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The Impact of Physical Exercise on Quality of Life and Weight Management Satisfaction among Obese Patients

Hala Hisham Mosli
Professor
Department of Medicine
King Abdulaziz University
Raghad Mohammed Battan
Sports and Health Specialist & Consultant
Obesity and Healthy Lifestyle Clinic
King Abdulaziz University Hospital

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ABSTRACT

This study investigates the impact of physical exercise, sleep quality, nutrition, and interprofessional coordination on quality of life and weight management satisfaction among obese patients in Saudi Arabia. Using a descriptive quantitative design, data were collected from 50 participants through a structured questionnaire covering four axes: quality of life improvements, weight management satisfaction, exercise-related factors, and complementary lifestyle elements. The findings indicate a consistent Strongly Agree response across all axes, reflecting a highly positive perception of structured lifestyle interventions as critical to improving physical, psychological, and social well-being. Participants emphasized that consistent exercise, adequate sleep, balanced nutrition, and communication between physical therapists and trainers significantly contribute to daily functioning, injury prevention, and long-term weight satisfaction. These results support the development of comprehensive, patient-centered obesity management strategies that go beyond traditional exercise programs.

INTRODUCTION

Obesity has become a major public health concern worldwide, reaching epidemic proportions in both developed and developing countries. Characterized by excess body fat, obesity negatively affects physical health, mental well-being, and social functioning (Jaacks et al., 2019). It is strongly associated with numerous chronic conditions, including type 2 diabetes, cardiovascular disease, certain cancers, and musculoskeletal disorders (Fortunato et al., 2021; Kivimäki et al., 2022; Divino et al., 2021). Beyond these physical consequences, individuals with obesity often experience mobility limitations, chronic fatigue, and psychological challenges such as low self-esteem, depression, and social isolation. Collectively, these factors contribute to a diminished quality of life (QoL), highlighting that effective obesity management extends well beyond simple weight reduction (Rani & Kohli, 2024).

Physical activity is widely recognized as a cornerstone in obesity management, providing benefits that extend beyond caloric expenditure. Exercise enhances cardiovascular fitness, metabolic regulation, and muscular strength, while also improving psychosocial outcomes, including reductions in anxiety and depressive symptoms, enhanced body image, and greater functional capacity (Kim & Kwon, 2024; Luque-Reca et al., 2022). These effects are particularly important for individuals with obesity, whose daily lives are often constrained by physical limitations and societal stigma.

Another critical component of obesity interventions is weight management satisfaction, which reflects an individual's contentment with their progress toward weight-related goals and their confidence in achieving them. This psychological construct is a strong predictor of long-term adherence to healthy behaviors, including continued engagement in physical activity and dietary modification. Patients who are more satisfied with their weight management efforts tend to maintain lifestyle changes, experience less weight regain, and exhibit improved psychological well-being (Sarte Jr. & Quinto, 2024). Therefore, evaluating the impact of exercise on both objective health outcomes and subjective measures such as QoL and satisfaction with weight control is essential for developing effective and sustainable interventions.

Despite extensive research on obesity and exercise, there remains a need to better understand the interactions between physical activity and other key lifestyle factors, such as sleep quality and nutrition, in shaping health outcomes for individuals with obesity. Most existing studies focus primarily on weight loss, often neglecting broader psychological and functional outcomes that influence patient satisfaction and long-term adherence (Bray & Ryan, 2021; Khattab, 2024; Horn et al., 2022). Furthermore, individuals with obesity frequently experience musculoskeletal issues, including joint pain, necessitating coordinated efforts between fitness trainers and physical therapists to ensure safe and effective exercise programs.

The present study aims to examine how structured physical activity, in combination with sleep hygiene, dietary habits, and professional collaboration, influences QoL and satisfaction with weight management. By exploring these interrelated factors, the study seeks to provide a comprehensive understanding that informs holistic, patient-centered intervention strategies for obesity management.

