

ANOREXIA AND BULIMIA NERVOSA

S Chan

ABSTRACT

Anorexia and bulimia nervosa are eating disorders characterised by abnormal eating behaviour, a morbid concern over body weight and a distorted perception of body size. It commonly occurs in young postpubertal girls in developed societies. Aetiological factors are a complex interplay of biological, psychological and social factors. Bizarre eating patterns can lead to life-threatening medical situations which require urgent in-hospital care. Comprehensive management should be effected by a multi-disciplinary team with contributions from the internist, the psychiatrist, the nurse, the psychologist, the social worker and the teacher. There is significant psychiatric morbidity and mortality in the outcome of these eating disorders.

Keywords: anorexia nervosa, bulimia nervosa, eating disorders

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Anorexia nervosa typically occurs in girls shortly after puberty or later in adolescence. Prepubertal cases or early onset anorexia nervosa⁽¹⁾ have also been documented. Five to ten percent of cases occur in boys⁽²⁾. It is characterised by self imposed weight loss, amenorrhoea and a distorted attitude towards their body image. The most widely used criteria for anorexia nervosa are those of the DSM III-R (Table I)⁽³⁾.

Table I – DSM III-R criteria for anorexia nervosa

1. Refusal to maintain body weight over minimal normal weight for age and height
or
Failure to make expected weight gain during growth period leading to body weight 15% below expected.
2. Intense fear of gaining weight or becoming fat, even though underweight.
3. Disturbance in the experience of body weight, size or shape (eg feeling fat when emaciated).
4. The absence of at least three consecutive menstrual cycles when otherwise expected to occur (primary or secondary amenorrhoea).

Atypical and partial forms of anorexia nervosa are common. They are diagnosed in individuals who lack one or more of the criteria⁽⁴⁾.

Bulimia nervosa typically occurs in middle to late adolescence. It is an eating disorder that is characterised by out of control behaviour with regards to food. Food avoidance may alternate with episodes of overeating or binge-eating. The bulimic patient then seeks to counteract the effects of overeating by purging or vomiting (Table II)⁽³⁾.

Bulimia nervosa patients may be normal weight, underweight or overweight and some may have a history of anorexia nervosa.

These two eating disorders have many features in common and they are summarised and contrasted in Table III⁽⁵⁾:

Table II – DSM III-R criteria for bulimia nervosa

1. Recurrent episodes of binge-eating.
2. A feeling of lack of control over eating behaviour during the eating binges.
3. The person regularly engages in either self induced vomiting, use of laxatives or diuretics, strict dieting or fasting, or vigorous exercise in order to prevent weight gain.
4. A minimum average of two binge eating episodes a week for at least three months.
5. Persistent overconcern with body shape and weight.

Table III – Features of eating disorders

Symptoms	Anorexia Nervosa	Bulimia Nervosa
Weight	Low	Often normal
Amenorrhea	Always	Sometimes
Morbid concern with body shape and weight	Always	Always
Self starvation	Common	Common
Bulimic episodes	Sometimes	Always
Self induced vomiting	Sometimes	Common
Laxative abuse	Sometimes	Common
Exercise	Common	Sometimes

Epidemiology

Until recently, anorexia nervosa and bulimia nervosa have been associated mainly with young women in Western societies. However over the last decade there has been an increasing number of reports describing eating disorders in people of African and Asian racial backgrounds, both in their countries of origin and elsewhere⁽⁶⁻⁸⁾.

One of the most widely quoted population-based studies of the prevalence of anorexia nervosa gives a prevalence rate of 0.4% in schoolgirls aged 16 years and over⁽⁹⁾. Fashion students, professional dancers and models constitute a high risk group.

The prevalence of bulimia nervosa is estimated at about 1% among adolescents and young adult women. The full syndrome is reported to be extremely rare among boys⁽¹⁰⁾.

Previous reports indicated that the illnesses were biased towards the middle and upper social classes. That bias may be diminishing⁽¹¹⁾.

