  - ▶ Low buy in from family or patient
  - ▶ Adolescent often history of weight related bullying
  - ▶ Often feel less entitled to help because they view themselves as being not as sick as those with classic AN
- ▶ **Atypical AN should not be misinterpreted as being any less serious than AN**

# Physical and Psychological Morbidity in Adolescents With Atypical Anorexia Nervosa

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- ▶ Pediatrics, Jan 2016
- ▶ Large study out of Melbourne Australia
- ▶ First presentations of ~200 adolescents with AN and AAN
- ▶ Compared with AN, adolescents with AAN:
  - ▶ Were much more likely to be premorbidly overweight or obese (71% vs 12%)
  - ▶ Had lost more weight (17.6 kg vs 11.0 kg) over a longer period (13.3 vs 10.2 months)
  - ▶ Had no difference in the frequency of bradycardia (24% vs 33%;) or orthostatic instability (43% vs 38%)
  - ▶ Had no difference in frequency of psychiatric comorbidities (38% vs 45%) or suicidal ideation (43% vs 39%)
  - ▶ Distress related to eating and body image was MORE severe in AAN



# Are Diagnostic Criteria for Eating Disorders Markers of Medical Severity?

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- ▶ Pediatrics May 2015, Stanford
- ▶ Retrospective study of 1300 female adolescent with ED dx
  - ▶ 65% EDNOS
    - ▶ 20% AAN (121 patients)
- ▶ AAN patients, despite normal weight:
  - ▶ 1 in 4 had bradycardia
  - ▶ 1 in 3 had amenorrhea
  - ▶ >40% required admission to hospital on presentation
    - ▶ Not different than AN
- ▶ *Literature estimates that across inpatient and outpatient ED services, 1 case of AAN diagnosed for every 3 cases of AN*



# Challenges to Dx/Treatment of AAN

- ▶ There is no specified amount of weight loss to qualify for a diagnosis of AAN
- ▶ Distorted body image can be hard to determine
  - ▶ See themselves as being overweight or obese but these perceptions may be true based on BMI
- ▶ Determining target goal weights may be challenging
  - ▶ For early puberty: return to their growth curve, to allow for proper growth and pubertal development
  - ▶ For post pubertal adolescents who may already be over the 50th percentile of BMI, a mid-point between the 50th percentile of BMI and maximum weight may be desired
    - ▶ Throughout recovery interim goal weights may need to be established and recalculated according to nutritional intake, medical stability, and resumption of menses

# AAN in your clinic

- ▶ Patients current weight should be considered in relation to their individual trajectories by reviewing growth charts
- ▶ Physical exam **essential** in the context of ANY weight loss, regardless of the patient's actual weight
- ▶ While some patients with AAN might need to lose weight in the future, this is not recommended until the ED has resolved and the patient is able to lose weight in a healthy manner
  - ▶ No restriction or excessive exercise; balanced meals
  - ▶ Safe rate of weight loss: ~1 lbs per week (2 kg/month)

# CASE 3 - MARCO



# Marco, 15

- ▶ He has been competitively involved in hockey since he was young. He feels if he was in a bit better shape he could go pro
- ▶ He has **limited his diet to protein and veges only.**
- ▶ On top of his hockey, **he works out obsessively (>10 hours/week)** and feels guilty if he is unable to go the gym.
- ▶ He now refuses to eat dinner with friends as there is too much junk food around.
- ▶ When asked **he does not want to lose weight.** He wants to gain muscle and **be bigger.**

# Eating Disorders in Males

- ▶ In the past, ED thought of as an almost exclusively female disorder
- ▶ Epidemiological data now suggest that as much as 15-25% of the population is male
- ▶ Society encourages a problematic body shape model in boys too
  - ▶ Pop culture, male bodies are presented as muscular and trim
  - ▶ Children's action figures have become more muscular



# Eating Disorders in Males

- ▶ Motivation is different in males
  - ▶ Less concerned with precise weight or clothing size and more concerned with attaining an idealized masculine shape
    - ▶ Girls are more likely to have a desire to be thinner compared to males who have a desire to be bigger
- ▶ Athletics pressures
  - ▶ Sports where aesthetics/weight are critical or a requirement for participation
- ▶ Higher incidence in LGBTQ
  - ▶ Increased risk for bullying and sexual abuse
    - ▶ RF for ED development



