Challenges in the Treatment of Eating Disorders

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Session Description

Just as the evolution and presentation of eating disorders is multifactorial, so their treatment similarly must address multiple factors, such as medical and pharmacological treatment needs from malnutrition, co-occurring psychiatric disorders, interpersonal and family dynamics, resistance to treatment, and sense of self and identity. Each area presents unique challenges in their treatment. This session will discuss some of the common complications associated with eating disorder pathology and treatment, with focus on specific approaches to providing care.

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Challenges in the Treatment of Eating Disorders

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Declaration of Conflict of Interest

I work at Homewood Health Centre and receive my salary from Homewood Health.

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Resources

- National Eating Disorder Information Centre, www.nedic.ca
- CMHA Ontario, www.ontario.cmha.ca
- Body Brave, www.Bodybrave.ca
- Eating Disorder Association of Canada, www.edac-atac.com
- Bulimia Anorexia Nervosa Association, www.bana.ca
- Eating Disorders Foundation of Canada, www.edfc.ca
- National Initiative for Eating Disorders, www.nied.ca

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Challenges in the Treatment of Eating Disorders

1. What is an eating disorder?
2. What factors are involved?
3. How do we assess?
4. How do we intervene?

What is an eating disorder?

Izzy is a 19 year-old young woman who lives with her parents and younger sister. She is taking a year off from her studies in Communications at university, and works part-time for her aunt's consignment store. She has been struggling with her body image and her eating patterns since she was 13. She was bullied a lot for her weight, and she began to skip lunch and have smaller portions at dinner. Then she skipped breakfast. She experimented with making herself throw up after dinner, but didn't like it and stopped. She tried laxatives to keep herself from gaining weight, but didn't like this either and stopped. She joined the soccer team at school but had to stop because she kept feeling faint. Now she walks for an hour or two every day, and she struggles to eat at all. She struggled a lot in her program at university, and wasn't able to maintain focus, so she went home to her parents. She isolates more often in her room, and she is scared. She's been having suicidal thoughts, and her parents are terrified. She fainted last week at school and after being seen and released from the ER, she hasn't gone back.

DSM diagnostic criteria, 5 disorders:
AN, BN, BED, OSFED. (ARFID)

Anorexia Nervosa (AN)

- **Restriction of energy intake** relative to requirements, leading to a significantly low body weight in the context of age, sex, developmental trajectory, and physical health.
- Significantly **low weight** is defined as a weight that is less than minimally normal or, for children and adolescents, less than that minimally expected.
- **Intense fear of gaining weight** or of becoming fat, or persistent behaviour 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 on **self-evaluation**, or persistent lack of recognition of the seriousness of the current low body weight.

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Anorexia Nervosa (AN) (continued)

Subtypes:

- **Restricting type**: During the last 3 months, the individual has not engaged in recurrent episodes of binge eating or purging behaviour (i.e., self-induced vomiting or the misuse of laxatives, diuretics, or enemas). This subtype describes presentations in which weight loss is accomplished primarily through dieting, fasting, and/or excessive exercise.
- **Binge-eating/purging type**: During the last 3 months, the individual has engaged in recurrent episodes of binge eating or purging behaviour (i.e., self-induced vomiting or the misuse of laxatives, diuretics, or enemas).

Bulimia Nervosa (BN)

Recurrent episodes of **binge eating**. An episode of binge eating is characterized by both of the following:

1. Eating in a discrete period of time (e.g., within any 2-hour period), an amount of food that is **definitely larger** than what most individuals would eat in a similar period of time under similar circumstances.
2. A sense of **lack of control** over eating during the episode (e.g., a feeling that one cannot stop eating or control what or how much one is eating).

Recurrent inappropriate **compensatory behaviours** in order to prevent weight gain, such as self-induced vomiting; misuse of laxatives, diuretics, or other medications; fasting; or excessive exercise.

The binge eating and inappropriate compensatory behaviours both occur, on average, at least **once a week** for 3 months.

Self-evaluation is unduly influenced by body shape and weight.

The disturbance does not occur exclusively during episodes of anorexia nervosa.

