

SKOCZYLAS, Alicja, SIUDZIŃSKI, Paweł, ŁYKO, Mateusz, TOMASZEWSKA, Wiktoria, PALA, Katarzyna, PODLASIEWICZ, Wiktoria, GOLIŃSKA, Maria, KURASZ, Jakub, MAJ, Wojciech, DUDZIAK, Piotr and NOWAK, Anna. Excessive Body Weight as a Determinant of Quality of Life. *Quality in Sport*. 2025;37:57791. eISSN 2450-3118. <https://doi.org/10.12775/QS.2025.37.57791> <https://apcz.umk.pl/QS/article/view/57791>

The journal has been 20 points in the Ministry of Higher Education and Science of Poland parametric evaluation. Annex to the announcement of the Minister of Higher Education and Science of 05.01.2024. No. 32553.

Has a Journal's Unique Identifier: 201398. Scientific disciplines assigned: Economics and finance (Field of social sciences); Management and Quality Sciences (Field of social sciences).

Punkty Ministerialne z 2019 - aktualny rok 20 punktów. Załącznik do komunikatu Ministra Szkolnictwa Wyższego i Nauki z dnia 05.01.2024 r. Lp. 32553. Posiada Unikatowy Identyfikator Czasopisma: 201398.

Przypisane dyscypliny naukowe: Ekonomia i finanse (Dziedzina nauk społecznych); Nauki o zarządzaniu i jakości (Dziedzina nauk społecznych).

© The Authors 2025;

This article is published with open access at Licensee Open Journal Systems of Nicolaus Copernicus University in Torun, Poland Open Access. This article is distributed under the terms of the Creative Commons Attribution Noncommercial License which permits any noncommercial use, distribution, and reproduction in any medium, provided the original author (s) and source are credited. This is an open access article licensed under the terms of the Creative Commons Attribution Non commercial license Share alike. (<http://creativecommons.org/licenses/by-nc-sa/4.0/>) which permits unrestricted, non commercial use, distribution and reproduction in any medium, provided the work is properly cited.

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

Received: 14.01.2025. Revised: 27.01.2025. Accepted: 27.01.2025 Published: 30.01.2025.

Excessive Body Weight as a Determinant of Quality of Life

Alicja Skoczylas [AS]

University of Opole plac Kopernika 11A, 45-040 Opole

ORCID:0009-0002-2185-5406

e-mail: alicjasko1999@gmail.com

Paweł Siudziński [PS]

University of Opole plac Kopernika 11A, 45-040 Opole

ORCID: 0009-0002-4476-9412

e-mail: pawelsiudzinski99@gmail.com

Mateusz Łyko [MŁ]

University of Opole plac Kopernika 11A, 45-040 Opole

ORCID: 0009-0009-2530-2789

e-mail: matlyk@wp.pl

Wiktoria Tomaszewska [WT]

University of Opole plac Kopernika 11A, 45-040 Opole

ORCID: 0009-0005-6166-1659

e-mail: wiktomaszewska@o2.pl

Katarzyna Pala [KP]

University of Opole plac Kopernika 11A, 45-040 Opole

ORCID: 0009-0004-0787-3872

e-mail: kaspal109@gmail.com

Wiktoria Podlasiewicz [WP]

Wroclaw Medical University wybrzeże Ludwika Pasteura 1, 50-367 Wrocław

ORCID: 0009-0001-6578-5297

e-mail: wiktoria.podlasiewicz@student.umw.edu.pl

Maria Golińska [MG]

University of Opole plac Kopernika 11A, 45-040 Opole

ORCID: 0009-0008-2772-6131

e-mail: maria.golinska99@gmail.com

Jakub Kurasz [JK]

University of Opole plac Kopernika 11A, 45-040 Opole

ORCID: 0009-0004-3955-1552

e-mail: jakubkurasz30@gmail.com

Wojciech Maj [WM]

University of Opole plac Kopernika 11A, 45-040 Opole

ORCID: 0009-0003-2869-3718

e-mail: Rottel45@gmail.com

Piotr Dudziak [PD]

University of Opole plac Kopernika 11A, 45-040 Opole

ORCID: 0009-0000-6173-740X

e-mail: piotr-dudziak@outlook.com

Anna Nowak [AN]

University of Opole plac Kopernika 11A, 45-040 Opole

ORCID: 0009-0005-8833-1107

e-mail: anulla1008@gmail.com

Abstract

Introduction and objective. This article aims to discuss the issue of excessive body weight based on available literature. It highlights the physical and psychosocial consequences of obesity and addresses the topic of weight reduction.

Review methods. Bibliographic material was retrieved from PubMed and Google Scholar using terms related to obesity, overweight, and quality of life. Forty-six articles published between 2015 and 2024 were selected.

Conclusions. Obesity is a source of numerous somatic and psychosocial complications. The article shows the negative impact of these consequences on quality of life. One of the main goals of obesity treatment is to improve quality of life. Therefore, the article describes manner to reduce body weight, sources of motivation and adversity on the treatment path and explores the topic of psychological support in obesity treatment.

Keywords: obesity, quality of life, reduction of body weight

Introduction

Overweight is the difference between current and due body weight [1]. Obesity, as defined by the World Health Organisation (WHO) is, „an abnormal or excessive accumulation of fat in the human body that presents a risk to health“. It is caused by a long-term positive energy balance, with varying etiological factors. A commonly used criterion for diagnosing and assessing the severity of obesity is the Body Mass Index - BMI [2]. BMI is measured by dividing a person's weight in kilograms by their height in meters squared (kg/m^2). It serves as a widely accepted tool for monitoring obesity trends within populations. Referring to WHO guidelines, in adults, the normal BMI value is between 18.0 and 24.9 kg/m^2 . A BMI exceeding 25 kg/m^2 is classified as **overweight**. A BMI between 25.00 and 29.99 kg/m^2 is categorized as pre-obesity. Obesity is defined as a BMI exceeding 30 kg/m^2 and is further divided into the following grades:

- obesity grade 1 (30-34.9 kg/m^2),
- obesity grade 2 (35-39.9 kg/m^2),
- obesity grade 3 ($\geq 40 \text{ kg}/\text{m}^2$) [3, 4].

