

The Role of Recreational Sports Physical Activities in Developing Self-Confidence for Students with Obesity

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Abstract:

This study aims to explore the role of engaging in recreational sports physical activities in developing self-confidence among students suffering from obesity. A descriptive method was employed in this research. The sample consisted of 36 students from various middle schools in Ben Khelil municipality, Blida province. The research tool was a questionnaire developed by the researchers.

After applying the tool to the sample and statistically processing their responses, the following results were obtained: There were significant statistical differences between students who participate in recreational sports physical activities and those who do not, in various dimensions of the questionnaire, namely: autonomy, social, and psychological aspects, favoring the participants.

Keywords: Recreational Sports Physical Activity; Obesity; Self-Confidence.

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1. INTRODUCTION

The concept of recreational sports physical activity encompasses activities performed by students outside their regular class schedule, supplementing physical education subject. In other words, it includes games or sports practiced during leisure time, free of intense competition. It represents a means of occupying leisure time by encompassing intellectual, psychological, and social aspects, thereby addressing the shortcomings of the academic curriculum. It's a medium for thought, innovation, and is linked to the inclinations, motivations, and needs of the students. Additionally, it aids in developing physically, socially, and psychologically healthy citizens, fostering strong behavioral attitudes.

Recreation's core principle is happiness, where individuals experience feelings and emotions such as camaraderie, achievement, innovation, creativity, and delight in their physical, mental, and emotional capabilities. It includes appreciation of beauty, relaxation, and happiness in serving others⁽¹⁾.

Obesity is defined as an abnormal or excessive accumulation of body fat that may be harmful to an individual's health. According to recent global statistics, the number of obesity cases has nearly tripled in the last half-century. In 2016, over 1.9 billion adults aged 18 and older were overweight, accounting for 39%, and more than 650 million were obese, about 13%. Most global deaths were attributed to overweight and obesity. In that year, 41 million children under the age of five were overweight or obese, and more than 340 million children and adolescents aged 5-19 suffered from these conditions.⁽²⁾

Obesity causes numerous health problems for children, including heart and arterial diseases, liver issues, bone and joint problems, and

(1) Tahani Abdel Salam, "Recreation and Recreational Education," 1st Edition, Dar Al-Fikr Al-Arabi, Egypt, 2008, p. 106.

(2) Mohammed Amin Cherifi and Yassin Mokhtari, "Obesity and Overweight in Children and Adolescents," Ma'arif Journal, Algeria, 2021, Volume 16, p. 984.

breathing difficulties that hinder physical activity performance, increasing the risk of asthma. Moreover, obesity has psychological effects on children, especially in schools, where they are often subjected to ridicule by peers, leading to poor mental states.

Recent studies on obese children have shown their mental well-being to be similar to that of cancer patients undergoing chemotherapy, with increased susceptibility to psychological depression, social isolation, and shyness.

Obesity impacts academic performance, social acceptance, and predominates their psychological state, leading to feelings of unworthiness of respect and attention, low morale, confidence, and determination, resulting in social isolation, reduced achievement, anxiety, depression, sleep disorders, loneliness, emotional disturbances, social phobia, avoidance behaviors, reduced job and educational pursuits, and reluctance to learn new skills. Most obese children lack self-confidence, prompting the following research question:

- **Does recreational sports physical activity play a role in developing self-confidence in students suffering from severe obesity?**

1.1 Sub-Questions:

- Is there a difference in the dimension of self-reliance in self-confidence between students with severe obesity who participate in recreational sports physical activities and those who do not?
- Is there a difference in the social dimension of self-confidence between students with severe obesity who participate in recreational sports physical activities and those who do not?
- Is there a difference in the psychological dimension of self-confidence between students with severe obesity who participate in recreational sports physical activities and those who do not?

1.2 Hypotheses:

1.2.1 General Hypothesis:

- Recreational sports physical activities play a significant role in developing self-confidence in students with severe obesity.

1.2.2 Specific Hypotheses:

- There are statistically significant differences in the dimension of self-reliance between practitioners and non-practitioners of recreational sports physical activities among students with severe obesity.
- There are statistically significant differences in the social dimension between practitioners and non-practitioners of recreational sports physical activities among students with severe obesity.
- There are statistically significant differences in the psychological dimension between practitioners and non-practitioners of recreational sports physical activities among students with severe obesity.

