EATING DISORDERS:
A RESOURCE FOR PRACTITIONERS PROVIDING COMMUNITY-BASED CARE
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Introduction

Client Population
This guideline was created to help support primary care practitioners to provide eating disorder care to clients age 18 and over. There are different recommendations for children and adolescents who experience eating disorders. You can find information regarding treatment programs for children and teens on page 12 of this guide.

Eating Disorders and Weight
IMPORTANT NOTE: Eating disorders occur across the weight spectrum. As a practitioner, it is important for you to assess eating disorder behaviours, eating disorder thoughts, and their impact; regardless of the client’s weight.

We encourage practitioners to explore eating disorder behaviours and thought patterns in clients of all sizes.
General Goals of Eating Disorder Treatment

To care for clients with eating disorders, a multidisciplinary team approach is recommended. Care providers should include a mental health professional, a medical practitioner, and a dietitian.

Goals for clients who are below normal weight/BMI:
» weight restoration
» resuming menses for clients with amenorrhea
» monitor and correct electrolyte abnormalities
» prevent osteoporosis
» monitor and manage physical complications (renal, gastrointestinal, hepatic, emotional, endocrine, and cardiac)

Goals for clients who purge or use laxatives:
» treat binge and purge behaviour (set goals for normalization)
» monitor and manage physical complications as above; including esophageal tears, PUD, GERD, and gastritis
» monitor and correct of electrolyte abnormalities
» prevent dehydration secondary to fluid losses
» promote healthy dentition, recommend bi-yearly dental exams

Goals for all clients with eating disorders regardless of behaviours or weight:
» develop rapport and a therapeutic alliance
» normalize eating behaviours/develop healthy eating habits
» adequate caloric intake
» healthy thinking regarding body shape, size, and nutrition
» multidisciplinary approach, facilitating coordinated care among other providers and services if applicable
» identify, intervene, and support for possible co-morbid concerns including self-harm behaviours, substance abuse, mood disorders, and conflict in relationships
» promote psychological health, including cognitive and emotional function
» promote involving family/support system to maximize compliance with treatment and behaviour change, especially for adolescents
» provide support to the family
» enhance motivation to cooperate with treatment approach
» prevent relapse
Follow-Up

Initially, and as a general starting point, our team recommends weekly or bi-weekly follow-up with your client in your office. Depending on their behaviours and medical stability, medical visits can be gradually decreased based on your clinical discretion.

History Taking

We recommend taking a thorough history, with special attention to:

» eating habits, dietary history, 24-hour food recall
» presence and severity of food restriction
» binge/purge behaviour
» use of laxatives, diuretics, or weight loss supplements
» chewing and spitting behaviours
» presence of fasting
» degree of exercise
» body image
» current weight
» highest and lowest documented weight
» current supports, presence of family dysfunction, or abuse
» previous eating disorder treatment or support
» treatment goals
» mental health status, presence of substance abuse, or self-harm behaviours
» readiness for change
General Symptom Review

A general review of systems is recommended at visits. Asking similar questions at each visit can help clients understand that their eating disorder behaviour has negative consequences to both their physical and psychological health.

Adapt questions to each individual client depending on their specific eating disorder behaviours.

» dizziness/syncope
» fatigue
» LMP
» peripheral edema
» cold intolerance
» GI status: presence of constipation, bloating, nausea, and abdominal pain
» cardiac complaints: chest pain or palpitations
» mental health status +/- suicidal ideation, if applicable
» presence of hematemesis if purging
» symptoms of hypokalemia if purging or using laxatives
» presence of tooth sensitivity, dental caries, and reduced enamel if purging
» presence of seizures
» symptoms of dehydration
» if applicable, symptoms associated with refeeding syndrome: peripheral edema, pulmonary edema, and symptoms associated with cardiac failure
Physical Examination

Weight
We recommend being selective about whether or not to weigh clients at appointments. Weighing can be helpful to both practitioner and client in some instances (monitoring weight gain in a low weight client for example). However, there are many instances where weighing a client could potentially be harmful (triggering and/or stressful for the client).