Obesity is a chronic condition with a multifactorial etiology. Its causes and contributing factors are diverse and interconnected, encompassing genetics, biological processes, access to healthcare, mental well-being, dietary habits, education, sociocultural influences, economic conditions, environmental factors, and commercial interests, among others [3, 5].

The World Health Organization has identified obesity and overweight as epidemics of the 21st century [6]. Globally, the prevalence of overweight and obesity has increased across all age groups, and the number of affected individuals is projected to continue rising over the next decade [3]. According to WHO data, in 2015, **21.5%** of men and **24.5%** of women in Europe were struggling with obesity [2]. Similarly, the WOBASZ II study, conducted between 2013 and 2014, reported that the prevalence of overweight among the Polish population was **43.2%** in men and **30.5%** in women. Additionally, **24.4%** of men and **25.0%** of women in Poland were classified as obese [2].

Overweight and obesity are significant health problems in today's world. They have far-reaching consequences in physical, aesthetic, psychological, and economic aspects of life. These issues impact all areas of an individual's life, including their overall well-being and social functioning [7]. The purpose of this paper is to review the available literature on excessive body weight. It will specifically discuss the physical and psychosocial consequences of obesity, both of which directly affect quality of life, as well as strategies for weight reduction.

Quality of life

Quality of life is a fundamental concept in the fields of health and medicine [8]. „WHO defines Quality of Life as an individual's perception of their position in life in the context of the culture and value systems in which they live and in relation to their goals, expectations, standards and concerns.” Health-related quality of life is often regarded as the most critical aspect of an individual’s overall well-being [9].

Physical consequences and impact on quality of life

Excess body weight has a significant negative impact on the physical aspects of quality of life [10]. Obesity is a major risk factor for numerous non-communicable diseases [3]. Globally, excessive body weight is responsible for 7.1% of deaths and causes disability in one out of every twenty patients. Obesity contributes to multiple organ and systemic complications, with approximately 200 such complications documented to date [5]. Notably, the risk and severity of complications associated with excess body fat increase proportionally with a higher Body Mass Index (BMI) [11].

Obesity is a source of complications in terms of:

- the cardiovascular system,
- the respiratory system,
- the gastrointestinal system,
- the endocrine system,
- kidney and urinary tract,
- the haematopoietic system,
- the musculoskeletal system,
- the nervous system,
- immunological disorders and worse prognosis of infectious diseases,
- cancers [5].

Additionally, obesity is a well-documented risk factor for surgical wound complications following open surgery [12]. Studies have also shown a clear association between obesity and an increased incidence of periodontitis [13]. Furthermore, obesity poses significant risks during pregnancy, as it can contribute to conditions such as pre-eclampsia, gestational diabetes, and placental insufficiency [13].

Obesity affects the entire human body and can lead to numerous physical disorders. Additionally, it often makes daily life more challenging, resulting in a reduced quality of life. It is important to emphasize that the physical domain encompasses not only pain and discomfort but also dependence on medication and treatment, energy levels and fatigue, mobility, rest and sleep, daily living activities, and the ability to work [10]. Obesity can limit daily functioning by placing excessive strain on joints and other tissues. It can also reduce exercise capacity [14]. Individuals with obesity tend to tire more quickly and often experience shortness of breath and back pain [10]. Several studies have found an association between poor sleep quality, reduced sleep duration, and higher BMI [15]. Overweight and obese individuals, particularly men, are more likely to experience sleep disturbances. These disturbances may include prolonged or frequent awakenings during the night, a longer duration of the first sleep phase relative to total sleep time, or a shortened REM sleep phase [16].

Additionally, a study conducted on the Japanese population revealed a negative correlation between shorter sleep duration and obesity rates [17].

Chronic pain and obesity are particularly concerning, as both conditions affect more than a third of the population. The literature indicates a strong association between these comorbid conditions, with their coexistence often exacerbating symptoms. Additionally, the presence of chronic pain complicates obesity treatment, while obesity similarly complicates the management of chronic pain [18]. A study conducted on a group of haemodialysis patients revealed that obesity primarily had a negative impact on the physical aspects of quality of life and was associated with greater pain compared to patients of normal weight. These findings align with previous studies, which also demonstrated impairments in the physical aspects of quality of life among the general population [14].

A review of studies conducted in Europe revealed that obese individuals take approximately 10 more days of sick leave per person per year compared to those with normal weight. Frequent musculoskeletal disorders, reduced flexibility, spinal stiffness, knee joint degeneration, decreased muscular endurance, impaired respiratory capacity, and diminished visual control all contribute to reduced work ability and quality of life. Additionally, obese individuals are at a higher risk of workplace injuries. Factors contributing to these injuries include gait disturbances, physical limitations, daytime fatigue caused by sleep apnea syndrome, a lack of ergonomically adapted workstations, and the use of certain medications related to obesity complications [19]. Finally, it is noteworthy that in the European Union, overweight and obesity reduce life expectancy by nearly three years [5]. Moreover, the prevalence of obesity imposes a significant financial burden on national budgets, particularly within the public health sector [20].

Psychosocial consequences and impact on quality of life

Obesity not only leads to dangerous somatic complications but also contributes to significant difficulties in psychosocial functioning [16]. These negative psychological effects substantially reduce patients' quality of life [21]. Overweight and obesity can cause serious mental health issues [7], which may have a profound impact on personality. In obese individuals, mood disorders, depression, aggressive behavior, avoidance of social contact, low self-confidence, reduced self-esteem, and body image issues are commonly observed [7]. Society often perpetuates a negative image of people suffering from obesity, portraying them as inferior, neglected, or unable to care for themselves. These societal judgments are often internalized by the patients, leading them to view themselves just as harshly. This mutual reinforcement of societal perception and self-judgment creates a vicious cycle, resulting in psychological discomfort related to their appearance [22]. The following section will explore some of the psychological and social challenges associated with obesity and their impact on patients' quality of life.