1.3 Research Objectives:

- To determine if there are statistically significant differences in the dimension of self-reliance between practitioners and non-practitioners of recreational sports physical activities among students with severe obesity.
- To determine if there are statistically significant differences in the social dimension between practitioners and non-practitioners of recreational sports physical activities among students with severe obesity.
- To determine if there are statistically significant differences in the psychological dimension between practitioners and non-practitioners of recreational sports physical activities among students with severe obesity.

1.4 Significance of the Research:

The significance of this research lies in:

- Identifying the role of recreational sports physical activities in developing self-confidence among students with obesity and its reflection on the psychological, physical, mental, and social aspects of students.
- Understanding its critical role in the educational system by equipping students with positive skills and attitudes, aiding in developing their

relationships with peers, enhancing their self-confidence, and facilitating their normal integration into society.

2. Research Concepts:

2.1 Recreational Sports Physical Activity:

The concept of recreational sports physical activity, in its specific sense, refers to games or sports practiced during leisure time, devoid of intense competition. In other words, these are sports practiced outside of formal federations and organizational structures. It is a physical activity built on the principle of enjoyment, encompassing a philosophy of life. In France, this philosophy is known as 'heros.' In the Western context, there are two types of activities: one is recreational sports related to capitalism, and the other is recreational sports aimed at pleasure, happiness, and the pursuit of utmost delight.⁽¹⁾

Kraus views recreation as those aspects of activity or experiences that result from leisure time, chosen according to an individual's will, aiming to achieve personal pleasure and imparting numerous personal and social values.

Brettle considers recreation as a lifestyle that enhances the practitioner's development in various leisure activities.⁽²⁾

2.2 Obesity:

Obesity and overweight are defined as abnormal and excessive fat accumulation that may impair health. Body Mass Index (BMI) is a simple index of weight-for-height commonly used to classify overweight and obesity in adults and individuals. It is calculated by

(1) Amin Anwar Al-Khouli, "Sports and Society," World of Knowledge Series, Kuwait, 1996, p. 77.

(2) Mohammed Mohammed El Hamahmi and Aida Abdel Aziz Mustafa, "Recreation Between Theory and Application," 6th Edition, Book Center for Publishing, Egypt, 2009, p. 29.

dividing a person's weight in kilograms by the square of their height in meters.⁽¹⁾

2.3 Self-Confidence:

Linguistically, it derives from the verb meaning to trust or secure. The term 'self-confidence' is initially related to the concept of a firm commitment or a bond, historically represented by a rope or chain used to restrain a prisoner or animal.⁽²⁾

In technical terms, as defined by Mashaan Oweid Al-Sultan, self-confidence is a fundamental topic directly related to human personality. It is associated with daily human activities in various life aspects. At its simplest, it refers to a personal sense of physical, psychological, and social competence, the ability to do what one perceives as desirable, acceptance by others, and their trust. A self-confident person typically exhibits emotional stability, social maturity, acceptance of reality, and the capability to face crises with rational thinking.⁽³⁾

3. Literature Review:

- **Study by Raqad Maryam and Belarousi Suleiman (2022):** "The Practice of Recreational Sports Physical Activities and Its Role in Achieving Psychological Adjustment in High School Girls"

This study aimed to understand the impact of recreational sports physical activities on psychological balance in high school girls. The researchers used a causal-comparative descriptive method on a sample of 80 female students, including 40 who participated in recreational

(1) Al Hazae Mohammed Al Hazae, "Obesity and Physical Activity," Laboratory of Physical Effort Physiology, King Saud University, 2005, p. 104.

(2) Ibn Mandur Jamal Al-Din, "Lisan Al-Arab," 2nd Edition, Dar Al-Kutub Al-Ilmiyah, Beirut, 2003, p. 447.

(3) Mashaan Oweid Al Sultan, "Achievement Motivation and its Relation to Anxiety, Depression, and Self-Confidence," 1999, Annals of Arts and Social Sciences, Annual 20, Letter 21, p. 13.

sports physical activities and 40 who did not. They employed a social-psychological adjustment scale. Key findings include:

- Statistically significant differences in personality development among girls who participated in recreational sports physical activities compared to non-participants.
- Statistically significant differences in self-perception among participants in these activities compared to non-participants.
- Statistically significant differences in overcoming solitude and introversion among participants in these activities compared to non-participants.

