Collaborative Management of Adolescent Eating Disorders

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Disclosures

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Objectives

You will be able to

- appreciate the extent of medical and psychiatric problems and their interaction in adolescent eating disorders
- acquire a basic understanding of psychological treatment of these disorders
- participate in developing and managing a collaboration between primary care and mental health practitioners
Feeding and Eating Disorders (DSM 5)

- Pica
- Rumination Disorder
- Avoidant Restrictive Food Intake Disorder (ARFID) (new in DSM 5)
- **Anorexia Nervosa (AN)**
- Bulimia Nervosa (BN)
- Binge Eating Disorder (BED) (new in DSM 5)
- Other Specified Feeding or Eating Disorder (OSFED)
  - e.g. atypical anorexia nervosa, night eating syndrome, purging disorder
- Unspecified Feeding or Eating Disorder
Why Collaboration?

- Feeding and Eating Disorders have significant medical and psychiatric components
- Specialized services within public mental health programs either require to contain medical services or must rely on external medical services
- Private practice psychotherapists specializing in eating disorders should be able to rely on and collaborate with medical practitioners but mostly don’t
- Our presentation is from the perspective that we are part of a specialty service within the IWK that was re-organized about three years ago
- **Ours is a service that highly values collaboration with medical colleagues, i.e. family physicians, nurse practitioners, family practice nurses, pediatricians**
A few Canadian statistics for eating disorders

(Ontario Community Outreach Program for Eating Disorders (2011) updated by the National Initiative for Eating Disorders, 2017)

- Prevalence is 2% to 3% overall, affecting 725,000 to 1,100,000 Canadians
- Lifetime prevalence for AN 0.16% for males, 0.66 % females
- Lifetime prevalence of BN 1.1 % females, 0.1 % males
- Prevalence of full or partial AN plus BN 2% for males, 4.8% females
- Incidence of early onset restrictive eating disorders (AN plus ARFID plus some of OSFED) in 5 to 12 year olds seen by pediatricians in Canada (95% response rate) was 2.3/100,000 person years; 138 girls, 22 boys. AN patients were more likely to be medically compromised but some who did not meet full criteria were equally medically unstable.
- In an Ontario community sample of teens clinically significant symptoms (EAT26 score >20) and binging or purging or both were reported by 27 % of girls age 12 to 18 years. Only 4% of those who binged and only 6 % of those who purged had ever had an assessment or treatment
Morbidity and Mortality

- High co-morbidity with depressive disorders and anxiety disorders, obsessive compulsive traits, obsessive compulsive disorders and, in adults, also alcohol dependence
- Mortality rates are reported to be from 14 to 20 % from eating disorder related causes
- Meta-analysis of 36 published studies showed that AN has the highest mortality rate of all mental disorders (Arcelus et al. 2011)
- 1/5th of deaths are due to suicide. 1/3 are from cardiac causes
- A cohort study in BC of 954 consecutive adult cases showed a standardized mortality rate of 10.5 (Birmingham et al., 2005) with a life expectancy reduction of 20 to 25 years (Harbottle et al., 2008)
Basic DSM 5 criteria for Avoidant Restrictive Food Intake Disorder (ARFID)

- Persistent failure to meet appropriate nutritional and/or energy needs associated with one or more of
  1. Significant weight loss (or failure to achieve expected weight gain or faltering growth in children)
  2. Significant nutritional deficiency
  3. Dependence on enteral feeding or nutritional supplements
  4. Marked interference with psychosocial functioning
- Not explained by lack of available food or by an associated culturally sanctioned practice
- Doesn’t exclusively occur during AN or BN and there is no evidence of body perceptual disturbance
- Not attributed to a medical condition or better explained by another mental health disorder
Basic DSM 5 Criteria for Anorexia Nervosa (AN)

- Persistent restriction in energy intake leading to significantly low body weight (in context of what is minimally expected for age, sex, developmental trajectory, and physical health)
- Either an intense fear of gaining weight or of becoming fat, or persistent behavior that interferes with weight gain (even though of significantly low weight)
- Disturbance in the way one’s body weight or shape is experienced, undue influence of body weight and shape on self-evaluation, or persistent lack of recognition of the seriousness of the current low body weight
  - Subtypes: Restricting
    Binge-eating/purging
- Note: percentage of weight loss and amenorrhea are no longer required
Basic DSM 5 Criteria for Bulimia Nervosa (BN)

