

The Impact of Extracurricular Physical and Sporting Activities on the Mental Health of Lower Secondary School Pupils (A comparative study between pupils who participate in and those who do not participate in extracurricular physical and sporting activities at Middle School– Tissemsilt Province – Algeria)

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Abstract

This study sought to investigate the impact of extracurricular physical and sporting activities on the mental health of lower secondary school pupils. To this end, the researchers employed a comparative descriptive approach, as it was deemed appropriate for the nature and objectives of the study, the study sample comprised 60 pupils, selected through purposive sampling, of whom 30 were engaged in extracurricular physical and sporting activities. The mental health scale developed by Kaman and Fleet (1983) was utilised. The study confirmed and demonstrated the positive impact of extracurricular physical and sporting activities on promoting mental health among lower secondary school pupils, as well as identifying statistically significant differences between pupils who do and do not participate in extracurricular physical and sporting activities across all dimensions of mental health, with the group participating in such activities showing better outcomes.

Keywords: *Extracurricular Physical and Sporting Activities, Mental Health, Lower Secondary School Pupils.*

1. INTRODUCTION AND RESEARCH PROBLEM

The topic of mental health is one of the most important issues to have received considerable attention and study in recent years, this is due to the link between mental health and quality of life and well-being. According to the World Health Organisation, the term ‘mental health’ refers to a state of healthy balance across various aspects of development, in which an individual achieves the highest levels of psychological well-being and is free from all manifestations of mental and behavioural disorders, such as fear, anxiety, depression, obsessive-compulsive disorder and others. Furthermore, the term ‘mental health’ is closely linked to an individual’s psychological, mental and emotional well-being, a point emphasised by many psychologists. They consider that an individual’s ability to regulate their emotions and actions, to control and positively direct their behaviour in various situations, and to achieve a sense of psychological stability, balance and emotional steadiness are among the most prominent indicators reflecting high levels of mental health.

Extracurricular physical and sporting activities in the school environment are considered a form of physical exercise and a complementary part of the Physical Education and Sport curriculum, as physical and sporting activities extracurricular are regarded as one of the most

important aspects of social life that support and promote the balanced psychological and social development of the pupil. Through engaging in extracurricular physical and sporting activities, the pupil finds a space to express themselves, their needs and their inclinations, Extracurricular physical and sporting activities also serve as an outlet that helps pupils relieve the stresses and pressures of school life, whilst providing them with the opportunity to showcase and develop their physical skills and abilities across various sporting disciplines.

Given the vital importance of sporting practice in various physical and sporting activities within the process of pupils' social development, the Algerian state has accorded this matter great attention and is committed to making continuous and sustained efforts, using all available means and methods, to increase and promote the level of participation in physical and sporting activities amongst pupils both within and outside. To achieve this, the Algerian state has enacted a series of laws and regulations aimed at restructuring the practice of sport amongst pupils within Algerian schools; The President of the Republic himself issued instructions to bring about a comprehensive and radical change to the way school sport is organised, whilst providing and utilising all available resources and means to promote and develop school sport and make it the main source of talent for the national teams. Furthermore, the Algerian Ministry of National Education has issued several ministerial circulars encouraging increased participation in sport amongst pupils both within and outside school settings, the most recent of which was the circular bearing the slogan 'Our Champions in Our Classes', which calls for the organisation of sporting tournaments and competitions in certain team sports across the various stages of education.

Many psychologists and educationalists emphasise the fundamental and pivotal role played by extracurricular physical and sporting activities in promoting pupils' mental health; as a pupils' engagement in and regular participation in various physical and sporting activities including those taking place outside the classroom directly improves their psychological well-being, mood and emotional state, and helps them overcome certain behavioural disorders such as anxiety, fear, depression and others. Furthermore, engaging in extracurricular physical and sporting activities plays an important role in fostering a sense of security, happiness, joy and contentment amongst the pupils who take part, Believing in the importance of extracurricular physical and sporting activities and their role in promoting mental health amongst pupils, we decided to conduct this study to shed light on the role of extracurricular physical and sporting activities in promoting mental health amongst lower secondary school pupils. This leads us to pose the following general question: **Does the practice of extracurricular physical and sporting activities play a role in promoting mental health among lower secondary school pupils?**

2. SUB-QUESTIONS

- Are there statistically significant differences between pupils who do and do not engage in extracurricular physical and sporting activities in terms of self-confidence?
- Are there statistically significant differences between pupils who do and do not engage in extracurricular physical and sporting activities in terms of their level of optimism?
- Are there any statistically significant differences between pupils who do and do not participate in extracurricular physical and sporting activities in terms of the dimensions of effectiveness and clarity of thought?

