

Scientific news in definition and treatment of anorexia nervosa

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Abstract

Anorexia nervosa – often simply called anorexia – is an eating disorder characterized by an abnormally low body weight, an intense fear of gaining weight and a distorted perception of weight. Anorexia nervosa can have devastating effects on a person's physical and mental health. This disorder has always been one of the leading causes of death around the world. Awareness of recently published scientific news related to anorexia nervosa can be helpful in many ways. Published scientific news on anorexia nervosa can help psychotherapists and physicians to diagnose this disorder early. The present study investigates anorexia nervosa according to newly published papers in all dimensions.

Key words: Anorexia nervosa, Scientific News, Epidemiology, Etiology, Treatment

Introduction

Anorexia nervosa – often simply called anorexia – is an eating disorder characterized by an abnormally low body weight, an intense fear of gaining weight and a distorted perception of weight (American Psychiatric Association, 2013). People with anorexia place a high value on controlling their weight and shape, using extreme efforts that tend to significantly interfere with their lives (Emans, 2000).

To prevent weight gain or to continue losing weight, people with anorexia usually severely restrict the amount of food they eat (Derenne et al, 2006). They may control calorie intake by vomiting after eating or by misusing laxatives, diet aids, diuretics or enemas. They may also try to lose weight by exercising excessively (Vignalou and Guedeney, 2006).

Anorexia nervosa isn't really about food. It's an extremely unhealthy and sometimes life-threatening way to try to cope with emotional problems. Patients with anorexia nervosa, often equate thinness with them-worth (Jonker et al, 2020).

The physical signs and symptoms of anorexia nervosa are related to starvation (Jenkins et al, 2011). Anorexia also includes emotional and behavioral issues involving an unrealistic perception of body weight and an extremely strong fear of gaining weight or becoming fat (Chamay-Weber et al, 2005).

It may be difficult to notice signs and symptoms because what is considered a low body weight is different for each person (Danzl et al, 2001), and some individuals may not appear extremely thin (Dalle, 2011). Also, people with anorexia often disguise their thinness, eating habits or physical problems (Derenne et al, 2006).

Physical signs and symptoms of anorexia may include: extreme weight loss or not making expected developmental weight gains, thin appearance, abnormal blood counts, fatigue, insomnia and dizziness (American Psychiatric Association, 2013). Some people who have anorexia binge and purge, similar to individuals who have bulimia (Bulik et al, 2000). But people with anorexia generally struggle with an abnormally low body weight, while individuals with bulimia typically are normal to above normal weight (Claudino et al, 2006).

Behavioral symptoms of anorexia may include attempts to lose weight by: severely restricting food intake through dieting or fasting, exercising excessively and bingeing and self-induced vomiting to get rid of food, which may include the use of laxatives, enemas diet aids or herbal products (American Psychiatric Association, 2013).

Emotional and behavioral signs and symptoms may include: preoccupation with food, which sometimes includes cooking elaborate meals for others but not eating them, frequently skipping meals or refusing to eat, denial of hunger or making excuses for not eating, eating only a few certain safe foods, usually those low in fat and calories, adopting rigid meal or eating rituals, such as spitting food out after chewing and not wanting to eat in public (Treasure et al, 2010).

Anorexia can have numerous complications. At its most severe, it can be fatal (Favaro et al, 2009). Death may occur suddenly even when someone is not severely underweight. This may result from abnormal heart rhythms or an imbalance of electrolytes minerals such as sodium, potassium and calcium that maintain the balance of fluids in their body (Jones et al, 2001).

If a person with anorexia becomes severely malnourished, every organ in the body can be damaged, including the brain, heart and kidneys. This damage may not be fully reversible, even when the anorexia is under control (Fernandez et al, 2007).

In addition to the host of physical complications, people with anorexia nervosa also commonly have other mental health disorders as well. They may include: depression, anxiety and other mood disorders, personality disorders, obsessive-compulsive disorders, alcohol and substance misuse and self-injury, suicidal thoughts or suicide attempts (Dalle, 2011).

Considering that the most of the studies conducted outside of Iran have comprehensively examined anorexia nervosa, there are a few papers in Iran that have specifically studied this disorder. The aim of this study was to review the epidemiology, etiology and psychotherapies available for managing anorexia nervosa.