- Recurrent episodes of binge-eating, characterized by both:
  1. Eating in a discreet period of time an amount of food that is definitely larger than most people would eat during a similar period of time and under similar circumstances
  2. A sense of lack of control over eating during the episode

- 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 occur at least once a week for three months

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

- Doesn’t occur during AN
Basic DSM 5 Criteria for Binge Eating Disorder (BED)

- Binging (as in BN)
- The binge eating episodes are associated with 3 or more of:
  1. Eating much more rapidly than normal;
  2. eating until feeling uncomfortably full;
  3. eating large amounts of food when not feeling physically hungry;
  4. eating alone because of feeling embarrassed by how much one is eating;
  5. feeling disgusted with oneself, depressed or guilty afterward
- Marked distress regarding binge eating
- Binge eating occurs at least once a week for 3 months
- Not associated with the recurrent use of inappropriate compensatory behaviours as in BN and does not occur during BN or AN
Basic DSM 5 Criteria for Other Specified Feeding or Eating Disorder (OSFED)

- The disorder is atypical in that not all criteria for the usual feeding and eating disorders are met in a patient. The atypicality should be specified.
- Examples are:
  - Atypical Anorexia Nervosa
  - Binge Eating Disorder of low frequency
  - Bulimia Nervosa of low frequency and/or limited duration
  - Purging Disorder (in the absence of binging)
  - Night Eating Syndrome

Note: OSFED of the atypical anorexia nervosa type can be medically as severe as some cases of Anorexia Nervosa when the weight is normal or above but the weight loss is causing major problems, including cardiovascular instability
Medical Problems from Anorexia Nervosa

(Mehler, PS, Brown, C, 2015)

- **Neurological/neuropsychiatric**
  - Decreased concentration, depression, seizures, light headedness, brain atrophy

- **Cardio-vascular:**
  - Bradycardia, hypotension, orthostatic pulse and BP changes, pericardial effusion (often “silent” present in 22 to 71% of AN cases), decreased left ventricular size, decreased left ventricular index, decreased cardiac output, decreased left ventricular diastolic and systolic dimensions, QTc prolongation, arrhythmias, cardio-genic shock, cardiac arrest, fainty, LOC

- **Dental/oral/oesophageal:**
  - Caries, erosions, hemorrhages, dysphagia,
Gastro-intestinal:
- delayed gastric emptying, “fullness”, gastroparesis, constipation, acute pancreatitis

Hematological:
- Fe deficiency anemia, B12 deficiency anemia, neutropenia, thrombocytopenia

Metabolic:
- Decreased metabolic rate, electrolyte abnormalities, effects from low Mg, low Phosphate, low Ca; osteopenia, osteoporosis

Liver function:
- low albumin (may lead to edema), abnormal transaminases, re-feeding hepatitis, superior mesenteric artery syndrome
- Pulmonary
  - Aspiration pneumonia, respiratory failure, spontaneous pneumothorax, emphysema
- Hormonal:
  - Low T4 and T3 but normal TSH (do not treat with thyroid hormone!), menstrual irregularities or amenorrhea due to hypothalamic dysfunction (decreased GnRH), decreased LH, FSH, estrogen, testosterone; decreased fertility, hypercortisolemia, hypoglycemia (may cause sudden death); neurogenic diabetes insipidus (may result in hypernatremia), increased GH but decreased IGF-1 indicating growth hormone resistance, growth retardation
- Orthopedic: stress fractures, vertebral or long-bone fractures
- Dermatologic: dry skin, fissures, cold intolerance, acrocyanosis, thin hair, hair loss, lanugo hair, ecchymoses, decubitus ulcers (due to loss of subcutaneous tissue), carotenememic skin (spares sclerae)
Physical Exam and Functional Inquiry

