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Middle School Students' Attitudes Towards the Importance of School Physical Activity in Reducing Obesity

mahmoud maamri[1], yahia ouanouki[2],kamel raach[3]

[123]mahmoudmohib1963@gmail.com-y.ouanouki@univ-djelfa.dz - k.raache@univ-djelfa.dz

[1] Lab/ Sports curricula and programs, social integration and motor rehabilitation through sports activity

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Abstract:

This study aims to shed light on the attitudes of middle school students towards the importance of engaging in school physical activities as a significant means to combat obesity, given the prevalence of this unhealthy phenomenon in modern times within the school environment. The study is conducted according to the following dimensions:

Health Dimension – Aesthetic Dimension – Recreational Dimension

To address this research study, the researcher employed the comparative descriptive method, as it is suitable for the nature of the study. The sample included a group of 50 middle school students (both boys and girls) from the Wilaya of Ouargla, selected intentionally. The Kenyon Attitude Toward Physical Activity Scale was used to measure students' attitudes.

Keywords: Attitudes - School Physical Activity - Obesity - Middle School Education Stage

Corresponding author

1 -Introduction and problem of the study:

Attitudes, in fact, reflect the motivations behind a child's behavior, as they are outcomes of the socialization process in general and physical education in particular. Each child or student has an attitude towards social situations and phenomena. We can say that a child's environmental interaction represents a range of attitudes that have a direct impact on the development of their personality from all aspects.School physical activity, in its various forms and systems, is considered a field of general education and a strong factor in the child's comprehensive health, social, psychological, and mental development. Through participation in school sports activities, a child gains experiences and, consequently, motivations that are actually attitudes, which vary from one student to another.

This research aims to highlight the attitudes of middle school students towards the importance of engaging in school physical activities in terms of the level and nature of participation as a significant means to combat obesity. This is particularly relevant given the prevalence of this unhealthy phenomenon in modern times within the school environment, and is examined according to the following dimensions: the health dimension, the aesthetic dimension, and the recreational dimension.

1.2 Problematic

1-2-1 **General Question**

Are there differences between the attitudes of male and female middle school students towards the importance of engaging in school physical activities as a means to combat obesity?

1-2-2 Specific questions

1)- Are there statistically significant differences in the attitudes of middle school students attributable to gender in terms of the health and aesthetic dimensions?

2)- Are there statistically significant differences in the attitudes of middle school students attributable to gender in terms of the recreational dimension?

1-3 Study hypotheses:

1-3-1 General Hypothesis

There are differences between the attitudes of male and female middle school students towards the importance of participating in school physical activities as a means to combat obesity.

1-3-2 Specific Hypotheses:

1. There are statistically significant differences in the attitudes of middle school students attributable to gender in terms of the health and aesthetic dimensions.

2. There are statistically significant differences in the attitudes of middle school students attributable to gender in terms of the recreational dimension.

2 General Framework of the Study

2-1 Definition and Concept of Variables in the Study

2-1 Attitude:

2-1-1Linguistic Definition:

Means a path or direction. "One-directional" means having a single direction, and "to turn one's direction" means to change it.

2-1-2 Terminological Definition:

It is a state of psychological readiness or preparedness organized through an individual's experience, and it has a guiding or dynamic effect on a person's responses to all situations and conditions that trigger this response (Meiza, 2002).

2-1-3 Operational Definition:

An attitude is a mental state that directs an individual's responses. It is considered a stable, affective predisposition that shapes an individual's feelings and behaviors towards specific subjects, in terms of their preference or aversion. Psychological attitudes are predispositions to respond to situations, people, objects, or ideas in a certain way, and they are typically acquired and influence the individual's responses.

2-1-4 Concept of Attitudes:

Researchers have provided various definitions of attitudes, but there is nearly universal agreement that attitudes are reactions or responses towards a perceived object or situation felt by the individual and present in the social environment. Attitudes are a significant part of an individual's personality, derived from accumulated experiences throughout different stages of life.