If you decide that weighing a client is beneficial for their recovery or treatment, it is important to ensure accuracy. It is recommended that the client wear similar clothing and ideally, the same scale should be used. Also, offer the client the option to be weighed with their back to the scale in order to conceal their weight, as seeing this can be distressing and detrimental to client progress.

Vital Signs
We recommend checking the client’s blood pressure and pulse after five minutes lying down and then repeated after one minute standing. We also recommend taking their temperature.

The remainder of the exam should be based on the client’s eating disorder behaviours and history. Discussing abnormalities found on the physical exam and history can help clients recognize that their eating disorder behaviour has negative physical health consequences.

Physical Exam
As a general rule, it is helpful to examine:

- extremities: colour, warmth, capillary refill, presence of peripheral edema
- the cardiac system: bradycardia, tachycardia, arrhythmia, MVP
- the abdomen if symptomatic or experiencing issues with bowel movements (constipation), or if considering other causes for weight loss/vomiting
- parotid gland enlargement if purging
- dentition if purging
- skin and mucous membranes: hydration, dryness, lanugo, and Russell’s sign (abrasions/ scarring on knuckles caused by induced vomiting)
- neurological exam if you are considering other causes for weight loss/vomiting
- psychological status including affect, speech, grooming, and eye contact
Investigations

We recommend laboratory studies suggested by the Manitoba Health Eating Disorder Guidelines. For laboratory screening suggestions, please see:

Manitoba Health: Eating Disorders
https://www.gov.mb.ca/health/mh/docs/eating_disorder.pdf

Frequency and type of laboratory investigations is based on the client’s behaviours, review of symptoms, physical exam, and of course; your discretion as a practitioner.

Initially and as a general guideline you can consider:

» CBC with differential, ferritin, B12, electrolytes, BUN, Cr, AST, ALT, Total Protein, Albumin, Globulin, TSH, Ca, Mg, Phosphate, RBS, Amylase (if purging), urinalysis, and MSU.

» CBC, Ferritin, and Vitamin B12 can be repeated every six months if clinically indicated.

If purging, we recommend weekly:

» Na, K, Cl, CO2, and BUN

If at risk for refeeding syndrome, we recommend weekly or biweekly:

» NA, K, Mg, Phosphate, Ca, and RBS

Re-feeding syndrome is a potentially fatal condition resulting in severe electrolyte changes as a result of refeeding, or re-nourishment, after a period of malnutrition.

BMJ Clinical Review: Refeeding Syndrome: What it is, and How to Prevent and Treat it
Miscellaneous Testing

An EKG is important, especially in clients with bradycardia, to rule out a prolonged QTc interval (normal <0.44). A repeat EKG is usually not required unless cardiac symptoms persist, new cardiac symptoms develop, or if abnormalities were previously noted on EKG.

For clients with anorexia nervosa and amenorrhea, we suggest a baseline BMD scan to monitor bone mineral density, and periodic follow up at the practitioner’s discretion if amenorrhea is persistent. Evidence of bone loss may be useful in recovery motivation.

If your client is experiencing amenorrhea, we recommend ruling out other medical causes at your discretion with labs including:

» Quantitative Beta-hCG, estradiol, FSH, LH, prolactin, and TSH

If your client is experiencing weight loss and/or chronic vomiting, it is helpful to consider differential diagnoses including:

» new onset diabetes
» hyperthyroidism
» adrenal insufficiency
» depression or other psychiatric illness
» chronic infection
» celiac disease, inflammatory bowel disease, & malabsorption
» CNS lesions/tumors
» abdominal mass (benign or malignant)

Additional laboratory testing is dependent on the differential diagnosis you are excluding.
General Recommendations

