Understanding eating disorders in adolescents

Eating disorders are serious mental illnesses with significant physical and psychological effects.

The onset of an eating disorder is typically during adolescence, although younger children also develop eating disorders.[1] The impact of the illness on the individual and their families can be devastating.

General practices are usually the first port of call for a young person and their family when worried about possible eating disorders. It is, therefore, valuable for nurses in general practice to be able to recognise eating disorders and assist with early intervention.

Types of eating disorders

The main types of eating disorders are: anorexia nervosa (AN), bulimia nervosa (BN) and eating disorder not otherwise specified (EDNOS).

While anorexia nervosa occurs in approximately 0.3% of young women[1], it is the third most common chronic illness for adolescent girls in Australia, after asthma and obesity.[2] Anorexia nervosa has the highest rate of mortality of all psychiatric disorders, with half those deaths due to suicide and the remainder due to physical complications, primarily in adults.[3] While AN is rare, BN occurs in approximately 1% of young women[1] and EDNOS is the most commonly seen eating disorder in clinical settings.[4] Eating disorders occur equally in both males and females before puberty. This changes during adolescence, with the ratio of males to females approximately 1:10, decreasing to 1:20 during young adulthood.[5] The myth that eating disorders are illnesses affecting females can make men less likely to report eating disorder symptoms and health professionals less likely to recognise these in males.

Anorexia nervosa

A young person with AN is commonly very underweight. They have a distorted body image and an intense fear of gaining weight. This results in very strong and overwhelming negative thoughts and emotions about food, eating and their appearance. This is not a lifestyle choice but a mental illness with a drive for thinness that is very different to a typical young person who is worried about their weight or appearance. AN thoughts make eating appropriate amounts of food very difficult for the young person, leading to starvation, which can have serious medical consequences.

Bulimia nervosa

A young person diagnosed with BN has episodes of binge eating (eating very large amounts of food quickly) while feeling a loss of control. In order to avoid weight gain, the young person then engages in compensatory activities to avoid weight gain, such as vomiting, using laxatives or excessive exercise. Often people with BN will be of an average weight or overweight which can make identification of this illness very difficult.

Eating disorder not otherwise specified

A young person diagnosed with EDNOS may have some features of AN, BN or both. A diagnosis of EDNOS means the young person does not meet all the criteria to diagnose AN or BN using DSM-IV diagnostic criteria. However, it does not mean it is less severe. A diagnosis of EDNOS should be treated just as seriously as a diagnosis of AN or BN as the burden of disease and mortality in this group has been shown to be similar.[6]

It is important to recognise that not all young people suffering from eating disorders will be underweight. Eating disorder patients more commonly present with weights within the normal range, as they have lost weight from a higher starting point. While these patients are diagnosed with EDNOS rather than AN, they continue to suffer from AN thinking and develop the same medical complications and therefore require the same treatment.

Why does someone get an eating disorder?

Although dieting is common among young people, only a small proportion develops an eating disorder. The reason for this is unclear. Eating disorders occur across all ages, cultural and socio-economic groups and in all types of families. There is no single cause; however, there are a number of factors that make a person more at risk of developing an eating disorder. These may include:

- female gender
- adolescent age
- perfectionistic personality
- high achiever
- obsessive thinking
- ineffective coping strategies
- family history of an eating disorder
- depression or anxiety

Signs and symptoms

Adolescence is a time of growth when the nutritional needs of a young person increase as their body develops mass, strength and height.[7] It is not uncommon for a young person's intake to increase dramatically to support this growth and development. Therefore, a reduction in intake and weight loss during this time should be viewed with caution. Failure to gain weight during the normal adolescent growth spurt is also important to consider to when assessing younger patients.

It is normal for eating habits to change as young people become more independent and eat away from home more frequently. For this reason eating disorders can remain hidden and can be undetected for quite some time.

Understanding eating disorders in adolescents (cont.)

