Dietitians Australia

Nutrition Issues in Eating Disorders

Eating Disorders (EDs) are a group of psychiatric conditions characterised by abnormal eating behaviours that are associated with psychological factors which lead to serious health consequences.[1, 2] Suicide is a major cause of death for people living with an ED. EDs are not a lifestyle choice, a diet gone wrong or a cry for attention. EDs can take many different forms and interfere with a person's day to day life. It's estimated that one million Australians have an ED, and this number is increasing.[3] Altered eating behaviour can fall between two extremes of eating; restriction and binge, or in some cases both. Different types of EDs, according to the DSM-5, are summarised below:

Anorexia Nervosa (AN) is characterised by extreme dietary restriction, which results in significant weight loss and an intense fear of gaining weight. There are two subtypes of AN – (1) restrict type and (2) binge/purge type. AN has the highest mortality rate of any psychiatric disorder and it can occur at any age and weight, including those who have experienced significant weight loss but remain at higher weights and/or in larger bodies.[(4)] Death most commonly results from medical complications, which are the result of weight loss and malnutrition, or suicide. Starvation will result in adverse effects on, and atrophy of, the heart, brain, liver, intestines, kidneys, and muscles.[1, 2, 5, 6, 7-9] For a detailed list of physical and psychological effects of AN, read here.

Bulimia Nervosa (BN) is a psychiatric illness characterised by recurrent episodes of binge- eating (consuming abnormally large amounts of food in a relatively short period of time) followed by compensatory behaviours (e.g. self-induced vomiting, fasting, overexercising and/or the misuse of laxatives, enemas or diuretics). Repeated use of compensatory behaviours commonly result in, but not limited to, acute electrolyte disturbances, dehydration (leading to different forms of tachycardia), gastrointestinal disturbances and oral abnormalities.[1, 2, 4, 10, 11] A person with BN usually maintains an average weight or may be slightly above or below average weight for height, which often makes it less recognisable than serious cases of AN. BN is often missed and can go undetected for a long period of time, as the person will try and hide the issue due to feelings of shame and guilt.[1, 2, 4, 10, 11]

People with the characteristics of BN who are underweight are given a diagnosis of AN binge- purge subtype.[4] Figure 1 describes a simple screening questionnaire for detecting AN and BN and is suitable for use by non-specialists.[12, 13]

Figure 1. The SCOFF screening questions for anorexia nervosa and bulimia nervosa[12, 13]

S	**Do you make yourself SICK (vomit) because you feel uncomfortably full?**
C	**Do you worry that you have lost CONTROL over how much you eat?**
O	**Have you recently lost more than ONE stone (14 pounds or 6.4kg) in a three-month period?**
F	**Do you believe yourself to be FAT when others say you are thin?**
F	**Would you say that FOOD dominates your life?**

Two or more positive responses should be followed with more questions.

Source: Hill, et al. 2010; Morgan, et al. 1999

Binge Eating Disorder (BED) is characterised by excessive intake (at least once per week for three months prior) in a short period of time accompanied by a sense of lack of

control over one's behaviour. The binging is followed by feelings of guilt, shame and distress which often fuels the need for the individual to escape those feelings and they may do so by binging again.[2, 4]

Avoidant/Restrictive Food Intake Disorder (ARFID) is an eating or feeding disturbance (e.g., apparent lack of interest in eating or food; avoidance based on the sensory characteristics of food; concern about aversive consequences of eating) as manifested by persistent failure to meet appropriate nutritional and/or energy needs associated with one or more of the following:

- Significant weight loss (or failure to achieve expected weight gain or faltering growth in children)
- Significant nutritional deficiency
- Dependence on enteral feeding or oral nutritional supplements
- Marked interference with psychosocial functioning[2, 4, 14]

Other Eating Disorders

Previously known as Eating Disorder Not Otherwise Specified (EDNOS), other EDs are now categorised into two types: Other Specified Feeding or Eating Disorder (OSFED) and Unspecified Feeding or Eating Disorder (UFED).[5]