Child Psychiatric Clinic
Institute of Health
226 Outram Road
Singapore 0316

S Chan, MBBS, M Med (Psych)
Senior Registrar

Aetiology

There is no single cause for eating disorders. Interacting factors – physical, psychological, family and socio-cultural contribute to aetiology.

(i) Biologic factors

Twin and family studies⁽¹²⁻¹⁴⁾ indicate a genetic predisposition to anorexia nervosa. A disorder in the hypothalamic-pituitary-gonadal axis is seen in the endocrine disturbance in anorexia nervosa. Whether this plays a part in the development of the illness is unclear.

(ii) Psychological factors

Psychological theory views the disorder as representative of the individual's struggle for autonomy and effectiveness⁽¹⁵⁾. Crisp⁽¹⁶⁾ elaborates the view that sufferers who fear weight gain is expressing an avoidance of normal physical development associated with puberty and its related role requirements. A tendency to perfectionism is a significant predisposing factor⁽¹⁷⁾.

(iii) Sexual trauma

Disturbances of eating have been found in children who have suffered sexual abuse and in sexually abused women. Though sexual abuse may not be specific or causal in its relationship to eating disorders, it may well be a contributory factor in some individuals.

(iv) Family factors

The transactional patterns of families with eating disorders have been described as dysfunctional. There appears to be difficulty in handling changes and transition in the life stages of the family members. Whether this is the result rather than the cause of the problem is not clear.

(v) Cultural factors

The cultural pressure to be thin (and therefore perfect) is an important setting condition for the development of eating disorders.

Clinical features

Typically anorexia nervosa occurs in postpubertal schoolgirls. Their growth and early development are normal and often parents would describe them as "good and hardworking children". At home, they would be conforming and serious minded. Teachers often describe them as above average students, achievement orientated, perfectionistic and quite sensitive to criticism.

The onset of the illness is gradual, often after a chance remark about their figure. Dieting behaviour begins with reducing their meal portions, cutting out the "fattening" types of food and skipping some main meals. As they begin to lose weight, there may be compliments about their slimness. Efforts intensify to lose more weight and other behaviours may emerge eg exercise, induced vomiting and, less commonly, laxative abuse. They wear loose bulky clothing to hide the extent of their emaciation. They avoid social outings if it entails eating with others. The desire to lose weight takes on a life of its own, without a target weight or endpoint to the dieting.

The presentation can be so insidious that family members become aware only after someone who has not seen the child for awhile remarks on the change. Even then efforts to get the child to eat often fail and the child may be seriously underweight before they come to the attention of the practitioner. Sometimes the family becomes concerned because the child was discovered to be amenorrhoeic.

Behavioural changes are common. This can take the form of moodiness, irritability and depression. Hours are spent studying to maintain an extremely high standard. Sleeping time is reduced and the child may be very active in sports and high energy

activities.

In bulimia nervosa, the patient is plagued by preoccupations with food and from time to time, succumb to bouts of over-eating. This is usually done in secret. The persistent dread of "fatness" and guilt will then drive her to counteract the effects of the food ingested by induced vomiting and purging. Abuse of laxatives, thyroid drugs, diuretics, amphetamines and even omitting insulin in bulimic diabetics have been known to happen. The bouts of overeating followed by vomiting often lead to isolation and disturbed personal and social relationships. Depression is commonly associated.

Medical considerations

The presenting symptom of weight loss would suggest a malignancy, thyrotoxicosis or autoimmune disease. Gastrointestinal symptoms (pain, change in bowel habits) may indicate the likelihood of a malabsorption syndrome or inflammatory bowel disease. Medical causes of amenorrhoea eg ovarian or pituitary dysfunction may be considered in the differential diagnosis.

In addition, medical complications of anorexia nervosa and bulimia nervosa can involve almost every system in the body and this adds to difficulties in management. Starvation, dehydration, vomiting and purging and even refeeding treatment can result in medical problems which include cardiac arrhythmias, electrolyte imbalance, parotitis, dental caries, confusional states, renal damage and acute gastric dilatation.