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Binge Eating Disorder (BED)

Recurrent episodes of **binge eating**. An episode of binge eating is characterized by both of the following:

1. Eating in a discrete period of time (e.g., within any 2-hour period), an amount of food that is **definitely larger** than what most individuals would eat in a similar period of time under similar circumstances.
2. A sense of **lack of control** over eating during the episode (e.g., a feeling that one cannot stop eating or control what or how much one is eating).

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Binge Eating Disorder (BED) continued

The binge-eating episodes are associated with three (or more) of the following:

- Eating much more rapidly than normal.
- Eating until feeling uncomfortably full.
- Eating large amounts of food when not feeling physically hungry.
- Eating alone because of feeling embarrassed by how much one is eating.
- Feeling disgusted with oneself, depressed, or very guilty afterward.
- Marked distress regarding binge eating is present.
- The binge eating occurs, on average, at least once a week for 3 months.
- The binge eating is not associated with the recurrent use of inappropriate compensatory behaviour as in bulimia nervosa and does not occur exclusively during the course of bulimia nervosa or anorexia nervosa.

Other Specified Feeding and Eating Disorders (OSFED)

This category applies to presentations in which symptoms characteristic of a feeding and eating disorder that cause **clinically significant distress** or impairment in social, occupational, or other important areas of functioning predominate but **do not meet the full criteria** for any of the disorders in the feeding and eating disorders diagnostic class. Examples of presentations that can be specified using the "other specified" designation include the following:

1. **Atypical anorexia nervosa**: 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.
2. **Bulimia nervosa (of low frequency and/or limited duration)**: All of the criteria for bulimia nervosa are met, except that the binge eating and inappropriate compensatory behaviours occur, on average, less than once a week and/or for less than 3 months.

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Other Specified Feeding and Eating Disorders (OSFED) (continued)

3. **Binge-eating disorder** (of low frequency and/or limited duration): All of the criteria for binge-eating disorder are met, except that the binge eating occurs, on average, less than once a week and/or for less than 3 months.
4. **Purging disorder**: Recurrent purging behaviour to influence weight or shape (e.g., self-induced vomiting: misuse of laxatives, diuretics, or other medications) in the absence of binge eating.
5. **Night eating syndrome**: Recurrent episodes of night eating, as manifested by eating after awakening from sleep or by excessive food consumption after the evening meal.

What factors are involved?

Multiple factors contribute to the development of an Eating Disorder (ED):

- medical complications of eating disorders
- co-occurring and complicating psychiatric disorders
- identity, sense of self, body image
- family and interpersonal relationships
- resistance and resilience and resistance and resilience and resistance…

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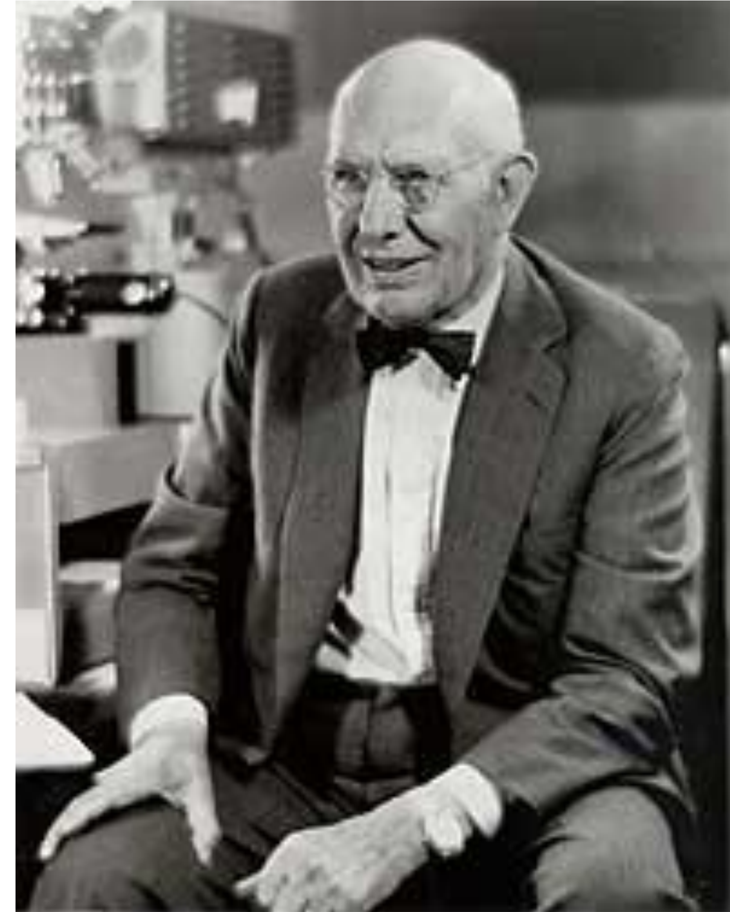
How to proceed?