Research Problem

Although exercise is widely recognized as a crucial component of obesity management, most existing studies focus primarily on its physical effects—such as weight loss and metabolic improvement—while neglecting other critical factors that influence overall quality of life. Individuals with obesity frequently experience poor sleep quality, inadequate nutrition, and musculoskeletal limitations, all of which can hinder adherence to exercise programs and compromise long-term outcomes. Moreover, healthcare and fitness interventions often overlook the importance of interdisciplinary collaboration, particularly between sports trainers and physical therapists, to address the unique biomechanical and clinical needs

of obese patients. This lack of a holistic, integrated approach reduces the effectiveness and sustainability of obesity management programs.

Research Questions

1. How does participation in structured physical exercise influence the overall quality of life of individuals with obesity?
2. What is the relationship between engagement in physical exercise programs and weight management satisfaction among obese patients?
3. Which exercise-related factors most significantly contribute to improvements in quality of life and weight management satisfaction?
4. How do sleep quality and dietary habits impact quality of life and satisfaction with weight management?
5. What is the perceived importance of professional coordination between sports trainers and physical therapists in ensuring safe and effective exercise for obese individuals?

Research Objectives

1. To examine the impact of structured physical exercise on the overall quality of life of obese patients.
2. To evaluate the relationship between participation in physical exercise programs and weight management satisfaction among obese individuals.
3. To identify exercise-related factors that significantly influence improvements in both quality of life and weight management satisfaction.
4. To assess the effects of sleep quality and dietary habits on quality of life and satisfaction with weight management among obese patients.
5. To explore the perceived importance of interdisciplinary collaboration between physical therapists and sports trainers in optimizing exercise outcomes for obese individuals.

Research Importance

Obesity is increasingly prevalent worldwide, representing a significant public health concern due to its association with severe physical, psychological, and social consequences. While weight reduction remains a primary objective of obesity management, there is a growing recognition of the need to address broader outcomes, such as enhancing quality of life and ensuring patient satisfaction with weight management efforts over the long term. Although exercise is widely acknowledged as a key component of obesity interventions, its effects are frequently assessed solely through physiological metrics, often overlooking its potential to improve psychosocial well-being and motivate patients.

This study is particularly important as it addresses this gap by examining how structured physical exercise programs influence not only health-related quality of life but also patients' satisfaction with their weight management progress. By understanding these relationships, healthcare providers, policymakers, and fitness professionals can design more comprehensive, patient-centered interventions that promote sustainable lifestyle changes. Furthermore, addressing additional lifestyle factors, including sleep quality and nutrition, broadens the scope of obesity management strategies. Poor dietary habits and inadequate sleep may undermine the effectiveness of exercise, whereas adequate sleep and balanced nutrition can enhance both physical and mental health outcomes.

These considerations underscore the necessity of adopting a multifaceted approach to obesity, one that integrates physical activity, nutrition, and sleep as interrelated components influencing overall quality of life. Insights gained from this study have the potential to improve adherence to obesity interventions, reduce relapse rates, and ultimately enhance the health and well-being of individuals living with obesity.

Additionally, the findings may inform the efficient allocation of healthcare resources by guiding interventions toward programs that are both effective and supportive of patient satisfaction.

Theoretical Framework

1. Overview of Obesity and Its Impact on Physical, Psychological, and Social Well-being

Obesity is a chronic health condition resulting from multiple factors and is characterized by excessive body fat, which poses significant risks to overall health. Body mass index (BMI) is commonly used to assess obesity, with a BMI of 30 kg/m² or higher classified as obese (Pressman et al., 2020). Over the past few decades, obesity prevalence has increased globally, affecting adults, adolescents, and children across both developed and developing countries. This alarming trend has prompted organizations such as the World Health Organization (WHO) to recognize obesity as one of the most pressing public health challenges of the 21st century.

1.1 Prevalence and Health Consequences

Epidemiological evidence indicates that obesity rates continue to rise due to sedentary lifestyles, high-calorie diets, urbanization, and genetic predisposition. Obesity is strongly associated with numerous physical health complications, including cardiovascular disease, type 2 diabetes, hypertension, dyslipidemia, osteoarthritis, and certain cancers. These comorbidities not only reduce life expectancy but also increase healthcare costs and place considerable strain on medical systems. Additionally, obesity negatively impacts physical functioning, limiting mobility and reducing the ability to perform activities of daily living, including exercise (Ghosh et al., 2023).