An attitude is a mental and psychological state with characteristics that distinguish it from other mental and psychological states. It is used by individuals in their daily lives and interactions with others within their group. This state reflects whether an individual is "for" or "against" something, meaning it can represent a state of liking or disliking. In other words, an attitude involves making a preconceived judgment based on the psychological framework of the attitude.

Albort defines attitude as "a state of mental and neural preparedness organized by experience, which tends to persist and guide an individual's responses to various objects and situations. Thus, it is dynamic and general."

Dob claimed that attitude is "a latent evaluative response, intermediate to the various explicit and diverse patterns of stimuli. Attitudes evoke different amounts of stimuli and have social significance for the individual."

In addition to that, Bogardus defines attitude "based on the social, material, and human environment and its impact on the individual, resulting from pressures such as norms, customs, and traditions, depending on the individual's proximity to or distance from them."

Rockuiche describes attitude as "an acquired organization with the characteristic of psychological persistence of beliefs that an individual holds towards an object or situation, and a predisposition to respond in a preferred manner."

Ozgud characterizes attitude as "a state of implicit or underlying stability that mediates between the stimulus and response, driving the individual to an evaluative response towards a specific object."

Thomas and Zank explain attitude as "a psychological stance of the individual towards a particular value."

2-2 Obesity:

2-2-1Linguistic Definition of Obesity:

Obesity is a complex medical condition characterized by an excessive increase in body fat. It is not merely a cosmetic issue but a medical problem that increases the risk of developing many other diseases and health issues. These may include heart disease, diabetes, high blood pressure, high cholesterol levels, liver disease, sleep apnea, and some types of cancer. Although genetic, behavioral, and hormonal factors influence body weight, obesity occurs when an individual consumes more calories than are burned through daily activities and exercise. The body stores these excess calories as fat. There are many reasons why some people struggle with weight loss, and obesity typically results from a combination of genetic, physiological, and environmental factors.

2-2-2 Terminological Definition of Obesity:

In medical terms, obesity is defined as an excessive accumulation of body fat that presents a significant health risk. It is typically measured using Body Mass Index (BMI), where a BMI of 30 or higher is classified as obese. Obesity is associated with a range of health conditions, including cardiovascular diseases, type 2 diabetes, hypertension, dyslipidemia, certain cancers, and sleep disorders. The condition often results from an imbalance between caloric intake and expenditure, influenced by a combination of genetic, physiological, and environmental factors.

3- School Physical Activity:

3-1 Operational Definition:

School physical activity is an educational activity designed to provide balanced and comprehensive development for students in emotional, social, physical, and mental aspects. It is conducted through various sports programs and activities under the supervision of specialized leadership, aimed at achieving the objectives of physical education and contributing to the overall educational goals in general education stages.

4- Previous Studies on the Topic

4-1 - Study by Djiraabit Abdelkader and Krabi Abdelkader on the Attitudes of Students at the Institute of Physical Education and Sports Sciences: A Field Study at the Institute of Physical Education and Sports Sciences, Qasdi Merbah University, Ouargla, 2015: In this study, the researchers aimed to explore the factors motivating students to engage in physical and sports activities. They sought to identify the dimensions that encourage students to participate in these activities and to understand the positive aspects that enhance relationships among students of different levels and genders. The findings revealed that there were no statistically significant differences between genders in their attitudes towards physical and sports activities, except for the dimensions of experience and risk. Furthermore, the study confirmed the absence of statistically significant differences among students based on their academic level.

4-**2**- In the study by Abbas Lakhdar, Harouach Lamien, and Azzouz Mohamed (2018) titled "Attitudes of Third-Stage Secondary School Students Towards Engaging in Physical and Sports Activities: A Study at Some Secondary Schools in Djelfa," the researchers aimed to investigate the attitudes of secondary school students towards participating in physical and sports activities. The study focused on understanding how students' attitudes towards these activities play a crucial role in shaping their personalities by addressing their needs and preferences, as well as the transfer of experiences from those responsible for physical education at their schools.

