

Psychological Insights into Obesity among University Students: A Narrative Review

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DOI: <https://dx.doi.org/10.47772/IJRISS.2024.8120315>

Received: 20 December 2024; Accepted: 24 December 2024; Published: 21 January 2025

ABSTRACT

Obesity is a growing concern among university students worldwide, with psychological factors playing a critical role in its development. This narrative review explores five key psychological factors, mainly stress, emotional eating, peer influence, body image dissatisfaction, and sedentary behaviour, that contribute to obesity within this population. The review examines existing research to identify gaps in health psychology and highlights the need for a deeper understanding of obesity's psychological dimensions. By offering insights into these factors, this article contributes to the broader understanding of obesity and its relationship to mental well-being among university students.

Keywords: Obesity, Stress, Emotional Eating, Body Image Dissatisfaction, Sedentary Behaviour

INTRODUCTION

Obesity: An Overview

Obesity, characterised by an excessive buildup of body fat that endangers health, has emerged as a worldwide epidemic. It is a significant factor in developing non-communicable diseases, including diabetes, cardiovascular conditions, and hypertension (Hu et al., 2017). The body mass index (BMI) is frequently used to determine obesity, with a BMI of 30 or higher indicating obesity (Safaei et al., 2021). The negative consequences of obesity go beyond physical health, impacting mental well-being, social relationships, and overall quality of life (Sarwer & Polonsky, 2016).

Narciso et al. (2019) indicated that obesity significantly increases health risks. It is crucial to recognise that it is not merely a physical disease but a complex psychological, behavioural, and social interaction. Also, obesity is often stigmatized, leading to negative perceptions and discrimination (Westbury et al., 2023). For university students, Stangl et al. (2019) reported that stigma can cause stress, low self-esteem, and mental health concerns, creating a cyclical relationship between psychological well-being and weight gain.

University Students and Obesity: A Growing Concern

University students are at higher risk of obesity due to lifestyle changes and psychological stressors. The university environment presents specific challenges, such as academic pressure, increased independence, financial strain, and exposure to unhealthy eating habits. Many students experience changes in their diet, reduced physical activity, and irregular sleep patterns, all contributing to weight gain (Ofstedal et al., 2023). These lifestyle and psychological challenges collectively lead to varying rates of overweight and obesity among university students globally, as highlighted by research conducted in different regions.

The prevalence of overweight and obesity among university students varies significantly across countries and regions. Several studies have documented these differences. For instance, Radzi et al. (2019) reported that among Malaysian university students, the prevalence of overweight and obesity was 21.2% and 16.3%, respectively. Similarly, De Faria et al. (2023) observed that among Brazilian university students, the

prevalence of overweight ranged from 16.4% to 26.4%, while obesity ranged from 1.4% to 7.8%.

Another study by Alqassimi et al. (2024), which examined the Middle East, also shows notable trends. In Saudi Arabia, a study of medical students at Jazan University found the prevalence of overweight and obesity to be 25.4% and 19.3%, respectively. Similarly, research conducted on Turkish university students highlighted a high rate of overweight and obesity in this population (Çam & Karasu, 2019).

Western countries exhibit a different narrative, particularly with the phenomenon known as the "freshman 15." This term describes the weight gain commonly observed among students during their first year of university, underscoring the transitional lifestyle changes (Vadeboncoeur et al., 2015). This trend highlights the importance of exploring the psychological underpinnings of obesity to address its root causes effectively.

By analyzing these regional differences, it becomes evident that obesity among university students is a multifaceted issue influenced by a combination of lifestyle, environmental, and psychological factors.

Existing Research Gap in Health Psychology

Although extensive research has examined the physiological and behavioural aspects of obesity, there has been an insufficient emphasis on the psychological variables influencing obesity in university students. Many studies prioritise specific interventions, such as dietary changes or exercise regimens, while neglecting a comprehensive understanding of the underlying psychological mechanisms that drive obesity-related behaviours.

One key issue is the fragmented approach in existing literature. Studies often isolate single factors, such as stress or emotional eating, without acknowledging the interconnectedness of psychological processes. For instance, Dakanalis et al. (2023) highlighted that stress can contribute to emotional eating, which influences weight gain, underscoring the need for a more integrated perspective. Furthermore, research predominantly focuses on adult populations or younger adolescents, leaving a significant gap in understanding university students.

More disturbingly, the upward trajectory of obesity rates has extended into younger populations, particularly university students, who represent a demographic undergoing significant life transitions (Pope et al., 2016). This group faces unique psychological challenges, such as identity development, academic pressure, and social adjustments, which may contribute to obesity during their transition into adulthood (Chen et al., 2020).

It is essential to incorporate established health psychology frameworks to address this gap. Theoretical models like the Health Belief Model (HBM) and Self-Determination Theory (SDT) have been underutilized in obesity research involving university students. By applying these frameworks, researchers can better understand how psychological perceptions as perceived barriers to weight loss or intrinsic motivation for healthy behaviours impact obesity. A lack of theoretical grounding in current studies limits the ability to connect psychological factors with observed weight gain patterns in this population.