Parental concern about weight loss and change in eating habits is the most common presentation of anorexia nervosa to GP practices.[8] A single GP consultation for weight, shape and eating behaviour concerns has been identified as a significant predictor for the subsequent emergence of an eating disorder.[9] Parents are the best resource for the clinician as they are usually the first to recognise changes in behaviour and eating habits.

Young people suffering from eating disorders may often be in denial or be attempting to hide their symptoms. For this reason, parental concern should be taken seriously and a detailed history should be taken from the parents as well as the young person.

Eating disorders may present differently in younger patients and may therefore be more difficult to identify. The cognitive criteria — drive for thinness, body image disturbance and fear of weight gain — are less overt in younger patients who may have an underdeveloped capacity for abstract reasoning and therefore have limited insight into the motive behind their behaviours.[10]

Signs and symptoms that may suggest an eating disorder are shown in table 1.

Medical complications

Eating disorders can affect all body systems including:

- cardiovascular
- endocrine
- central nervous system
- gastrointestinal
- renal
- haematologic
- metabolic.

Bradycardia, hypothermia and dehydration are the most significant acute problems in anorexia and can become life threatening.[11] Of particular importance are the affects of starvation on the cardiovascular system, with cardiac arrhythmias a common cause of sudden death in anorexia nervosa.[2]

The most significant chronic medical complications for adolescents with anorexia are pubertal delay, the potential for growth retardation and peak bone mass reduction, which can lead to osteoporosis or osteopenia.[11]

The brain is especially vulnerable to malnutrition as it uses approximately 20% of the caloric intake of an individual and is particularly dependent on glucose.[12] Starvation causes the brain to shrink, which is associated with many behavioural disturbances such as rigidity, emotional dysregulation and social difficulties.[13] This can help to explain some of the behaviours of someone with an eating disorder and suggests that starvation can actually be the cause of some of the changes in behaviour.

Most pathophysiological complications are reversible with improved nutritional status and return of normal eating behaviours.[12] Therefore, it is important to get treatment early to reduce the risk of long-term complications.

Physical examination and investigations

The following should be performed when assessing an adolescent with an eating disorder:

- weight
- height
- BMI (weight x height m^2)
- lying and standing blood pressure
- lying and standing heart rate
- temperature
- routine blood tests.

Table 1.

Behavioural Signs	Physical Signs
• Consistently reducing fat, calorie counting, skipping meals, fasting, avoiding certain food groups, such as dairy or carbohydrates • Excessive/compulsive exercise • Preoccupation with body shape, weight and appearance • Intense fear of gaining weight • Distorted body image • Distress/anger at meal times • Bathroom visits/showers after meals • Frequent weighing of self • Unusual food behaviours such as cutting food into tiny pieces • Strict rules around eating (i.e. time of day, specific caloric intake) • Avoiding social situations involving food/avoiding eating meals by giving excuses • Obsessive interest in food/cooking but not eating anything they cook • Moodiness/irritability • Social withdrawal • Difficulty concentrating	• Significant weight loss • Amenorrhea • Cold intolerance • Headaches • Lanugo (fine downy hair that grows on the body to keep it warm) • Lethargy, tiredness, fainting, dizziness • Dull brittle hair or hair loss • Dry and flaky skin • Easily bruising • Cold peripheries • Reduced gastric motility/constipation • Bradycardia • Hypotension • Electrolyte imbalance • Hypothermia

It is very common for blood results to be normal despite rapid weight loss. Blood tests are important to perform, primarily to exclude other conditions but should not be used as the primary indicator of 'unwellness'. Abnormal vital signs are the best indicators that the body is under stress, so should be performed routinely.

Common criteria for admission to hospital are outlined in table 2.[14]

Table 2.

Criteria for admission to hospital
• resting bradycardia (< 50 beats per minute) • postural hypotension (< 10mmHg systolic) • temperature < 35.5 • severe electrolyte disturbances • arrhythmia • acute dehydration from refusal to eat or drink anything

Messages for the family

It can be difficult to know what messages to give to a family when the diagnosis is not clear. Often families are told to back off and 'not make food an issue'. Although this advice is well meaning, not making food an issue for someone with an eating disorder can result in further weight loss and therefore worsening medical complications.