“A problem well-stated is a problem half-solved.”

Charles Franklin Kettering



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Medical complications:

1. Electrolyte abnormalities
2. Cardiovascular complications
3. Gastrointestinal complications
4. Endocrine complications
5. Neuropsychiatric complications

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1. Electrolyte Abnormalities

- No lab tests that indicate the presence or severity of disordered eating behaviours
- Stability isn't a gradual decline (think cliff, not slope)
- Even in severe starvation, electrolytes are often normal
- Purging behaviours more likely to show electrolyte abnormalities than solely restricting
- Electrolyte abnormalities without explanation warrant screening
- Hyponatremia, hypokalemia, Refeeding Syndrome are concerns

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1. Electrolyte Abnormalities

- Hyponatremia
- Hypokalemia
- Refeeding Syndrome

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Hyponatremia

Hyponatremia can result from dehydration (vomiting, laxatives, diuretics)

- Diuretics: furosemide, thiazides, caffeine, pamabrom (Midol PMS), herbal extracts, spironolactone
- Hyponatremia can result from water loading, or from restricting water and sodium
- Consider purging if hypokalemia, hypochloremia, or metabolic alkalosis

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Hypokalemia

Hypokalemia usually a sign of frequent purging

- Hypokalemia usually caused by purging behaviours (renal, GI losses), not usually dietary deficiency
- Most frequently seen in lower weight patients who are purging or using laxatives
- Strongly suggests purging is at least daily
- Patients who only restrict are not at risk for hypokalemia even if weight is very low

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Refeeding Syndrome

- Metabolic changes, shifts in fluid and electrolytes, during first stage of nutritional restoration caused by increased glucose load leading to insulin surge
- Insulin surge stimulates protein synthesis and intracellular movement of potassium (K^{+}), magnesium (Mg^{+}), phosphorus (PO^{-4})
- Clinical signs: muscle weakness, edema, GI complications, delirium, cardiac failure, respiratory failure, death (rare)
- Lab findings: hypoPO^{4}, hypoglycemia, hypoMg^{+}, hypoK^{+}, hypoNa^{+}
- Refeeding risk corresponds directly with degree of weight loss and malnutrition

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2. Cardiovascular Complications

- Bradycardia
- Low resting heart rate become tachycardic with minimal exertion
- Hypotension (orthostatic hypotension can lead to syncope)
- Look for POTS (Postural Orthostatic Tachycardia Syndrome)
- Orthostatic changes usually improve with weight and nutrition restoration
- Left ventricular atrophy, mitral valve prolapse, myocardial fibrosis
- Pericardial effusion in 22-25% of pts with AN and is usually asymptomatic
- QTc prolongation related to hypoK^+, hypoMg^+, or medications

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List of some medications that prolong QTc

- Antipsychotics: haloperidol, quetiapine, olanzapine, ziprasidone
- Antidepressants: citalopram, escitalopram, amitriptyline, fluoxetine, sertraline, venlafaxine
- Antiemetics/motility: ondansetron, domperidone
- Antibiotics: erythromycin, clarithromycin, ciprofloxacin, ketoconazole
- Others: methadone, diphenhydramine

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3. Gastrointestinal Complications

