

# An Increasingly Prevalent and Overlooked Issue: The Impact of Obesity on Women's Mental Health

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## Abstract

Obesity is becoming an increasingly prevalent public health issue that affects not only physical health but also mental well-being. This article examines the impact of obesity on women's mental health. As part of the research for this review article, electronic databases such as PubMed, PsycINFO, Google Scholar, and ScienceDirect were utilized. In particular, obesity in women is associated with mental health problems such as depression, anxiety, and low self-esteem. The mechanisms underlying this association include social stigma and discrimination, body image issues, and physical health problems. The article addresses the mechanisms of mental health problems caused by obesity, the prevention, treatment, and rehabilitation of the psychosocial problems experienced by obese women, and the interventions that nurses can undertake, based on current scientific studies. It is concluded that the efforts and contributions of nurses in addressing complex health issues such as obesity are critically important for improving patients' quality of life and optimizing treatment outcomes.

**Keywords:** obesity; women; mental health; nursing

## Introduction

Obesity, characterized as chronic, progressive, recurrent, and treatable, is recognized today as a global public health issue. The impact of this health problem on women's mental health is also becoming an increasingly significant area of interest (WHO, 2022; Panuganti et al., 2023). In 2020, over 1.9 billion adults worldwide surpassed the obesity threshold, and by 2025, it is estimated that approximately 2.3 billion individuals globally will be overweight, with 700 million facing obesity. Furthermore, by 2030, it is projected that one billion people, including one in five women and one in seven men globally, will be living with obesity (Boutari et al., 2022). In Turkey, 66.8% of the adult population is classified as overweight, and 32.1% as obese, making it the country with the highest prevalence of obesity in the European Region (WHO, 2022a). These statistics underscore the necessity for sustainable interventions aimed at better understanding and addressing obesity. The underlying factors of obesity are linked to multifactorial phenomena such as economic, social, and physical environmental transformations (Boutari et al., 2022; Nittari et al., 2019; Valencio et al., 2022). The increase in obesity prevalence among women can be attributed to factors such as reduced physical activity with age and increased consumption of high-energy-density foods. These factors are closely related to changes in lifestyle and activity levels (Lash & Armstrong, 2009; Valencio et al., 2022). Additionally, psychological factors can influence eating behaviors; depression, anxiety, and associated feelings of tension can lead to self-deprecation, rejection of body shape, stress, and interpersonal relationship issues (Walker-

Clarke et al., 2022). Recently, obesogenic eating behaviors have been linked to hedonic pathways that can override homeostatic mechanisms in the human brain. Although the existence of eating behavior is still debated, it is suggested that there are similar mechanisms between food-triggered hedonic pathways and other addictive substances. It is noted that overweight and obese individuals may derive less pleasure from eating compared to those at an ideal weight and can lose weight when they reduce their food intake. Additionally, after weight loss, hormonal changes can lead to increased hunger as the brain shifts into energy conservation mode, potentially resulting in weight regain (Lee & Dixon, 2017; Finlayson, 2017). Obesity inevitably leads to chronic diseases and complications specific to women's life stages and also affects mental health. In the age of technology and in some societies, the presence of weight-related stigma exacerbates this impact. Stigma creates stress in individuals, laying the groundwork for cognitive, emotional, and behavioral disorders from childhood to adulthood (Cuijpers et al., 2019). The triggering of physiological and behavioral changes by negative emotional experiences strengthens the connection between mental health and obesity (Sattler et al., 2018; Puhl & Suh, 2015). Research shows that the relationship between obesity and mental health often stems from efforts to cope with the negative emotional effects of stress. For example, weight-related stigma is indicated as a factor that triggers mental stress and creates a vicious cycle that promotes weight gain (Tomiya, 2019; Sattler et al., 2018; Valencio et al., 2022). Epidemiological studies reveal

that mental disorders are approximately twice as prevalent in women compared to men, and women are more vulnerable to weight-related stereotypes, making stigma experiences more common among them. This situation negatively impacts women's mental health (Nittari et al., 2019; Sattler et al., 2018; Lash & Armstrong, 2009). Additionally, women are more prone to substance use and risky behaviors, leading to more frequent encounters with conditions such as depression and suicidal ideation (Nittari et al., 2019; Lash & Armstrong, 2009). Besides its adverse effects on reproductive functions, obesity can cause harmful health outcomes and trigger psychological disorders. The rising rates of obesity in recent years have necessitated a closer examination of the mental health impacts of this condition on women (Ng et al., 2014). Numerous studies indicate that obesity is associated with negative health indicators, with obese individuals experiencing higher rates of sleep, circulatory, respiratory, endocrine, and musculoskeletal system diseases (Hauspurg et al., 2019; Van Den Hoek et al., 2023; Maxwell et al., 2023; Valencio et al., 2022). This review systematically examines the effects of obesity on the mental health of women throughout their life cycles, based on literature from Web of Science, PubMed, Scopus, PsycINFO, Google Scholar, and ScienceDirect databases.