Encouraging families to take charge of their child's eating (provide regular meals and snacks, supervise meals) and limit exercise will only help to clarify the diagnosis as, if there is a problem, it will become more evident with efforts to contain behaviours.

When to refer

Referral to a specialist eating disorder unit, if available, should occur sooner rather than later. Early intervention can prevent further weight loss and therefore reduce the severity of medical complications. If the diagnosis is

unclear, the young person should be monitored regularly and referred if no improvement is made. Weight loss can be rapid in someone suffering from an eating disorder, which puts them at higher risk of medical instability. Review appointments for someone suspected of having an eating disorder should be organised within weeks not months.

Treatment

There are various treatment options for adolescents with eating disorders. Treatment should include medical, psychological and nutritional components.

Current evidence suggests the most effective treatment for adolescents with AN is family based treatment (FBT), also known as the Maudsley model (named after the hospital in London where the treatment was first developed).[12] FBT is also commonly used in the treatment of EDNOS and there is some evidence to support its use in adolescents with BN.[15]

FBT is an outpatient treatment that empowers parents and encourages them to be proactive and take charge of their adolescent's eating and behaviours. The focus is primarily on ensuring weight restoration and a return to physical health. The family work with a trained therapist or specialist team and present a united front in their fight against AN. FBT proceeds through three phases and treatment is usually completed in six to 12 months.

There is only minimal evidence for other therapies in the treatment of AN, such as cognitive based therapy (CBT), nutritional counselling and interpersonal psychotherapy.[12]

CBT is the treatment with the most evidence of success in BN.[12] CBT aims to solve problems concerning dysfunctional behaviours, emotions and cognitions through goal-oriented, systematic procedures.

Abnormal vital signs are the best indicators that the body is under stress, so should be performed routinely.

Key points

- Eating disorders are serious mental illnesses NOT a lifestyle choice.
- Take parental concerns seriously. They are often the first to notice changes in behaviour and eating patterns. Listen to their concerns.
- Medical review should take place regularly (i.e. weekly or fortnightly). Significant weight loss can happen very quickly.
- Monitor vital signs — these are the leading indicator of medical instability.
- Encourage parents to take charge of their child's eating and exercise.
- Refer to specialist unit if possible.
- As a key point of contact in the community, practice nurses can look out for the warning signs of eating disorders in patients.
- People with eating disorders appreciate good information about where to seek help and useful websites, but can be often unsure or ambivalent about getting help. Providing this information needs a sensitive, tactful approach that is non-confrontational and non-directive.
- Eating disorders are best managed by a multidisciplinary team of health professionals experienced in the area of eating disorders — such as GPs, psychologists, psychiatrists and dietitians.

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Accredited Practising Dietitians

As part of the team, an Accredited Practising Dietitian (APD) can provide nutrition and dietary advice to help a person with an eating disorder meet their nutritional needs. To find a suitable APD in your area, visit the Dietitians Association of Australia (DAA) website: www.daa.asn.au or call the toll free APD hotline on 1800 812 942. (*Information provided courtesy of the Dietitians Association of Australia.*)

Where to seek more support

A range of eating disorder services exist around Australia, which can provide consumers, families and health professionals with information on eating disorders and harm minimisation, as well as contacts in the local area.

Qld: Eating Disorders Resource Centre, www.uq.net.au/eda
NSW: Butterfly Foundation, www.thebutterflyfoundation.org.au
NSW: Centre for Eating and Dieting Disorders, www.cedd.org.au
Vic: Eating Disorders Foundation of Victoria, www.eatingdisorders.org.au
Vic: Butterfly Foundation, www.thebutterflyfoundation.org.au
SA: Aceda, www.aceda.org.au
NT: Northern Territory Association for Mental Health, (08) 8981 4128
National: Mental Health First Aid Website, www.mhfa.com.au

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