Hence, addressing these research gaps requires a thorough narrative review to critically examine and synthesize existing knowledge on the psychological factors contributing to obesity among university students. This approach will pave the way for a more holistic understanding and inform future interventions grounded in robust theoretical frameworks and longitudinal research.

METHOD

This study adopts a narrative review method to comprehensively synthesize existing research on psychological factors leading to obesity among university students. A narrative review was chosen for its flexibility in critically analyzing diverse literature, identifying research gaps, and providing contextual insights.

Search Strategy

The literature search was conducted across electronic databases such as PubMed, Scopus, and PsycINFO.

Keywords included "obesity," "university students," "psychological factors," "stress eating," "body image dissatisfaction," "peer influence," and "sedentary behaviour." Searches were limited to studies published between 2018 and 2024 to ensure up-to-date evidence.

Inclusion and Exclusion Criteria for the Study

To ensure the robustness and relevance of the research, specific inclusion and exclusion criteria were established for selecting articles and studies. These criteria are designed to maintain a focused scope and enhance the quality of evidence incorporated into the study.

The study incorporates a rigorous selection process to ensure the inclusion of high-quality, relevant literature. The inclusion criteria for this narrative review are as follows: first, only peer-reviewed articles were considered to ensure the credibility and scholarly integrity of the sources. Second, the focus was restricted to studies involving university students, as this demographic represents a critical population for understanding the interplay between psychological factors and obesity. Third, the review emphasises studies examining psychological determinants of obesity, including behavioural, cognitive, and emotional factors, to provide a comprehensive perspective on this issue. Finally, only publications in the English language were included, ensuring accessibility and consistency in interpretation and analysis.

Conversely, several exclusion criteria were applied to refine the scope and relevance of the reviewed literature. Studies that primarily focused on cultural factors, without a substantive discussion of psychological aspects, were excluded, as the primary objective of this review is to explore psychological determinants. Research centred on intervention-based methodologies was also excluded, as the focus of this review is on descriptive and analytical studies rather than experimental designs. Lastly, non-peer-reviewed sources, including grey literature and opinion pieces, were excluded to maintain the academic rigour and reliability of the findings.

Psychological Factors Contributing to Obesity: A Health Psychology Perspective

Obesity among university students is a complex issue influenced by numerous psychological factors. Health psychology offers a lens through which these factors can be understood, linking stress, emotional eating, peer influence, body image dissatisfaction, and sedentary behaviour to weight gain patterns. This review explores these contributors, highlighting their interdependence and role in the broader biopsychosocial framework of obesity.

Stress is one of the most significant psychological contributors to obesity, particularly in university settings where students navigate academic pressure, financial challenges, and the struggle for independence. Chronic stress triggers both physiological and behavioural changes that encourage weight gain (Hill et al., 2021). According to Chao et al. (2017), physiologically, stress activates the hypothalamic-pituitary-adrenal (HPA) axis, which results in elevated cortisol levels. Cortisol disrupts the balance of appetite-regulating hormones like leptin and ghrelin, increasing cravings for high-calorie, sugary foods. These "comfort foods" provide temporary relief, as their consumption stimulates the brain's reward pathways and creates a fleeting sense of pleasure. Buja et al. (2022) further explained that behaviourally, stress often promotes maladaptive coping mechanisms, particularly emotional eating, which further exacerbates weight gain. Emotional eating becomes habitual when food is used as a tool to suppress or distract from feelings of anxiety, sadness, or frustration. In addition, chronic stress reduces motivation to engage in physical activity (Schultchen et al., 2019). Students overwhelmed by the demands of academic life may feel too fatigued to exercise, creating a cycle of stress, sedentary behaviour, and continued weight gain. This dynamic aligns with the biopsychosocial model in health psychology, which emphasizes how stress impacts physical and emotional well-being (Rith-Najarian et al., 2014).

Closely tied to stress is emotional eating, a pattern of consuming food in response to emotional cues rather than physical hunger. University students are particularly vulnerable to emotional eating as they grapple with social and academic stressors. Health psychology theories, such as the Affect Regulation Model, explain this behaviour as an attempt to soothe or distract from negative emotions (Chawner & Filippetti, 2024). Foods high in sugar and fat activate dopamine release, stimulating the brain's reward system and providing temporary

comfort (Jacques et al., 2019). However, this short-term relief comes at the cost of long-term health consequences. Over time, the association between emotional distress and eating becomes conditioned, creating habitual patterns that are difficult to break. Emotional eating highlights the importance of psychological interventions such as mindfulness-based stress reduction and cognitive-behavioural therapy, which focus on breaking these conditioned responses and teaching healthier coping strategies. Without addressing the emotional underpinnings of eating behaviours, university students may continue to rely on food as a maladaptive response to stress and emotional turmoil.