1.2 Impact of Obesity on Life Satisfaction and Daily Functioning

Obesity significantly affects mental and social health in addition to physical well-being. Individuals with obesity frequently experience poor body image, low self-esteem, and higher risks of anxiety and depression. Social stigma and discrimination in workplaces, educational settings, and healthcare environments exacerbate emotional distress and feelings of isolation, further reducing overall life satisfaction. Physical limitations—including reduced mobility, fatigue, and difficulty performing daily tasks—also diminish independence and functional capacity, collectively affecting quality of life (Rani & Kohli, 2024).

2. Role of Physical Exercise in Improving Health Outcomes for Obese Patients

Physical exercise is universally recognized as a core component of obesity management. Regular, structured physical activity not only facilitates weight loss but also improves physical, mental, and social well-being.

2.1 Evidence of Exercise as a Tool for Weight Control and Overall Well-being

Research consistently demonstrates that exercise promotes weight loss and maintenance by creating a negative energy balance. It supports fat reduction while preserving lean muscle mass and enhances metabolic health by improving insulin sensitivity, stabilizing blood glucose, and reducing blood pressure and lipid levels (Petridou et al., 2019; Carbone et al., 2019; Varkevisser et al., 2019).

Exercise also benefits mental health and quality of life. Structured physical activity is associated with reductions in anxiety and depression, improvements in self-esteem and body image, and enhanced social connectedness through group or supervised programs. Collectively, these physical, psychological, and social benefits foster long-term adherence to weight management interventions (Liu et al., 2024).

2.2 Recommended Types, Intensity, and Frequency of Exercise

Optimal exercise programs for individuals with obesity typically incorporate both aerobic (endurance) and resistance (strength) training (Petridou et al., 2019):

- **Aerobic exercise:** Activities such as brisk walking, cycling, or swimming improve cardiovascular health, burn calories, and enhance overall fitness.
- **Resistance training:** Weightlifting or bodyweight exercises maintain muscle mass during weight loss and elevate metabolism, supporting long-term weight maintenance.
- **Flexibility and balance exercises:** Practices like yoga and stretching improve mobility and reduce injury risk.

Health authorities generally recommend 150–300 minutes per week of moderate-intensity aerobic exercise, combined with two to three sessions of resistance training. Gradual progression of intensity and duration is critical to prevent injury and support adherence, especially for individuals with limited exercise experience or comorbidities (Oppert et al., 2021).

3. Interrelationship Between Physical Exercise and Quality of Life

Quality of life (QoL) encompasses physical, psychological, and social dimensions of health. Obese individuals often experience impairments in all three domains due to physical limitations, comorbidities, and social stigma. Physical activity can simultaneously enhance these domains, positioning it as a central component of both weight management and overall well-being.

3.1 Exercise and Improvements in Physical, Psychological, and Social Domains

Structured exercise programs have been shown to improve mobility, strength, and physical fitness, which reduces fatigue and enhances the ability to perform daily tasks, thereby improving health-related quality of life (Pazzianotto-Forti et al., 2020). Psychologically, exercise reduces symptoms of anxiety and depression, enhances mood regulation, and increases self-esteem through endorphin release, improved body image, and perceived personal achievement (Dale et al., 2019). Socially, group-based or supervised exercise fosters social interaction and support, mitigating feelings of isolation and stigma, and improving social QoL (Zimmer et al., 2021).

3.2 Long-Term Effects on Daily Living and Self-Perception

Regular exercise enhances functional capacity, allowing individuals to perform daily activities independently. These functional improvements contribute to lasting positive changes in self-perception, autonomy, and health-related behaviors, reinforcing long-term adherence to healthy lifestyles and sustaining improvements in quality of life (Lucini & Pagani, 2021).

