# Psychological Factors That Can Impact Obesity and Overweight

Ziwei Qiang<sup>1,a,\*</sup>

<sup>1</sup>Department of Psychology, The Ohio State University, Columbus, Ohio, 43210, United States a. qiang.46@osu.edu

\*corresponding author

Abstract: Obesity, now recognized as one of the most common and significant chronic diseases, occurs not only in the United States but worldwide. Relevant studies have shown that obesity increases the risk of Type 2 diabetes, heart disease, bone health, reproductive health, and certain cancers, thereby affecting quality of life, including sleep and mobility. This information has prompted the general public and academics to focus more on the psychological aspects that impact and contribute to obesity, in addition to biological causes. The study aims to explore the psychological aspects that influence obesity and overweight communities. Apart from obesity, the paper also discusses how it affects people's lives, and the psychological solutions to obesity. Through a systematic analysis of the existing literature, which contains resources that are peer-reviewed studies published between 2008 and 2023, this paper shows that depression, anxiety, eating disorders, and familial factors all contribute to obesity and overweight. The results also indicate that the mechanisms behind each psychological factor are also different. In addition, some psychological approaches can help reduce obesity symptoms, such as behavioral therapy and counseling.

*Keywords:* Psychological actors, Depression, Anxiety, Obesity and Overweight, Life Quality.

#### 1. Introduction

Obesity, according to the Centers for Disease Control (CDC), ranks among the most prevalent, costly, and serious chronic diseases. One out of every five adults in the United States and one out of every eight adults worldwide [1]. In order to diagnose obesity, the World Health Organization measures weight and height and calculates body mass index (BMI) as weight (kg)/height² (m²). With regard to BMI in children, infants, and adolescents, age and gender will dictate various norms. Adults with a BMI more than or equal to 25 will be considered overweight, while those with a BMI of 30 or above will be classified as obese [2]. In addition to psychological risk factors of obesity, environmental and genetic risk factors contribute to obesity in children and adolescents, with parental obesity being the most common genetic risk factor for childhood obesity. According to Dr. Hebebrand and Dr. Hinney, the degree of parental obesity and whether or not both parents are obese affects this risk. Other genetic risk factors that can affect influence can be found in a variety of obesity categories, such as syndromic obesity, monogenic obesity, as well as polygenic obesity [3]. Environmental factors are regarded as the characteristics that surround the individual, which include where they live, work, and play. Geography, food availability, and transportation are three of the major factors that can impact obesity [4]. Overall, obesity is a mul-tifactor disease, genetic and environmental factors can all contribute to

<sup>©</sup> 2024 The Authors. This is an open access article distributed under the terms of the Creative Commons Attribution License 4.0 (https://creativecommons.org/licenses/by/4.0/).

it. Based on the psychosocial outcomes of the obese group, the paper examines the psychological factors affecting obesity, and divides the content into three main sections, i.e. psychological factors of obesity (outlining the main psychological causes of obesity), mechanisms by which psychological factors affect obesity (exploring how psychological factors can exacerbate the degree of obesity), and psychological interventions and management strategies (describing psychological approaches to help the overweight and obese groups). This helps to develop more effective psychological interventions and management strategies.

# 2. Psychological Factors in Obesity

#### 2.1. Emotional Factors

Depression and anxiety have always been related to obesity and overweight communities. Research conducted by Dr. EĞİRMENCİ and his team shows that depressive and anxiety levels are high in individuals with obesity, and usually these symptoms are related to poor quality of life, low self-esteem, and negative eating attitudes [5]. Even though their study mainly focused on female adults, the same results can also be seen in children. Children under great pressure from their life events can also contribute to having the symptoms of obesity and being overweight [6]. After realizing that depression and anxiety have been related to obesity and overweight communities, researches then deep dive into how the emotional factors contribute to obesity and overweight people. Emotional eating is widely used to refer to people's tendency to eat when they are in a negative mood, with the foods chosen being primarily energy-dense and flavorful [7]. Depressed symptoms are associated with increased emotional eating, and emotional eating predicts a large increase in BMI regardless of depression symptoms [7].