- Are there statistically significant differences between pupils who do and do not participate in extracurricular physical and sporting activities in terms of the cheerfulness dimension?
- Are there statistically significant differences between pupils who do and do not participate in extracurricular physical and sporting activities in terms of the 'relationships with others' dimension?

3. RESEARCH HYPOTHESES

3.1 General hypothesis:

Extracurricular physical and sporting activities play a positive role in promoting mental health among lower secondary school pupils.

3.2 Sub-hypotheses:

- There are statistically significant differences between pupils who do and do not participate in extracurricular physical and sporting activities in terms of the self-confidence dimension
- There are statistically significant differences between pupils who do and do not engage in extracurricular physical and sporting activities in terms of the optimism dimension
- There are statistically significant differences between pupils who do and do not engage in extracurricular physical and sporting activities according to the effectiveness and clarity of thinking dimension
- There are statistically significant differences between pupils who do and do not engage in extracurricular physical and sporting activities according to the cheerfulness dimension
- There are statistically significant differences between pupils who do and do not engage in extracurricular physical and sporting activities according to the 'relationship with others' dimension

4. AIMS OF THE STUDY

- ✓ To determine the extent and proportions of extracurricular physical and sporting activities amongst lower secondary school pupils.
- ✓ To determine the expected impact of extracurricular physical and sporting activities on secondary school pupils
- ✓ To investigate the impact of extracurricular physical and sporting activities on promoting mental health amongst secondary school pupils
- ✓ To identify the dimensions of mental health, as measured by the scale used, as psychological variables that have a significant influence on the behaviour of lower secondary school pupils
- ✓ To reveal the significance of differences in mental health levels between secondary school pupils who engage in extracurricular physical and sporting activities and those who do not
- ✓ To reveal the nature of the relationship between participation in extracurricular physical and sporting activities and levels of mental health among lower secondary school pupils

5. SIGNIFICANCE OF THE STUDY

The significance of this study lies in several aspects, including:

- This study provides a scientific insight into the levels of mental health among lower secondary school pupils
- The subject of the study relates to an important aspect of development, namely psychological development, which reinforces the study's significance and value
- This study provides important data for educational authorities, who can use it as indicators to determine levels of mental health among secondary school pupils
- It highlights the role of extracurricular physical and sporting activities in improving mental health levels among secondary school pupils
- The subject of the study concerns a highly significant educational group, namely secondary school pupils.
- This study serves as a gateway to further similar research on mental health among other educational groups and levels

6. OPERATIONAL DEFINITIONS OF STUDY TERMS

- **Extracurricular physical and sporting activities:** The range of sporting activities that complement the curriculum for physical education and sport, organised by educational institutions in the form of competitions and sporting tournaments, and which generally aim to achieve specific educational objectives such as nurturing pupils' talents and improving their psychological, mental and physical well-being.
- **Mental health:** A psychological state in which an individual feels a sense of well-being and psychological stability; the concept of mental health is also linked to the individual not suffering from various psychological and behavioural disorders. In our current study, mental health is represented by the score obtained by the respondent (the pupil) in their responses to the items of the mental health scale administered.
- **Lower secondary school pupils:** This refers to all pupils currently studying at lower secondary level; they are typically aged between 12 and 15, which corresponds to early adolescence.

7. PREVIOUS STUDIES

- **The study by Mostafa Majadi et al. (2021), entitled:**

'The role of extracurricular sporting activities on the mental health of secondary school pupils in the city of Laghouat – a field study', The study aimed to highlight the impact of extracurricular sporting activities on the mental health of secondary school pupils. The researchers adopted a descriptive-analytical approach, with a sample size of 200 pupils selected using simple random sampling. The researchers developed a questionnaire to measure mental health. The study found a correlation between the practice of extracurricular sports activities and the mental health of secondary school pupils in the city of Laghouat, as well as statistically significant differences in mental health levels between pupils who participate in extracurricular sports activities and those who do not, with pupils participating in extracurricular sports activities faring better.