3.3 Role of Sleep Quality and Nutrition

Sleep quality and dietary habits are critical determinants of QoL among individuals with obesity. Poor sleep, including conditions such as obstructive sleep apnea, is associated with fatigue, mood disturbances, and impaired metabolic health, which diminish overall life satisfaction (Sejbuk et al., 2022). A balanced diet rich in whole grains, lean proteins, and low-glycemic foods supports weight stability, physical health, and mental well-being. When combined with regular exercise, proper nutrition and adequate sleep enhance patient motivation, promote sustainable behavior change, and improve long-term outcomes (Kim & Kwon, 2024).

4. Effect of Physical Exercise on Weight Management Satisfaction

Weight management satisfaction reflects an individual's contentment with their progress toward weight-related goals, encompassing improvements in physical health, appearance, and daily functioning. Exercise significantly influences these perceptions through both physical and psychological pathways.

4.1 Patient-Reported Satisfaction Following Structured Exercise

Research indicates that individuals with obesity participating in structured exercise programs report higher satisfaction with weight management than those relying solely on dietary interventions. Even modest weight loss resulting from exercise can improve body composition, endurance, and strength, enhancing self-perception and confidence in sustaining long-term weight control (Williamson, 2021; Petridou et al., 2019; Carraça et al., 2021).

4.2 Psychological and Motivational Outcomes

Exercise enhances perceived control over health behaviors, improves body image, and increases self-efficacy. These psychological benefits reduce frustration with fluctuating weight outcomes, reinforce adherence, and promote intrinsic motivation, creating a positive feedback loop that supports sustained engagement in healthy behaviors and satisfaction with weight management (Sarte Jr. & Quinto, 2024).

5. Determinants Influencing the Relationship Between Exercise, Quality of Life, and Weight Satisfaction

The effects of exercise on QoL and weight management satisfaction vary based on individual, psychological, and program-related factors. Understanding these determinants is essential to optimize intervention efficacy.

5.1 Sociodemographic Factors

Age, gender, and socioeconomic status influence exercise response. Younger individuals may demonstrate faster improvements in endurance and mobility, whereas older adults require programs tailored to joint limitations, chronic conditions, and slower recovery rates. Socioeconomic factors affect access to facilities, program affordability, and time availability, which directly impact adherence and outcomes (Mohd Talmizi et al., 2021; Mulderij et al., 2022; Lombardo et al., 2024).

5.2 Psychological Factors

Motivation and self-efficacy are critical predictors of exercise adherence. Intrinsic and extrinsic motivators determine engagement, while higher self-efficacy enhances adherence and amplifies improvements in QoL and weight satisfaction. Conversely, low motivation or previous exercise failure can impede sustained participation (Taylor et al., 2023; Rodrigues et al., 2020).

5.3 Program-Related Factors

Program type, intensity, and duration significantly influence outcomes. Aerobic, resistance, and combined training each produce distinct physical and psychological effects. Programs that progress gradually, align with individual capacities, and incorporate social support are more likely to improve QoL and weight satisfaction (Mahmoudi et al., 2022; Fritz et al., 2021).

Collaboration between sports trainers and physical therapists is crucial, particularly for individuals with musculoskeletal limitations. Physical therapists assess functional restrictions and recommend safe,

therapeutic exercises, while trainers adapt routines to meet rehabilitation goals. This interdisciplinary approach ensures safety, fosters trust, enhances adherence, and improves both health and functional outcomes (Lawford et al., 2022).

Research Methodology

1. Research design and method

This study employed a descriptive cross-sectional design to assess the impact of physical exercise on the quality of life and weight management satisfaction among obese patients. The research targeted obese individuals residing in Saudi Arabia, who constituted the study population. A quantitative research approach was adopted for data collection and analysis.

A total of 50 participants, aged between 26 and 62 years, were included in the study. Data were collected directly from the participants using a structured and validated questionnaire designed to capture relevant information regarding exercise habits, quality of life, and satisfaction with weight management.

Participants were selected through a simple random sampling technique, ensuring a representative sample of the target population and minimizing selection bias. The collected data were analyzed using statistical analysis procedures implemented through the Statistical Package for the Social Sciences (SPSS) software. Descriptive statistics were applied to summarize demographic characteristics, while inferential analyses were used to explore relationships between exercise participation and the studied variables.