# Eating Disorders in Males

- ▶ Watch for missed diagnoses based on gender biases





# Screening for EDs in the Community Setting...





# Screening for EDs

- Recommended that all adolescents be routinely screened for EDs during annual health supervision visits
  - Early recognition and diagnosis of EDs in youth is associated with improved outcomes and prognosis
  - Most young patients with EDs present first to their primary care provider (PCP)
- Concerns should be further explored to evaluate for the presence of an underlying ED
  - Body image concerns, desire for weight loss, fear of weight gain, restrictive/binging eating patterns, purging behaviours and excessive exercise

# Screening Tools

- Routine psychosocial history taking approaches (e.g., **HEADSSS or SSHADESS**) which incorporate questions focused on diet, weight, and body image
  - Fast,
  - Routinely taught
  - Done in any setting - take advantage of teens contact with health care system
- ED specific screening questionnaires exist
  - SCOFF or the Eating Disorder Screen for Primary Care
  - Limited research on their validity in younger adolescents and those with diverse backgrounds (i.e., race/ethnicity, gender identity, sexual orientation)

# Screening Questions

<p>HEEADSSS/ SSHADESS History</p>	<p>Does your weight or body shape cause you stress?          How do you feel about your body – is there anything you want to change?  <i>Have there been any recent changes in your weight?</i>  <i>Have you had any desire to change your weight?</i>          Have others expressed concerns about your eating, exercising or weight?</p>
<p>SCOFF Questionnaire</p>	<p>Do you make yourself vomit (sick) because you feel uncomfortably full?          Do you worry you have lost control over how much you eat?          Have you recently lost more than 15 pounds (one stone) in a three-month period?          Do you believe you are fat when others say you are too thin?          Would you say that food dominates your life?</p> <p><i>(Yes = 1 point; No = 0 points)</i>  <i>(Scoring <math>\geq 2</math> higher risk of anorexia nervosa or bulimia)</i></p>
<p>EDS-PC</p>	<p>Are you satisfied 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 with an eating disorder?          Do you currently suffer with, or have you ever suffered with an eating disorder?</p>

# Importance of the Physical Exam

- ▶ At each health care encounter **weight, height, and BMI** should be collected and plotted
- ▶ Overall trends should be reviewed for concerning changes
- ▶ All patients, *including those with normal or elevated BMIs*, who present with a history of significant unexplained weight changes/failure to reach expected weight gain, bradycardia/hypotension or pubertal delay should receive a comprehensive medical assessment for a possible underlying ED

# I suspect an ED...now what?

- ▶ **HEADS screen is positive**
- ▶ **Early symptoms**
  - ▶ Weight loss (regardless of current weight)
  - ▶ Fatigue
  - ▶ Chronic abdominal pain or constipation
  - ▶ Dizziness/fainting
  - ▶ Amenorrhea
  - ▶ School failure
  - ▶ Depression or isolation
  - ▶ Worsening of anxiety symptoms



# ED Focused History

- ▶ To determine the type of ED
  - ▶ To rule out any other possible underlying organic diseases
- ▶ It is important to consider that depending on disease insight and/or developmental level, patients with EDs may not recognize or be ready to acknowledge ED symptomatology
  - ▶ Often need collateral history from parent(s)/caregiver(s) regarding behaviors

# ED Focused History

## ED behaviors

- Food intake/restriction/degree of weight loss
- Binges/Purging behavior
- Exercise - goal, rigidity

## ED Urges

- May not be congruent with behaviors

## ED Cognitions

- How much time spent thinking about weight/food etc
- Anxiety around behaviors

## ED insight

- Denial
- Desire for change

# ED HPI

## ▶ Time Frame

- ▶ When did you first notice changes in how you were eating or became serious about trying to control your weight?
- ▶ What is the most/least you have ever weighed? When was that?

## ▶ Dietary History

- ▶ Describe a typical day of eating. Are there certain types of food you avoid? If so, why?
- ▶ Do you count calories, How many calories do you eat each day? Do you have a goal?
- ▶ Do you eat what/when/where the rest of your family eats?

## ▶ Eating Disorder Cognitions

- ▶ What do you think you should weigh? Do you have a goal weight?
- ▶ Do you feel that you are low weight, normal weight, overweight, or unsure?
- ▶ Do you have a fear of gaining weight?
- ▶ Do you currently have a desire to lose weight?
- ▶ Are there certain body areas that cause you stress?
- ▶ Do you have certain habits you need to do when eating (i.e. cut food in small pieces, chew food a certain number of times)?