Epidemiology

Epidemiological studies provide information about the occurrence of disorders and trends in the frequency of disorders over time. For epidemiological studies on eating disorders there are some methodological issues. Eating disorders are relatively rare among the general population and patients tend to deny or conceal their illness and avoid professional help. This makes community studies costly and ineffective. Therefore, many epidemiological studies use psychiatric case registers or medical records from hospitals in circumscribed area. This type of study will underestimate the occurrence of eating disorders in the general population, because not all patients will be detected by their general practitioner or referred to the hospital or mental health care. Furthermore, differences in rates over time could be due to improved case detection, increased public awareness leading to earlier detection and wider availability of treatment services, instead of a true increase in occurrence (World Health Organization, 2005).

Anorexia nervosa has been reported in developed countries such as the USA and Canada and in developing countries such as Brazil and China (De Souza Ferreira and Da Viegua, 2008). Studies in other countries, including Turkey (Bas et al, 2005), Pakistan (Choudry and Mumford, 1992), Japan (Nishizawa et al, 2003) and Africa (Szabo and Allwood, 2004) show that the prevalence of eating disorders is not limited to one country or specific socio-economic groups (Hay, 2020).

Community studies assessing the incidence of eating disorders are scarce. Keski-Rahkonen and colleagues conducted a large community study to quantify the incidence of anorexia nervosa, yielding an incidence rate of 270 per 100 000 person years in 15-19 years old Finnish female twins during 1990-1998 (Keski-Rahkonen et al, 2007). The incidence rate of board anorexia nervosa was 490 per 100 00 person-years in in the same group (Keski-Rahkonen et al, 2007). A much higher incidence rate of 1204 per 100 000 person-years (95% confidence interval (CI): 652-2181) for broad anorexia nervosa in females aged 15-18 was found in another Finnish study of a relatively small sample of 595 adolescents (Hudson et al, 2007). The high incidence rate might be

explained the small sample size limiting statistical power and a very broad definition of anorexia nervosa used in this study, including subjects with an age adjusted body mass index (BMI) up to 19, without explicitly stating that weight loss of at least 15% had to be present.

Community rates are much higher than incidence rates derived from primary care and medical records (Rausch, 2006), reflecting the selection filters that form the pathway to (psychiatric) care (Hudson et al, 2007).

Incidence rates derived from general practices represent eating disorders at the earliest stage of detection by the health care system. Attia and Roberto searched the General Practice Research Database in the UK for new cases of anorexia nervosa between 1994 and 2000 and compared their data with the findings of a similar study for 1988-1993 (Attia and Roberto, 2009). The age-adjusted and sex-adjusted incidence rate of anorexia nervosa remained stable over the two study periods: In 2000 it was 4.7 (95% CI: 3.6-5.8) per 100 000 person-years, compared with 4.2 (95% CI: 3.4-5.0) per 100 000 person-years in 1993. In the Netherlands the overall incidence rate of anorexia nervosa ascertained by general practitioners in a large representative sample of the Dutch population remained stable as well. In 1995-1999 it was 7.7 (95% CI: 5.9-10.0) per 10 000 person-years, practically the same as the rate of 7.4 per 100 000 person-years in 1985-1989 (Roux et al, 2012). Incidence rates are highest for females aged 15-19 years. They constitute approximately 40% of all cases, resulting in an incidence rate of 109.2 per 100 000 15-19-year-old girls per year in 1995-1999 (Roux et al, 2012). The incidence of anorexia nervosa among males was less than 1 per 100 000 person- years in general practices in the Netherlands and the UK (Rausch, 2006). Anorexia nervosa does occur among children <13 years of age, but is relatively rare (Neumark-Sztain and Hannan, 2000).

Etiology

The exact cause of anorexia nervosa is unknown (Morley, 2005). As with many diseases, it's probably a combination of biological, psychological and environmental factors (Figure 1).