In today's society, appearance is often regarded as an indicator of a person's worth, particularly for women. For many individuals, this societal pressure poses a challenge beyond their personal capabilities, becoming a significant source of chronic stress [23]. Psychosocial stress arising from poor body image and social exclusion, especially in cases of adolescent obesity, can exacerbate chronic stress and its negative effects [24].

According to research conducted by Brytek-Matera, dissatisfaction with one's body reduces the ability to cope with stress. *"The more women disapprove of their appearance, the less emphasis they place on coping with stressors"* [22].

The next issue significantly reducing quality of life in obese patients is the prevalence of mental disorders, particularly mood and anxiety disorders. Studies analyzing the association between depression, anxiety, and increased body weight have indicated that these conditions may share a common biological basis. The root of these disorders often lies in dysregulation of the hypothalamic-pituitary-adrenal axis and dysfunctions in central serotonergic, noradrenergic, and dopaminergic transmission [23]. Available literature suggests that anxiety disorders are significantly more often associated with obesity than vice versa. Prospective studies have found that obesity increases the risk of developing anxiety by 10%; however, similar findings were not observed for overweight individuals. According to various data, the prevalence of anxiety disorders in obese patients ranges from 7% to 54%, most commonly manifesting as social phobia, generalized anxiety disorder, or episodic paroxysmal anxiety [25]. Research conducted by Obara-Gołębiowska and co-authors at the Obesity Treatment Unit confirmed the link between overweight or obesity and depression and/or anxiety. In the studied group, more than half showed elevated levels of anxiety and/or depression, with anxiety symptoms being more frequent than depressive symptoms. Scores suggesting depressive disorders, requiring therapeutic intervention, were observed in 11% of patients, while pathological levels of anxiety were recorded in 18.3%. Notably, the levels of depression and anxiety in this group were not influenced by sociodemographic factors or BMI [23]. Other studies have shown that obese men and women are more likely to overeat and experience negative emotions such as anxiety, fear, sadness, loneliness, fatigue, anger, and aggression compared to individuals of normal weight. Anxiety disorders are reported to be 2.5 times more common in this group, while psychological disorders are twice as prevalent [16]. Epidemiological data also indicates that obese individuals are up to twice as likely to develop mood disorders [26]. Existing literature confirms that overweight and obese individuals are more prone to mood disorders such as depression and bipolar affective disorder [25]. Some studies suggest that the risk of depression depends on factors such as race, marital status, and chronic somatic diseases. These factors often interact; for example, low physical activity contributes to physical illness, which is further compounded by obesity. This combination is strongly associated with a reduced mood and frequently leads individuals to rely on unhealthy, calorific snacks as emotional substitutes [22]. In summary, depression can be both a cause and a consequence of obesity, creating a vicious cycle [10]. Depressive symptoms significantly reduce overall quality of life [22]. Obese women, compared to women of normal weight, are more likely to report symptoms of depression, suicidal thoughts, and suicide attempts [24]. Additionally, overeating even in the absence of hunger can contribute to feelings of guilt and depression. Patients often attribute their eating habits to a lack of self-control, which exacerbates their feelings of worthlessness. While some individuals experience lifelong depression without significant weight fluctuations, it is not uncommon for them to remain overweight for most of their lives [27]. Weight loss in obese individuals has been associated with a reduction in depressive symptoms [24]. However, depression can also seriously hinder weight loss efforts [10].

Mood disturbances and depression not only affect well-being and quality of life but also reduce patients' willingness to seek and adhere to therapeutic interventions [28]. Observations by McElroy and Keck further confirmed that bipolar affective disorder is closely associated with overweight and obesity, including the abdominal type. Obese individuals with bipolar disorder often experience more severe illness symptoms compared to those of normal weight [29].

Individuals with excessive body weight often experience low self-esteem, a negative perception of their body, and a lack of self-acceptance [10]. This reduced self-esteem frequently stems from repeated, unsuccessful attempts at weight reduction [22]. The literature indicates that obese women, compared to women of normal weight, exhibit significantly higher levels of body dissatisfaction and a stronger desire for a slim figure [16]. Lower general self-esteem in women with excessive body weight often results in reduced self-acceptance, particularly regarding attributes related to physical appearance and perceived attractiveness. Initially, low self-esteem is tied to concerns about physical appearance; however, it can extend into other areas of life, including family, emotional, and occupational spheres. This progression often leads to overgeneralization and a pervasive sense of hopelessness. Low self-esteem is frequently exacerbated by societal reactions, such as a lack of support, misconceptions, and stereotypical attitudes toward obese individuals [16]. The challenges faced by obese individuals are compounded by the contemporary emphasis on beauty and the significant cultural and social pressure to achieve a slim figure. The inability to meet this ideal often becomes a source of negative emotions, particularly among young women [10].

Excess body weight is also linked to social problems. Obese individuals often face prejudice and stigma, which can contribute to increased morbidity and mortality rates [11]. The available literature highlights that obese patients, particularly women, are among the most frequently stigmatized groups in society. Individuals with dual diagnoses - obesity and psychiatric disorders, which are often closely related - may experience even greater levels of discrimination and stigma. This social stigma can not only exacerbate psychiatric symptoms but also serve as a demotivating factor, hindering adherence to obesity treatment [25].

Individuals with excessive body weight often face discrimination in both educational and professional settings [7]. In the workplace, obese employees encounter significant challenges. Studies indicate that they demonstrate approximately 80% of the productivity of their normal-weight peers and are more likely to receive negative performance evaluations [19]. These individuals frequently struggle to secure employment, advance in their careers, and may experience social isolation, ridicule, and humiliation [7]. Similarly, in educational environments, obese adolescents tend to perform worse academically. Research has shown that overweight and obese students have lower school attendance, lower grade point averages, and face disciplinary actions more frequently than their peers [15].