# ED HPI

## ▶ **Binging/Purging Behaviors**

- ▶ Do you ever feel out of control when eating?
- ▶ Do you feel guilty after certain meals? If so, do you engage in any activities to help with that guilt (e.g., eating less, increased exercise, self-induced vomiting, diet pills, laxatives, over the counter supplements)?
- ▶ Have you ever used medications or supplements to lose weight or suppress your appetite (e.g., laxatives, caffeine, stimulants, diet pills, herbal supplements)?

## ▶ **Exercise history:**

- ▶ What types of exercise do you do (type, frequency, duration, intensity)? Has there been recent changes?
- ▶ Do you exercise alone or in secret?
- ▶ Do you ever engage in exercise to control weight?
- ▶ Do you ever feel guilty when you are unable to exercise?

## ▶ **Common Comorbidities:**

- ▶ Have you ever struggled with issues related to mood, anxiety, or substance use?
- ▶ Have you ever seen a therapist/counselor in the past?
- ▶ Have you ever tried to hurt yourself intentionally? Have you ever thought about ending your life? Do you have a plan to end your life? Have you ever tried in the past?
- ▶ Has anyone ever bullied you in the past? Has anyone ever done something to your body without your consent? Has anyone hurt you physically?

# Review of Systems

- Presyncope, syncope, headache
- Chest pain, heart palpitations
- Shortness of breath, dyspnea
- Constipation, heartburn/reflux, abdominal pain, nausea, bloating, postprandial fullness
- Muscle cramps, joint pain, fractures
- Easy bleeding/bruising, pallor
- Cold intolerance, hair loss,
- Pubertal delay
- In biological females: menstrual irregularities, hormonal contraception use

# Physical Exam

- ▶ Complete physical exam, including pubertal staging
- ▶ Whenever possible, growth parameters should be measured under standardized conditions (i.e., calibrated scale with patient in hospital gown)
- ▶ Orthostatic vital signs performed after having the patient lie supine for 5 minutes and repeated after 3 minutes of standing
- ▶ Concerning findings:
  - ▶ Extreme weight loss
  - ▶ Severe bradycardia (daytime heart rate <50 bpm, nighttime heart rate <40 bpm)
  - ▶ Hypotension (systolic BP <80)
  - ▶ Hypothermia (core body temperature < 35.5 C)
  - ▶ Orthostatic changes in vital signs (postural drop in systolic BP >20mm Hg or diastolic BP >10mm Hg and heart rate increase >30 bpm).

# Investigations

- ▶ To rule out other possible organic etiologies:
  - ▶ Celiac disease
  - ▶ Inflammatory bowel disease
  - ▶ Hyperthyroidism
  - ▶ Type 1 Diabetes mellitus
- ▶ To assess for medical complications directly related to the ED

# Suggested Investigations

- ▶ CBC with differential
- ▶ Creatinine, Urea, Sodium, Potassium, Chloride, Bicarbonate, Calcium, Phosphate, Magnesium, Glucose
- ▶ ALT, AST
- ▶ Prealbumin
- ▶ CRP or ESR
- ▶ Fecal Calprotectin (if GI symptoms)
- ▶ TTG IgA (\*must have gluten in their diet for appropriate interpretation)
- ▶ TSH
- ▶ Urinalysis
- ▶ ECG
- ▶ If pubertal delay: testosterone (biological males), estradiol, LH, FSH (biological females), bone age imaging
- ▶ If secondary amenorrhea > 6 months (biological females) or severely low BMI: Bone mineral density scan

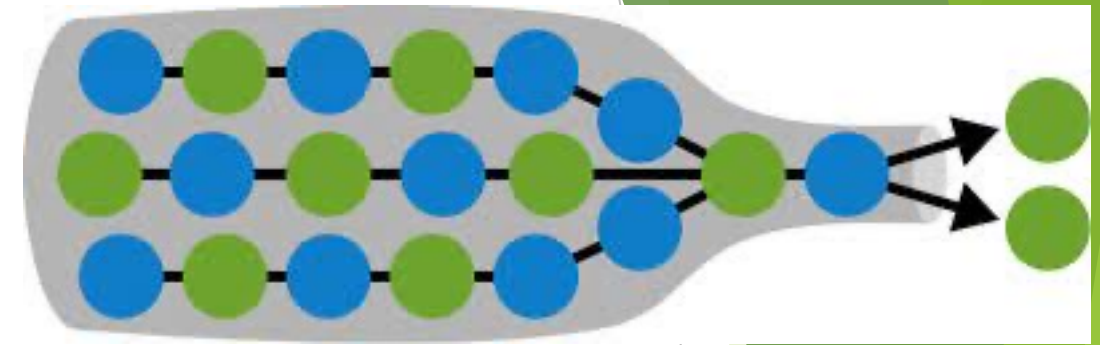
# *“Could it be something else? Are you sure?”*