- May show signs of the aforementioned medical complications
- Generally the skin may be dry, pale, show possible acrocyanosis, possible easy bruising
- There is decreased body fat, sharpening of body contours, decreased muscle mass, noticeable bony protruberances
- On inquiry there may be lightheadedness, faintness/"dizziness" on rising, decreased energy, easy fatigability
Psychiatric History

- Onset may be gradual or rapid
- Body image concerns may precede food restriction
- Food restriction may be explained as a means of “eating healthy”, i.e. restriction of “junk foods” but without compensatory increase in other foods; may be explained as needed to reduce or avoid “excess” weight
- Pre-morbidly weight may have been high or normal or “always thin”
- Weight reduction and signs of that are highly desired by the patient
- Thoughts focus increasingly on body weight and shape and on foods
- Calorie counting and food label reading are very common
- Stressful life events may accompany the onset or contribute to disease progression but not invariably so
Mental Status Exam:

- The adolescent may be very anxious, tense
- A recognition that she has a disorder may or may not be present
- Help-seeking may or may not be present
- Complete denial about there being anything wrong or lack of appreciation of the seriousness of symptoms and signs are common
- When cooperative, adolescents are often very good at describing the course of their illness and open about the means they have used to control their weight
- Passive suicidal ideation is common, active suicidal ideation is uncommon unless there is comorbidity especially of a depressive disorder that may sometimes predate the onset of the eating disorder
Interaction between ‘medical’ and ‘psychiatric’ problems

- Malnutrition, through a number of mechanisms, influences thought processes and body image perception. When corrected, there is often marked improvement in psychiatric functioning.
- Depression emerging during the course of anorexia nervosa is mostly due to malnutrition. The medicine for that is food.
- Very underweight people and very overweight people show much more body image distortion than people of normal weight.
- ‘Set Point Body Weight’ is a theory that says that everyone has a weight that fluctuates only within a small range. That weight may or may not be the artificially constructed ‘Ideal Body Weight’ (better: ‘Expected Body Weight’ - EBW). It says that when overweight or underweight has occurred, usually one’s eating pattern allows a return to this set body weight. It is the result of DNA + epigenetic factors + environment.
  - In AN, once the disorder is controlled, the weight usually settles in around 100% of EBW +/- about 5%.
“A body goes through changes during the teen years. When you started dating, my hair turned gray. When you started driving, I got heart palpitations...”
Psychiatric Treatments for Adolescent Anorexia Nervosa

- In the past family therapies that are intended to alter family functioning were used, based on theories that faulty family expectations, role assignments and interactions were to blame. Outcome: high failure rates
- Individual therapies such as psychodynamic psychotherapy and Cognitive Behaviour therapy were also used but also with poor outcomes.
- “Family Based Treatment” (FBT)
  - based on a therapy developed at the Maudsley Institute in London,
  - presently has the highest level of evidence of effectiveness.
  - currently the preferred and commonest model of treatment in the IWK Mental Health and Addictions Program
  - but is also available through a few therapists in certain parts of Nova Scotia
Other Psychological Treatments that Show Promise

- Family Based Treatment without the Adolescent
- CBT-E (enhanced CBT), CBT-BN, CBT-BED
- DBT
- Adolescent Focused Therapy

- Inpatient treatment is mainly for serious medical complications, behavior interruption, outpatient treatment resistant cases
  - at the IWK, occurs on the psychiatric unit in the vast majority of cases

- Adjunctive therapies may be
  - Acceptance and Commitment Therapy
  - Emotion Focused Family Therapy
How does Family Based Treatment (FBT) Work?

- Sessions are initially weekly.
- The whole immediate family is expected to attend.
- The average number of sessions is 20 - 22 over 9 - 12 months.
- The treatment model is “agnostic” as to cause.
- The parents are empowered to take over control over their child’s eating and activity level, i.e. the basic treatment assumption is that the parents know what their child needs whereas the child is too sick to remain in control.
- There are 3 phases:
  - Phase 1: weight restoration (physical activities are restricted).
  - Phase 2: gradual return of control to the adolescent.
  - Phase 3: dealing with minor remaining psychosocial problems.
Each session starts with weighing the adolescent