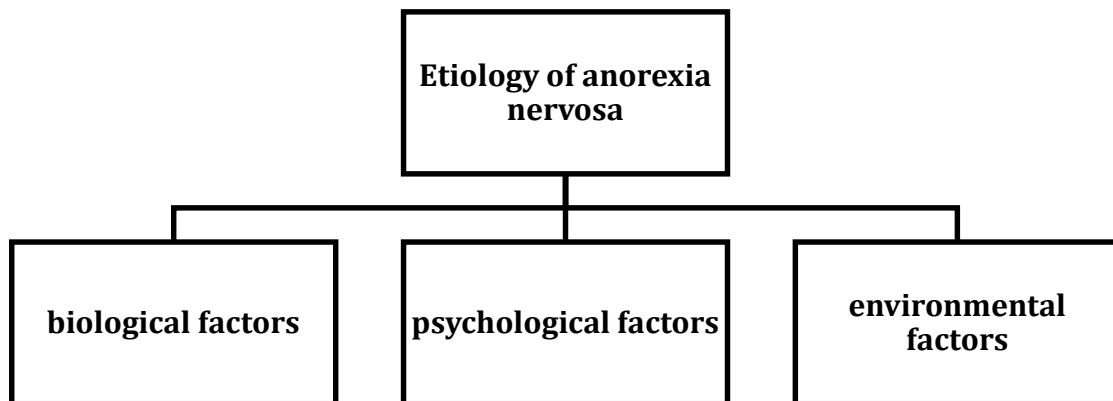


Figure1. Etiology of anorexia nervosa

Biological factors:

Although it is not yet clear which genes are involved (Buttom et al, 1996), there may be genetic changes that make some people at higher risk of developing anorexia (Treasure et al, 2010). Some people may have a genetic tendency toward perfectionism, sensitivity and perseverance- all traits associated with anorexia (Morley, 1997).

Psychological factors:

Some people with anorexia nervosa may have obsessive-compulsive personality traits that make it easier to stick to strict diets and forgo food despite being hungry (Favaro et al, 2009). They may have an extreme drive for perfectionism, which causes them to think they are never thin enough (Keel and Klump, 2003). And they may have high levels of anxiety and engage in restrictive eating to reduce it (Clark et al, 2011).

Environmental factors:

Modern western culture emphasizes thinness (Danzle et al, 2001). Success and worth are often equated with being thin (Shoebridge and Gowers, 2000). Peer pressure may help fuel the desire to be thin, particularly among young girls (Dalle, 2011).

Risk factors:

Anorexia is more common in girls and women. However, boys and men have increasingly developed eating disorders, possibly related to growing social pressures.

Certain factors increase the risk of anorexia, including:

Dieting and starvation: dieting is a risk factor for developing eating disorders. There is strong evidence that many of the symptoms of anorexia are actually symptoms of starvation. Starvation affects the brain and influences mood changes, rigidity in thinking, anxiety and reduction in appetite (Jones et al, 2001). Starvation and weight loss may change the way the brain works in vulnerable individuals, which may perpetuate restrictive eating behaviors and make it difficult to return to normal eating habits (American Psychiatric Association, 2013).

Transitions: whether it is a new school, home or job; a relationship breakup; or the death or illness of a loved one, change can bring emotional stress and increase the risk of anorexia (Derenne et al, 2006).

Psychotherapies available for managing anorexia nervosa

Short term structured treatments such as cognitive behavior therapy and interpersonal psychotherapy, which are effective in other eating disorder, have not helped so far in patients with anorexia. One report found no difference in outcome between behavior therapy and cognitive therapy (Hamilton et al, 2002). The preliminary results of a New Zealand study of cognitive behavior therapy and interpersonal psychotherapy compared with usual treatment were disappointing. Expert consensus favors long term, wide ranging, complex treatments using psychodynamic understanding, systemic principles and techniques borrowed from motivational enhancement therapy and dialectical behavioral therapy (box 1).

Box 1. Psychotherapies available for managing anorexia nervosa

Individual therapy	Structured individual treatments are usually offered as a weekly one hour session with a therapist trained in the
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	management of eating disorders and in the therapy model used.
Cognitive analytic therapy	This psychotherapy uses letters and diagrams to examine habitual patterns of behavior around other people and to experiment with more flexible responses.
Cognitive behavior therapy	This psychotherapy explores feelings, educates patients about body chemistry and challenges the automatic thoughts and assumptions behind behavior in anorexia.
Interpersonal psychotherapy	This psychotherapy maps out a person's network of relationships, selects a focus-such as role conflict, translation or loss-and works to generate new ways to deal with distress.
Motivational enhancement therapy	This psychotherapy uses interviewing techniques derived from work with substance misuse to reframe 'resistance' to change as 'ambivalence' about change, and to nurture and amplify healthy impulses.

Conclusions

This review study examined the epidemiology, etiology and psychotherapies available for managing anorexia nervosa. According to research on anorexia nervosa, this disorder impairs person's mental function and also it can affect the quality of life. Due to the significant increase in the number of patients with anorexia nervosa in the community, the high cost of care and treatment of these patients, the training of applied methods of psychotherapy is necessary. Therefore, psychotherapists are advised to pay attention to the subtle diagnostic points in evaluating this disorder.

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