- ▶ Consider other medical causes for weight loss:
  - ▶ **Hyperthyroidism:** sweating, fast heart rate
  - ▶ **Diabetes:** thirsty, urinating more, drinking and eating more
  - ▶ **Inflammatory Bowel Disease:** More GI symptoms, blood in stool
  - ▶ **Celiac Disease:** Poor growth with GI symptoms
- ▶ In adolescents with eating disorders, labs are almost always normal (especially in anorexia) until very late in the illness
  - ▶ “Normal” labs does not mean they are not medically compromised
- ▶ Usually, the ED behaviors are clear
  - ▶ Ask the teenager

Ok this is an ED - now what?



# Treatment Bottleneck



- ▶ ED are a challenge as need both a medical and psychological f/u as part of treatment
  - ▶ More severe cases often require a multidisciplinary, specialized level of care
- ▶ Limited resources even before the pandemic
  - ▶ Extreme wait times across the country (6-12 months)
- ▶ Specialized programs have had to put limits on cases they can accept due to limited resources
  - ▶ Increasing cases of severe restrictive EDs created longer wait times for tertiary programs
- ▶ While patients wait to be assessed much of this care has moved to the primary care setting



# Community Care of ED

- ▶ Many individuals with EDs, will do well with community support and don't always require more intensive specialized services
  - ▶ Improve adherence to ED treatment through longstanding relationship with families
  - ▶ Expertise in coaching caregivers to engage in essential health behaviors (e.g., vaccinations, medication adherence) can help help patients and families implement behavior changes against ED
- ▶ Know when to refer
  - ▶ ER/Tertiary level program
- ▶ Provide regular follow up
  - ▶ Routinely assessed for signs of medical instability and consideration for hospital admission or escalation of services
  - ▶ Especially true in cases you referred to specialized programs

# Criteria for Medical Hospitalization

- ▶ Severe Malnutrition
  - ▶ % mBMI <75% ( $\% \text{ mBMI} = (\text{current BMI} / \text{BMI at 50\%ile}) \times 100\%$ )
- ▶ Bradycardia: daytime HR < 50 beats/min, nighttime HR < 45 beats/min
- ▶ Hypotension: systolic BP < 80/45 mm Hg
- ▶ Hypothermia: Temperature < 35.6
- ▶ Severe dehydration/Severe electrolyte imbalances
- ▶ ECG Abnormalities
- ▶ Severe medical complications: Seizures, Cardiac failure, recurrent syncope
- ▶ Acute psychiatric emergencies (suicidal ideation, acute psychosis)
- ▶ Persistent full food refusal >24hrs
- ▶ Prepubertal arrest of growth and pubertal development
- ▶ Uncontrollable daily bingeing / purging



What to  
follow?

# Medical Monitoring

- ▶ The primary treatment principles for EDs include medical stabilization, nutritional rehabilitation, normalization of eating behaviours and psychosocial stabilization.
- ▶ Regular check-ins with the patient and their family to monitor clinical evolution is the cornerstone of treatment
  - ▶ Assess weight changes
  - ▶ Family coping
  - ▶ Medical compromise or new physical symptoms
    - ▶ Orthostatic VS at each visit
  - ▶ Medications (laxaday, PPI, multivitamin)
  - ▶ Repeat investigations as needed
- ▶ Patients who are at high risk for medical compromise should be followed more closely (every 1-2 weeks) and referred to subspecialist (e.g., eating disorder clinic) and/or multidisciplinary care (e.g., family therapist, psychiatrist, and/or dietician)