Sexual health is closely linked to general health in both sexes [30]. Sexual activity is a vital aspect of overall health and significantly impacts quality-of-life scores. However, sexual dysfunction is frequently associated with obesity [31]. An American study on sexual dysfunction in obese individuals reported a prevalence of disorders ranging from **7% to 22%** in women, including pain during intercourse, arousal difficulties, and sexual dissatisfaction. For men, the prevalence ranged from **5% to 21%**, with erectile dysfunction and decreased sexual desire being the most common issues [30].

In a study examining sexual quality of life in individuals with morbid obesity, **65%** of obese patients reported experiencing sexual problems. In contrast, only **5%** of participants in the control group (normal-weight individuals) faced similar issues. Among obese individuals, **50%** reported a lack of sexual desire, **42%** experienced reduced quality of sensation during sexual activity, and **41%** avoided sexual contact. Comparatively, aversion to intercourse was reported by only **2%** of the control group, and **3%** avoided sexual contact [16]. The study further indicated that the mean BMI of individuals who discontinued sexual activity was **30.2 ± 5.6 kg/m²**, whereas those who remained sexually active had a mean BMI of **27.9 ± 5.0 kg/m²**. This finding suggests that individuals with a lower BMI are less likely to discontinue sexual activity [31]. The degree of obesity directly correlates with the risk of sexual impairment, with obese women being more severely affected. It is also worth noting that sexual dysfunction can significantly impact self-esteem, body image, interpersonal relationships, and overall physical health, including fertility [30].

Cognitive impairment is another dysfunction associated with the prevalence of overweight and obesity. A study by Jaracz and colleagues found that obese individuals performed worse on cognitive tests [32]. A literature review revealed that the presence of obesity - but not overweight - in middle age increases the risk of dementia by approximately **30%**. However, this association has not been confirmed in studies involving elderly individuals [25]. The study also showed that abdominal obesity is closely linked to cognitive decline, particularly in short-term memory and learning ability. Individuals with abdominal obesity performed worse in delayed memory tests compared to those without abdominal obesity. This suggests that excess abdominal adipose tissue contributes to reduced learning capacity [32]. Furthermore, abdominal obesity negatively impacts immediate memory functions and abstract reasoning. As factors such as waist circumference, age, and the number of psychotropic medications increase, abstract reasoning abilities further deteriorate [32].

In summary, excessive body weight is associated with numerous psychological consequences, including low self-esteem, negative self-image, social isolation, feelings of loneliness, and mood disorders, which can lead to depression and even suicide attempts [16]. It is important to note that the causal relationship between excessive body weight and certain psychiatric disorders remains unclear. Current evidence suggests that the relationship may be bidirectional, with obesity potentially contributing to psychiatric disorders and vice versa [20].

Weight reduction and quality of life

The primary goal of overweight and obesity therapy is to achieve weight loss that leads to improved health and can be maintained long term [33]. Fat reduction can be accomplished through both diet and physical activity. A combination of a calorie-restricted diet and increased physical activity provides the greatest health benefits, as both contribute to weight loss by creating a negative energy balance [34]. Other therapeutic options, such as pharmacotherapy, psychotherapy, and surgical treatment, also support the achievement of a negative energy balance. However, these methods alone do not guarantee that relapse will be avoided if a positive energy balance is reestablished [33].

During the course of obesity treatment, numerous challenges can hinder the achievement of therapeutic goals. Some individuals report being on a diet virtually all the time. However, chronic dieting is often ineffective and can lead to greater weight fluctuations, overeating tendencies, and emotional problems. Concerns about developing eating disorders, regaining weight, or failing to achieve long-term results contribute to the perception that dieting and the weight loss process are ineffective [35]. Stressful situations can significantly influence eating habits, including what and how much we eat. They also affect appetite regulation and motivation to lose weight, both of which are critical for the success of dieting [36]. Additionally, eating disorders and affective disorders can make it particularly challenging to adhere to weight reduction recommendations [5].

Men often find it more challenging to lose weight, as dieting and focusing on appearance are sometimes perceived as "feminine" or unmanly. Their efforts to lose weight may occasionally be ridiculed or even undermined by their social environment. However, in recent years, attitudes toward dieting among men have begun to shift, and the topic has gained increasing relevance [35].

Obesity therapy requires a holistic approach that incorporates both non-pharmacological and pharmacological methods [25]. However, achieving effective weight reduction depends largely on the patient's motivation for change. Many challenges and obstacles can hinder progress toward the therapeutic goal.

Awareness of the need to lose weight does not always translate into behaviors aimed at achieving this goal. Studies have shown that individuals who are dieting do not necessarily eat less; instead, they often experience heightened feelings of guilt associated with eating. Even knowledge about proper nutrition does not always translate into its consistent application in everyday life [35]. The conclusion of a diet and the anticipated return to previous eating habits frequently creates a vicious circle, where reverting to pre-diet foods leads to weight regain. It is important to note that achieving weight loss alone is not the ultimate success - maintaining a lower weight over the long term is often the greater challenge [35]. Approaching diet and physical activity as short-term habit changes may prove ineffective or unsustainable. The key to achieving lasting and effective change lies in fostering strong motivation for action [35].

Self-Determination Theory (SDT), proposed by Ryan and Deci, can be applied in the context of weight loss motivation. SDT suggests that people have an innate tendency toward growth and are naturally proactive in pursuing activities that foster development. However, this proactivity and development can either be facilitated or hindered. The key to achieving personal growth is **intrinsic motivation**, where individuals engage in activities not to achieve a specific external goal but because they derive satisfaction from the activity itself [35]. According to SDT, three fundamental psychological needs must be met to arouse and sustain intrinsic motivation:

- the need for autonomy,
- the need for competence,
- the need for closeness, belongingness, relationships with others [35].