- **A study by Ben Draji Abdelrafik and Mihoubi Issa (2023), entitled:**

‘The role of sporting activities in promoting mental health among lower secondary school pupils (a field study of pupils at Al-Ikhwa Shatouh Lower Secondary School – Batna)’, Through this study, the researchers sought to highlight the role of sporting activities in promoting mental health among lower secondary school pupils. The researchers adopted a descriptive approach for the study, The study sample comprised 60 pupils, of whom 30 attended physical education and sports lessons and 30 were exempt, i.e. did not attend physical education and sports lessons. The researchers used the mental health scales developed by Kaman and Fleit (1983) as the research instrument. The study demonstrated the positive role of sporting activities in promoting mental health among lower secondary school pupils, with statistically significant differences in mental health levels between pupils who participated in sporting activities and those who did not, in favour of those who participated.

- **A study by Abdelrahman Mahdi and Rachid Ghabrini (2023), entitled:**

‘The role of extracurricular Scouting activities on the mental health of lower secondary school pupils (a field study in the city of El Oued, Algeria)’, This study sought to identify the role of extracurricular scouting activities on the mental health of lower secondary school pupils. The researchers employed a comparative descriptive-causal approach, The researchers developed a scale to measure the levels of mental health among members of the target study sample. The study sample comprised 160 pupils, half of whom participated in extracurricular scouting activities and half of whom did not, The study’s findings confirmed the positive role of extracurricular Scouting activities in promoting the mental health of lower secondary school pupils, as well as the existence of statistically significant differences in mental health levels between pupils who participated in extracurricular Scouting activities and those who did not, with the former showing higher levels of mental health.

- **A study by Hisham Makhnash et al. (2025), entitled:**

‘The practice of physical education and sport and its relationship with certain dimensions of mental health among secondary school pupils – a Comparative Study between Participants and Non-participants’, aimed to investigate the relationship between the practice of physical education and sport and certain dimensions of mental health among secondary school pupils. The researchers adopted a comparative descriptive approach, with a sample size of 40 pupils, comprising 20 pupils who participated in various physical education and sports activities and 20 non-participants. The researchers utilised David Koldberg’s Mental Health Scale, which was adapted for the Arab context by the Yemeni researcher Ali Wadi in 1999, The results of the study revealed statistically significant differences in mental health levels between pupils participating in physical education and sports lessons and those who did not, with higher levels observed among the former. The study also confirmed the existence of a correlation between participation in physical education and sports and all dimensions of mental health among secondary school pupils.

- **A study by Ghouli Ibrahim (2026) entitled:**

‘The contribution of extracurricular school sports activities to promoting psychological well-being among lower secondary school pupils (aged 13–14): A comparative study between pupils participating in extracurricular activities and those who do not’ This study aimed to highlight the role of extracurricular school sports activities in promoting psychological well-being among lower secondary school pupils. The researcher adopted a comparative descriptive approach, with a sample of 120 pupils, half of whom

participated in extracurricular school sports activities and half of whom did not, i.e. 60 pupils in each group. The researcher utilised the psychological and social adjustment scale developed by the Egyptian researcher Rasha Abdel Rahman Mahmoud Wali (2007), This study found statistically significant differences between pupils participating in extracurricular school sports activities and those not participating across all dimensions of the Psychosocial Adjustment Scale, with the results favouring the participating pupils, in addition to confirming the positive role of extracurricular school sports activities in enhancing psychological adjustment among lower secondary school pupils

8. STUDY METHODOLOGY AND PROCEDURES

8.1 Research approach: The researchers employed a descriptive-comparative approach due to its suitability for the nature and objectives of the study.

8.2 Study population: The study population comprised all lower secondary school pupils attending the Btoui Ali Lower Secondary School in the province of Tissemsilt for the 2025/2026 academic year; the total size of the study population was approximately 519 pupils

8.3 Study sample: The study sample comprised 60 pupils, representing 11.56% of the original study population. The sample was selected using a purposive sampling method, with the sample comprising 30 pupils participating in extracurricular sporting activities and 30 pupils not participating in such activities

8.4 Areas of study

- **Temporal scope:** This study was conducted during the 2025/2026 academic year, specifically from 13 January 2026 to 7 May of the same year.
- **Geographical scope:** The study was conducted at the Betoumi Ali secondary school in the province of Tissemsilt
- **Human scope:** The study was conducted on secondary school pupils at the Betoumi Ali secondary school in the province of Tissemsilt

8.5 Study variables:

a) **Independent variable:** Extracurricular physical and sporting activities

b) **Dependent variable:** mental health

c) **Confounding variables:** These were controlled as follows:

- ✓ The study sample was carefully selected and controlled.
- ✓ Care was taken to ensure that all procedures for administering the scale were followed.
- ✓ Care was taken to analyse the study results with complete impartiality and objectivity.