**Table 4: Potential Medical Complications Related to REDs (Non-exhaustive list)**

<b>CVS</b>	Bradycardia, hypotension, pre-syncope, syncope, second- and third-degree heart block, ventricular arrhythmias, prolonged QTc, pericardial effusion, mitral valve prolapse, congestive heart failure, edema, cardiac arrest
<b>RESP</b>	Acute respiratory failure, pneumomediastinum, aspiration pneumonitis
<b>GI</b>	Slowed gastric emptying and motility, gastritis/esophagitis, constipation, paralytic ileus, rectal prolapse, Mallory Weiss tear, esophageal or gastric rupture, liver dysfunction/hepatitis, gallstones, superior mesenteric artery syndrome, gastric outlet obstruction, pancreatitis, hypercholesterolemia
<b>GU</b>	Dehydration, electrolyte abnormalities, renal calculi, acute kidney injury, pseudo-bartter syndrome
<b>MSK</b>	Decreased bone mineral density (BMD), fracture risk, rhabdomyolysis
<b>HEME</b>	Leukopenia, anemia, thrombocytopenia, elevated ferritin, depressed ESR
<b>ENDO</b>	Arrested/delayed growth, pubertal delay, hypogonadotropic hypogonadism, amenorrhea, testicular atrophy, short stature, euthyroid sick syndrome, hypercortisolemia
<b>MET</b>	Hypoglycemia, impaired glucose tolerance, refeeding syndrome, electrolyte disturbances (e.g., hypokalemia, hypophosphatemia), hypercholesterolemia
<b>NEURO/PSYCH</b>	Cerebral atrophy, ventricular enlargement, ataxia, seizures, cognitive deficits, delirium, Wernicke's encephalopathy (rare), peripheral neuropathy, acute psychosis, emotional dysregulation, depressed mood, anxiety, suicidality

# Medical Complications

# Goal Weights

- ▶ Determining a treatment goal weight (TGW) may be helpful to guide nutritional rehabilitation
- ▶ The TGW is a weight range that adequately supports pubertal development, growth, physical activity and psychosocial functioning
  - ▶ This can be estimated with a review of serial weights (via previous growth charts and/or historical information provided by the patient and/or parent/caregiver)
- ▶ TGWs are estimates and should be reassessed every ~6 months as the child grows and the treatment progresses
- ▶ Especially challenging in AAN
- ▶ Detailed approach to determining target weights can be found in the Canadian Pediatric Society (CPS) Practice Point “*Determining Goal Weights for Children and Adolescents with Anorexia Nervosa*”

# Weight Trajectory

- ▶ For patients with EDs, the experience of being weighed can be emotionally challenging
- ▶ Despite this, PCP should be clear that being weighed is part of the treatment and guides ongoing medical management
- ▶ It is important to weigh the patient in a consistent fashion (e.g., in a gown, on a calibrated scale)
  - ▶ Weight done in clinic only - avoids mixed messages
- ▶ Weight gain should be considered in the context of the patients overall functioning as it makes up only one portion of the patient's progress towards recovery.

# Open vs. Blind Weights

- ▶ The need for blind weights is not mandatory and should be discussed with a family depending on the stage of illness, progress towards recovery and maturity level of the patient
- ▶ Provide caregivers weight value at all visits to concretely know if they are providing enough nutrition
  - ▶ Parents should adjust portion sizes and energy richness based on weight progress.
- ▶ For patients:
  - ▶ Ask their preference
  - ▶ Be ready to handle the fall out that may occur
  - ▶ Consider that avoiding discussions of weight can increase anxiety and imply something to hide
  - ▶ Often eating disorder cognitions will distort the real amount of weight gain
  - ▶ In those more anxious:
    - ▶ Consider graphing the weight without numbers
    - ▶ Discussing weight progress more generally (“this week you gained but not enough to help your heart get healthier..”)





How do I  
address ED  
Behaviors?