In their study, the researchers employed an attitude scale towards engaging in physical and sports activities. Numerous studies have demonstrated that physical fitness levels and body determinants are critical in determining a student's proficiency and inclination towards participating in various physical and sports activities. Based on this, the researchers conducted an exploratory study at several secondary schools in Djelfa. They interacted with teachers specialized in physical education and engaged with students during their participation in physical and sports activities.

The researchers found that the attitudes of secondary school students towards physical education and sports sciences are crucial in advanced societies due to their significant role in maintaining individual health, enhancing physical appearance, and providing recreational, therapeutic, and other benefits.

5 -Objectives of the Study:

5-1 Determine Statistical Differences in Health-Related Attitudes: To assess whether there are statistically significant differences in attitudes between female and male students regarding the importance of engaging in school physical

activities as a means to combat obesity and overweight, specifically in the health dimension.

5-2 Examine Aesthetic-Related Attitudes: To investigate whether there are statistically significant differences in attitudes between female and male students regarding the importance of participating in school physical activities as a way to address obesity and overweight, with a focus on the aesthetic dimension.

5-3 Analyze Recreational Attitudes: To determine if there are statistically significant differences in attitudes between female and male students towards the importance of school physical activities as a means to fight obesity and overweight, considering the recreational aspect.

6- Importance of the Research:

The importance of the study lies in highlighting the attitudes of middle school students towards the significance of engaging in school physical activities as a crucial means to combat obesity, given the prevalence of this unhealthy phenomenon in modern school environments. This is explored through the following dimensions: health, aesthetic, and recreational.

7- **Methodological Procedures Followed:**

In an effort to thoroughly address the topic from a practical perspective, the researcher conducted a field study by distributing a specially designed questionnaire to assess middle school students' attitudes towards the importance of engaging in physical activities and sports to reduce obesity. The questionnaire comprised clear and straightforward questions to facilitate the process and encourage detailed responses from the participants. The researcher used the Kenyon Gerald Scale for measuring attitudes towards physical activity, which was translated into Arabic by Mohamed Hassan Allawi. The questionnaire included 33 statements distributed across five dimensions (Allawi, 1987, p. 44).

Grades were assigned to each criterion on a scale from 1 to 5, with the questionnaire statements divided into the following dimensions:

1. Social Dimension (Statements 1 to 7)

2. Psychological Dimension (Statements 8 to 15)

3. Resources Dimension (Statements 16 to 20)

4. Recreational Dimension (Statements 21 to 26)

5. Health Dimension Aimed at Reducing Obesity (Statements 27 to 33)

A Likert scale was used for scoring the responses, and the results were processed using SPSS statistical software. The details are shown in Table 1: Likert Scale of Attitudes.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1	2	3	4	5

Exploring statistical analysis and Bootstrap Likert 2013

The questionnaire primarily focused on the hypotheses formulated for the study. Statements 1 to 26 were specifically related to the first hypothesis: **"There are statistically significant differences in middle school students' attitudes towards the importance of engaging in physical activities to reduce obesity, attributed to gender differences in the health and aesthetic dimensions."**

Statements 27 to 33 were related to the second hypothesis: **"There are statistically significant differences in middle school students' attitudes towards reducing obesity, attributed to gender differences in the recreational dimension."**

Following the data collection and analysis using the scale, the discussion will focus on interpreting the results and assessing the validity of the hypotheses proposed in the study. The aim is to evaluate the accuracy and fulfillment of these hypotheses.

7-1. Scientific Methodology Used:

The methodology refers to the set of processes and steps followed by the researcher to achieve their research objectives. It is crucial as it illuminates the path and assists the researcher in defining the dimensions, aims, questions, and hypotheses of the study.

The current study adopted a descriptive approach, which was deemed suitable for the nature of the study's topic and the issues addressed. This methodology allows for a comprehensive examination and understanding of the attitudes of middle school students towards physical activities

7-2 Research Scope:

7-2-1 Spatial Scope: The study was conducted at the **Taleb Abdel Rahmane Middle School in Ain El Beyda, Ouargla**. This school was chosen because of the significant facilitation provided by professional colleagues, which eased the management of students and the collection of questionnaires. The study was conducted during physical education and sports classes to optimize the time available.