# 2.2. Cognitive Factors

According to the Mayo Clinic, eating disorders are significant health illnesses that have an impact on both physical and emotional well-being. These conditions include issues with people's food, eating, weight, and shape perceptions, as well as eating behaviors. The majority of eating disorders are characterized by an excessive concern for weight, body form, and food. This can result in risky eating practices. The most prevalent eating disorders are anorexia, bulimia, and binge eating. Furthermore, individuals with eating problems might have a variety of body kinds and sizes. [8] With researches in this field has shown, that eating disorders can be one of the cognitive factors that contribute to obesity and overweight. Zadia and his team in their research have obesity and eating disorders that can have a bidirectional impact. [9] In addition, Stella notes that eating disorders may accompany childhood and adolescent obesity or may evolve after intensive interventions to treat obesity [10].

#### 2.3. Behavioral Factor

Physical activity is inextricably linked to how the body operates, but obesity has a significant impact on and limits physical activity, resulting in physical body dysfunction. Even though a large body of evidence shows that physical exercise is vital to bodily health and may be used to lose weight and maintain it, there are clearly some behavioral variables that contribute to overweight people's refusal to exercise. Kylie observed that being labeled as "too fat" represents a substantial obstacle that impedes obese individuals from initiating or sustaining a sufficient level of physical activity [11]. According to Aurelie, the three most common barriers to physical activity are lack of self-discipline/motivation, pain or physical discomfort, and lack of time. He also pointed walking is one of the most suitable exercises for obese and overweight patients in order to start exercising and maintain a certain amount of exercise [12].

#### 2.4. Psychosocial Factor

How society treats and sees obese and overweight people can also be one of the significant factors that cause or stimulate obesity and overweight. Lack of social and resource supports, and misunderstanding of obesity can all contribute to isolation and loneliness, which leads to worse levels of obesity and mental health issues. In nowadays society, it is likely that stereotypical language is used to describe and portray overweight and obese people. Words like lazy, lack of willpower, or self-discipline are not only wrong but unfair and inaccurate [13]. These stereotypical words have also been described as the "social devaluation and denigration of individuals for being overweight," which can lead to negative attitudes, stereotypes, prejudice, and discrimination.", it is proven by the research that weight stigma can cause significant physical and mental harm for individuals who have suffered from obesity. As mentioned above, it can make an individual become less likely to seek professional help [13].

# 3. Mechanisms of Psychological Factors Affecting Obesity

#### 3.1. Physiological Mechanisms: Low Self-Esteem

There are social stigmas against obese and overweight people, and these social stigmas, as well as other traumatic life events, can lead to a decrease in self-esteem, which also exacerbates obesity and trigger other harmful behaviors, such as alcohol and tobacco use. The study by Eric et al. could explain how low self-esteem contributes to obesity: self-perception of being overweight leads to internalization of weight stigma and worries about social rejection, which in turn causes psychological discomfort and has a detrimental effect on lifestyle choices that promote health. In addition, the pervasive stigma associated with being overweight may also explain this counterintuitive finding: the psychosocial experience of "being overweight" may have a variety of psychological impacts that raise the risk of adopting unhealthy lifestyle behaviors and experiencing poor health [14]. According to Sophie and her team, it is proven that self-esteem has a large impact on weight. People with poor self-esteem are also less likely to prepare for the future. This was then connected to increased food intake and decreased physical activity, which can also help to explain the growing prevalence of obesity [15]. Moreover, low self-esteem not only affect obese adolescents but also overweight children. The study conducted by Richard shows that when self-esteem levels decrease for obese children, there are increased levels of sadness and loneliness, as well as levels of depression, and anxiety. When there are decreasing levels lasting over four years, children with obesity are more likely to perform dangerous behaviors like smoking and drinking alcohol [16].

# 3.2. Behavioral Mechanism: Quality of Life

Without question with the intervention of depression and anxiety, people with obesity and overweight can struggle with the quality of life, and it is clear that how obesity itself can have a huge impact on the quality of life. Nonetheless, when more and more research aimed at the treatment of obesity, it can be seen that the quality of life has been increasing for obesity and overweight communities. According to Robert, the term quality of life can be described as the standard of living, quality of housing and neighborhood, job satisfaction, family relationships, health, and other factors. Obesity can make a huge impact on any of these aspects, especially health. As mentioned in the article written by Robert, obesity affects physical and psychological functioning. One of the most obvious examples is on the skin. It is shown by increased sweating, cutaneous infections, and swelling and/or discoloration of the lower parts of the body. Furthermore, given all the aspects that obesity can impact the quality of life, losing weight according to the study conducted by Robert, can also have a huge increase in quality of life for obese and overweight individuals. The study gives precise numbers

stating that a weight loss of 6 kg to 30 kg was associated with a significant improvement in quality of life compared to the control group [17].