# Psychological Treatments

- ▶ Until recently, treating an ED was seen as the task of the medical team and the patient
  - ▶ Patient had to “take control” over their ED thoughts
- ▶ Traditional long inpatient stays followed by individual supportive psychotherapy (CBT) and nutritional counseling with regular monitoring of weight
- ▶ Systematic studies of long inpatient treatment have not demonstrated long-term benefits over outpatient treatment outside of a medical stabilization period

# From CBT to FBT

- ▶ Family Based Treatment (FBT)
  - ▶ ED specific form of therapy
  - ▶ Acknowledges parental expertise with their own adolescents
  - ▶ Puts parents in control of re-nourishing their teen
  - ▶ Focuses on moving forward from the disease as opposed to dwelling on possible causes of the ED
  - ▶ Deals with the immediate challenge of eating
  - ▶ No focus on other psych co-morbidities *initially*
  - ▶ Parents learn and to externalize the illness from their child and regain control over meals

# Family Based Treatment

- ▶ Recommended as the **first-line OUTPATIENT** treatment for adolescents with restrictive eating disorders
- ▶ Most patients treated with FBT show substantial improvement
  - ▶ 40%-60% fully recovered by 1 year post treatment; 75% -80% at 5 years
  - ▶ 15%-20% do not improve → may move towards CBT approach



# Family Based Treatment

- ▶ FBT is comprised of three phases:
  - ▶ Weight restoration through parental control of intake
    - ▶ Get to goal weight
  - ▶ Returning control of eating to the child/adolescent
    - ▶ Give teen back some choices
  - ▶ Returning to normal adolescent development and addressing outstanding issues
    - ▶ More individual therapy focus
- ▶ When available, referral to a specialized FBT provider should be initiated
  - ▶ Long wait times, limited availability
- ▶ **Even if not available, an FBT approach should be followed during clinic visits**



But I'm a  
Doctor - Not  
a Therapist

# Family Based Treatment

- ▶ PCPs can integrate the principles of FBT by counselling parents around:
  - ▶ Behavioral approaches
  - ▶ Empowering parents to establish limits
  - ▶ Externalizing the eating disorder
- ▶ CPS position statement “*Family-based treatment of children and adolescents with anorexia nervosa: Guidelines for the community physician*”
  - ▶ Provides a detailed overview of FBT application within a community setting
- ▶ In a stable patient - FBT doesn't prescribe the treatment - it let's families find what works for them

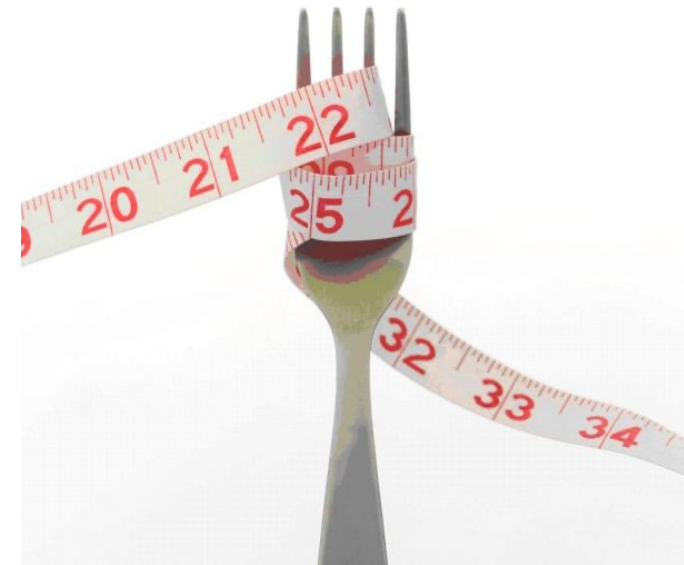
## Family-based treatment of children and adolescents with anorexia nervosa: Guidelines for the community physician

**Posted:** Jan 1, 2010 | **Updated:** Nov 7, 2012 | **Reaffirmed:** Feb 28, 2018

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# Family Based Treatment

- ▶ Approach may feel counterintuitive to those trained to support adolescents' emerging autonomy
- ▶ Early on treatment goal = Generate fear to mobilize the family into action
- ▶ Weight discussed openly with parents +/- teen
- ▶ FBT does not work for everyone and not always most appropriate treatment
  - ▶ Need a certain degree of family presence
  - ▶ Less likely to work in very older teens, disorganized teen or one with high psych co-morbidities
  - ▶ Difficult for parents to “stick with it”







## Counselling with an FBT Informed Approach

# Nutritional Guidance in FBT Informed

- ▶ Not eating is not an option - Food is the Rx!!
- ▶ Parents must assume full control over meals until TGW range is achieved
  - ▶ Parents should oversee the preparation, plating, and supervision all meals and snacks
  - ▶ Patients should not be involved in their meals until they have reached their TGW
- ▶ Parents should establish a routine where each meal and snack is eaten at approximately the same time each day
  - ▶ Facilitates a return to normal metabolism and natural hunger and satiety cues
- ▶ Parents/caregivers should also be encouraged to progressively reintroduce foods that have been avoided or that induce fear of weight gain
- ▶ Normalize the challenge and encourage a certain degree of distress tolerance