7-2-2Temporal Scope: The study was carried out over a period that began with the collection of scientific data, preparation of research tools, and establishment of the research framework. The practical phase started on **September 28, 2024**, and continued until **October 7, 2024**. During this period, questionnaires were distributed to students at the aforementioned middle school, representing the scale for measuring attitudes towards physical activity. Afterward, the questionnaires were collected, and the data was processed and analyzed using statistical methods for results presentation and analysis.

7-4 Study Population:

In the context of human sciences, the research population is defined as "a finite or infinite set of predefined elements on which observations are based" or "a group of elements that share one or more common characteristics that distinguish them from other elements, which are subjected to examination."

When a researcher begins their study, they face the challenge of defining the scope of work, which involves selecting the research population or sample. In this study, the research population consists of all the students in the fourth year of middle school from the Sidi Khould district, totaling 1,147 students (Source: Studies and Examinations Department, Education Directorate of Ouargla).

7-4-1 Statistical Sample and Selection Method:

The research sample was selected as follows:

1. **Sample of Female Students:** 25 female students from the fourth year of middle school.
2. **Sample of Male Students:** 25 male students from the fourth year of middle school.

Thus, the total sample size for the study consisted of **50 students**, selected purposively from the lists.

7-5 Pilot Study:

A pilot study is conducted by the researcher on a sample similar to the study sample and is re-administered after a certain period for the following reasons:

- Ensuring the validity and reliability of the scale for the selected research sample and the research topic.
- Assessing the appropriateness of the scale for the research context and sample.
- Identifying any problems and situations the researcher may encounter while applying the scale to the research sample.
- Providing solutions and necessary adjustments in case any issues arise during the application of the scale in the pilot study.
- Determining the average time required to complete the scale.
- Establishing the most organized methods for defining the required work structure, which includes distributing and collecting questionnaires and accurately and easily implementing the scale on the research sample.

As for the pilot study related to our research, we can say that the Kenyon Scale is suitable for this study, which is titled "Attitudes of Middle School Students Towards the Importance of Practicing School Sports Activities in Reducing Obesity." This conclusion is based on the fact that this scale was previously tested in a pilot study conducted by the student Kahli Kamal on a study focusing on psychological attitudes. Through all of this, the Kenyon Scale is deemed suitable for our study as it was developed in a similar geographical environment within Algeria.

8 .Presentation of Research Tools:

To study attitudes towards physical sports activities, the researcher used the Kenyon Scale for attitudes towards sports activities.

8-1 Description of the Scale:

The Attitude Towards Physical Activity Scale was originally developed by Gerald Kenyon in 1968 and was later adapted into Arabic by Dr. Mohamed Hassan Allawi.

The scale was created based on the assumption that physical sports activities can be simplified into more specific and clearly defined components. These components can be divided into nearly heterogeneous subcategories.

These components or subcategories provide multiple sources with varying benefits that differ from one individual to another. This means that physical sports activities, under this concept, become an experience that varies from person to person, depending on the practical benefit or performance value that the type of physical activity represents for the individual.

According to Kenyon, an individual may develop a positive attitude towards some of these categories or subcomponents, while they may develop a negative attitude towards others. Attitude, according to Kenyon's concept, is a relatively stable, complex predisposition that reflects both the direction and intensity of feelings towards a specific psychological object, whether concrete or abstract.

In light of these previous concepts and within the framework of certain theoretical and experimental studies, Kenyon was able to identify six dimensions of attitudes towards physical activity as follows:

1. Physical activity as a social experience.
2. Physical activity for health and fitness.
3. Physical activity as an experience of tension and risk.
4. Physical activity as an aesthetic experience.

