



Anorexia Nervosa: Cause and Prevention

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Abstract. Anorexia nervosa, as a kind of eating disorder, can cause people to have excessive worries about their body weights and shapes; the distorted thinking of one's body image can also damage their physical and psychological well-being. It can be seen that the disorder affects people on a large scale. To raise the public's awareness of the disorder, this article provides an overview of anorexia nervosa, including its etiology, impacts, treatments, and recommendations for future development. Although a wealth of existing research has discussed anorexia nervosa from a broad range, this article provides a generalized discussion on anorexia nervosa with novel ideas. By reviewing established studies on the disorder, the article concludes a number of risk factors of anorexia nervosa from biological, psychological, and environmental perspectives. The article also discusses the impacts of anorexia nervosa on individuals on both intrapersonal and interpersonal levels with recommendations for treatment: nutritional intervention, cognitive-behavioural therapy, family-based therapy, pharmacological treatment, and surgical treatment. Since there are more female patients with anorexia nervosa than males, suggestions were made in the final analysis for future research on anorexia nervosa in relation to gender differences. Overall, the paper offers a comprehensive introduction of anorexia nervosa to the public with new thoughts.

Keywords: Anorexia nervosa · Eating disorder · Illness · Etiology · Treatment

1 Introduction

This paper is a general discussion of anorexia nervosa, particularly its causes and methods of prevention, as well as suggestions for treatment. Anorexia nervosa is an eating disorder characterized by individuals who have abnormal body weight, excessive fear and worries about gaining weight, and a distorted perception of weight [1]. It can greatly harm one's physical and mental well-being, impacts of which can be detrimental and last long.

Anorexia nervosa is the most prevalent eating disorder and one of the most common mental disorders that influences people on a large scale. Generally, more females suffer from the disorder than males in proportion [2]. By researching and studying the disorder, individuals and society would have a clearer insight and positive perspective on promoting people should be confident about their body shape and a healthy lifestyle.

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B. Majoul et al. (Eds.): ICLAHD 2022, ASSEHR 726, pp. 753–759, 2023.

https://doi.org/10.2991/978-2-494069-97-8_95

Previous researchers mostly discussed that understanding psychological and environmental factors are the primary step in the process of prevention of anorexia. Then the second step is to identify significant features of anorexia, such as avoidance of food intake, social isolation, and an extreme desire for thinness. The last step is to seek efficient treatment to cure it before it becomes worse and brings more negative impacts [3]. Moreover, some articles give suggestions for parents when their children have the potential risk of being diagnosed with anorexia nervosa [4]. To conclude, the study of current researchers only brings attention to the public to recognize the typical symptoms of anorexia nervosa and seek professional help. The passage aims to provide novel insights into anorexia nervosa and raises the public's awareness of the threats it poses to individuals' well-being. The description and explanation of causes and factors will appear in the later part of the paper to provide readers with a more comprehensive understanding of the severity of anorexia nervosa. The methods of prevention suggested in several studies by former researchers and scholars will be introduced as well. Overall, the article offers an overview of the risk factors, impacts, and treatment of anorexia nervosa. Potential risk factors for anorexia nervosa are listed in the etiology section, and the following paragraphs are the suggested prevention methods and treatments for it.

As authors, the purpose of this paper is to provide a general overview of anorexia nervosa; since much proportion of people in society does not have a basic understanding of it, especially females, who suffer the most from anorexia nervosa, it is due to a lack of knowledge on the danger of anorexia nervosa. By introducing this paper to society, more people will notice how much harm anorexia nervosa does to an individual, the factors contributed, and the varied treatments. Root causes of anorexia nervosa will be discussed in Sect. 2, which will be explored from three points of view—biological, psychological, and environmental. Nevertheless, the difference between females and males in physiological and biological perspectives needs to bring more awareness while the therapists create their treatment plans. Cognitive-behavioural therapy, family-based therapy, pharmacological treatment, and surgical treatment will be explained in Sect. 3 since these are the main therapies that would be used for treating individuals with anorexia nervosa. Furthermore, the nutritional intervention will also be explored in Sect. 3, which is one of the most influential therapies used to reduce the pain of individuals suffering from anorexia nervosa. The summary of this paper and recommendations for future studies on anorexia nervosa will be proposed to readers in the conclusion section.