Data Analysis and Results

1. Participants' Demographic Profile

1.1 Age:

Table 1 :Age

Age Group	Frequency	Percent	Valid Percent	Cumulative Percent
26–30 years	6	12.0	12.0	12.0
31–35 years	8	16.0	16.0	28.0
36–40 years	10	20.0	20.0	48.0
41–45 years	11	22.0	22.0	70.0
46–50 years	8	16.0	16.0	86.0
51–62 years	7	14.0	14.0	100.0
Total	**50**	**100.0**	**100.0**	

The participants' ages ranged between 26 and 62 years. The distribution shows that 12% of the respondents are between 26–30 years old, 16% fall within the 31–35 years age group, 20% are aged between 36–40 years, 22% are in the 41–45 years category, 16% fall within the 46–50 years range, and 14% are between 51–62 years old. The cumulative percentage reaches 100% across all age categories.

1.2 Gender:

Table 2 :Gender

Gender	Frequency	Percent	Valid Percent	Cumulative Percent
Male	15	30.0	30.0	30.0
Female	35	70.0	70.0	100.0
Total	**50**	**100.0**	**100.0**	

Among the respondents, 70% are female, while 30% are male. The total percentage of respondents is 100%, with females representing most of the sample.

1.3 Nationality:

Table 3 :Nationality

Nationality	Frequency	Percent	Valid Percent	Cumulative Percent
Non-Saudi	8	16.0	16.0	16.0
Saudi	42	84.0	84.0	100.0
Total	**50**	**100.0**	**100.0**	

Regarding nationality, 16% of the respondents are non-Saudi, while 84% are Saudi. The cumulative percentage reaches 100%, indicating that most participants were Saudi nationals.

2. Study Variables and Findings

Axis 1: Quality of Life Improvements from Physical Exercise

Table 4: Quality of Life Improvements from Physical Exercise

Statement	N	Mean	Std. Deviation	Arrangement	Direction
Engagement in consistent exercise programs contributes to measurable improvements in psychological stability and emotional resilience.	50	1.58	0.81	4	Strongly Agree
Systematic physical activity serves as a pivotal element in strengthening social integration and interpersonal engagement.	50	1.62	0.79	3	Strongly Agree
Sustained involvement in exercise interventions facilitates greater independence and efficiency in performing routine daily activities.	50	1.78	0.95	1	Strongly Agree
Regular participation in structured physical exercise constitutes a significant determinant in the enhancement of physical functioning and overall health status.	50	1.70	0.88	2	Strongly Agree
Adherence to organized exercise regimens is associated with a substantial improvement in self-perception and overall quality of life indicators.	50	1.66	0.83	5	Strongly Agree
Quality of Life Improvements from Physical Exercise (Overall Mean)	50	1.67	0.85		Strongly Agree

✓ **Statement:** "Engagement in consistent exercise programs contributes to measurable improvements in psychological stability and emotional resilience." came in the 4th position, with an arithmetic mean of 1.58 and a standard deviation of 0.81. Therefore, the direction of the responses of the study sample is Strongly Agree.

✓ **Statement:** "Systematic physical activity serves as a pivotal element in strengthening social integration and interpersonal engagement." came in the 3rd position, with an arithmetic mean of 1.62 and a standard deviation of 0.79. Therefore, the direction of the responses of the study sample is Strongly Agree.

✓ **Statement:** "Sustained involvement in exercise interventions facilitates greater independence and efficiency in performing routine daily activities." came in the 1st position, with an arithmetic mean of 1.78 and a standard deviation of 0.95. Therefore, the direction of the responses of the study sample is Strongly Agree.

✓ **Statement:** "Regular participation in structured physical exercise constitutes a significant determinant in the enhancement of physical functioning and overall health status." came in the 2nd position, with an arithmetic mean of 1.70 and a standard deviation of 0.88. Therefore, the direction of the responses of the study sample is Strongly Agree.

✓ **Statement:** "Adherence to organized exercise regimens is associated with a substantial improvement in self-perception and overall quality of life indicators." came in the 5th position, with an arithmetic mean of 1.66 and a standard deviation of 0.83. Therefore, the direction of the responses of the study sample is Strongly Agree.