# Nutritional Guidance with a FBT Lens

- ▶ Parents should insist on 3 meals and 2-3 snacks per day
- ▶ Avoid use of meal plans (e.g., specific caloric goals per day)
  - ▶ Detailed tracking of caloric intake is not necessary - parents know best what their child needs
  - ▶ Work back to what they ate before
- ▶ No special meals/food choices for the ED
  - ▶ One family meal
  - ▶ Never ask or offer options in the moment
  - ▶ Avoid the “*at least he/she is eating something*” mode
  - ▶ Diet foods or low-fat food choices are not generally considered part of normal eating
  - ▶ Accommodating special diets, such as vegetarian or vegan, can make meeting nutritional goals especially challenging
    - ▶ What existed before the ED?
- ▶ Easier with high caloric density foods and drinks (e.g., choosing fruit juice or milk instead of water)
  - ▶ Maximize energy intake without necessitating large increases in volume
- ▶ Goal is weight gain of ~500g per week in the outpatient setting
- ▶ Adolescents typically requiring 2200-3000 kcal/day to meet these goals

# Setting Limits on Activity

- ▶ An individual in an acute and medically compromised state should not be engaging in physical activity
- ▶ In a stable patient:
  - ▶ Families should be encouraged to set their own limits around any activity that they feel may impede their child's recovery.
  - ▶ Ask why they want to do the activity?
  - ▶ Help them see that more energy expenditure means more intake needed
  - ▶ If losing weight - help to reflect on the role of activity in weight loss
- ▶ May need to be exempt from gym and /or temporarily removed from sports
  - ▶ Some may suggest no activity until TGW achieved
- ▶ When deemed medically appropriate to return to physical activity, PCP should promote activities that are social, time limited and have a positive impact on emotional well-being

# Providing Support to Families

- ▶ The presence of an eating disorder within a family affects everyone.
- ▶ Families may:
  - ▶ Be in denial
  - ▶ Experience guilt for not acting sooner
  - ▶ Feel overwhelmed, exhausted, and hopeless
  - ▶ Most have already made attempts to address the ED behaviors without success
- ▶ To help motivate:
  - ▶ Heighten the anxiety around the diagnosis and the potential danger to their child's health
  - ▶ Don't minimize or downplay the risks associated with EDs to appease the parents

# Providing Support to Families

- ▶ Normalize the expected challenges
  - ▶ Family meals may become tense with arguments
- ▶ Externalize the ED as a common enemy
  - ▶ Make the ED the cause of family conflicts as opposed to the patient themselves (i.e., “It’s not your child fighting and resisting your efforts to help; it is the illness”).
- ▶ Re-enforce a “food is medicine” approach
  - ▶ Prescribing food as a non-optional treatment for health
    - ▶ Like a toddler who doesn’t want their penicillin...they found a way

# Providing Support to Families

- ▶ Although motivation is important, the need to restore physical health to minimize the permanent impact on growth and development supersedes the need to wait for patient motivation.
  - ▶ Encourage parents not to wait for patient to decide to get better
  - ▶ Avoid trying to rationalize with the ED
  - ▶ Their teen is not in control of their decisions - the ED is driving
- ▶ Help parents utilize traditional behavioral modification strategies
  - ▶ Rewarding desirable behaviors and providing consequences for undesirable behaviors
    - ▶ Privileges such as going out with friends/attending social events can be negotiated depending on cooperation with eating and weight gain.
- ▶ Resist the urge to “prescribe” - let them come up with solutions

# Providing Support to Families

- ▶ EDs are chronic illnesses and recovery can be complicated and lengthy
  - ▶ ED may lash out and be verbally aggressive and hurtful towards caregivers
  - ▶ No violence tolerance
- ▶ Validating these challenges and the often-exhausting role of the caregiver can help build a treatment alliance and aide with adherence to the recovery process
- ▶ Fostering a strong alliance that is team oriented with families is more critical to recovery than identifying the origins of the ED
- ▶ Encourage families to maintain some discussions/activities as a family not related to food
- ▶ Families (including siblings) may also need support for themselves as individuals and as couples and should be encouraged to seek their own therapeutic support as needed