- The adolescent can see her weight
- The weight informs the current treatment session
- A goal weight, which may be the Expected Body Weight or an adjustment to that based on past weights is set
- The actual weight or goal weight are not emphasized but weight gains or losses are
- The therapist explains the role of the parents and instructs/guides them in both supporting their teen and being firm enough to eat everything put before her
FBT - continued

- The second session in phase 1 is a family meal
- Transition to phase 2
  - when weight has been restored
  - when the teen seems ready to regain control over her food choices and intake
  - physical activities may be resumed gradually

- In the IWK’s Eating Disorder Specific Care Clinic a functional medical inquiry and assessment of orthostatic vitals can be done only when a nurse or psychiatrist is involved in the case.

- Where only a psychologist provides FBT, concurrent medical monitoring is necessary. This could be the case at the IWK, in community mental health clinics and in private practice settings.
Case Management in the Eating Disorder Specific Care Clinic

- RN Clinic Coordinator
- Certified Eating Disorder Registered Nurse
- Manages all referrals
- Available for consultation
- Liaising with Physicians in Community
Collaboration between medical practitioners and mental health practitioners

- This is necessary in most situations as only highly resourced programs have immediate access to pediatricians or adolescent medicine physicians
- Family physicians and nurse practitioners are ideally situated to identify eating disorders and to provide the initial work-up
- The family physician’s assessment informs the eating disorder service/practitioner regarding extent and severity of the disorder and therefore aids in triage/prioritization of care
- Once FBT (or another psychological treatment) is under way, the family physician needs to medically monitor the progress of the adolescent
- The family physician should regularly inform the medical practitioner of his/her medical findings, concerns
- In turn, the psychotherapist should regularly inform the medical practitioner of the progress in psychotherapy
Collaboration - continued

- The collaboration ideally is semi-formal
  - The FD sends referral information to the psychotherapist
  - The psychiatric/psychological assessment report is sent to the FD
  - The psychotherapist sends a copy of each treatment session to the FD
  - The FD sends a copy of each medical monitoring report to the psychotherapist
- There needs to be sufficient clarity in what is expected from all sides
- The family needs to know how the collaboration works
- Psychotherapists and FDs need to be readily accessible to each other
- In urgent/acute situations phone contact to each other needs to happen
- Decisions regarding possible or actual hospitalization need to be shared
Orthostatic vital signs in patients with Eating Disorders

- Patients with Eating Disorders often have very low heart rates as the heart muscle becomes weakened and the heart rate slows down. In order to get an accurate resting heart rate you should always have your patient lay at rest for 5 minutes before obtaining your first set of vital signs.

- Similarly, the heart rate often becomes elevated when going from laying down to standing up because the heart muscle is not strong enough to pump enough blood per stroke and so compensates by increasing its rate. It is important to allow 5 minutes standing before taking your second set of orthostatic vital signs.

- The following are red zone findings that should alert the physician/NP:
  - resting heart rate is less than 50 bpm
  - more than a 20 point increase from laying down to standing up
  - systolic pressure is less than 90 mmHg
  - a change in blood pressure of more than 10 mmHg from laying down to standing up
American Academy of Pediatrics Criteria for Hospitalization in Eating Disorders

- 75% ideal body weight or ongoing weight loss despite intensive management
- Heart rate 50 beats/min daytime; 45 beats/min nighttime
- Syncope
- Systolic blood pressure <90 mm Hg, Orthostatic changes in pulse (>20 beats/min) or blood pressure (>10 mm Hg)
- Serum chloride <88 mmol/L, potassium < 3.2 mmol/L
- Arrhythmias incl. QTc: girls: > 460 ms; boys > 450ms, Intractable vomiting
- Esophageal tears, Hematemesis
- Temperature <96°F or <35.5°C
- Body fat <10% (not measured at IWK)
- Suicide risk
- Complete refusal to eat
- Failure to respond to outpatient treatment

AAP 2003, updated 2014
Collaboration - continued

- We invite you and your colleagues to collaborate with us or with other mental health professionals managing eating disorders in children and adolescents.

Questions? Comments?
“If you are what you eat, I’d rather be thin like a French fry than round like a head of lettuce!”