The responses reflect a Strongly Agree attitude toward the role of physical exercise in improving the quality of life among the participants. The highest-rated statement indicates that sustained involvement in exercise interventions facilitates greater independence and efficiency in performing routine daily activities. This is followed by statements highlighting that regular participation in structured physical exercise enhances physical functioning and overall health, and that systematic physical activity promotes social integration and interpersonal engagement. Additionally, participants strongly agreed that consistent exercise programs contribute to psychological stability and emotional resilience, and that adherence to organized exercise regimens improves self-perception and overall quality of life. The consistent Strongly Agree responses across all items demonstrate a highly positive perception of the comprehensive benefits of physical exercise on various dimensions of quality of life.

Axis 2: Weight Management Satisfaction

Table 5: Weight Management Satisfaction

Statement	N	Mean	Std. Deviation	Arrangement	Direction
Satisfaction with weight management efforts is reinforced by progressive improvements achieved through consistent physical activity.	50	1.43	0.641	1	Strongly Agree
The perceived success of weight management strategies is closely associated with the continuity and intensity of physical exercise.	50	1.48	0.643	2	Strongly Agree
Exercise participation functions as a determinant of enhanced psychological satisfaction in relation to	50	1.52	0.643	3	Strongly Agree

Statement	N	Mean	Std. Deviation	Arrangement	Direction
body weight regulation.					
Regular engagement in exercise interventions constitutes a significant factor in sustaining long-term contentment with weight control outcomes.	50	1.53	0.659	4	Strongly Agree
Weight management satisfaction is positively influenced by adherence to structured physical exercise programs.	50	1.56	0.655	5	Strongly Agree
Weight Management Satisfaction (Overall)	50	1.5040	0.53822		Strongly Agree

✓ **Statement:** *"Satisfaction with weight management efforts is reinforced by progressive improvements achieved through consistent physical activity."* came in the 1st position**,** with an arithmetic mean of 1.43 and a standard deviation of 0.641**.** Therefore, the direction of the responses of the study sample is Strongly Agree**.**

✓ **Statement:** *"The perceived success of weight management strategies is closely associated with the continuity and intensity of physical exercise."* came in the 2nd position, with an arithmetic mean of 1.48 and a standard deviation of 0.643. Therefore, the direction of the responses of the study sample is Strongly Agree**.**

✓ **Statement:** *"Exercise participation functions as a determinant of enhanced psychological satisfaction in relation to body weight regulation."* came in the 3rd position**,** with an arithmetic mean of 1.52 and a standard deviation of 0.643**.** Therefore, the direction of the responses of the study sample is Strongly Agree**.**

✓ **Statement:** *"Regular engagement in exercise interventions constitutes a significant factor in sustaining long-term contentment with weight control outcomes."* came in the 4th position, with an arithmetic mean of 1.53 and a standard deviation of 0.659**.** Therefore, the direction of the responses of the study sample is Strongly Agree**.**

✓ **Statement:** *"Weight management satisfaction is positively influenced by adherence to structured physical exercise programs."* came in the 5th position, with an arithmetic mean of 1.56 and a standard deviation of 0.655**.** Therefore, the direction of the responses of the study sample is Strongly Agree**.**

The responses demonstrate a *Strongly Agree* attitude toward the importance of physical exercise in enhancing satisfaction with weight management among obese participants. The highest-rated statement highlights that satisfaction with weight management efforts is reinforced by progressive improvements resulting from consistent physical activity, emphasizing the motivational role of steady progress in maintaining positive outcomes.

This is followed by the statement indicating that the perceived success of weight management strategies is closely linked to the continuity and intensity of exercise, underscoring the significance of persistence and effort in achieving desired weight goals.

Other statements that received high levels of agreement emphasize the psychological benefits of exercise participation and its role in sustaining long-term satisfaction with weight control.

The lowest-ranked, though still strongly endorsed, statement shows that adherence to structured physical exercise programs positively influences overall satisfaction with weight management.