The presence of severe hypotension, myopathy and metabolic disturbances on medical examination is an indication for immediate admission.

Psychiatric considerations

The main differential diagnosis is that of a major affective disorder – depression. Bizarre eating habits are sometimes seen in schizophrenia, hypomania and conversion disorders.

Co-morbidity is often seen in anorexia nervosa and bulimia nervosa. Various studies describe the co-occurrence of depression, anxiety disorders, personality disorders and substance abuse in both eating disorders. It is likely that the presence of co-morbidity worsens prognosis.

Management

The goals of management comprise:

1. securing and maintaining the patient's and family's co-operation,
2. weight restoration and reversal of symptoms of starvation,
3. improvement in eating behaviour,
4. improvement in social functioning.

1. Securing and maintaining the patient's and family's co-operation

This can be done through:

- a) thorough examination and laboratory testing to rule out other diagnoses and establish the accuracy of the diagnosis in the minds of the family;
- b) the provision of information and education about the seriousness of the condition and its complications, the treatment available and its prognosis;
- c) clearly defining the doctor's roles eg the GP may want to continue to monitor weight and physical status but would like to refer to a psychiatrist to resolve eating attitudes and interpersonal problems;
- d) ensure that there are responsible family members who will take control of her health and welfare. The eating disordered individual very rarely seeks help voluntarily and is usually well aware that the medical professional will prescribe

treatment that involves weight gain, something that is against the wishes of the patient. It will take time before she is willing to co-operate!

2. *Weight restoration and the reversal of symptoms of starvation*

An important decision at this point is whether there is a need for hospitalisation. The indications are:

- a) medical urgency as a result of severe undernutrition and compromised physical status,
- b) suicidal risk,
- c) poor motivation and inadequate family support,
- d) *failed outpatient treatment*

Weight restoration entails a discussion with the child of her ideal weight, calculation of a target weight range (between 95 – 100% weight for height) and clearly spelt out goals of weight gain on a weekly to monthly basis. The projected weight gain is about 2 – 2.5 kg per month.

3) *Improvement in eating behaviour*

Behavioural therapy principles eg a system of rewards or withdrawal of privileges which is conditional on weight maintenance is usually implemented with the agreement and support of parents. As improvement begins, nutritional education and meal planning can be useful. Treatment of bulimia nervosa consists of cognitive behaviour therapy which is primarily aimed at increasing control over eating. Studies indicate the efficacy of short term treatment with antidepressant medication in decreasing the severity of binge eating.

4) *Improvement in social behaviour*

Often the eating disordered patient is not underweight sufficiently for weight gain to be a major concern. However the underlying difficulties in the child's social relationships are important and must always be addressed. Psychotherapy can focus on the child's individual conflicts. Assertiveness groups and group-based social skills learning seek to enhance self esteem and reduce isolation. Family work in the form of family therapy and marital therapy looks at the difficulties of the child in the family. Educational support and liaison with teachers form an integral part of work with the school going child.

Outcome

Both anorexia nervosa and bulimia nervosa is associated with substantial morbidity and anorexia nervosa has a significant mortality rate⁽¹⁸⁾. Anorexia nervosa tends to be chronic and

unremitting and bulimia nervosa tends to be episodic, with remissions and relapses.

In addition to restoration of normal weight, outcome must consider return of menstrual function, satisfactory psychological and social functioning as well.

A long-term outcome study of anorexia nervosa (Tolstrup, 1985)⁽¹⁹⁾ found that half had recovered, one quarter had chronic illness and one quarter had other psychiatric illness. Six percent had died from suicide or malnutrition. Long-term studies in bulimia nervosa are few and show a wide variation in outcome.

Conclusion

Anorexia nervosa and bulimia nervosa do occur in the local population. They often present to different medical professionals because of its multisystem involvement and complications. A heightened awareness of the illness will result in early, appropriate and efficient management which may help to decrease morbidity.

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