- **Other Specified Feeding or Eating Disorder (OSFED)**
  For a person to be diagnosed with OSFED they must present with a feeding or eating behaviours that cause clinically significant distress and impairment in areas of functioning, but do not meet the full criteria for any of the other feeding and eating disorders.[5] The following are further examples for OSFED:
  - **Atypical Anorexia Nervosa**
    All criteria of AN are met, except despite significant weight loss, the individual's weight is within or above the normal range
  - **Binge Eating Disorder** (of low frequency and/or limited duration): All criteria for BED are met, except at a lower frequency and/or for less than three months
  - **Bulimia Nervosa** (of low frequency and/or limited duration): All criteria for Bulimia Nervosa are met, except the binge eating and inappropriate compensatory behaviour occurs at a lower frequency and/or for less than three months
  - **Purging Disorder (PD)** Recurrent purging behaviour to influence weight or shape in the absence of binge eating
  - **Night Eating Syndrome (NES)** Recurrent episodes of night eating. The behaviour causes significant distress/impairment. The behaviour is not better explained by another mental illness or disorder (e.g. BED)[5]
- **Unspecified Feeding or Eating Disorder (UFED)**
  This category applies to where behaviours cause clinically significant distress/impairment of functioning, but do not meet the full criteria of any of the Feeding or Eating Disorder criteria. This may be used by clinicians where a clinician chooses not to specify why criteria are not met, including presentations where there may be insufficient information to make a more specific diagnosis (e.g. in emergency room settings).[2, 5]

Comorbidities

People with EDs experience higher rates of other mental disorders with reports of up to 97% having a comorbid condition.[15, 16] Adults with EDs experience significantly higher levels of anxiety disorders, depressive disorders and suicide attempts as well as cardiovascular disease, chronic fatigue and neurological symptoms.[15] Adolescents with diabetes may have a 2.4 fold higher risk of developing an eating disorder.[16]

People with EDs may experience a wide degree of micronutrient deficits related to the severity and duration of their eating disorder symptoms (dietary restriction; purging behaviours and physical activity), and the individual's current nutritional status. The care of individuals with eating disorders should include a comprehensive nutritional assessment, ongoing monitoring of key nutrients (e.g. electrolytes, iron and vitamin B12) and use of nutritional counselling skills such as motivational interviewing. A detailed review of recommended nutritional assessment and monitoring is outlined in Wakefield A, & Williams H. 2009.[1, 5, 17, 18]

Nutritional assessment resources for EDs are also available via DAA EDIG here.[19]

Eating Disorders and Males

Research indicates that up to 25% of people experiencing an ED are male,[20] and the lifetime prevalence of ED in men is 1.2% in Australia.[21] However, it is likely that this is underestimated due to social stigma, lack of awareness, and differences in presentation of ED in males compared to in females. Younger males can have earlier age of onset than girls. UFED diagnosis is more common in males than females, which may be due to the DSM-5 categorisation skewed towards ED presentation in females.[22] A significant increase in the prevalence of BN is also reported in Australian males between the ages 14 and 20 years.[21]

Key points

- EDs are common serious psychiatric conditions which may affect any age and gender
- Early detection is associated with better outcomes
- A multidisciplinary approach involving family members is recommended and treatment is mostly provided by clinical psychologists in collaboration with GPs and dietitians
- Dietitians working in this field are advised to undertake further professional development such as motivational enhancement therapy, CBT, acceptance and commitment therapy and family based treatment
- Dietitians working in this field are strongly encouraged to undertake regular clinical supervision

Table 1. Comparison of eating disorders[2]

Diagnosis	Body Weight	Binge Eating	Purging	Fasting/Exercise
Bulimia nervosa purging	Normal or above	Yes	Yes	May occur
Bulimia nervosa non-purging	Normal or above	Yes	Not regular	Yes
Anorexia nervosa	Below normal (unless atypical)	May occur	May occur	Dietary restriction always present
Binge-eating disorder	Normal or above	Yes	Not regular	Not regular

Source: Royal Australian and New Zealand College of Psychiatrists clinical practice guidelines for the treatment of eating disorders

Resources

- Australia and New Zealand Academy for Eating Disorders (ANZAED)
- The Butterfly Foundation
- Centre for Clinical Intervention (CCI): Information, worksheets and workbooks available for clinicians working with eating disorders
- InsideOut Institute (formerly Centre for Eating and Dieting Disorders)
- Mental Health First Aid Australia guidelines
- CBT-E: Cognitive Behavioural Therapy for Eating Disorders (Chris Fairburn)
- National Eating Disorders Collaboration (NEDC)
- National Institute for Health and Care Excellence (NICE): Recommendations for assessment, treatment and monitoring
- Royal Australian and New Zealand College of Psychiatrists: Eating Disorders – Your guide (information for the public)