Overall, the findings reflect a clear and consistent consensus among participants regarding the critical contribution of physical activity to both physical and psychological satisfaction in weight management.

Axis 3: Exercise-Related Factors Influencing Outcomes

Table 9: Exercise-Related Factors Influencing Outcomes

Statement	N	Mean	Std. Deviation	Arrangement	Direction
Program duration serves as a significant determinant of both physical and psychosocial benefits derived from exercise interventions.	**50**	**1.45**	0.851	**1**	Strongly Agree
Adherence to a structured and supervised exercise regimen functions as a primary factor in achieving optimal weight management satisfaction.	**50**	**1.50**	0.817	**2**	Strongly Agree
The intensity level of physical activity is directly associated with variations in perceived quality-of-life enhancements.	**50**	**1.56**	0.850	**3**	Strongly Agree
The frequency of participation in exercise programs represents a critical element affecting the sustainability of health and psychological outcomes.	**50**	**1.60**	0.767	**4**	Strongly Agree
The type of physical exercise performed constitutes a determining factor in the degree of improvement in quality of life and weight management satisfaction.	**50**	**1.68**	0.689	**5**	Strongly Agree
Exercise-Related Factors Influencing Outcomes (Overall)	**50**	**1.5580**	**0.70051**		**Strongly Agree**

✓ **Statement:** *"Program duration serves as a significant determinant of both physical and psychosocial benefits derived from exercise interventions."* came in the 1st position**,** with an arithmetic mean of 1.45 and a standard deviation of 0.851**.** Therefore, the direction of the responses of the study sample is Strongly Agree**.**

✓ **Statement:** *"Adherence to a structured and supervised exercise regimen functions as a primary factor in achieving optimal weight management satisfaction."* came in the 2nd position, with an arithmetic mean of 1.50 and a standard deviation of 0.817. Therefore, the direction of the responses is Strongly Agree**.**

✓ **Statement:** *"The intensity level of physical activity is directly associated with variations in perceived quality-of-life enhancements."* came in the 3rd position, with an arithmetic mean of 1.56 and a standard deviation of 0.850**.** Therefore, the direction of the responses is Strongly Agree**.**

✓ **Statement:** *"The frequency of participation in exercise programs represents a critical element affecting the sustainability of health and psychological outcomes."* came in the 4th position, with an arithmetic mean of 1.60 and a standard deviation of 0.767**.** Therefore, the direction of the responses is Strongly Agree.

✓ **Statement:** *"The type of physical exercise performed constitutes a determining factor in the degree of improvement in quality of life and weight management satisfaction."* came in the 5th position, with an arithmetic mean of 1.68 and a standard deviation of 0.689**.** Therefore, the direction of the responses is Strongly Agree**.**

The responses demonstrate a clear Strongly Agree trend regarding the influence of exercise-related factors on improving quality of life and weight management satisfaction among obese individuals.

The highest-ranked factor indicates that the duration of exercise programs plays the most significant role in achieving both physical and psychosocial improvements, underscoring the importance of sustained engagement over time.

This is followed by strong agreement on the role of structured and supervised exercise**,** which enhances adherence and maximizes outcomes.

Similarly, participants agreed that the intensity of exercise and frequency of program participation are essential for sustaining both physical health and psychological benefits.

Even though the type of physical exercise was ranked lowest, it still showed a strong agreement level, confirming that all listed factors are considered highly influential.

Overall, the findings reflect a unified perception among the participants regarding the crucial and integrated role of exercise-related components in optimizing both quality of life and satisfaction with weight management.