# MCH ED Program

## ▶ ED program website for MCH

- ▶ Resources for families
- ▶ Consult form available
- ▶ Patient and family booked into assessment clinics to determine best treatment options
- ▶ Wait times is around 6-9 months for stable patients
  - ▶ Can always call MD on call to discuss urgent cases
- ▶ Please include relevant labs and growth curves with your consultation
  - ▶ Unable to triage a consult without this information

## ▶ Contact Info:

- ▶ **Web:** <http://www.thechildren.com/departments-and-staff/departments/departments-of-eating-disorders-clinic>
- ▶ **Phone:** Program coordinator - Shari Segal (514)-412-4400, poste 23662
- ▶ **Fax :** 514-412-4319

# Take Home Points

## ▶ Recognize the early signs of ED

- ▶ Question weight loss motivation and means
  - ▶ Even in the obese patient
- ▶ Amenorrhea, syncope, worsening mood symptoms
- ▶ Provide in person visits whenever possible

## ▶ Refer - know when to and when not to:

- ▶ Not all teens with disordered eating or even true eating disorders need an automatic referral to tertiary level programs
- ▶ Prioritize referrals for those who have lost a large amount of weight, younger teens with growth stagnation/delayed puberty, VS or severe electrolytes abnormalities, failure of outpatient treatment

# Community Care - Goals of Tx

- ▶ **Wait times are long - know what can't wait:**
  - ▶ Become familiar with the indications for medical admission for restrictive eating disorders
    - ▶ HR <50, BP<90, %mBMI<75%, extreme and rapid weight loss, syncope, full food refusal for >24 hrs
    - ▶ Send to ER or call to discuss case
- ▶ **While they wait - provide the support you can:**
  - ▶ Follow rate of weight loss/Vs - may evolve in either direction
  - ▶ Provide online resources to families
    - ▶ MCH website
    - ▶ F.E.A.S.T
  - ▶ Start an FBT informed approach
    - ▶ Parents in charge of meals
    - ▶ Limits on activity
    - ▶ Externalizing the ED

# References

- ▶ Hornberger LL, Lane MA, Committee On A. Identification and Management of Eating Disorders in Children and Adolescents. *Pediatrics*. 2021;147(1)
- ▶ Agostino H, Burstein B, Moubayed D, Taddeo D, Grady R, Vyver E, et al. Trends in the Incidence of New-Onset Anorexia Nervosa and Atypical Anorexia Nervosa Among Youth During the COVID-19 Pandemic in Canada. *JAMA Netw Open*. 2021;4(12):e2137395.
- ▶ Lenton-Brym T, Rodrigues A, Johnson N, Couturier J, Toulany A. A scoping review of the role of primary care providers and primary care-based interventions in the treatment of pediatric eating disorders. *Eat Disord*. 2020;28(1):47-66.
- ▶ Morgan JF, Reid F, Lacey JH. The SCOFF questionnaire: assessment of a new screening tool for eating disorders. *BMJ*. 1999;319(7223):1467-8.
- ▶ Cotton MA, Ball C, Robinson P. Four simple questions can help screen for eating disorders. *J Gen Intern Med*. 2003;18(1):53-6.
- ▶ Feltner C, Peat C, Reddy S, Riley S, Berkman N, Middleton JC, et al. Screening for Eating Disorders in Adolescents and Adults: Evidence Report and Systematic Review for the US Preventive Services Task Force. *JAMA*. 2022;327(11):1068-82.
- ▶ Lock J, La Via MC, American Academy of C, Adolescent Psychiatry Committee on Quality I. Practice parameter for the assessment and treatment of children and adolescents with eating disorders. *J Am Acad Child Adolesc Psychiatry*. 2015;54(5):412-25.
- ▶ Findlay S, Pinzon J, Taddeo D, Katzman D. Family-based treatment of children and adolescents with anorexia nervosa: Guidelines for the community physician. *Paediatr Child Health*. 2010;15(1):31-40.
- ▶ Norris ML, Hiebert JD, Katzman DK. Determining treatment goal weights for children and adolescents with anorexia nervosa. *Paediatr Child Health*. 2018;23(8):551-2.
- ▶ Rienecke RD. Family-based treatment of eating disorders in adolescents: current insights. *Adolesc Health Med Ther*. 2017;8:69-79.

Thank You