» multivitamin once daily
» potassium supplementation as needed
» treat nutritional and mineral deficiencies (folate, B12, anemia, Mg, etc.)
» Calcium (1000-1200 mg daily) and Vitamin D (600-800 IU daily) from diet and supplements combined for overall general bone health in accordance with Osteoporosis Canada, Health Canada, and the American Academy of Pediatrics (note: supplements do not prevent osteoporosis)
» prevent and treat constipation
» activity restriction in clients who are at a lower than expected weight, restricting intake, and/or experiencing loss of menstruation (if applicable)
» activity restriction with abnormalities in vital signs
» awareness of pharmaceuticals that prolong the QTc interval
» provide multidisciplinary care within a treatment team
» emphasize treatment goals as previously discussed
» in anorexia nervosa, it is unclear if bone loss is fully reversible. Weight gain and resumption of menstruation is associated with an increase in bone mineral density.
» pregnancy is possible in clients with amenorrhea so contraception is encouraged if needed
» combined hormonal contraception is not recommended for bone loss prevention. Additional research is needed regarding the role of bisphosphonates in the treatment of anorexia nervosa-associated bone loss in adults.
Indications for Hospitalization

Manitoba Health Eating Disorder Guidelines

**Hospital admission should be considered in adults if:**
- heart rate < 40 bpm
- blood pressure < 90/60 mm Hg
- symptomatic hypoglycemia
- potassium < 3 mmol per litre
- temperature < 36.1 C

**Hospital admission should be considered in adolescents if:**
- heart rate < 50 bpm
- orthostatic blood pressure resulting in an increase of heart rate > 20 bpm or a systolic drop in blood pressure of > 10 to 20 mm Hg
- blood pressure < 80/50 mm Hg
- hypokalemia or hypophosphatemia
- symptomatic hypoglycemia or RBS < 3 mmol per litre

**Hospital admission should be considered in all clients if they experience or demonstrate:**
- dehydration
- cardiovascular abnormalities other than bradycardia
- weight < 75% of expected weight
- poor motivation or insight
- poor cooperation in outpatient treatment
- inability to eat independently; complete food refusal
- requiring nasogastric feeding for weight restoration
- anti-therapeutic and/or unsafe environment, especially if abuse is present
- symptoms of refeeding syndrome: peripheral edema, pulmonary edema, and symptoms associated with cardiac failure
- medical instability (VS, glucose, dehydration, organ compromise)
- lack of improvement or worsening of condition in outpatient treatment
- rapid weight loss
- suicidal plan or marked suicidal ideation
- severe coexisting psychiatric concerns including psychosis
Eating Disorder Treatment Programs in Manitoba

» Provincial Eating Disorder Prevention and Recovery Program
   Call 204-947-2422 ext. 137

» Health Sciences Centre Adult Eating Disorder Program (physician or nurse practitioner referral required)
   Call 204-787-3482

» Health Sciences Centre Child and Adolescent Eating Disorder Program (physician or nurse practitioner referral required)
   Call 204-958-9660

» Westwind Eating Disorder Recovery Centre
   Call 1-888-353-3372

Miscellaneous Treatment Resources

Substance Abuse

Addictions Foundation of Manitoba
Winnipeg, Manitoba
Call 204-944-6200

CODI Outreach Program: Mental Health and Substance Abuse Case Management Services
Winnipeg, Manitoba
Call 204-787-5005

Addictions Program: Health Sciences Centre
Winnipeg, Manitoba
Call 204-787-3855

Inpatient service for clients experiencing complications with substance withdrawal +/- treatment for associated mental health conditions.

Outpatient services
Call 204-787-3843

Mental Health: Adolescents

MATC
Winnipeg, Manitoba
Call 204-958-9660

Offers a wide range of mental health services for children, adolescents, and families.
Mental Health: Adults

Anxiety Disorders Clinic: St. Boniface Hospital
Winnipeg, Manitoba
Call 204-237-2335

Assessment and treatment services

WRHA Central Intake for Adult Psychiatry
Winnipeg, Manitoba
Call 204-787-3479

STAT Program: Health Sciences Centre
Winnipeg Manitoba
Call 204-787-3200

Day treatment/outpatient program for acute psychiatric support and/or crisis.

Mood Disorders Program: Health Sciences Centre
Winnipeg, Manitoba
Call 204-787-3200

Comprehensive assessment and treatment for multiple mood disorders.
Common Medical Complications

Anorexia Nervosa

Mortality Risk
Anorexia nervosa is associated with an increase death, or all-cause mortality, compared to the general population. Suicide accounts for 20 per cent of deaths, while medical complications including cardiac arrest account for approximately 50 per cent of deaths. Long term recovery rates are estimated at 32-70 percent.

