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## Psychiatric Comorbidities in Children with Obesity

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### ABSTRACT

Childhood obesity is a significant public health issue in the 21st century. Scientists have shown interest in studying the effects of childhood obesity on several aspects of health. Obesity comorbidities encompass more than just physical issues. The effects of juvenile obesity are far-reaching and include psychological comorbidities. The objective of this review was to specifically examine the psychiatric comorbidities that are linked to pediatric obesity. A comprehensive search was performed in PubMed to identify articles that provide information on the coexistence of pediatric obesity and other medical conditions. The pertinent data were retrieved and reviewed in a narrative manner. Research has shown that childhood obesity is linked to psychological comorbidities, including depression, reduced perceived health-related quality of life, emotional and behavioral issues, and lower self-esteem during childhood.

### 1. Introduction

Childhood obesity is a significant public health issue in the 21st century. Its prevalence has surged, with the number of overweight and obese children skyrocketing from 4% in 1975 to 18% in 2016. In 2016, almost 340 million children and adolescents aged 5 to 19 years old globally were identified as having overweight or obesity. In 2019, over 38 million children aged 5 and below were classified as overweight or obese. The prevalence of overweight and obesity is increasing in low- and middle-income countries, especially in metropolitan areas, which were formerly associated with high-income countries.<sup>1-3</sup>

A variety of individual traits that regulate physiological processes, food preferences, and physical activity patterns throughout their lives have an impact on the prevalence of obesity in children and adolescents. Additionally, the presence of an

obesogenic environment, which encourages excessive energy consumption and sedentary behavior, contributes to this issue. The consequences of childhood obesity frequently endure into adolescence and adulthood.<sup>4-6</sup> In addition, obese children experience compromised psychosocial functioning and are more susceptible to psychological issues such as depression, anxiety, low self-esteem, and negative body image, which further impact their overall well-being.

### Psychological comorbidities

Childhood obesity, like adult obesity, is a significant worldwide public health issue due to its extensive geographical reach and high occurrence. Obesity is the root cause of several prevalent diseases observed in current medical practice. Children who are overweight or obese are highly susceptible to experiencing psychosocial distress, such as sadness,

anxiety, and social disengagement. Additionally, they often have a diminished quality of life. Researchers are studying the psychological and social consequences that come with childhood obesity, in addition to the usual physical conditions connected with it. The research in this field revolves around anxiety and depression, self-esteem, attention-deficit hyperactivity disorder (ADHD), eating disorders, and sleep difficulties.<sup>7-10</sup>

### **Depression and anxiety**

Prior studies indicate that there is a correlation between depression and childhood obesity. It suggests that adolescents who are obese are more likely to experience sadness, higher levels of body dissatisfaction, social isolation, negative mood states, and low self-esteem compared to those who have a normal weight. Children who are obese exhibit a notably elevated prevalence of depression and low self-esteem when compared to their healthy counterparts. Among children with obesity, girls are found to experience a significantly greater rise in depression than boys. Furthermore, as weight increases, the likelihood of developing depression and anxiety also increases.<sup>11-13</sup>

### **Self-esteem**

Self-esteem is a complex concept that encompasses various aspects and has been discovered to have a connection with childhood obesity. Recent research revealed a moderate correlation between self-esteem and obesity. Typically, low self-esteem does not appear to be a notable issue until adolescence, as self-esteem levels are comparable among preteen children who are obese and those who have a normal weight. During adolescence, self-esteem becomes increasingly linked to body image. Research has shown a significant correlation between body shame and susceptibility to eating disorders, which in turn raises the likelihood of experiencing low self-esteem. Adolescents who are dissatisfied with their body image tend to have the lowest levels of self-esteem. The self-esteem of overweight children and adolescents is influenced by

gender, with females potentially facing a higher likelihood of having low self-esteem compared to boys.<sup>14,15</sup>

### **ADHD**

ADHD is a prevalent childhood mental illness, with a global prevalence estimated to range between 5% and 10% among young students. Several studies have examined the correlation between obesity and ADHD. Obese children have a higher incidence of ADHD diagnoses compared to children who are healthy. Young adults who were overweight or obese were found to have a higher likelihood of having ADHD or demonstrating juvenile conduct problems, such as disobedience, defiance, violence, cruelty to others, and damage to property. These behaviors exhibited throughout early childhood were likewise indicative of a disproportionate rise in BMI during early adolescence or early adulthood.<sup>16,17</sup>

### **Eating disorders**

There is a significant correlation between obesity and eating disorders in various aspects of psychosocial dysfunction. Individuals with eating disorders often base their self-esteem on their physical appearance, which may explain the connection between eating disorders and overweight or obese youths. Teasing about weight can lead to unhealthy behaviors related to weight control, such as binge eating or loss-of-control eating. These behaviors can contribute to additional weight gain in overweight and obese young people. Adolescents who are overweight are far more likely to report binge eating episodes compared to their non-overweight peers. These episodes are characterized by the ingestion of a significant quantity of food along with a loss of control or a sense of being unable to regulate what or how much one is eating. It is important to thoroughly assess the reciprocal connection between obesity and eating disorders, particularly the psychopathology associated with eating disorders, while developing a treatment strategy.<sup>18-22</sup>

## 2. Conclusion

An integrated and systematic approach is essential to addressing the obesity pandemic, as it poses a growing threat to the health and well-being of the younger generation and has significant implications for resources and economic burdens. Accurate and persuasive evidence is required to guide policy decisions, economic regulations, and initiatives aimed at preventing obesity in future generations.

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