8.6 Research instruments:

8.6.1 Mental Health Scale: The Mental Health Scale developed by Kaman and Fleet (1983) was utilised. This scale is used to assess an individual's psychological state based on their level of happiness and satisfaction. It comprises 40 items distributed across five dimensions; the following table outlines the dimensions of the scale and the item numbers comprising each dimension

Table 01: Shows the positive and negative items for the dimensions of the Mental Health Scale used

Items	Dimensions of the Scale				
	Self-confidence	Optimism	Effectiveness and clarity	Cheerfulness	Relationships with others
Positive phrases	1, 2, 3, 6, 7, 8	10, 12, 13, 14, 15	18, 19, 23, 24, 25	26, 28, 30	32, 33, 34, 35, 37, 39
Negative sentences	4, 5, 9	11, 16, 17	20, 21, 22	27, 29, 31	36, 38, 40

8.6.2 Scoring the scale: This scale is scored using a three-point scale (Yes, Sometimes, No), and the table below illustrates how the scale items are scored

Table 02: Shows the scoring of the items in the mental health scale used

Items	Options		
	General	Sometimes	no
affirmative phrases	2	1	0
Negative sentences	0	1	2

Consequently, the scale ranges from 00 to 80, with a higher score indicating that the respondent enjoys good mental health

8.6.3 Scientific basis of the scale:

a) Reliability:

The researchers applied the scale to a pilot sample of ten (10) secondary school pupils. The reliability of the mental health scale was calculated using several methods; the following table shows the results of the reliability calculations for the study's scale.

Table 03: Reliability of the scale using Cronbach's alpha and split-half methods.

Psychological Health Scale	Method Cronbach's Alpha	Half-split method	
		Cypherman-Brown	Gettman
Overall scale score	0.81	0.90	0.86

Source: Prepared by the researchers based on the results of SPSS V26

From Table 3, we note that Cronbach's alpha value was 0.81, which is a very high value and is considered a strong indicator of the reliability of the scale used, whilst the reliability value obtained via the Cypherman-Brown split-half method was around 0.90, and via the Guttman method it was 0.86. A closer look at the results of the stability coefficient calculations for the scale using the split-half method confirms that both values are high and statistically significant, indicating that the scale has a very high stability coefficient.

b) Validity: The validity of the mental health scale was confirmed using several methods:

- **Internal validity:**

The internal validity coefficient of the scale was calculated using the square root of the reliability coefficient obtained via the Spearman–Brown split-half method, and the value of the internal validity coefficient was 0.94

- **External validity (referees):**

The scale was presented to a group of university lecturers holding the ranks of Full Professor and Senior Lecturer (A) from the Institute of Physical and Sports Sciences and Technologies at the University of Tissemilt, and after the reviewers had examined and

scrutinised the scale items, they confirmed that the scale measures the intended construct and is appropriate for the purposes and objectives of the study.

- **Internal consistency:**

Table 04: Shows the internal consistency of the dimensions of the mental health scale used

Dimensions of the scale	Correlation coefficient	Significance level	Significance
Self-confidence	0.802**	0.01	Statistically significant
Optimism	0.917**		
Effectiveness and clarity	0.863**		
Cheerfulness	0.879**		
Relationships with others	0.924**		

Source: Compiled by the researchers based on the results of SPSS V26

From the data shown in Table 4, we observe statistically significant correlations between the score for each dimension and the total score for the scale at the 0.01 significance level. We also find that most of the items comprising each dimension showed significant correlations with the total score for that dimension. We also find that all items of the scale showed statistically significant correlations with the total score of the scale at the 0.01 significance level, with correlation coefficients ranging from 0.619 to 0.931

- c) **Objectivity:**

The objectivity of the scale was ensured by taking care to ensure that the scale items were understandable, clear and unambiguous. Furthermore, the researchers adhered to neutrality, integrity and scientific honesty, refrained from bias and personal prejudice, and accepted the study's results regardless of their outcome.