- Fear of GI symptoms can contribute to disordered eating (eg. ARFID, emetophobia)
- Gastroparesis (delayed emptying) leads to bloating and early satiety, nausea, reflux, vomiting, constipation
- Gastroparesis resolves with weight restoration and regular eating patterns
- GE reflux often presents, resulting from self-induced vomiting or from gastroparesis
- Elevated transaminases (prior to and during refeeding) corresponds with illness severity
- Use of stimulant laxatives can cause bowel dependency (d/c leads to constipation, fluid retention) consider other causes, eg. association b/n AN and celiac disease or IBD

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4. Endocrine Complications

- Reduction of hepatic glycogen and disturbance of hepatic gluconeogenesis, leading to hypoglycemia
- Severe hypoglycemia in AN has been associated with sudden death (consider inpatient rehabilitation)
- Thyroid abnormalities in AN usually consistent with low T4 & T3 but NORMAL TSH
- Restricting can lead to hypothalamic dysfunction and interruption in GNRH signaling
- Leads to decreased gonadotropins (LH/FSH) and gonadal hormones (estrogen, progesterone, testosterone) and hypothalamic amenorrhea

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4. Endocrine Complications (continued)

- Irregular menses common in BN and binge eating
- AN can cause increased serum cortisol levels (decreased clearance)
- Increased bone resorption, decreased bone formation, leads to low bone density, increased fracture risk in both adolescents and adults
- Child population: malnutrition affects growth and development
- Decreased linear growth, and delay or halting of normal pubertal development (may not meet potential)

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5. Neuropsychiatric Complications:

- Depression, Anxiety, Obsessive compulsive disorder, Substance use disorders
- Symptoms may result from starvation, malnutrition
- Symptoms often resolve with nutritional rehabilitation

- Minnesota Starvation Study (Keys et al., 1950): depression, food noise, social isolation
- Malnutrition leads to brain volume loss (gray and white)
- Weight restoration can restore white matter but gray matter volume may remain, leading to long-term cognitive dysfunction

Assessment: **Medical Evaluation**

- CBC
- Electrolytes
- Transaminases, Alkaline phosphatase
- Thyroid (TSH, T3, T4)
- ESR
- FSH, LH, estradiol, testosterone
- Vit D, Fe, B12, Zinc, total Iron, Ferritin (may be increased)
- Age-specific (eg. reproductive development, bone development)

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Assessment: **Psychiatric Evaluation**

- Screen for signs and symptoms of
  - Depression
  - Anxiety
  - OCD
  - food preoccupation ("food noise")
  - ADHD
- SAFETY (history of SI, self-harm) – expand ("kill, die")
- Past treatments (inpatient, outpatient)

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Assessment: **History**

- Weight history (high, low, goal)
- Weight checking
- Body image concerns (checking frequency)
- Diet and exercise (programs, apps, online chat groups)
- Counting calories and measuring food
- Small utensils, cutting up food into morsels

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Assessment: **History** (continued)

- Food rules
- Fear foods
- Purging: vomiting, diet pills, stimulants, water pills (ask directly)
- Dizziness, fatigue, vertigo, poor focus, heart palpitations, constipation, abdominal pain, bloating, chest pain
- Functional hypogonadism (irregular/missed menses, low libido, decreased erections and/or nocturnal emissions
- Mood dysregulation, anxiety, irritability, can all result from malnutrition

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Assessment: **Physical Evaluation**

- Weight, height, postural vital signs, EKG
- Growth curves to assess growth suppression
- BMI increases with age and pubertal progress
- Unchanged weight without weight loss may indicate restrictive eating
- Assess BMI relative to expected (percentage of median BMI, or BMI Z-score)
- Percentage of median BMI: BMI/50th percentile x100
- Percent weight loss over time (eg. last month)
- Vitals: temp, HR, postural BP (supine x5min, standing x2min)
- Body habitus, unsteadiness, thinning of hair, lanugo, pallor or yellow on palms, parotid hypertrophy, Russell's sign (cuts or calluses on dorsum of hand)

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Assessment: **Comorbidities**

- Rule out:
  - brain tumours, inflammatory bowel disease, disorders of absorption, thyroid disease, Prader-Willi syndrome
- Lab blood work, EKG, bone density (esp. if irregular/missed menses)