➤ **Study by Hanashi Yassin (2018):** "The Role of Recreational Sports Activities in Reducing Social Psychological Disorders in Individuals"

This study aimed to explore the importance of recreational activities for children in scout groups suffering from psychosocial disorders. The research sample included 30 supervisors and 90 leaders from various scout groups in Setif province. A descriptive method was used, and the study concluded that:

- Recreational activities play a role in reducing anxiety in scouts.
- These activities help in reducing fear among scouts.
- Recreational activities contribute to decreasing aggressive behavior in scouts and their integration into society.

4. Research Methodology:

Methodology can be described as the art of organizing a series of ideas, either to uncover unknown truths or to demonstrate them to others who are unaware. ⁽¹⁾

Since the current study falls under the category of descriptive research, the comparative descriptive method is adopted here. This approach is widely used in educational, psychological, and social

(1) Salah El Din Chorouk, "Methodology of Scientific Research for University Students," Dar Al-Uloom, Annaba, Algeria, 2003, p. 90.

sciences to study, analyze, interpret phenomena, identify their characteristics, dimensions, and describe the relationships between them, aiming to provide a comprehensive scientific description.⁽¹⁾

5. Research Population and Sample:

5.1 Research Population:

The research population comprises all students with severe obesity in the middle schools of Ben Khelil municipality, totaling 36 students distributed across four schools. This data helps in determining the research sample.

5.2 Research Sample:

The sample was selected purposively, consisting of 20 students with severe obesity, divided into two groups (10 participants and 10 non-participants in recreational sports physical activities).

6. Pilot Study:

The pilot study is a preliminary phase in the methodological approach of any scientific research. It is an essential step that aids in understanding the research field and in accurately formulating the main hypotheses. The goals of the pilot study were to:

- Ensure the clarity of the research tool's instructions in terms of language suitability, clarity, and the level of detail.
- Verify the clarity and understandability of the research tool's items by the respondents, enabling them to respond without guessing.
- Calculate the scientific coefficients of the research tool through the validity and reliability of the questionnaire.

6.1 Pilot Study Sample:

The initial version of the questionnaire was distributed among a

(1) Rafik Alwan and Omar Al-Awaf, "The Role of Practicing Physical Education and Sports in Modifying Aggressive Behavior in Secondary School Students," Ma'arif Journal, Algeria, 2022, Volume 17, p. 1232.

sample of 08 students with severe obesity at Ben Hamdani middle school, to confirm its validity and reliability.

6.2 Validity of the Questionnaire:

Two methods were adopted for validating the questionnaire:

- **Expert Validity:** The questionnaire was evaluated by a group of doctors at the Institute of Physical Activities and Sports Sciences, University of Algiers-3, and was highly endorsed by them.
- **Reliability Method:** The reliability coefficient was calculated using the split-half method, with high reliability rates as detailed in the following table:

Table 01: Split-Half Method for Questionnaire Dimensions

Questionnaire Dimension	Number of Items	Split-Half	Reliability Coefficient	Spearman-Brown Coefficient
Autonomy Dimension	10	5 Items/5 Items	0.890/0.822	0.882
Social Dimension	9	5 Items/4 Items	0.797/0.904	0.860
Psychological Dimension	8	4 Items/4 Items	0.794/0.897	0.917
Total Score	27	14 Items/13 Items	0.967/0.921	0.986

Source: Developed by the researchers

The table shows that the correlation coefficients for each dimension of the questionnaire ranged between 0.797 and 0.904, with high stability in each half of the dimensions. The overall reliability of the questionnaire was high, estimated at 0.967 for the first half and 0.921 for the second, with a correlation coefficient of 0.986.

➤ **Cronbach's Alpha Coefficient:**

Cronbach's Alpha equation was used to confirm the reliability of the study tool.

Table 02: Cronbach's Alpha Reliability Coefficient for the Questionnaire

Questionnaire Dimension	Cronbach's α
Autonomy Dimension	0.932
Social Dimension	0.936
Psychological Dimension	0.921
Total Score	0.962

Source: Developed by the researchers

This table indicates that all reliability coefficients are high, varying across dimensions, with the highest in the social dimension (0.936) and the lowest in the psychological dimension (0.921). The overall reliability coefficient for the questionnaire was 0.962, indicating high stability for the results obtained using the questionnaire.

Given the results obtained using the split-half method and Cronbach's Alpha coefficient, and referring to Tables 01 and 02, the questionnaire can be considered highly reliable and suitable for use in our study.