2 Etiology

The regular prevalence of anorexia nervosa is 0.3% on average, ranging from 0%–1%. The number of patients has grown perilously over the past 20 years [5]. According to the research about the gender difference in anorexia nervosa, female is more likely to suffer from anorexia nervosa because of some specific reasons [6]. Less than half of patients with anorexia nervosa recover effectively, and one in five still suffer from anorexia nervosa and chronic diseases [7]. The symptoms and influences of anorexia nervosa will be long-lasting. It may affect patients' lifelong well-being. Research on the etiology of anorexia nervosa in recent years has focused on precipitating, predisposing, and perpetuating factors, which concentrates on the biological factors, psychological

aspect, and environmental influence, respectively [8]. All the aspects have a profound meaning to the etiology of anorexia nervosa.

2.1 The Biological Factors

To begin with, genes play a significant role in triggering anorexia nervosa [8], and a host of research has demonstrated this view. For example, the restrictive-type anorexia nervosa is related to chromosome 1. In addition, more than 50% of the symptoms of eating disorders are inherited from generation to generation in families. Neurodevelopment and the complication of pregnancy are also pertinent risk factors for anorexia nervosa—it is a demonstration of epigenetic effects [8]. People's neural and cognitive development will affect the risk of suffering from anorexia nervosa. The research also illustrates that 5-hydroxytryptamine (5-HT) has something to do with anorexia nervosa. 5-hydroxyindol-acetic acid (5-HIAA), the metabolite of 5-HT, was tested, and the result shows that people with anorexia nervosa have a high level of 5-HT [9]. As a result, biological factors make a contribution to the onset of anorexia nervosa.

2.2 The Psychological Influences

Furthermore, psychological problems and deviances also take part in the threatening factors of anorexia nervosa. Related investigation shows that people who have low self-esteem and self-evaluation are more likely to be diagnosed with anorexia nervosa. At the same time, the researchers also take the people who experience anxiety and depression into consideration about the perilous elements of anorexia nervosa [8]. Mood disturbances have an impact on the onset of anorexia nervosa; an unstable mood can affect one's appetite for food. It will influence people's preferences for food. Moreover, the case study also illustrates that obsessive-compulsive disorders influence the development of anorexia nervosa. For instance, people are obsessed with a certain weight number or calorie intake. Consequently, they tend to have high standards for themselves and engage in unhealthy behaviours repeatedly. It is harmful to people's well-being. Over the course of time, people are more likely to be characterized as patients with anorexia nervosa [10]. In a word, people cannot ignore the psychological influence of anorexia nervosa.

2.3 The Environmental Influence

Not only is nature important for anorexia nervosa, but nurture is also vital for the disease. What is more, attachment styles like insecure attachment or inappropriate parental behaviours can be the perpetuating factors of anorexia nervosa. An unstable family environment is not beneficial for people to avoid anorexia nervosa. For example, the mother of people who are characterized as having anorexia nervosa is invasive and commanding at the time. It is more likely to stretch the gap and develop a strange relationship or arresting ambivalence between mother and children. The father always plays an inconsequential role and is passive or involved in family management [5]. At the same time, peer relationships, eating habits, or horrible experiences like past trauma that are hard to forget can also be risky factors of anorexia nervosa [8]. The eating diet has an enormous

impact on the onset of anorexia nervosa. People who dislike healthy food and prefer an unbalanced diet are more likely to get anorexia nervosa. Based on longitudinal research, the severity of eating a diet is associated with the chance of a diagnosis of anorexia nervosa. Adolescent girls have a high potential to be on a diet. As a result, girls also are more likely to be troubled by anorexia nervosa [11]. On the other hand, the traditional culture and stereotypes of girls are also threatening factors for anorexia nervosa. Girls are expected to be thin in some countries and cultures. If girls are overweight, they are more likely to receive a great deal of discrimination and differential treatment from other people and society [12].

All in all, the etiology of anorexia nervosa is complex. It involves many aspects, and it can conduct the explanation from biological factors, psychological influences, and environmental factors. Studying the etiology of anorexia nervosa can provide a theoretical basis and information for the prevention and therapy of this disease.

3 Intervention and Treatment

3.1 Nutritional Intervention

Nutritional intervention is among the most well-known therapy to alleviate anorexia nervosa since the patients are malnutrition in general. According to previous studies, nutritional therapy, the tube feeding strategy especially, is significantly helpful for patients who are severely ill to gain the weight back in a short period [13]. In addition, moderate-level anorexia nervosa is also treated by some other counseling therapeutic approaches combined with nutritional treatment.