## 3.3. Cognitive Mechanism: Eating Attitudes

Besides eating disorders, eating attitudes can also be closely related to obesity and overweight. It can be less severe, but it also has a huge impact when talking about gaining weight and forming unhealthy eating habits, making it hard to change for obese and overweight individuals. It is also more frequently seen in overweight children, which can be considered one of the causes and lead to future obesity. Merles defines eating attitudes as beliefs, emotions, feelings, behaviors, and interactions with food. Patients with eating disorders exhibit a variety of inadequate and dysfunctional eating attitudes, as well as a complicated connection with food defined by anxiety, anger, fear, and guilt, among other characteristics [18]. These findings greatly illustrate the close relationship between eating attitudes and eating disorders, and the further impact of eating attitudes on the problem of obesity and overweight.

## 4. Psychological Interventions and Management Strategies

It is known that overweight and obese people can be helped to live better lives through surgical procedures, but other non-surgical psychological interventions can also help. Some of the basic behavioral approaches to treating obesity include Motivational Interviewing (MI), Behavioral Therapy (BT), Cognitive Therapy (CT), Cognitive Behavioral Therapy (CBT), Interpersonal Therapy (IT), and Acceptance Based Therapy (ABT). According to Yearwood and Masood, of all weight loss therapies, behavioral interventions have the greatest impact on weight maintenance, with some therapies resulting in weight loss of up to 10% that is maintained after 36 months. [19]. There are also some of the self-management strategies. Self-monitoring can be one of the self-management strategies. According to the Obesity Action Coalition(OAC), Self-monitoring is the observation and recording of food and activity routines, followed by feedback on those behaviors. The purpose of self-monitoring is to develop self-awareness of target behaviors and results, so it may act as an early warning system when issues arise and measure performance [20]. Self-monitoring can assist with the eating problem indicated above, as well as release some of the negative feelings associated with sadness and anxiety, because it provides people with a clear means to keep track of what they do and perform. Meditation can also be one of the self-management strategies. The study by Sean et al. stated that mindfulness meditation effectively decreases binge eating and emotional eating in populations engaging in this behavior [21].

Nonetheless, with all the intervention and management strategies, there are also some of barriers to all these strategies. First, there is a lack of social support and encouragement from family and friends. During psychoeducation, social support can be strengthened by making significant others aware of their role in treatment. Nonetheless, people with obesity and overweight experience a sense of loneliness and isolation, and having enough social support can be seen as one of the barriers. Second, previous failures can also be a barrier when trying other interventions in the obese group. Nonetheless, it is likely to be treated using cognitive restructuring, a cognitive behavioral therapy strategy for addressing negative ideas. Last, family eating habits and a family history of obesity, particularly in the mother, might be a significant barrier [22].

#### 5. Conclusion

The paper mainly focuses on the psychological factors that impact obesity and overweight community. Depression and anxiety, eating disorders, and sociology pressure towards people with obesity and overweight are the main stressors mentioned in this article. Moreover, eating attitude, life quality and

self-esteem are also the mechanisms that can further impact the obesity and overweight community. Psychological interventions like behavioral therapy can be one of the solutions and interventions to help reduce the stress and harm from obesity and overweight, along with self-managing strategies like meditation and self-monitoring. Future research should conduct more studies to show how counseling or other psychological methods can help reduce the levels of overweight and obesity. Counseling could be one of the most important interventions because this paper has argued how low self-esteem, social factors, etc. can be a major cause of obesity. If members of the overweight group feel less stigmatized and more supported by their social environment, they are likely to experience less stress and more self-confidence. This shift in perspective can be a powerful catalyst for change, as individuals will be more open to seeking help and making healthier lifestyle choices. In addition, by understanding which psychological interventions are most beneficial, healthcare providers can better equip individuals with the knowledge and resources they need to make lasting changes to their health.