5. Physical activity for stress reduction.
6. Physical activity as an experience of athletic excellence.

8-2 Conducting the test

As previously mentioned, we used the Kenyon Gerald Scale to prepare our research tool, which is a questionnaire consisting of 33 items. We developed a plan for administering the test and divided our work into two main phases:

A. First Phase: We explained the scale, its purpose, and how to administer it. We also got to know the participants of the sample and determined the time frame for the test.

B. Second Phase: During this phase, we conducted the test in a regular manner. There was no confusion among the students, as the majority of them, with the help of physical education teachers, were able to complete the questionnaire in a very short time.

8-3 Validity and Reliability of the Questionnaire:

We prepared the questionnaire with a high degree of validity, reliability, and objectivity, given its use in several previous studies. These include the study conducted by student Kahli Kamal on psychological attitudes, as well as the research by Azzouz Mohamed, Harrouch Lamine, and Abbas Lakhdar on the attitudes of third-cycle secondary education students towards participating in physical and sports activities, conducted in some secondary schools in Djelfa.

Given that this questionnaire was developed in a similar geographical environment in Algeria—specifically Djelfa, which is very similar to Ouargla—it is deemed appropriate for our study. These studies have previously demonstrated the validity and reliability of the questionnaire.

8-4 Reliability of the Questionnaire:

A research tool is considered reliable if it yields the same results in measuring a phenomenon repeatedly. To ensure the reliability of the

questionnaire, we distributed it to 10 students and then re-administered the test to the same sample after 3 days. The results were almost identical.

8-5 Statistical Tools:

To present and analyze the obtained results, the researcher used the following:

- Arithmetic Mean.
- Standard deviation
- Student's t-test
- SPSS statistical software package

8-6 Application of the Research:

The researcher administered the scale as a research tool in the form of printed questionnaires, which were distributed to the student sample in a natural setting that allowed them to provide their responses without influence. This was done between 01/10/2023 and 05/10/2023.

The researcher explained the aim of the study—attitudes of middle school students towards engaging in physical sports activities to reduce obesity—at the Abdel Rahmane School in Ain El Beida, Ouargla, to the sample group in a simplified, clear, and concise manner before distributing the gle statement. Students were also reminded to use their personal information accurately and legibly.

After addressing some of the students' queries, the researcher distributed the questionnaires to 50 students (25 male and 25 female) from the sample group. The research sample was divided into two groups: the first group consisted of 25 female students, and the second group consisted of 25 male students.

9- Presentation, Analysis, and Discussion of Results:

9-1 . Discussion and Analysis of the First Hypothesis Results: (There are statistically significant differences in middle school students' attitudes towards the importance of practicing physical sports activities to reduce obesity due to gender in the health and aesthetic dimension)

Through the statistical analysis of the obtained results, we found statistically significant differences among middle school students concerning gender in the health and aesthetic dimension. It was observed that there is a positive attitude among the respondents towards engaging in physical sports activities. This was evident across most items related to the first hypothesis (items 01 to 26 of the questionnaire). These findings reflect the students' recognition of the importance of physical sports activities for achieving good health, avoiding obesity, maintaining a balanced personality, social adaptation, and physical fitness.

Based on the statistics obtained, we found that 385 responses were strongly agree and 292 were agree, meaning 677 out of 1300 responses were in favor, which corresponds to 59.86% of the sample's opinions. In contrast, 22.5% were neutral and 17.65% were opposed, indicating a positive attitude among the sample towards practicing physical sports activities to reduce obesity.

From the above, we confirm the validity of the first sub-hypothesis: there are statistically significant differences in middle school students' attitudes towards the importance of practicing school sports activities to reduce obesity due to gender.

9-2 . Discussion and Analysis of the Second Sub-Hypothesis Results: There are statistically significant differences in middle school students' attitudes due to gender in the recreational dimension.

From Table 2, we see that 61.14% of the sample responded positively to the statements in the questionnaire items (27 to 33), which were specifically designed to gauge the sample's opinion on the importance of practicing school sports activities as a significant factor in reducing obesity in the school environment.