Electrolyte Disturbances
Vomiting, laxatives, and diuretic use can result in hypokalemia, hypochloremia, hyponatremia, and metabolic alkalosis. Hypophosphatemia and hypomagnesaemia should also be ruled out. Electrolyte abnormalities can be extremely dangerous, leading to cardiac arrhythmias and sudden death.

Endocrine Changes
Hypoglycemia and euthyroid hypothyroxinemia are possible findings in a client with anorexia nervosa.

Dehydration and Edema
Vomiting, laxatives, diuretic use, and dietary restriction can result in dehydration with subsequent water retention. Water retention is visible in the form of peripheral or facial edema, and usually occurs after vomiting and laxative use has ceased after regular use.

Cardiac Irregularities
Anorexia nervosa is associated with bradycardia, hypotension, mitral valve prolapse, QT prolongation, T wave inversion, myocardial atrophy, arrhythmia, and heart failure. A prolonged QT is often associated with electrolyte abnormalities, specifically hypokalemia, which is a precursor to cardiac arrhythmias and sudden death. Heart failure usually results from a combination of reduced cardiac contractility and refeeding edema.

Bone Abnormalities
Osteopenia and osteoporosis are potentially irreversible complications associated with anorexia nervosa. The pathogenesis of bone loss is likely multifactorial, and is thought to be associated with estrogen deficiency secondary to amenorrhea, inadequate calcium and Vitamin D, in addition to low BMI. It is estimated that 40-60 percent of bone mass is accrued during the adolescent years. Osteopenia places clients at risk for fractures.
Pulmonary Changes
Anorexia nervosa is associated with emphysematous changes (also called nutritional emphysema) on chest imaging although the complications and medical sequelae of this finding remain unclear. It is suggested that decreased lung density is a reversible consequence of starvation/malnutrition. Clients with anorexia nervosa-purging type are also at risk for aspiration pneumonia (rare).

Renal Dysfunction
Renal abnormalities include electrolyte disturbances, inability to concentrate urine, elevated BUN (from intravascular depletion), decreased GFR, renal calculi, and polyuria secondary to abnormal vasopressin secretion.

Gastrointestinal Changes
In malnourished clients, delayed gastric emptying is common, resulting in complaints such as bloating and constipation. Superior mesenteric artery (SMA) syndrome is a rare finding that is associated with weight loss or low BMI, causing compression of the duodenum between the aorta and the vertebral column. Clients with anorexia nervosa (purging type) may also experience dental erosion, parotid hypertrophy, esophagitis, Mallory-Weiss tears, esophageal/stomach rupture (rare), Barrett esophagus, fatty liver infiltration, acute pancreatitis, and gallstones.

Hematological Changes
Hematological changes include leukopenia, thrombocytopenia, and anemia. B12 deficiency can be a common finding in clients with a vegetarian or vegan diet.

Neurological Changes
Seizures can result from coexisting electrolyte abnormalities including hypoglycemia, hyponatremia, and hypomagnesaemia. Seizures can also be precipitated by decreased cerebral perfusion. Cerebral atrophy, cognitive impairment, and Wernicke’s encephalopathy (rare) are also associated with anorexia nervosa.

Cognitive/Emotional Changes
Malnutrition is linked with, or can exacerbate, depression, anxiety, irritability, mood swings, and personality changes.

Dental Erosion
If clients are experiencing anorexia nervosa-purging type, they are at risk for tooth sensitivity, loss of enamel, periodontal disease, and dental caries.

Hepatic Changes
Acute hepatic insufficiency can result from prolonged malnutrition.
Reproductive Changes
Menstrual irregularities, amenorrhea, and secondary fertility issues can result from caloric restriction and malnutrition.

Refeeding Syndrome
Refeeding syndrome is a potentially fatal condition resulting from the rapid refeeding of a malnourished client. Risk factors for refeeding syndrome include low BMI, little or no nutritional intake for five days, electrolyte disturbances before refeeding begins, and unintentional weight loss. Electrolyte abnormalities seen in refeeding syndrome include hypophosphatemia, hypomagnesemia, hypokalemia, hypocalcemia, and hypoglycemia. A deficiency in phosphorus is the most dangerous as it is linked with acute pulmonary edema due to dilated cardiomyopathy.