By creating an environment where these needs are satisfied, self-determination is strengthened. As a result, individuals are more likely to identify with the activity, perceiving it as a voluntary and non-coercive choice [37]. For example, when medical staff help fulfill the needs for relatedness, autonomy, and competence, this contributes to greater patient engagement in therapy and supports lasting lifestyle changes. However, constraints on these needs can include:

- external control or internal coercion,
- excessive external demands or excessive permissiveness,
- lack of support and understanding.

Meeting needs enables the development of intrinsic motivation aiming at weight reduction [35]. Weight reduction can be analyzed through the lens of **self-efficacy**, a concept rooted in social-cognitive theory. Self-efficacy refers to an individual's belief in their ability to overcome obstacles. Research demonstrates that self-efficacy plays a crucial role in behavior change, as seen in contexts such as alcohol treatment, cardiac rehabilitation, and increasing physical activity. In the context of weight loss, self-efficacy is particularly significant for self-monitoring, especially regarding eating habits and physical activity [38]. According to this theory, behavior is influenced by a combination of personal beliefs, actions, and environmental factors. Elements such as food availability or prior experiences with weight loss do not directly determine eating habits; instead, they shape an individual's confidence in achieving their goals. For example, even if a person knows that a restrictive diet can lead to weight loss, this knowledge alone is insufficient unless they believe in their ability to act consistently. A person's sense of self-efficacy can fluctuate over time, depending on past successes or failures [38]. Self-efficacy is strongly associated with positive emotions, effective problem-solving, and overall life satisfaction. It fosters a sense of control over one's environment, which explains why individuals with a high sense of efficacy often experience a better quality of life [38].

Losing weight is a challenging process, and individuals with obesity often require psychological support. Psychological factors play a significant role in treatment, as unresolved psychological problems can exacerbate unhealthy eating habits. In obesity therapy, it is essential to incorporate **psychocorrection** - interventions aimed at changing a patient's attitudes and beliefs to support successful outcomes. Psychocorrection focuses on addressing beliefs, attitudes, and stress related to obesity and the weight loss process. When combined with diet, nutrition education, physical activity, and medication, it becomes a crucial component of obesity treatment [36].

When planning therapeutic interventions, it is important to consider the patient's roles in family and work life. It is essential to assess whether the patient is responsible for caring for others, managing their nutrition, or making decisions about grocery shopping and meal planning. Additionally, factors such as the patient's access to physical activity, the scope and rhythm of their daily tasks, and the level of support they receive from close ones in taking on new challenges should be evaluated. Discussing these topics not only provides valuable information but also helps build a strong therapeutic relationship, positively influencing the patient's sense of agency and involvement in the treatment process [5].

When selecting pharmacotherapy for obesity, it is essential to consider the factors contributing to a positive energy balance, particularly emotional eating. The literature recommends the following criteria for choosing pharmacological treatments.

First-line therapy should involve a combination of naltrexone and bupropion. For patients where emotional eating and low mood are not contributing factors, or when contraindications to first-line therapy persist, liraglutide at a dose of 3 mg is recommended as a second-line option. In cases involving carbohydrate metabolism disorders accompanied by emotional eating, a polytherapy approach combining bupropion, naltrexone, and liraglutide may be considered [39].

Bariatric surgery remains the most effective and long-lasting approach to obesity treatment. Beyond weight reduction, its benefits include improvements in cardiovascular and kidney health, a lower risk of obesity-related cancers, and reduced mortality rates [40]. The effectiveness of surgical treatment for obesity is well-documented in the literature [41]. The most significant bariatric procedures with proven therapeutic effects include:

- sleeve gastrectomy,
- Roux-en-Y gastric bypass,
- mini-gastric bypass / omega loop gastric bypass,
- adjustable gastric banding,
- biliopancreatic diversion,
- biliopancreatic diversion / duodenal switch [24].

Sleeve gastrectomy is the preferred bariatric procedure, with the majority of patients achieving sustained postoperative weight loss (lasting more than five years) and remission of comorbidities [38].

Approximately 20% of patients do not achieve the expected results following bariatric surgery, often due to underlying psychological issues [41]. A study by Sekuła and colleagues revealed that individuals with morbid obesity tend to exhibit high levels of neuroticism and low levels of conscientiousness. High neuroticism is characterized by heightened sensitivity to negative emotions. Low conscientiousness manifests as impulsive behavior, a lack of planning, and poor motivation. These personality traits promote unfavorable behaviors, such as: eating under the influence of emotions, giving in to temptations, difficulty implementing changes, low motivation to achieve goals [41].

The support and role of the psychologist during surgical treatment are critical components of the overall therapy [42]. Patients being considered for bariatric surgery should undergo psychological evaluation to determine their suitability for the procedure. It is important to identify specific psychological contraindications, which include:

- serious untreated mental disorders,
- current or recent suicide attempts,
- significant cognitive function problems and intellectual disability (unless the patient is aware of the decision to have surgery and has a carer to see to the recommendations),
- schizophrenia,
- addiction to substances or activities (including food),
- abuse of psychoactive drugs.

Incorporating the results of a psychological evaluation when qualifying patients for bariatric surgery reduces the risk of complications and enhances the likelihood of effective, causal treatment of obesity [5]. The psychologist also plays a crucial role in monitoring and supporting the patient's mental state post-surgery.

This support is particularly important because patients often become discouraged and revert to unhealthy eating habits. Achieving lasting weight loss and improving quality of life are only possible if patients adhere to dietary guidelines both in the immediate postoperative period and over the long term [42, 43].

Doctors should identify patients whose psychological issues hinder the effectiveness of obesity treatment. In such cases, incorporating psychological support into the treatment plan is essential. For more complex situations, referring the patient to a specialist is recommended. Additionally, support groups and self-help groups can provide valuable assistance [44].