3.2 Cognitive-Behavioural Therapy

Cognitive-behavioural therapy is a highly recommended and adapted therapeutic approach to cure anorexia nervosa, which has proved to be highly effective in dealing with mental disorders that bring people faulty evaluations of themselves. The great and sometimes extreme emphasis on the ideal body shape could be altered through sessions of cognitive-behavioural therapy—an approach that therapists use to help patients with mental disorders to get rid of the negative attitudes and faulty beliefs about themselves, which contribute to their poor mental health. Body dissatisfaction typically arises from one's over-concerns about their body images. With the help of cognitive-behavioural therapy, the obsession with a slim body that leads to dissatisfaction with body weight/shape could be weakened [14].

3.3 Family-Based Therapy

Family-based therapy works in a family as a whole; through the regulation of family relationships so that each family member understands and corrects the possibly existing pathological emotional structure of the family, improves family functioning, and produces therapeutic results. The short-term goal of treatment is to reduce symptoms, resume regular eating, and gain weight within a few weeks through behavioural techniques; the

long-term goal is to improve the patient's family system. Diamond's research shows that family therapy is more effective for weight gain and menstrual regulation in adolescent patients, while individual support therapy is more effective for adult patients [15].

3.4 Pharmacological Treatment

For anorexia nervosa, there is a specifically designed pharmacological treatment, but antipsychotic drugs have been shown to have an effect in treating anorexia nervosa. Antipsychotics are commonly used in patients who may reach delusional levels in terms of their concerns about weight gain and body image disturbances. Olanzapine has been relatively well studied and found to be able to increase appetite, improve body mass, and has antidepressant, anxiolytic, and anti-obsessive effects. Low doses of Olanzapine have been used to treat anorexia nervosa to achieve the desired effect [16].

3.5 Surgical Treatment

The study of brain structures in anorexia nervosa patients using functional MRI revealed abnormal activation of the insula, thalamus, anterior cingulate cortex, dorsal caudate nucleus, dorsolateral prefrontal cortex, and amygdala and found substantial white matter abnormalities using diffusion tensor tractography. These brain regions are involved in feeding behaviour, body image processing, emotional cognition, and reward processing. The abnormalities in brain function and structure offer the possibility of neuromodulatory surgical interventions in anorexia nervosa.

3.6 Intervention

To solve the problem fundamentally, the public has to know the importance of awareness and education among young people in preventing mental illness and eliminating the stigma around seeking mental therapy. Weight loss, in this case, becomes a central focus to the point where it interferes with people's daily activities and social relationships.

Schools should strengthen health education and enhance the right attitude of social influence for students. The teachers, mentors in the mental health department, and counsellors of each student in middle schools and universities should make effective communication with students and eliminate their wrong consciousness that considers reaching out for help with a profession is not a shame.

4 Conclusion

In conclusion, anorexia nervosa brings several negative impacts to its sufferers: they are likely to experience disordered moods, social withdrawal, and even suicidal attempts. Biological, psychological, and environmental factors all predict the onset of anorexia nervosa—none of them works in solitude. Therefore, appropriate treatment should be applied to patients with anorexia nervosa based on their own preferences and conditions to avoid negative consequences. More research could be done to determine the predominant factors that trigger anorexia nervosa. When the ultimate etiology of anorexia

nervosa is determined, more effective treatments might also be developed. The current therapeutic approaches to cure anorexia nervosa that clinicians and psychologists prefer are nutritional intervention, cognitive-behavioral therapy, family-based therapy, pharmacological treatment, and surgical treatment. All these methods have been proved somewhat effective in treating anorexia nervosa.

Although existing research has provided sufficient information on anorexia nervosa in some aspects, there is still room for improvement. As the female patients of anorexia nervosa outnumbered the males, more research could be done to determine the factors that facilitate the situation. The existing studies focused more on the socio-cultural aspect to explain it. The social-cultural pressure from peers, family, and the media creates anxiety for people to become thinner and thinner, contributing to a greater valuation of appearance. The emphasis of society on body image has made people pay much attention to their body shape and mass, and the pursuit of a perfect body has led to the development of body dissatisfaction. Sometimes people feel overweight even if they are already within the standard BMI range. However, biological differences could be a key breakthrough since females and males have different body structures. Ultimately, more research on the biological aspect might help to explain why females are more effective in anorexia nervosa.

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