Bulimia Nervosa

Mortality Risk
The risk of death, or all-cause mortality, in clients with bulimia nervosa is two times greater than the general population. The rate of suicide has been estimated at seven times greater than the general population. Long term follow-up shows recovery rates of around 60 percent.

Electrolyte Disturbances
Vomiting, laxatives, and diuretic use can result in hypokalemia, hypochloremia, hyponatremia, and metabolic alkalosis. Hypophosphatemia, hypocalcaemia, and hypomagnesaemia should also be ruled out. Electrolyte abnormalities can be extremely dangerous, leading to cardiac arrhythmias and sudden death.

Dehydration and Edema
Vomiting, laxatives, diuretic use, and dietary restriction can result in dehydration with subsequent water retention. Water retention is visible in the form of peripheral or facial edema, and usually occurs after cessation of regular vomiting and laxative use.

Cardiac Irregularities
Bulimia nervosa can be associated with bradycardia and hypotension, which is often a result of periods of restriction or dehydration. Palpitations are a common complaint and often a result of tachycardia post purging, hypokalemia, or dehydration. QT prolongation is often associated with electrolyte abnormalities, such as hypokalemia, which is a precursor to ventricular arrhythmias and sudden death.

Reproductive Changes
Menstrual irregularities or amenorrhea can result from caloric restriction, erratic nutritional patterns, and overall malnutrition.
Bone Abnormalities
Osteopenia and Osteoporosis are potential complications of bulimia nervosa. The pathogenesis of bone loss is likely multifactorial, and is thought to be associated with estrogen deficiency if the client is experiencing amenorrhea, inadequate intake or absorption of calcium and vitamin D, and a low BMI which is a possible finding in clients with bulimia nervosa. It is estimated that 40-60 percent of bone mass is accrued during the adolescent years. Osteopenia places clients at risk for fractures.

Renal Dysfunction
Renal abnormalities include electrolyte disturbances, inability to concentrate urine, elevated BUN (from intravascular depletion), renal stones, and decreased GFR.

Gastrointestinal Changes
If malnourished, delayed gastric emptying is common, resulting in complaints such as bloating, constipation, and stool changes. Clients with bulimia nervosa (purging type) may also experience parotid hypertrophy, esophagitis, Mallory Weiss tears, esophageal/stomach rupture (rare), Barrett esophagus, fatty liver infiltration, acute pancreatitis (secondary to binge eating), and gallstones.

Pulmonary Changes
Although extremely rare, clients with bulimia nervosa (purging type) are at risk for aspiration pneumonia.

Neurological Changes
Seizures can result from coexisting electrolyte abnormalities including hypoglycemia, hyponatremia, and hypomagnesaemia. Seizures can also be precipitated by decreased cerebral perfusion.

Cognitive/Emotional Changes
Malnutrition is linked with, or can exacerbate existing depression, anxiety, irritability, mood swings, and personality changes.

Dental Erosion
If purging, clients are also at risk for tooth sensitivity, loss of enamel, periodontal disease, and dental caries.
Eating Disorders and DSM-V

The DSM-V helps guide the diagnosis of a clinical eating disorder. In many cases, eating disorder behaviours are present when not all diagnostic criteria are met. Eating disorder treatment options and support should be explored regardless of whether a client meets full DSM criteria.

DSM-V Criteria

Anorexia Nervosa

» Restriction of nutritional intake leading to a significantly low body weight that is less than minimally normal, or for children and adolescents, less than minimally expected. Typically, a low body weight is defined as a BMI <18.5.

» Intense fear of gaining weight or becoming fat, or a persistent behaviour that interferes with weight gain.

» Disturbance in the way one's body weight or shape are experienced or denial of the seriousness of the current low body weight.

Specify Type:
Restricting type: Weight loss is accomplished through dieting, fasting, or excessive exercise. During the last three months, the client has not engaged in binge-eating or purging behaviour (self-induced vomiting or misuse of laxatives, diuretics, or enemas).