7. Research Procedures:

After conducting the pilot study and verifying the validity and reliability of the questionnaire, and once the sample was determined, the questionnaire was distributed to the students. The items were explained to the students each time to encourage honest responses. The process was as follows:

7.1 Human Boundaries :

The research tool was applied to a sample of 20 middle school students, purposively chosen from a research population of 36 students.

7.2 Spatial Boundaries:

The field research was conducted in four middle schools in

Ben Khelil municipality, Blida province: Ben Khelil Middle School, Ben Hamdani Middle School, Mohamed Raqaz Middle School in Ain Aicha, and Mohamed Hamou Middle School in Ben Shaaban.

7.3 Temporal Boundaries:

The research was conducted from October 4 to October 28, 2022, with all questionnaires collected from all schools.

8. Statistical Methods and Analysis:

- Arithmetic Mean.
- Standard Deviation.
- T-test.
- Split-Half Correlation Coefficient.
- Statistical analysis was performed using SPSS v19 software.

9. Presentation, Analysis, and Discussion of Results:

9.1 Presentation, Analysis, and Discussion of the First Hypothesis:

There are statistically significant differences between practitioners and non-practitioners of recreational sports physical activities in the dimension of autonomy among students with severe obesity.

Table 03: T-test Results for the Significance of Differences Between the Mean Responses of the Two Sample Groups on the Questionnaire

Dimension	Variable	Number	Méme	Standard Deviation	F-Value	sig Value	T-Test Value	sig Value	Significance
Autonomy	Practitioners	10	1.87	0.12	0.397	0.537	12.569	0.001	Significant
	Non-Practitioners	10	1.24	0.06					

Source: Developed by the researchers

From Table No. (03), it is evident that the F-value reached 0.397, with a corresponding probability value (sig) of 0.537, which is not statistically significant. This indicates homogeneity between the two samples.

The T-test value for the autonomy dimension, at 18 degrees of freedom, was 12.569, with a corresponding probability value (sig) of 0.001, which is statistically significant at the 0.01 level. This means there are statistically significant differences between the two groups.

Observing the results obtained in the autonomy dimension among students with severe obesity, both practitioners and non-practitioners of recreational sports physical activities, it can be said that recreational sports physical activities play a significant and positive role in improving autonomy and self-reliance in students with severe obesity. This contrasts with what was observed in non-practitioners.

This can be explained by the relationship between recreational sports physical activities and autonomy, personality development, and self-reliance in these students. This relationship is directly proportional: the more students engage in recreational sports physical activities, the more they exhibit independence and strong personality traits. The study's result aligns with the findings of Raqad Maryam and Belarousi Suleiman (2022), which indicated that engaging in recreational sports physical activities contributes to personality development in female students.

9.2 Presentation, Analysis, and Discussion of the Second Hypothesis:

There are statistically significant differences between practitioners and non-practitioners of recreational sports physical activities in the social dimension among students with severe obesity.

Table 04: T-test Results for the Significance of Differences Between the Mean Responses of the Two Sample Groups on the Questionnaire

Dimension	Variable	Num	Mean	Standard Deviation	F-Value	sig Value	T-Test Value	sig Value	Significance
Social	Practitioners	10	1.87	0.14	0.064	0.803	10.452	0.001	Significant
	Non-	10	1.15	0.13					

	Practitioners							
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Source: Developed by the researchers

From Table 04, it is clear that the F-value is 0.064, with a corresponding probability value (sig) of 0.803, which is not statistically significant. This implies homogeneity between the two samples. The T-test value for the social dimension, at 18 degrees of freedom, was 10.452, with a corresponding probability value (sig) of 0.001, which is statistically significant at the 0.01 level, indicating significant differences between the two groups.

Observing the results obtained in the social dimension among students with severe obesity, both practitioners and non-practitioners of recreational sports physical activities, it can be said that these activities play a significant and positive role in enhancing the social dimension, acceptance of others, and reducing isolation and introversion in students with severe obesity, in contrast to non-practitioners.

This can be explained by the relationship between recreational sports physical activities and social integration and improvement in the social aspect of students with severe obesity. This relationship is directly proportional: increased engagement in recreational sports physical activities enhances the social integration of students with severe obesity and their ability to perform daily activities normally.