#### References

- [1] CDC. (2024) Adult Obesity Facts. https://www.cdc.gov/obesity/php/data-research/adult-obesity-facts.html
- [2] World Health Organization. (2024) Obesity and Overweight https://www.who.int/news-room/fact-sheets/detail/obesity-and-overweight
- [3] Hebebrand, J. and Hinney, A. (2009) Environmental and Genetic Risk Factors in Obesity. Child and Adolescent Psychiatric Clinics of North America, 18(1): 83–94.
- [4] Lee, A., Cardel, M. and Donahoo, W.T. (2019) Social and Environmental Factors Influencing Obesity. Endotext NCBI Bookshelf.
- [5] Degirmenci, T., Oguzhanoglu, N.K., Varma, G.S., Ozdel, O. and Fenkci, S. (2015) Psychological Symptoms in Obesity and Related Factors. Nöro Psikiyatri Arşivi, 52(1): 42–46.
- [6] Koch, F. S., Sepa, A. and Ludvigsson, J. (2008) Psychological Stress and Obesity. The Journal of Pediatrics, 153(6): 839-844.
- [7] Konttinen, H. (2020) Emotional eating and obesity in adults: the role of depression, sleep and genes. Proceedings of the Nutrition Society, 79(3): 283-289.
- [8] Mayo Clinic. (2023) Eating Disorders Symptoms and causes Mayo Clinic. https://www.mayoclinic.org/diseases-conditions/eating-disorders/symptoms-causes/syc-20353603
- [9] Agüera, Z., Lozano-Madrid, M., Mallorquí-Bagué, N., Jiménez-Murcia, S., Menchón, J.M. and Fernández-Aranda, F. (2020) A review of binge eating disorder and obesity. Neuropsychiatrie, 35(2), 57–67.
- [10] Stabouli, S., Erdine, S., Suurorg, L., Jankauskienė, A. and Lurbe, E. (2021) Obesity and Eating Disorders in Children and Adolescents: The Bidirectional Link. Nutrients, 13(12): 4321.
- [11] Ball, K., Crawford, D. and Owen, N. (2000) Obesity as a barrier to physical activity. Australian and New Zealand Journal of Public Health, 24(3): 331-333.
- [12] Baillot, A., Chenail, S., Polita, N. B., Simoneau, M., Libourel, M., Nazon, E., Riesco, E., Bond, D.S. and Romain, A.J. (2021) Physical activity motives, barriers, and preferences in people with obesity: A systematic review. PLoS ONE, 16(6), e0253114.
- [13] Rubino, F., et al.(2020). Joint international consensus statement for ending stigma of obesity. Nature Medicine, 26(4)-485-497.
- [14] Robinson, E., Haynes, A., Sutin, A. and Daly, M. (2020) Self-perception of overweight and obesity: A review of mental and physical health outcomes. Obesity Science & Practice, 6(5): 552-561.
- [15] Byth, S., Frijters, P. and Beatton, T. (2022) The relationship between obesity and self-esteem: longitudinal evidence from Australian adults. Oxford Open Economics, 1.
- [16] Strauss, R.S. (2000) Childhood Obesity and Self-Esteem. PEDIATRICS, 105(1), e15.
- [17] Kushner, R. F. and Foster, G.D. (2000) Obesity and quality of life. Nutrition, 16(10): 947-952.
- [18] Alvarenga, M., et al. (2014) Eating attitudes of anorexia nervosa, bulimia nervosa, binge eating disorder and obesity without eating disorder female patients: differences and similarities. Physiology & Behavior, 131: 99-104.
- [19] Yearwood, L. and Masood, W. (2024) Behavioral Approaches to Obesity Treatment. StatPearls NCBI Bookshelf. https://www.ncbi.nlm.nih.gov/books/NBK570565/
- [20] Obesity Action Coalition. (2021) Self-Monitoring-The Way to Successful Weight Management. https://www.obesit yaction.org/resources/selfmonitoring-the-way-to-successful-weight-management/

# Proceedings of the 2nd International Conference on Global Politics and Socio-Humanities DOI: 10.54254/2753-7048/73/20241003

- [21] Katterman, S.N., Kleinman, B.M., Hood, M.M., Nackers, L.M. and Corsica, J. A. (2014). Mindfulness meditation as an intervention for binge eating, emotional eating, and 14 weight loss: A systematic review. Eating Behaviors, 15(2): 197-204
- [22] Sagar, R. and Gupta, T. (2017) Psychological Aspects of Obesity in Children and Adolescents. The Indian Journal of Pediatrics, 85(7): 554-559.