### Adolescent Period, Obesity, and Mental Health

During adolescence, the influence of estrogen results in a more rapid increase in fat tissue compared to muscle tissue in females. Consequently, females in adolescence tend to be heavier than their male counterparts, making this period particularly risky for obesity (Elliott et al., 2022). According to WHO data from 2022, over 390 million children and adolescents aged 5-19 are classified as overweight (WHO, 2022). Obesity in adolescents is closely linked not only to physical health outcomes but also to psychosocial and mental disorders. Studies have reported that obese adolescents experience issues such as school absenteeism, academic failure, peer bullying, physical abuse, and social isolation. Failures, difficulties in making friends, and low sociability often result in impulsive eating behaviors (Liu et al., 2016). These negative circumstances are noted to lead to similar psychological issues and reduced quality of life in adulthood (Chu et al., 2019).

Weight-based stigma from adolescence to later adulthood is associated with negative emotional outcomes, including low self-esteem, increased anxiety and depression, suicidal ideation, poor body image, eating disorders, and greater overall psychological distress (Puhl & Suh, 2015; Small & Aplasca, 2016). A meta-analysis examining the relationship between obesity and depression in adolescents highlighted the correlation between these two conditions (Mannan et al., 2016). Obese adolescents are more frequently identified with behavioral problems, peer issues, internalized and externalized problems, attention deficit hyperactivity disorder (ADHD), and sleep problems (Schreckenbach et al., 2021; Sönmez et al., 2019; Wang et al., 2019). Studies have found a link between increased body mass index (BMI) and ADHD in adolescents (Işık et al., 2020; Cortese et al., 2016). A study investigating psychiatric disorders in obese adolescents found that specific phobia and social anxiety disorder were more prevalent among obese adolescents compared to their normal-weight peers (Işık et al., 2020). If untreated, these conditions are associated with poor school performance, impaired social functioning, substance abuse, recurrent depression in adulthood, and an increased risk of suicide, which is the second leading cause of preventable death among adolescents (Sutaria et al., 2019). The widespread prevalence of technology addiction in adolescents has also been linked to obesity (Mihirshahi et al., 2017). Some studies suggest that the quality of life in obese girls is lower compared to boys (Ottova et al., 2012; Förster et al., 2023; Mozzillo et al., 2021). The adolescent period, a sensitive time in women's lives, is particularly significant due to the physical and mental health problems caused by obesity. During this period, which emphasizes social interaction, learning, body image, and academic success, adolescent girls with obesity face challenges such as social withdrawal, stigma, bullying, academic failure, and distorted body image. These issues can lead to severe outcomes, including suicide, depression, and

addiction (Förster et al., 2023; Mannan et al., 2016; Nittari et al., 2019). In managing and controlling overweight and obesity, it is important to include low-calorie diets, increased physical activity, behavioral changes, and additional psychosocial interventions as preventive measures.

### Obesity and Mental Health in Reproductive Age

Obesity can lead to serious health issues for both genders. In particular, obesity in women can significantly increase the risk of various diseases throughout their life stages (Weschenfelder et al., 2018). The World Health Organization (WHO) states that obesity can impact at least seven out of the ten most significant health issues affecting women (WHO, 2015). Obesity in women can increase the risk of breast cancer, cervical cancer, sexual and reproductive health problems, and mental health disorders (Weschenfelder et al., 2018). Recently, the prevalence of obesity has been increasing among women of reproductive age, posing a risk for gynecological problems such as infertility, Polycystic Ovary Syndrome (PCOS), and anovulation. Obesity during pregnancy is a fundamental risk factor for thromboembolism, miscarriages, gestational diabetes, preeclampsia, neonatal deaths, neural tube defects, and depression. Additionally, obesity negatively impacts breastfeeding and contraception processes (Maxwell et al., 2023; Wharton et al., 2020; Yalvaç & Toker, 2021). Moreover, it has been found that obese infertile women experience mental health issues, and their physical quality of life and sexual functions are significantly affected, closely linked to obesity (Karsten et al., 2021). The physical and psychological symptoms associated with obesity are said to be etiologically bidirectional, creating a vicious cycle (Valencio et al., 2022). It is especially emphasized that obesity has a strong relationship with depression, and this relationship appears to be stronger in women than in men. This is thought to be due to societal beauty standards that favor thinness as an ideal for women. Additionally, obese women are more likely to be dissatisfied with their body image and have higher rates of suicidal ideation compared to their normal-weight counterparts (Sarwer & Polonsky, 2016). A study found that obese women are more likely to experience suicidal thoughts, stressful life events, and a higher risk of depression (Engda et al., 2022). Reproductive functions in obese women of reproductive age are also affected, with conditions such as PCOS and infertility negatively impacting their mental health (Karsten et al., 2021). Obesity can also negatively affect women both during and after pregnancy. Research has shown that obese women have higher rates of depression in early pregnancy compared to non-obese women (Ruhstaller et al., 2017). A meta-analysis found that overweight and obese women have higher rates of depression symptoms and prenatal anxiety during pregnancy (Molyneaux et al., 2014). Another noteworthy point is that the mental health issues experienced by obese pregnant women can also affect the fetus (Cattane et al., 2021).