Effective treatment management requires a long-term perspective, often involving a combination of therapeutic approaches to achieve optimal results [40]. The goal of improving quality of life is well-founded. The **Canadian Adult Obesity Clinical Practice Guidelines**, from August 2020, emphasize that improving health and quality of life is an essential aspect of treatment [5]. Similarly, European guidelines identify the primary goals of obesity treatment as the management of comorbidities and the enhancement of patients' quality of life and overall well-being [44]. It is worth noting that weight loss generally improves the quality of life for obese individuals, although some studies suggest that the effects may vary from patient to patient [45]. In a study by Gilbertson, a 13-day intervention demonstrated that both a low-calorie diet alone and a low-calorie diet combined with interval exercise improved the quality of life in obese women. However, the combination of diet and exercise led to significantly greater improvements in the sexual and emotional aspects of quality of life, as well as in the total quality-of-life score [46].

Discussion

Excess body weight is a global public health problem with a significant negative impact on both physical and mental health [11, 41]. Obesity adversely affects various aspects of quality of life and is consistently associated with lower overall quality of life [12, 14]. In the somatic sphere, obesity leads to numerous complications across different systems and organs. It also contributes to issues such as limitations in daily functioning, reduced physical efficiency, poor sleep quality, pain, and decreased work capacity. In the psychosocial sphere, obese individuals face significant challenges that further diminish their quality of life. These include stress, mood disorders, anxiety disorders, affective disorders, low self-esteem, negative self-perception, lack of self-acceptance, prejudice, stigma, sexual dysfunction, and cognitive impairment. Notably, improving a patient's quality of life is a primary goal of obesity treatment. Various treatment methods are currently employed, including lifestyle changes, pharmacotherapy, psychotherapy, and surgical interventions. Achieving lasting change, however, relies heavily on the patient's intrinsic motivation. Psychological support plays a vital role in facilitating the treatment process. In conclusion, raising awareness about obesity's negative impact on quality of life and the potential for improvement through weight reduction is essential. Promoting this knowledge in public spaces and conducting further research on effective treatment strategies remain crucial.

References

1. Bastek A, Wanot B, Zych M. Niedozżywienie, nadwaga i otyłość. In: *Dieta a zdrowie i wiek*. Częstochowa: Wydawnictwo Naukowe Uniwersytetu Humanistyczno-Przyrodniczego im. Jana Długosza w Częstochowie; 2020; 25-36. DOI: 10.16926/daziw.2020.02.
2. Gajewski P, Editor. *Interna Szczeklika 2021*. Kraków: Medycyna Praktyczna; 2021.
3. World Health Organization. Recommendations for the prevention and management of obesity over the life course, including considering the development of targets in this regard. In: *Seventy-fifth World Health Assembly, Geneva, 22–28 May 2022. Resolutions and decisions, annexes. Annex 14*. Geneva: WHO; 2022.
4. Cichoń J, Majda A. Otyłość – droga do poddania się zabiegowi bariatrycznemu. *Hygeia Public Health*. 2016; 51(4):375-380.
5. Ostrowska L, Bogdański P, Mamcarz A, Editor. *Otyłość i jej powikłania*. Warszawa: PZWL Wydawnictwo Lekarskie; 2021. ISBN: 978-83-200-6584-8. DOI: 10.53270/2021.022.
6. Rynkowska S, Tapolska M, Owecki M. Epidemiologia otyłości w Polsce i na świecie. *Post Biol Komórki*. 2019;46(3):235-242. p-ISSN: 0324-833X.
7. Osiński W. *Nadwaga i otyłość. Aktywność fizyczna w profilaktyce i terapii*. Warszawa: PZWL Wydawnictwo Lekarskie; 2016. ISBN: 978-83-200-5118-6.
8. Haraldstad K, Wahl A, Andenæs R, Andersen JR, Andersen MH, Beisland E, Borge CR, Engbretsen E, Eisemann M, Halvorsrud L, Hanssen TA, Haugstvedt A, Haugland T, Johansen VA, Larsen MH, Løvereide L, Løyland B, Kvarme LG, Moons P, Norekvål TM, Ribu L, Rohde GE, Urstad KH, Helseth S; LIVSFORSK network. A systematic review of quality of life research in medicine and health sciences. *Qual Life Res*. 2019 Oct;28(10):2641-2650. DOI: 10.1007/s11136-019-02214-9. Epub 2019 Jun 11. PMID: 31187410; PMCID: PMC6761255.
9. Osmiałowska M. Quality of life in patients diagnosed with breast cancer. *Palliat Med Pract*. 18(2):102-106.
10. Zielińska-Więczkowska H, Budnik M. Analiza jakości życia pacjentów z nadwagą i otyłością w zależności od wskaźnika masy ciała i czynników socjo-demograficznych. *Farmacja Współczesna*. 2016;9:110–116.
11. Wharton S, Lau DCW, Vallis M, Sharma AM, Biertho L, Campbell-Scherer D, Adamo K, Alberga A, Bell R, Boulé N, Boyling E, Brown J, Calam B, Clarke C, Crowshoe L, Divalentino D, Forhan M, Freedhoff Y, Gagner M, Glazer S, Grand C, Green M, Hahn M, Hawa R, Henderson R, Hong D, Hung P, Janssen I, Jacklin K, Johnson-Stoklossa C, Kemp A, Kirk S, Kuk J, Langlois MF, Lear S, McInnes A, Macklin D, Naji L, Manjoo P, Morin MP, Nerenberg K, Patton I, Pedersen S, Pereira L, Piccinini-Vallis H, Poddar M, Poirier P, Prud'homme D, Salas XR, Rueda-Clausen C, Russell-Mayhew S, Shiao J, Sherifali D, Sievenpiper J, Sockalingam S, Taylor V, Toth E, Twells L, Tytus R, Walji S, Walker L, Wicklum S. Obesity in adults: a clinical practice guideline. *CMAJ*. 2020 Aug 4;192(31):E875-E891. DOI: 10.1503/cmaj.191707. PMID: 32753461; PMCID: PMC7828878.
12. Sen I, Tenorio ER, Pitcher G, Mix D, Marcondes GB, Lima GBB, Ozbek P, Oderich GS. Effect of obesity on radiation exposure, quality of life scores, and outcomes of fenestrated-branched endovascular aortic repair of pararenal and thoracoabdominal aortic aneurysms. *J Vasc Surg*. 2021 Apr;73(4):1156-1166.e2. DOI: 10.1016/j.jvs.2020.07.088. Epub 2020 Aug 25. PMID: 32853700.