Binge eating-purging type: During the last three months, the client has regularly engaged in binge eating or purging behaviour (self-induced vomiting or the misuse of laxatives, diuretics, or enemas).

Specify if:
In partial remission: Full criteria for anorexia nervosa were previously met. The client no longer has a significantly low body weight, but still meets the other DSM-V criteria for anorexia nervosa.

In full remission: Full criteria for anorexia nervosa were previously met, and for a sustained period of time, the client no longer meets any of the diagnostic criteria.

Specify Severity:

Mild: BMI >17
Moderate: BMI 16-16.99
Severe: BMI 15-15.99
Extreme: BMI <15
**Bulimia Nervosa**

Recurrent episodes of binge eating characterized by:

» Eating, in a discrete period of time (e.g., within any 2-hour period), an amount of food that is larger than most people would eat and a sense of lack of control over eating during the episode.

In addition to:

» Recurrent inappropriate compensatory behaviour to prevent weight gain: self-induced vomiting; or the use of laxatives, diuretics, enemas, fasting, or excessive exercise

» Binge eating and compensatory behaviour both occur at least once a week for 3 months

» Self-evaluation is influenced by body shape and weight

» The above behaviours do not occur exclusively during episodes of anorexia nervosa

**Specify if:**

**In partial remission:** Criteria for bulimia nervosa were previously met, although some of the criteria have not been met for a sustained period of time.

**In full remission:** Full criteria for bulimia nervosa were previously met, and for a sustained period of time, the client no longer meets any of the diagnostic criteria.

**Specify Severity:**

**Mild:** 1-3 episodes of inappropriate compensatory behaviours per week

**Moderate:** 4-7 episodes of inappropriate compensatory behaviours per week

**Severe:** 8-13 episodes of inappropriate compensatory behaviours per week

**Extreme:** 14 or more episodes of inappropriate compensatory behaviours per week

**Binge-Eating Disorder (BED)**

Recurrent episodes of binge eating characterized by:

» Eating, in a discrete period of time (e.g., within any 2-hour period), an amount of food that is larger than most people would eat and a sense of lack of control over eating during the episode.

The binge eating episodes are linked with three or more of the following:

» eating more rapidly than normal

» eating until feeling uncomfortable

» eating when not physically hungry

» eating alone due to embarrassment

» feeling disgusted, depressed, or guilty after the binge episode the binge eating occurs
In addition:
- the client is distressed about the binge eating episodes
- the binge eating occurs at least once a week for 3 months
- the binge eating is not associated with any compensatory behaviour and does not occur in the context of diagnosis for anorexia or bulimia

Specify if:
In partial remission: Criteria for BED were previously met although the binge eating occurs less than one episode per week for a sustained period of time.

In full remission: Full criteria for BED were previously met, and for a sustained period of time, the client no longer meets any of the diagnostic criteria.

Specify Severity:
Mild: 1-3 episodes of binge eating per week
Moderate: 4-7 episodes of binge eating per week
Severe: 8-13 episodes of binge eating per week
Extreme: 14 or more episodes of binge eating per week

Other Specified Feeding or Eating Disorder
This category includes clients who engage in eating disorder behaviours that cause significant distress or impairment to their activities of daily living but do not meet full DSM criteria for previously discussed eating disorders. It is helpful for the practitioner to communicate the specific reason that the client does not meet full DSM criteria.

Examples include:
- Atypical anorexia nervosa: All of the criteria for anorexia nervosa are met except that the BMI is >18.5.
- Bulimia nervosa of low frequency/limited duration: All of the criteria for bulimia nervosa are met except that the binge eating and inappropriate compensatory mechanisms occur less than once a week or for less than 3 months.
- Binge eating disorder (BED) of low frequency or limited duration: All the criteria for BED are met, except that the binge eating occurs less than once weekly or for less than 3 months.
- Purging disorder: Recurrent purging to influence weight or shape (vomiting, laxative use, or diuretics) in the absence of binge eating.
- Night eating syndrome: recurrent episodes of night eating (waking from sleep) that are remembered and recalled by the client. The night eating is causing distress and impairment in the client’s functioning. The night eating is not suggestive of an underlying mental disorder, substance use, effect of a medication, or binge eating disorder.