The recognition and management of eating disorders

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Background. Eating disorders - anorexia nervosa and bulimia nervosa - are increasingly recognised in our community, and appear to be increasing in frequency and affecting girls at a younger age, though the disorder is not restricted to females.

Objective. This article provides a current overview of eating disorders and their management.

Discussion. There continues to be controversy over the reason for the increase in eating disorders. Change in societal ideas and pressures, as well as the massive increase this century in the role of the mass media, have been highlighted as having a likely role. Early engagement and a multifaceted approach are recommended.

Over time our ideal of the female form has changed from the Rubenesque woman, to the Marilyn Monroe curves, and now into the 'waif' and 'heroin chic' physique. The most recent ideal is impractical for the majority of women, and unhealthy for most. Women's magazines associate being slim with attractiveness and success, and are littered with new diets, as well as pressures from the food industry to eat 'pure' and 'nutritionally balanced' diets, 'full of natural goodness'. The real beneficiaries are the health clubs, gyms, slimming centres and manufacturers who reap the benefits from anxious young women who wish to fit in and be a success.

What is an eating disorder?

Eating disorders are more accurately termed dieting disorders. Sufferers of both anorexia nervosa and bulimia nervosa are striving to be excessively thin. There are specific criteria that define each of these disorders (Tables 1, 2). Reasons why a person develops one condition over the other are not clear but it is not uncommon for there to be a crossover. Many anorectics go on to develop bulimia, and the reverse occasionally occurs. Binge eating, the key feature of bulimia nervosa, is also common in anorexia nervosa. The major difference is that sufferers of anorexia nervosa generally restrict their diet, exercise more rigidly and vomit more excessively, the result being a marked decrease in weight. In contrast, sufferers of bulimia nervosa maintain a normal body weight, though this can fluctuate.

A majority of sufferers (90%) of both disorders are women, though it is being increasingly recognised in young men. The prevalence is estimated to be 1% for anorexia nervosa and 3% for bulimia nervosa, and this appears to be principally in the Western World.

Anorexia nervosa

Symptoms of anorexia nervosa usually begin in adolescence. Sufferers often start with a modest weight loss intention, but then become driven to be in control of their diet often because they feel little control in the rest of their life (Case history 1). What in fact happens is that food controls them. Most become preoccupied with food and thoughts of food, with obsessional weighing and calorie counting, thinking about and planning meals usually for others. Intake of any food leads to feelings of guilt and failure, and as their stomachs shrink, intake results in bloated feelings interpreted as being fat. When looking at themselves their view is distorted. They often see protruding stomach and thighs as obese and their pursuit of thinness loses all perspective and reason. They characteristically become very secretive about their intake, not liking to eat in front of others, and going to extreme lengths to pretend they are not losing weight or give the impression that they are eating.

Table 1. Key clinical features of anorexia nervosa

- ➤ Body weight lass than 85% of expected for height and age.
- ➤ Body image disturbance.
- ➤ Fear of gaining weight.
- ➤ Weight loss obtained through a variety of mechanisms such as restriction, excessive exercise, vomiting and the use of laxatives and diuretics.
- ➤ Potential physical sequelae related to purging and starvation.

* Diagnostic criteria summarised from DSM-IV Criteria for anorexia nervosa published in the American Psychiatric Press.

Case history 1.

Maria, 23, is the eldest of three children. She attended a private Catholic girl's school where she was popular with her classmates and teachers. She was described by her parents, traditional conservative Italians, as always doing as she was told, and never giving any trouble.

At 14 years of age Maria was at the upper limit of weight for her height, and she felt fat compared to her friends. She dieted. Initially she received positive feedback, and looked and felt great; she felt in control and thought if she lost more weight then things would be even better.

By 16 years Maria was down to 33 kg through restriction, power walking 10 km per day and vomiting. Her body mass index was 12. She had difficulties concentrating at school, and although she passed Year 11, she dropped out to do a course on nutrition. She felt she was still fat, but could not specify what weight she wanted to be. Her mother however over her every meal, and was often in tears when Maria would only have water and a slice of apple. Her father became angry and told her she was stupid. When her younger sister returned to live with them, Maria's situation deteriorated and she was admitted to hospital with hypokalaemia and hypoalbuminaemia. After weight restoration to 42 kg her albumin remained low; she had

continuous fluid leakage from oedematous legs which subsequently became infected.

While in hospital she developed a pneumonia and a fractured ischial tuberosity secondary to osteoporosis. Despite this, she recovered and was discharged. She continues to restrict her diet and remains at significant risk.