9. STATISTICAL METHODS:

For statistical analysis, the researchers used the Statistical Package for the Social Sciences (SPSS) version 26

10. PRESENTATION, ANALYSIS AND DISCUSSION OF THE RESULTS:

10.1 Presentation and analysis of the first partial hypothesis:

- **There are statistically significant differences between pupils who do and do not participate in extracurricular physical and sporting activities, as measured by the self-confidence dimension.**

Table 05: This table illustrates the statistically significant differences between pupils who do and do not engage in extracurricular physical and sporting activities in terms of the self-confidence dimension

Group type	Sample size	Arithmetic mean	Standard deviation	Calculated t-value	Statistical significance
Group practising extracurricular physical and sporting activities	30	14.93	06.21	5.46	0.000
Group not participating in extracurricular physical and sporting activities	30	9.17	04.02		0.000

Table t-value = 1.67 Significance level 0.05, degrees of freedom n = 68
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Source: Prepared by the researchers based on the results of SPSS V26

From Table 5, we note that the arithmetic mean for the self-confidence dimension among participants in the group engaging in extracurricular physical and sporting activities was 14.93, with a standard deviation of 06.21, whilst the arithmetic mean for the same dimension (self-confidence) among participants in the group not engaging in extracurricular physical and sporting activities was 09.17, with a standard deviation of 04.02

The calculated t-value for the self-confidence dimension was 05.46, which is greater than the tabulated t-value (1.67) and, with a p-value of 0.000, is smaller than the estimated level of statistical significance of 0.05, which leads us to confirm the existence of statistically significant differences between pupils who participate in extracurricular physical and sporting activities and those who do not, according to the self-confidence dimension, in favour of the group that participates

10.1 Presentation and analysis of the second sub-hypothesis:

- **There are statistically significant differences between pupils who do and do not engage in extracurricular physical and sporting activities, as measured by the optimism dimension**

Table 06: Shows the significance of the differences between pupils who do and do not engage in extracurricular physical and sporting activities in terms of the optimism dimension

Group type	Sample size	Arithmetic mean	Standard deviation	Calculated t-value	Statistical significance
Group practising extracurricular physical and sporting activities	30	13.08	6.17	05.37	0.000
The group does not take part in extracurricular physical and sporting activities	30	8.97	3.88		0.000
Table t-value = 1.67 Significance level 0.05, degrees of freedom n = 68					

Source: Prepared by the researchers based on the results of SPSS V26

Table 6 shows that the arithmetic mean for the optimism dimension among participants in the group engaging in extracurricular physical and sporting activities was 13.08, with a standard deviation of 0.17, whilst the arithmetic mean for the same dimension (optimism) among participants in the group not engaging in extracurricular physical and sporting activities was 08.97, with a standard deviation of 03.88

The t-value calculated for the optimism dimension was 05.37, which is greater than the tabulated t-value (1.67) and, with a p-value of 0.000, is smaller than the estimated level of statistical significance of 0.05, we can therefore conclude with certainty that there are statistically significant differences between pupils who participate in extracurricular sporting activities and those who do not, according to the optimism dimension, in favour of the group that participates

10.2 Presentation and analysis of the third partial hypothesis:

- **There are statistically significant differences between pupils who do and do not participate in extracurricular physical and sporting activities, in terms of the effectiveness and clarity of thinking dimensions**

Table 07: Shows the significance of the differences between pupils who do and do not engage in extracurricular physical and sporting activities in terms of the dimensions of efficacy and clarity of thought

Group type	Sample size	Arithmetic mean	Standard deviation	Calculated t-value	Statistical significance
Group practising extracurricular physical and sporting activities	30	12.89	6.11	05.21	0.000
The group does not take part in extracurricular physical and sporting activities	30	08.13	3.47		0.000

Table t-value = 1.67 Significance level 0.05, degrees of freedom n = 68

Source: Prepared by the researchers based on the results of SPSS V26

Table 7 shows that the arithmetic mean for the ‘effectiveness and clarity of thinking’ dimension among participants in the group engaging in extracurricular physical and sporting activities was 12.89, with a standard deviation of 0.11, whilst the arithmetic mean for the same dimension (effectiveness and clarity of thinking) among participants in the group not engaging in extracurricular physical and sporting activities was 08.13, with a standard deviation of 03.47