Further Reading

- For further resources and recommended reading refer to the DAA Eating Disorder Interest Group Resources

References

1. Whelan K, ed. *Advanced Nutrition and Dietetics in Nutrition Support*. Oxford, UK: Wiley Blackwell; 2018
2. Hay P, Chinn D, Forbes D, Madden S, Newton R, Sugenor L. Royal Australian and New Zealand College of Psychiatrists clinical practice guidelines for the treatment of eating disorders. *Aust NZ J Psychiatry*. 2014;48(11):1-62
3. The Butterfly Foundation. *Investing in Need: Cost Effective Interventions For Eating Disorders*. Sydney, Australia: The Butterfly Foundation; 2015
4. American Psychiatric Association. *Diagnostic and Statistical Manual of Mental Disorders*. 5th ed. Washington, DC: American Psychiatric Association; 2013
5. Ozaier A, Henry B. Position of the American Dietetic Association: Nutrition intervention in the treatment of eating disorders. *J Am Diet Assoc*. 2011;111(8):1236-41
6. Arcelus J, Mitchell A, Wales J, Nielsen S. Mortality rates in patients with anorexia nervosa and other eating disorders: A meta-analysis of 36 studies. *Arch Gen Psychiatry*. 2011;68(7):724-31
7. Katzman DK. Medical complications in adolescents with anorexia nervosa: A review of the literature. *Int J Eat Disord*. 2005;37(S1):S52-S9
8. Royal College of Psychiatrists. CR130: *Guidelines for the Nutritional Management of Anorexia Nervosa*. Royal College of Psychiatrists; 2005. http://www.rcpsych.ac.uk
9. Mehler P, Brown C. Anorexia Nervosa-medical complications. *J Eat Disord*. 2015;3(11):1-8
10. Hay P, Bacaltchuk J, Stefano S, Kashyap P. Psychological treatments for bulimia nervosa and binging. *Cochrane Database of Syst Rev*. 2009;(4):CD00056
11. Mehler P, Rylander M. Bulimia Nervosa-medical complications. *J Eat Disord*. 2015;3(12):1-5
12. Morgan JF, Reid F, Lacey JH. The SCOFF questionnaire: assessment of a new screening tool for eating disorders. *BMJ*. 1999(7223);319:1467-8
13. Hill LS, Reid F, Morgan JF, Lacey JH. SCOFF, the development of an eating disorder screening questionnaire. *Int J Eat Disord*. 2010;43(4):344-51
14. Kohn JB. What Is ARFID? *J Am Diet Assoc*. 2016;116(11):1872
15. The National Eating Disorders Collaboration. *An Integrated Response to Complexity: National Eating Disorders Framework 2012*. Sydney, Australia: National Eating Disorders Collaboration; 2012
16. Pereira R, Alvarenga M. Disordered eating: identifying, treating, preventing and differentiating it from eating disorders. *Diabetes Spectrum*. 2007;20(3):141-8
17. Wakefield A, Williams H. *Practice Recommendations for the Nutritional Management of Anorexia Nervosa in Adults*. Canberra, Australia: Dietitians Association of Australia; 2009. https://daa.asn.au/resource/practice-recommendations-for-the-nutritional-management-of-anorexia-nervosa-in-adults/
18. Fairburn C. *Cognitive Behavior Therapy and Eating Disorders*. New York: Guilford Press; 2008
19. Dietitians Association of Australia. Eating Disorders Role Statement. Canberra, Australia: Dietitians Association of Australia; 2017. https://daa.asn.au/wp-content/uploads/2015/05/Eating-Disorders-Role-Statement-1.pdf
20. Wooldridge T, Lytle PP. An overview of anorexia nervosa in males. *Eat Disord*. 2012;20(5):368-78
21. Limbers CA, Cohen LA, Gray BA. Eating disorders in adolescent and young adult males: prevalence, diagnosis, and treatment strategies. *Adolesc Health Med Ther*. 2018;9:111-116
22. Shu CY, Limburg K, Harris C, McCormack J, Hoiles KJ, Hamilton MJ, et al. Clinical presentation of eating disorders in young males at a tertiary setting. *J Eat Disord*. 2015;3(39):1-7

Developed: October 2011 Last Reviewed: November 2018