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Assessment: **Medications**

- Diuretics/Water Pills: furosemide, thiazides, caffeine, pamabrom, herbal extracts, spironolactone, Midol PMS
- Stimulant medications: Bupropion, Vyvanse, Adderall, Ritalin
- GI symptom management: famotidine, lactulose, senna, dulcolax
- Psychotropics: Xanax, Ativan, Zopiclone
- SUD: alcohol, methamphetamine, cocaine, ketamine

- most important medication is? …

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...FOOD

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Intervention: **Inpatient or Outpatient?**

When to consider inpatient treatment:

- Unstable lab results
- HR <50 daytime
- Hypotension: <90/45 in adolescents, <90/60 in adults
- Orthostasis (change >40bpm adolescents and >30bpm supine to standing)
- Orthostasis (drop in systolic BP >20 mmHg supine to standing)
- BMI less than 75% median BMI in children/adolescents, less than 15 kg/m2 in adults
- EKG abnormalities
- Electrolyte disturbances
- TRAJECTORY

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Goals of Intervention:

- Nutrition and weight restoration (home or hospital)
- Removal of contributing/complicating factors
- Behavioural change and symptom management
- Restoration of agency and autonomy (“relationship with food”)
- Empowerment and enablement of supports

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Intervention: **Multidisciplinary Team**

- Medical management (PCP, ER, inpatient medical admission)
- MD/NP, psychiatrist, nurse, dietician, psychotherapist, SW, OT
- Involvement of family and interpersonal supports

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Identity Impairment in Eating Disorders

(Croce et al. 2024)

- Loss of self to the eating disorder
- Interventions seek to re-establish sense of self in the present
- Resistance vs. Engagement
- Development of Resilience

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Intervention: Behavioural Change and Symptom Management

- Cognitive interventions require cognitive capability
- Behavioural interventions require agreement
- Therapist as Consultant
- CBT-E
- DBT
- MI

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Intervention: **CBT-e** (enhanced for eating disorders)

- Engaging the patient in treatment and change
- Jointly creating the formulation
- Establishing real-time self-monitoring (in the moment recording)
- Establishing collaborative weekly weighing
- Providing education
- Establishing regular eating (symptom interruption)

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Intervention: **CBT-e** (enhanced for eating disorders)

- Involving significant others
- Addressing the over-evaluation of shape and weight
- Enhance importance of other domains for self-evaluation
- Addressing body checking and avoidance
- Feelings vs. reality, mis-labelling emotions (alexithymia)
- Exploring origins of overevaluation

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Intervention: DBT

- Management of emotion dysregulation: skills-based
- ED symptoms become a way of regulating overwhelming/uncomfortable feelings/states
- Patients report difficulties describing, tolerating, and expressing emotions (alexithymia)
- Dialectics: seeks to find a synthesis between opposing views, instead of right and wrong
- Cognitive behavioural approaches
- meditative practices: mindfulness
- acceptance-based strategies
- focus on motivation and desire to build a life worth living

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Intervention: DBT (continued)

1. Mindfulness skills: focus on the present moment without judgement
2. Interpersonal effectiveness: effective communication to get needs met
3. Distress tolerance: skills to get through a crisis
4. Emotion regulation: “Emotion mind” vs. “Wise mind”

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Intervention: **Motivational Interviewing**

- Designed to move individuals towards action
- Stages of behaviour change: Prochaska and Diclemente 1992
- Precontemplation, Contemplation, Preparation, Action, Maintenance
- Express empathy
- Develop discrepancy
- Avoid arguments
- Roll with resistance
- Support self-efficacy: goal is to foster resilience

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Pearls:

- Males!
- Acute or chronic (intentional restricting, or relative energy deficiency)
- Complications can result from restricting (all weights!), purging, or binge eating
- Athlete triad: menstrual dysfunction, low energy availability, decreased bone mineral density (also called Relative Energy Deficiency in Sport, or RED-S)
- Weight loss correlates to risk of complications
- Any racial-ethnic background, any gender, any age
- Comorbid psychiatric disorders should raise suspicion, may present to MH provider first

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- National Initiative for Eating Disorders, www.nied.ca

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Questions?

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