Li and Guo (2020) emphasised that peer influence is another critical psychological factor contributing to obesity, particularly during the formative years of university life. Social networks profoundly impact eating behaviours, as students often adopt the habits of their peers to fit in or maintain a sense of belonging (Higgs & Thomas, 2015). Health psychology, through theories such as the Social Cognitive Theory, explains this phenomenon by emphasizing observational learning and modelling. When students see their peers consuming high-calorie foods or leading sedentary lifestyles, they may perceive these behaviours as normative and acceptable. Furthermore, shared social activities, such as group meals or late-night snacking sessions, often encourage overeating without consideration of the long-term consequences. Perceived social norms also shape students' attitudes toward body weight, as they may downplay the health risks of overeating if similar behaviours are prevalent in their peer groups. Addressing peer influence requires interventions that promote positive social norms. For instance, group-based health education or peer-led physical activities can foster healthier eating habits and encourage physical activity within the university environment.

Body image dissatisfaction is another psychological factor that significantly contributes to obesity among university students (Hao et al., 2023). According to Shen et al. (2022), many students are subjected to societal beauty standards and media representations of the "ideal body," which often lead to negative self-perceptions. This dissatisfaction creates emotional distress, triggering unhealthy coping mechanisms such as binge eating or excessive dieting. According to the Self-Discrepancy Theory, the gap between an individual's perceived body image and their ideal body image can result in feelings of shame, frustration, and low self-esteem. These emotions, in turn, drive maladaptive behaviours such as overeating to alleviate distress or restrictive dieting, which disrupt normal eating patterns and can ultimately lead to weight gain. Over time, the cyclical nature of body dissatisfaction and weight gain perpetuates obesity while exacerbating mental health challenges. Health interventions that promote body positivity, self-compassion, and a healthier relationship with food are essential to address this issue. Encouraging students to focus on holistic well-being rather than external appearance can help reduce body image dissatisfaction and its associated behaviours.

Sedentary behaviour is another significant contributor to obesity among university students, reflecting the interconnected relationship between physical inactivity and mental health (Edelmann et al., 2022). Academic demands often necessitate prolonged periods of sitting, with students spending hours at desks or in front of screens. This sedentary lifestyle not only promotes weight gain but also exacerbates psychological distress, including stress, anxiety, and depression. Buchan et al. (2021) reported that this research highlights the bidirectional relationship between physical inactivity and mental health: low physical activity contributes to poor mental health outcomes, while psychological distress further reduces motivation to engage in exercise. Additionally, Júdice et al. (2024) explained that sedentary behaviours often coincide with mindless eating patterns, such as snacking while studying or binge-watching content, further increasing caloric intake. Addressing sedentary behaviour requires a behavioural approach that emphasizes regular movement, goal-setting, and self-monitoring. Encouraging breaks from sitting, integrating physical activity into daily routines, and creating active learning environments can help mitigate the effects of sedentary lifestyles.

CONCLUSION AND FUTURE DIRECTIONS FOR HEALTH PSYCHOLOGY RESEARCH

This review highlights the critical role of psychological factors mainly stress, emotional eating, peer influence, body image dissatisfaction, and sedentary behaviour in obesity among university students. These factors often operate in interconnected ways, contributing to a complex behaviour cycle that increases vulnerability to weight gain. Stress, driven by academic and social demands, triggers physiological and behavioural changes,

including emotional eating and reduced physical activity. Peer influence and societal pressures shape eating behaviours and body image perceptions, creating additional psychological challenges. Sedentary lifestyles, reinforced by academic routines, further exacerbate physical and mental health outcomes, intensifying the impact of these factors.

Despite significant research, gaps persist in understanding the psychological dimensions of obesity in this population. Existing studies often examine factors in isolation, overlooking their interdependence. This fragmented approach limits the ability to identify comprehensive patterns linking psychological stressors to obesity-related behaviours. For example, emotional eating often arises from stress, which is closely related to sedentary behaviour. However, these connections are rarely explored together within a single framework. A broader perspective is necessary to examine how these factors interact and reinforce one another.

Future research should focus on applying theoretical frameworks such as the Health Belief Model and Self-Determination Theory to understand better how psychological perceptions shape behaviours associated with obesity. These models can provide insights into how students perceive barriers to physical activity or develop intrinsic motivation for healthier habits. Additionally, longitudinal studies are needed to track the dynamic relationship between psychological factors and weight gain over time, especially during the critical transition to university life.

Research should also explore the role of cultural and environmental contexts in shaping psychological experiences related to obesity. For example, peer norms and societal pressures differ across regions, uniquely influencing body image perceptions and eating behaviours. A deeper understanding of these variations can help identify universal patterns and context-specific challenges that contribute to obesity among university students.

In conclusion, obesity among university students is a multifaceted issue deeply rooted in psychological factors. Stress, emotional eating, peer influence, body image dissatisfaction, and sedentary behaviour interact in ways that demand a more integrated research approach. By addressing these gaps and emphasizing the interplay of these factors, health psychology can advance the understanding of obesity's psychological dimensions. This effort is essential for developing a more nuanced perspective on obesity among university students and identifying the foundational mechanisms contributing to this growing public health concern.

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