The study's results align with the findings of Raqad Maryam and Belarousi Suleiman (2022), which indicated that participation in recreational sports physical activities contributes to reducing isolation and introversion in female students. It also agrees with the results of the study by Hanashi Yasin (2018), which found that recreational sports activities help reduce aggressive behavior and assist individuals in integrating normally into society with acceptance and respect for others.

9.3 Presentation, Analysis, and Discussion of the Third Hypothesis:

There are statistically significant differences between practitioners and non-practitioners of recreational sports physical activities in the

psychological dimension among students with severe obesity.

Table 05: T-test Results for the Significance of Differences Between the Mean Responses of the Two Sample Groups on the Questionnaire

Dimension	Variable	Number	Mean	Standard Deviation	F-Value	sig Value	T-Test Value	sig Value	Significance
Psychological	Practitioners	10	1.97	0.05	0.469	0.653	11.365	0.001	Significant
	Non-Practitioners	10	1.11	0.13					

Source: Developed by the researchers

From Table 05, it is evident that the F-value is 0.469, with a corresponding probability value (sig) of 0.653, indicating non-significance and homogeneity between the two samples.

The T-test value for the psychological dimension, at 18 degrees of freedom, was 11.365, with a corresponding probability value (sig) of 0.001, statistically significant at the 0.01 level, indicating significant differences between the two groups.

Observing the results in the psychological dimension among students with severe obesity, both practitioners and non-practitioners of recreational sports physical activities, it can be said that these activities have a significant and positive impact on improving the psychological dimension and mental health of students with severe obesity, unlike non-practitioners.

This can be attributed to the relationship between recreational sports physical activities and improvement in the psychological aspect of these students, where increased participation in these activities enhances their mental state.

This is in line with findings by Mohamed El Hamahmi and Aida Abdel Aziz, who noted that recreational activities develop emotional health and psychological balance, along with self-confidence and fear

reduction through participation in various recreational activities.⁽¹⁾

9.4 Presentation and Discussion of the General Hypothesis:

Considering the results recorded in Tables (3, 4, 5), it is found that practicing recreational sports physical activities significantly contributes to developing self-confidence in students with obesity. As noted by Mohamed Amin Cherifi and Yassin Makhtari, among the psychological issues associated with obesity in students are depression, exposure to ridicule from peers, and low self-esteem.⁽²⁾

Mohamed Abdel Aziz Salamah and Amani Metwally El Battrawy add that the psychological benefits of recreational activities include developing self-confidence, fear liberation, self-expression, aggression reduction, and improving mental health.⁽³⁾

Hence, the general hypothesis, stating that practicing recreational sports physical activities contributes to developing self-confidence in students with obesity, is substantiated.

10. Conclusion:

From the outset of our study, we endeavored to anticipate the results we might achieve, and upon completion, we were able to validate these expectations. Through in-depth analysis, which included examining the responses of the sample individuals to the questionnaire and comparing them between the two groups, we arrived at the following conclusions:

-There are statistically significant differences between practitioners and non-practitioners of modified recreational sports physical activities in the dimension of autonomy.

-There are statistically significant differences between practitioners and non-practitioners of modified recreational sports

(1) Mohammed Mohammed El Hamahmi and Aida Abdel Aziz Mustafa, previous reference, pp. 39-40.

(2) Mohammed Amin Cherifi and Yassin Makhtari, previous reference, p. 1000.

(3) Mohammed Amin Cherifi and Yassin Makhtari, previous reference, p. 1000.

physical activities in the social dimension.

-There are statistically significant differences between practitioners and non-practitioners of modified recreational sports physical activities in the psychological dimension.

From these findings, we conclude that engaging in recreational sports physical activities plays a significant role in developing self-confidence among students with severe obesity.

11. Suggestions:

- Provision of facilities for various recreational sports activities.
- Raising awareness among school principals and teachers about the importance of recreational activities in individuals lives.
- Educating students about the dangers of obesity on their physical and mental health through specialized sessions.
- Informing parents of students with obesity about their children's condition and encouraging them to prepare healthy foods and support their participation in various recreational activities.
- Creating pamphlets and research materials discussing the dangers of unhealthy eating, such as excessive sugar consumption, and displaying them in institutions.
- Media attention to the phenomenon of obesity, its resulting problems, and highlighting ways to prevent it.
- Promoting the culture of recreation through media and encouraging citizens to participate in its activities under the motto "Sport for All."

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