### Obesity and Mental Health in Menopause

The menopausal period is a significant phase in women's lives, characterized by an increase in body fat mass. The hormonal and physical changes associated with menopause, along with the use of medications such as antidepressants and hormone therapies to manage these changes, significantly contribute to weight gain (Knight et al., 2021). Weight gain and obesity during menopause can increase the risk of various diseases and exacerbate vasomotor symptoms experienced during this period, thereby adversely affecting women's mental health. In this context, a study found that women with obesity were more likely to experience vasomotor symptoms, sleep problems, anxiety, and depressive symptoms (Blümel et al., 2015). A systematic review conducted on postmenopausal women concluded that obesity is associated with depression, anxiety, and sleep disorders (Abdalla et al., 2022). Another study found that women with higher body mass index (BMI) levels had higher anxiety levels (Barghandan et al., 2021). Despite the increasing interest in studies focusing on obese women during menopause, it is evident that more research is needed. Considering that advancing age, hormonal changes, and obesity after menopause increase the risk of physical disease burden

and negatively impact mental health, it is emphasized that calorie restriction, exercise, and interventions to improve mental health are crucial for postmenopausal women.

### Nursing in the Mental Health of Obese Women

Nurses play a crucial role in healthcare systems and are essential in supporting both the physical and mental health of individuals. Obesity is a condition that can lead to many comorbid and chronic medical conditions, necessitating a comprehensive approach from nurses in obesity management. Literature indicates that obese women are vulnerable in many physical, psychological, and social aspects throughout their life cycle. It is evident that psychological well-being and mental health are related to improved physical health, mental resilience, and healthy behaviors (Conradson et al., 2022). Obesity requires multifaceted treatment strategies and may need lifelong management. In this context, it is believed that a weight loss of 5% to 10% in obese individuals can significantly improve the health, quality of life, and economic burden of both the individual and the country (Panuganti et al., 2023). Nurses, as healthcare professionals who frequently interact with individuals, can support the strengthening of mental health, improve positive health behaviors, and mitigate the effects of negative self-beliefs and adverse health outcomes in obese women (Jackson et al., 2015). Management strategies can include dietary changes, behavioral interventions, medication, self-care and personal hygiene, surgical intervention when necessary, and psychological care (Panuganti et al., 2023). In the context of obesity and women's mental health, educational and awareness programs conducted by nurses can inform women about the health impacts of obesity and assist in making healthy lifestyle choices (Panuganti et al., 2023). Personalized care plans, considering the individual needs of each patient, provide mental health support. Unrealistic expectations before bariatric surgery and issues such as hair loss, scar tissues, and surgical complications post-surgery can lead to low self-esteem, lack of confidence, and body image disturbance in individuals. A study with surgical nurses indicated that 86% of participants were reluctant to provide care to surgical patients with obesity (Gülay Altun et al., 2017). However, there are studies suggesting that including psychosocial care and psychoeducation in nursing care can lead to effective outcomes in resolving psychosocial problems (Altaheri et al., 2021; Wild et al., 2017). Support group activities (social support networks) can help women share their experiences and reduce feelings of loneliness, contributing to positive mental health outcomes (Lent et al., 2019). The holistic approaches of nurses encompass physical and mental health-inclusive, therapeutic strategies, providing critical support for women in their struggles with obesity and mental health. It is important for nurses to conduct mental state assessments or seek support from consultation-liaison psychiatric nurses to help obese women cope with these health issues (Wild et al., 2017; Panuganti et al., 2023). In our country, psychiatric nurses with therapy competence can engage in various psychotherapeutic interventions, including motivational interviewing, cognitive-behavioral therapy, dialectical behavior therapy, and interpersonal psychotherapy, or provide counseling based on a specific approach. It is also stated that these behavioral interventions, combined with diet and exercise, will be more effective (Oğuz et al., 2016). Raising awareness among women about obesity and implementing nursing approaches that improve mental health can positively affect women and, consequently, represent a significant step towards improving public health.

### Conclusion and Recommendations

Obesity continues to be a global public health issue today, leading to negative biopsychosocial health outcomes for women. Throughout the life cycle, from the womb to death, women are affected by gender norms, stigmatization, marginalization, and poor health outcomes, among other factors. The nursing profession, which aims to enhance the quality of life of the community, is deeply concerned with this issue and there is an urgent need for evidence-based interventions. In this context, it is

recommended that in primary healthcare services, alongside physical health outcomes, the mental health of obese women should be assessed and monitored, risk factors should be identified, and regional obesity support groups should be established. Furthermore, the inclusion of a mental health specialist and a social worker in interdisciplinary and multidisciplinary teams is anticipated to enhance the adherence of obese women to treatment, and improve the quality of care and the individual's quality of life.

### Conflict of Interest

The authors declare that there is no conflict of interest regarding the publication of this paper.

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