Statistical analysis reveals that the majority of respondents (61.14% of the sample) have a positive attitude with a mean of 3.65 and a standard deviation of 0.5. The t-value is 9.05 at a significance level of 0.05, indicating that the sample views school sports activities as having a positive effect on reducing obesity. This finding aligns with the study by Azzouz Mohamed, Harrouch Lamine, and Abbas Lakhdar (2018) on the attitudes of third-cycle secondary education students towards physical sports activities, which concluded that attitudes towards physical activities play a role in building a balanced and integrated personality, crucial for societal development. The study emphasized that sports culture is essential in

advanced societies for maintaining individual health, physical aesthetics, recreation, and treatment.

Based on the results of the first and second sub-hypotheses, which confirmed that there are statistically significant differences in middle school students' attitudes towards practicing physical sports activities as an important factor in reducing obesity due to gender, we can validate the general hypothesis.

We have thus confirmed the validity of the general hypothesis, which states that there are differences in the attitudes of male and female middle school students towards the importance of practicing school sports activities as a means to combat obesity.

10- Conclusions:

Based on the findings, we can conclude that middle school students' engagement in physical sports activities is driven by their awareness and understanding of the importance of school sports on health, aesthetics, and recreation.

From the results of the research tool (the questionnaire) and the discussion of the opinions of the research sample, we can draw the following conclusions:

- There are positive attitudes towards practicing school sports activities among middle school students in reducing obesity.

- There is motivation among both male and female students to engage in physical sports activities to improve, develop, and enhance physical traits, aesthetic aspects of the body, and to gain health and fitness to prevent obesity.

Table 01: Areas of Student Attitude Scale Scores

Attitude	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
Groupe	4.2-5	3.4-4.2	2.6-3.4	1.8-2.6	1-1.8

Table 2: shows the percentage, intensity, and scores of students' attitudes towards physical activity: First hypothesis

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
Number (Frequencies)	385	392	292	130	99
Percentage	29.66%	30.20%	22.50%	10.02%	7.63%
	59.86%				

Table 3: shows the intensity of students' responses to the statements of the second hypothesis

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
Number (Frequencies)	120	94	55	39	42
Percentage	34.29%	25.86%	15.71%	11.14%	12.00%
	61.14%				

Table 4: shows the difference between the attitudes of the sample's genders towards engaging in physical activity

	The difference between males and females				
	Mean	Standard Deviation	Sample Trend	t-value	Significance
Males	3.85	0.54	agree	2.78	Significant at the 0.05 level
Females	3.34	0.72	neutral		

Key Findings: Significance

One of the most important findings of this research is the notable awareness among both groups of the sample regarding the importance of physical exercise for preventing obesity and diseases, and for achieving good health and physical fitness. The respondents' answers were highly positive about practicing physical sports activities to prevent obesity, indicating that middle school students generally have positive attitudes towards school sports activities in terms of health, aesthetics, and recreation.

11- Suggestions and Recommendations:

It has become clear that physical and sports activities are crucial for students' physical, health, social, psychological, and mental well-being. Therefore, it is essential to enhance the role of physical education in educational institutions

by providing more opportunities for students to engage in physical activities. This can be achieved by increasing the number of physical education classes and the frequency of weekly sports sessions. This approach will help safeguard our students from various diseases, including obesity, and contribute to fostering positive and informed attitudes towards the importance of physical activity both inside and outside the school for preventing obesity.

12- The most important conclusions

The topic of attitudes is one of the central subjects studied in social psychology and plays a significant role in influencing physical sports activities. Attitudes represent the force that drives individuals to engage in and persist with physical activities regularly, thus promoting the advancement of such activities. Given the importance of psychological attitudes towards physical sports, it is crucial to focus on and instill positive attitudes towards physical activity among students. This can help in raising awareness about the importance of physical exercise in combating obesity and overweight within the school environment.

From our review of the subject of attitudes, it is clear that they are crucial in guiding individual behavior and motivating action. Attitudes are an essential component of the educational process, involving teachers and parents in shaping positive and constructive attitudes.

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