These adolescents more commonly come from higher socioeconomic backgrounds, and often, premorbidly, are compliant, high achieving perfectionists. Psychological theories suggest that anorexia nervosa may represent a fear of adulthood and its responsibilities; this is supported by the observation that these girls remain prepubescent in many ways, including having amenorrhoea, and infrequently having sexual relationships. Those who do, often have relationship difficulties. Other noted predisposing factors such as a history of childhood sexual abuse also fit this theory. However, as a history of child sexual abuse predisposes victims to a number of psychiatric disorders in adulthood, this is not necessarily specific.

Certain occupations have also been associated with anorexia nervosa, such as ballet and modelling.

Families of these girls have been observed to be controlling and enmeshed, but it is difficult to establish whether this is an aetiological factor or a response to the powerlessness of watching a behaviour that invites intervention from any one who is caring. Often parental intrusion can precipitate a relapse or deterioration. These disorders also appear to have a genetic link; a higher incidence of a family history of eating and affective disorder has been noted. Sufferers of anorexia nervosa may also have comorbid depressive disorders.

Bulimia nervosa

Bulimia nervosa tends to have a later onset than anorexia nervosa, affecting women in their late teens and early adulthood. Bulimia sufferers also believe themselves to be overweight. Usually their body weight is normal, sometimes at the higher end of the range; they then fluctuate between this and the lower end as they binge in response to their hunger and then vomit, purge and/or diet (Case history 2).

Table 2. Key clinical features of bulimia nervosa

- ➤ Recurrent episodes of binge eating.
- ➤ Recurrent dieting and/or vomiting.
- ➤ Within normal weight range.
- ➤ May have physical sequelae of purging.

* Diagnostic criteria summarised from DSM-IV Criteria for bulimia nervosa published by the American Psychiatric Press.

Binge eating may entail a quantity of types of food, but there is a tendency towards higher calorie, 'forbidden foods' often eaten quickly and in private. The feeling of then being bloated combines with guilt, resulting in low self-esteem, purging and dieting to make up.

Sufferers are likely to have family histories of mood and substance abuse disorders, and they themselves are likely to be depressed or dysthymic, and have a higher likelihood of misuse of substances, particularly alcohol and stimulants.

Case history 2.

Susie, 26, had tried a number of diets unsuccessfully in her teens. At 20 as a physiotherapy student, she lost 4 kg after splitting up with her boyfriend of 3 months, but felt so low and isolated at the College at which she was staying that she began binge eating at nights in her room. On occasions this would include a trip to the pizza shop where she bought a family pizza, and followed this with a whole container of ice cream and a packet of chips. Later, she would lay on her bed telling herself she was stupid, and would usually induce vomiting. Out socially, she would rarely eat, having alcohol to calm her anxiety about being out with people she didn't know, then binge upon her return home. Her weight fluctuated between 50 and 60 kg. Susie's mother had a history of depression; her younger sister had anorexia nervosa.

These women are more likely than those with anorexia nervosa to have sexual relationships, but their low self-esteem and difficulties with anger and assertion mean that these are often problematic.

Eating disorders in men

While it has been reported that eating disorders are increasing in men, particularly in the gay population, numbers are still low and most research has focused on women. The similarities between the disorder regardless of gender have been noted, however, and the effects of starvation on testosterone results in reduced sexual characteristics. The current belief is that the aetiology and management of the disorder is similar, regardless of gender.

Complications and outcomes

Anorexia nervosa and bulimia nervosa both have significant associated medical complications related to the acute effects of the purging behaviours, which may be fatal. In the case of anorexia nervosa, there are also the side effects of long term starvation. Associated depressive disorders also bring an increased risk of suicide.

Short-term effects

These are dealt with in depth elsewhere and are summarised in Table 3. These medical complications result from the effects of starvation but are reversible with refeeding.

The additional use of diuretics and laxatives, as well as the practice of vomiting increases the likelihood of these complications.

The most serious and potentially fatal complications relate to fluid and electrolyte imbalances, and the most common cause of death is secondary cardiac arrhythmias. Fasting hypoglycaemia may also cause sudden death.

Table 3. Medical complications - acute/short term

➤ *Fluid and electrolyte imbalance:* hyponatraemia, hypokalaemia, hypomagnesaemia, hyphosphataemia, hypoalbuminaemia.

➤ *Vitamin deficiency:* pellagra, scurvy.

➤ Dehydration.

➤ *Cardiovascular:* bradycardia, hypotension, arrhythmias, cardiomyopathy.

➤ *Gastrointestinal:* teeth decay, oesophagitis, and rupture, Mallory Weiss tear, increased liver enzymes, pancreatitis, constipation, irritable bowel.

➤ *Haematological:* leucopenia, anaemia.

➤ *Renal:* impaired renal function, diabetes insipidus.

➤ *Endocrine:* amenorrhoea, low FSH/LH, hypoglycaemia, increased growth hormone, low T3 levels, hypothermia.

Long-term effects

If anorexia nervosa and bulimia nervosa continue the risks related to electrolyte disturbances mean a chronic risk of sudden death.