13. Foratori-Junior GA, Missio ALT, Orenha ES, de Carvalho Sales-Peres SH. Systemic Condition, Periodontal Status, and Quality of Life in Obese Women During Pregnancy and After Delivery. *Int Dent J.* 2021 Oct;71(5):420-428. DOI: 10.1016/j.identj.2020.12.012. Epub 2021 Jan 30. PMID: 33531144; PMCID: PMC9275293.
14. Yaseri M, Alipoor E, Hafizi N, Maghsoudi-Nasab S, Shivappa N, Hebert JR, Hosseinzadeh-Attar MJ. Dietary Inflammatory Index Is a Better Determinant of Quality of Life Compared to Obesity Status in Patients With Hemodialysis. *J Ren Nutr.* 2021 May;31(3):313-319. DOI: 10.1053/j.jrn.2020.07.006. Epub 2020 Sep 18. PMID: 32952007.
15. Whitaker BN, Fisher PL, Jambhekar S, Com G, Razzaq S, Thompson JE, Nick TG, Ward WL. Impact of Degree of Obesity on Sleep, Quality of Life, and Depression in Youth. *J Pediatr Health Care.* 2018 Mar-Apr;32(2):e37-e44. DOI: 10.1016/j.pedhc.2017.09.008. PMID: 29455855.
16. Kirenko J, Wiatrowska A. Otyłość. Przystosowanie i uwarunkowania. Lublin: Wydawnictwo Uniwersytetu Marii Curie-Skłodowskiej; 2015. ISBN: 978-83-7784-699-5.
17. Sasaki N, Fujiwara S, Yamashita H, Ozono R, Monzen Y, Teramen K, Kihara Y. Association between obesity and self-reported sleep duration variability, sleep timing, and age in the Japanese population. *Obes Res Clin Pract.* 2018 Mar-Apr;12(2):187-194. DOI: 10.1016/j.orcp.2017.10.008. Epub 2017 Nov 8. PMID: 29128435.
18. Perez RB, Dixon S, Culver S, Sletten CD. Intensive interdisciplinary treatment for a patient with coexisting pain and obesity: A case study. *Obes Res Clin Pract.* 2018 Jul-Aug;12(4):397-400. DOI: 10.1016/j.orcp.2018.05.003. Epub 2018 May 31. PMID: 29861404.
19. Puchalski K, Korzeniowska E. Promocja zdrowia w zakładzie pracy: wsparcie dla zdrowego odżywiania się i aktywności fizycznej pracowników. Łódź: Instytut Medycyny Pracy im. prof. dra Jerzego Nofera, 2017. ISBN 978-83-64462-29-0.
20. Hłowiecka K, Glibowski P, Bochnak-Niedźwiecka J. Przyczyny i wielowymiarowe konsekwencje otyłości. In: Kropiwiec K, Babicz M, Editor. Wybrane zagadnienia z zakresu bromatologii. Lublin: Wydawnictwo Uniwersytetu Przyrodniczego; 2021;22-28. ISBN: 978-83-7259-341-2.
21. Chu DT, Minh Nguyet NT, Nga VT, Thai Lien NV, Vo DD, Lien N, Nhu Ngoc VT, Son LH, Le DH, Nga VB, Van Tu P, Van To T, Ha LS, Tao Y, Pham VH. An update on obesity: Mental consequences and psychological interventions. *Diabetes Metab Syndr.* 2019 Jan-Feb;13(1):155-160. DOI: 10.1016/j.dsx.2018.07.015. Epub 2018 Jul 30. PMID: 30641689.
22. Lech M, Ostrowska L. Psychologiczne aspekty otyłości. *Forum Zaburzeń Metabolicznych.* 2017;8(2):63-70.
23. Obara-Gołębiowska M, Pietrzykowska M, Molisz A, Nowicka-Sauer K. Poziom lęku i depresji wśród pacjentów Oddziału Leczenia Otyłości. *Pol Przegl Nauk o Zdrowiu.* 2017;2(51):191-195. DOI: 10.20883/issn.1643-3203.
24. Jasiński M, Dziurda S, Tomeczyk J, Kozłowska A, Nowak N. Porównanie zabiegowego i zachowawczego leczenia otyłości. In: Bednarski J, Gędek A, Nogalska A, Editor. Medycyna wczoraj i dziś – klasyczne rozwiązania i nowoczesne technologie. Lublin: Instytut Promocji Kultury i Nauki dr Jerzy Bednarski; 2021;86-96. ISBN: 978-83-959085-0-7.