Axis 4: Lifestyle Complements – Sleep, Nutrition, and Professional Coordination

Table 8: Lifestyle Complements – Sleep, Nutrition, and Professional Coordination

Statement	N	Mean	Std. Deviation	Arrangement	Direction
Maintaining a consistent sleep schedule contributes significantly to emotional balance, energy levels, and exercise adherence.	50	1.57	0.868	5	Strongly Agree
Improved sleep quality positively impacts weight control efforts and daily functioning.	50	1.63	0.812	3	Strongly Agree
Adopting a balanced and nutritious diet enhances both physical health and psychological satisfaction during weight loss journeys.	50	1.76	0.866	1	Strongly Agree
Effective communication between sports trainers and physical therapists is essential to managing joint issues and preventing exercise-related injuries.	50	1.67	0.779	2	Strongly Agree
Integrating sleep, diet, and specialist coordination provides a more sustainable and holistic improvement in quality of life for obese patients.	50	1.62	0.801	4	Strongly Agree
Lifestyle Complements – Sleep, Nutrition, and Professional Coordination	50	1.65	0.745		Strongly Agree

✓ **Statement:** *"Adopting a balanced and nutritious diet enhances both physical health and psychological satisfaction during weight loss journeys."* came in the 1st position, with an arithmetic mean of 1.76 and a standard deviation of 0.866**.** Therefore, the direction of the responses of the study sample is Strongly Agree**.**

✓ **Statement:** *"Effective communication between sports trainers and physical therapists is essential to managing joint issues and preventing exercise-related injuries."* came in the 2nd position, with an arithmetic mean of 1.67 and a standard deviation of 0.779**.** Therefore, the direction of the responses of the study sample is Strongly Agree**.**

✓ **Statement:** *"Improved sleep quality positively impacts weight control efforts and daily functioning."* came in the 3rd position, with an arithmetic mean of 1.63 and a standard deviation of 0.812. Therefore, the direction of the responses of the study sample is Strongly Agree**.**

✓ **Statement:** *"Integrating sleep, diet, and specialist coordination provides a more sustainable and holistic improvement in quality of life for obese patients."* came in the 4th position, with an arithmetic mean of 1.62 and a standard deviation of 0.801**.** Therefore, the direction of the responses of the study sample is Strongly Agree.

✓ **Statement:** *"Maintaining a consistent sleep schedule contributes significantly to emotional balance, energy levels, and exercise adherence."* came in the 5th position, with an arithmetic mean of 1.57 and a standard deviation of 0.868**.** Therefore, the direction of the responses of the study sample is Strongly Agree**.**

The responses reflect a Strongly Agree attitude toward the integrated lifestyle factors that enhance quality of life and support sustainable weight management among obese patients.

The highest-rated statement highlights the pivotal role of adopting a balanced and nutritious diet in promoting both physical health and psychological satisfaction during the weight loss journey. Close behind, respondents strongly agreed that effective communication between sports trainers and physical therapists plays a vital role in managing joint issues and preventing exercise-related injuries**.**

Additionally, the participants acknowledged that improved sleep quality and integrating sleep, diet, and professional coordination contribute to a more sustainable and holistic enhancement of well-being and exercise outcomes. Finally, maintaining a consistent sleep schedule was also recognized as crucial for emotional balance**,** energy stability, and exercise adherence**.**

Overall, the findings emphasize the importance of adopting a comprehensive and multidisciplinary approach—combining nutrition, sleep regulation, and expert coordination—to effectively improve health and quality of life among obese individuals.

Conclusion

This study demonstrates the pivotal role of structured physical exercise in enhancing the quality of life and weight management satisfaction among individuals with obesity. The findings indicate consistently strong positive responses across all measured dimensions, highlighting that long-term and well-structured exercise programs significantly benefit physical health, mental well-being, and social functioning.

Key factors, including program duration, adherence, and type of exercise, were identified as critical determinants of successful outcomes. Importantly, satisfaction with weight management extends beyond

mere weight reduction; it encompasses improvements in self-perception, commitment to long-term behavioral changes, and enhanced functional capacity in daily activities.

The study further underscores the synergistic effects of integrating regular physical activity with healthy dietary habits and proper sleep patterns, which collectively promote psychological well-being and support sustainable weight management. Moreover, the statistics emphasize the need for integrated care between fitness professionals and clinical therapists**,** particularly for patients experiencing joint or mobility limitations.

These findings support a multidisciplinary, lifestyle-oriented intervention framework for obesity management, emphasizing coordinated care and patient-centered strategies. Such an approach not only optimizes physical and mental health outcomes but also enhances long-term adherence, functional independence, and overall quality of life for individuals living with obesity.

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