In addition, however, there is not evidence suggesting longer term irreversible changes. Studies of anorexia nervosa sufferers who have had low body weight for substantial periods of time, even after weight gain, have a risk of grey matter deficit in comparison to controls. In practical terms this may have significant ramifications for these patients to learn new behaviours not just while they are underweight, but even if they return to normal weight.

Prognosis

Up to 50% of anorexia nervosa sufferers and 70% of bulimia nervosa sufferers regain/maintain weight with reasonable stability. For anorexia nervosa, however, mortality may be as high as 20% and for the remaining 30-40%, continued weight problems, medical complications and hospital readmissions are frequent. For the bulimia nervosa sufferers, 30% continue to have weight and dietary fixation with ongoing maladaptive behaviours. Comorbid disorders, in particular personality disorders and substance abuse, as well as a longer duration, predict poorer outcomes.

Management strategies

Recognising the problem

Many young girls diet, but not all develop an eating disorder. It is important not to diagnose too quickly. Many will have episodes of bingeing, but with support through adolescent issues, and avoiding an excessive reaction, many will settle. Providing information on nutrition, exercise, and normal body weight for their height, plus an emphasis on maintaining fluids will allow the treating clinician time to observe what is happening.

However, true eating disorder sufferers are characteristically secretive about their eating; they eat in private, purge in private, wear floppy clothes, surreptitiously add weights when clinicians are reviewing their progress and when needed lie about their intake and behaviours.

Clinicians, who have to rely on the history they are given, often find these patients very difficult. Because sufferers are often young when the symptoms first emerge, clinicians are likely to have the advantage of the parent's story. It is the parents who often bring the girl, or insist she visit. However, it is important not to alienate the sufferer; permission should be asked, and the history taken from the parent with both present. As weight decreases, decline in school performance and withdrawal from friends may also be noted.

Initial management

On first presentation, the most important task is to engage the patient and ensure her return. Sufferers are likely to have had lectures from their parents; this will only alienate them further. Doctors can provide nutritional information, concentrating on ensuring good health rather than weight. These girls are obsessed with food and calories but it is weight increase they fear. Steering away from this, at least until rapport has been established, will aid compliance.

There may be ongoing issues for both parent and child regarding confidentiality; these should be clarified early on. The sufferer is the patient, but should the doctor be severely concerned about her safety, then this would be put first.

Most of the management of eating disorders occurs in the community; sufferers of bulimia nervosa rarely need admission to hospital, and increasingly the thrust of the management of anorexia nervosa means that any inpatient admissions are usually brief, for refeeding and in crisis.

Because these patients are frequently complicated to manage, a number of people are often involved, but the general practitioner may be the key figure.

In the first instance, the GP is likely to make, or be suspicious of the diagnosis. After developing a rapport with the patient the next step is to make a more thorough assessment, including physical examination and investigations, and discuss treatment options with the patient.

This may include inpatient options or involvement with specialists.

Accessing nutritional advice, through a dietitian is probably the least intimidating referral. However, for those more seriously ill the general practitioner can provide ongoing monitoring of nutritional status with blood tests as required for electrolyte disturbances and investigations such as ECGs when indicated.

Most patients with a true eating disorder will need more intensive input, which can take the form of a practical, cognitive behavioural approach (this seems especially beneficial in bulimia nervosa).

Individual and/or family psychotherapy is also indicated. The local branch of the College of Psychiatrists may be able to provide information to practitioners with special interests in this area. The Victorian branch is currently putting this together for general practitioners.

The family may turn to their general practitioner for support and general information. While in some situations, the over-involvement of the family is thought to precipitate or perpetuate the illness, it is normal for parents to be concerned and wish to help. It is important to families that, while they can support and care, excessive interest and supervision of feeding is likely to be detrimental.

Summary

Dieting and weight loss is an increasing fixation of young women, promoted by media images linking slimness to success. High achieving perfectionist girls with a family history of eating and affective disorders are at a higher risk of this fixation, becoming anorexia nervosa, or bulimia nervosa. General practitioners should keep a diagnosis of eating disorder in mind when a young girl is losing weight and is functioning less than optimally. Physical investigations and ongoing monitoring, as well as appropriate specialist referral, are important ongoing roles. Thirty percent of sufferers with eating disorders will have ongoing symptoms and these disorders have potential comorbid psychiatric and physical disorders. The latter may be life threatening.

Summary of Important Points

➤ Eating disorders are increasingly common; so too is adolescents' obsession with dieting. Not all these will turn into dieting disorders; those on the margin will benefit from support and sensible advice.

➤ Eating disorders - anorexia and bulimia nervosa - have potentially serious morbidity and mortality.

➤ The GP has an important role in coordinating the various aspects of management and in supervising nutritional status, as well as support of the family.