25. Szydełko J. Między Soma a Psyche – psychologiczne problemy pacjentów z chorobą otyłościową. In: Humanitarian Corpus: collection of scientific articles on contemporary problems of philosophy, cultural studies, psychology, pedagogy and history. Issue 35 (volume 1). Vinnytsia: Tvory; 2020. ISBN: 9789669495587.
26. Szczepańska-Gieracha J, Jaworska L, Mazurek J, Skrzek A. Ujęcie biopsychospołeczne w leczeniu depresji. *Gerontologia Współczesna* 2017; 3(5):108–112.
27. Lurati A. Depression and obesity. *J Nurse Pract.* 2022;18(6):663-665. DOI: 10.1016/j.nurpra.2022.03.009.
28. Fulton S, Décarie-Spain L, Fioramonti X, Guiard B, Nakajima S. The menace of obesity to depression and anxiety prevalence. *Trends Endocrinol Metab.* 2022 Jan;33(1):18-35. DOI: 10.1016/j.tem.2021.10.005. Epub 2021 Nov 5. PMID: 34750064.
29. Buzuk G, Łojko D, Owecki M, Ruchała M, Rybakowski J. Depression with atypical features in various kinds of affective disorders. *Psychiatr Pol.* 2016;50(4):827-838. DOI: 10.12740/PP/44680. PMID: 27847931.
30. Mollaioli D, Ciocca G, Limoncin E, Di Sante S, Gravina GL, Carosa E, Lenzi A, Jannini EAF. Lifestyles and sexuality in men and women: the gender perspective in sexual medicine. *Reprod Biol Endocrinol.* 2020 Feb 17;18(1):10. DOI: 10.1186/s12958-019-0557-9. PMID: 32066450; PMCID: PMC7025405.
31. Sobczak MA, Qawoq HD, Krawczyk M, Wierzbowska-Drabik K, Kasprzak JD. Demograficzne, kliniczne i psychologiczne czynniki wpływające na zaprzestanie aktywności seksualnej przez pacjentów z potwierdzoną angiograficznie chorobą wieńcową. *Psychiatr Pol.* 2016;50(1):197-211. DOI: 10.12740/PP/58679.
32. Łopuszańska U, Skórzyńska-Dziduszek K, Prendecka M, Makara-Studzińska M. Nadwaga i otyłość a zaburzenia funkcji poznawczych w grupie osób chorujących psychicznie. *Psychiatr Pol.* 2016;50(2):393-406. DOI: 10.12740/PP/59031.
33. Bieńkowski P, Szulc A, Paszkowski T, Olszanecka-Glinianowicz M. Treatment of overweight and obesity – who, when and how? Interdisciplinary position of the Expert Team. *Nutr Obes Metab Surg.* 2018:1-10. DOI: 10.5114/noms.2018.78787.
34. Wołoszyn K. Rola aktywności fizycznej w leczeniu otyłości. In: Zimny J, Editor. Sport drogą jedności. Stalowa Wola: Katolicki Uniwersytet Lubelski Jana Pawła II w Lublinie; 2017;321-336. ISBN: 978-83-63835-79-8.
35. Wiśniewska L, Celińska-Miszczuk A. Perspektywa podmiotowa a problem nadwagi i otyłości—znaczenie współdziałania osoby i otoczenia w procesie odchudzania. *Pol Forum Psychol.* 2017;22(2):316-335.
36. Kłósek P. Zależności między stresem psychologicznym a powstawaniem otyłości. *Forum Med Rodz.* 2016;10(3):145-152.
37. Fusińska-Korpik A, Depukat A, Noga M. Wstępna ocena wyznaczników własnej motywacji i zaangażowania w profilaktyczną aplikację mobilną — wyniki badań fokusowych. *Państwo i Społeczeństwo.* 2022;22(1). DOI: 10.48269/2451-0858-pis-2022-1-001.
38. Flølo TN, Tell GS, Kolotkin RL, Aasprang A, Norekvål TM, Våge V, Andersen JR. Eating self-efficacy as predictor of long-term weight loss and obesity-specific quality of life after sleeve gastrectomy: A prospective cohort study. *Surg Obes Relat Dis.* 2019 Feb;15(2):161-167. DOI: 10.1016/j.soard.2018.12.011. Epub 2018 Dec 15. PMID: 30709748.

39. Olszanecka-Glinianowicz M, Dudek D, Filipiak KJ, Krzystanek M, Markuszewski L, Ruchała M, Tomiak E. Treatment of overweight and obesity during and after a pandemic. Let's not wait for the development of complications — new guidelines for doctors. *Arter Hypertens*. 2020;24(3):93-105. DOI: 10.5603/AH.a2020.0019.
40. Lingvay I, Cohen RV, Roux CWL, Sumithran P. Obesity in adults. *Lancet*. 2024 Sep 7;404(10456):972-987. DOI: 10.1016/S0140-6736(24)01210-8. Epub 2024 Aug 16. PMID: 39159652.
41. Sekula M, Jarczewska-Gerc E, Boniecka I, Jędrzejewski E, Paśnik K. XXL-TYPE PERSONALITY. Personality traits promoting excess body weight. *Pol Przegl Chir*. 2019 Aug 31;91(5):1-4. DOI: 10.5604/01.3001.0013.4177. PMID: 31702569.
42. Postrożny D. Zmiana postrzegania obrazu ciała pacjentek poddanych leczeniu otyłości chorobliwej. Gdańsk; 2020.
43. Sierzantowicz R, Tworkowska J, Ładny JR, Wojciak P, Łagoda K, Trochimowicz L, Kirpsza B, Ostrowska L, Razak Hady H. Mood disorders in the evaluation of patients after bariatric treatment. *Postępy Nauk Med*. 2018;3:153-157.
44. Yumuk V, Tsigos C, Fried M, Schindler K, Busetto L, Micic D, Toplak H; Obesity Management Task Force of the European Association for the Study of Obesity. European Guidelines for Obesity Management in Adults. *Obes Facts*. 2015;8(6):402-24. DOI: 10.1159/000442721. Epub 2015 Dec 5. Erratum in: *Obes Facts*. 2016;9(1):64. DOI: 10.1159/000444869. PMID: 26641646; PMCID: PMC5644856.
45. Kolotkin RL, Andersen JR. A systematic review of reviews: exploring the relationship between obesity, weight loss and health-related quality of life. *Clin Obes*. 2017 Oct;7(5):273-289. DOI: 10.1111/cob.12203. Epub 2017 Jul 10. PMID: 28695722; PMCID: PMC5600094.
46. Gilbertson NM, Eichner NZM, Gaitán JM, Pirtle JM, Kirby JL, Upchurch CM, Leitinger N, Malin SK. Impact of a short-term low calorie diet alone or with interval exercise on quality of life and oxidized phospholipids in obese females. *Physiol Behav*. 2022 Mar 15;246:113706. DOI: 10.1016/j.physbeh.2022.113706. Epub 2022 Jan 13. PMID: 35033556; PMCID: PMC8821381.