The calculated t-value for the effectiveness and clarity of thinking dimension was 05.21, which is greater than the tabulated t-value (1.67) and has a p-value of 0.000, which is smaller than the estimated level of statistical significance of 0.05, we can therefore confirm the existence of statistically significant differences between pupils who participate in extracurricular physical and sporting activities and those who do not, in terms of the dimensions of effectiveness and clarity of thought, in favour of the group that participates

10.3 Presentation and analysis of the fourth sub-hypothesis:

- **There are statistically significant differences between pupils who do and do not engage in extracurricular physical and sporting activities in terms of the cheerfulness dimension**

Table 08: Shows the significance of the differences between pupils who do and do not engage in extracurricular physical and sporting activities in terms of cheerfulness

Group type	Sample size	Arithmetic mean	Standard deviation	Calculated t-value	Statistical significance
Group practising extracurricular physical and sporting activities	30	10.05	5.91	05.02	0.000
The group does not take part in extracurricular physical and sporting activities	30	07.83	3.09		0.000

Table t-value = 1.67, significance level 0.05 , degrees of freedom n = 68

Source: Prepared by the researchers based on the results of SPSS V26

From Table 8, we find that the arithmetic mean for the ‘shyness’ dimension among members of the group engaging in extracurricular physical and sporting activities was 10.05,

with a standard deviation of 05.91, whilst the arithmetic mean for the same dimension (cheerfulness) among members of the group not engaging in extracurricular physical and sporting activities was 07.83, with a standard deviation of 03.09

The t-value calculated for the cheerfulness dimension was 05.02, which is greater than the tabulated t-value (1.67) and, with a p-value of 0.000, is smaller than the estimated level of statistical significance of 0.05, Consequently, we can confirm the existence of statistically significant differences between pupils who participate in extracurricular physical and sporting activities and those who do not, according to the cheerfulness dimension, in favour of the group that participates

10.4 Presentation and analysis of the fifth sub-hypothesis:

- **There are statistically significant differences between pupils who do and do not engage in extracurricular physical and sporting activities, as measured by the ‘relationship with others’ dimension**

Table 09: Shows the significance of the differences between pupils who do and do not engage in extracurricular physical and sporting activities in terms of the ‘relationship with others’ dimension

Group type	sample size	Arithmetic mean	Standard deviation	Calculated t-value	Statistical significance
Group practising extracurricular physical and sporting activities	30	14.53	06.19	5.63	0.000
The group does not take part in extracurricular physical and sporting activities	30	9.11	4.07		0.000
Table t-value = 1.67 Significance level 0.05, degrees of freedom n = 68					

Source: Prepared by the researchers based on the results of SPSS V26

From Table 9, we note that the arithmetic mean for the ‘relationship with others’ dimension among participants in the group engaging in extracurricular physical and sporting activities was 14.53, with a standard deviation of 0.19, whilst the arithmetic mean for the same dimension (relationship with others) among members of the group not engaging in extracurricular physical and sporting activities was 09.11, with a standard deviation of 04.07

The t-value calculated for the ‘relationship with others’ dimension was 05.63, which is greater than the tabulated t-value (1.67) and has a p-value of 0.000, which is smaller than the estimated level of statistical significance of 0.05, This indicates the existence of statistically significant differences between pupils who participate in extracurricular physical and sporting activities and those who do not, according to the ‘relationship with others’ dimension, and in favour of the group that participates

11. DISCUSSION OF THE RESULTS

Based on the results obtained through the statistical analysis of the scores of pupils who participate in extracurricular physical and sporting activities and those who do not, across the various dimensions of the mental health scale administered—as recorded in the data presented in Tables (05, 06, 07, 08 and 09), we confirm the existence of statistically significant differences between pupils who engage in extracurricular physical and sporting activities and those who do not, across all dimensions of psychological health on the scale used (self-confidence, optimism, efficacy and clarity, cheerfulness, and relationships with others), with

the advantage lying with pupils who engage in extracurricular physical and sporting activities. The findings of this study are fully consistent with those of several previous studies, such as the study by Mostafa Majadi et al. (2021), the study by Ben Daraji Abdelrafik and Mihoubi Issa (2023), the study by Makhnash Hisham et al. (2025), and the study by Ghouli Ibrahim (2026). All these studies examined the impact of physical and sporting activities on promoting mental health across various segments of society, and the findings of most of these studies confirmed the positive role played by physical and sporting activities of various types and categories in enhancing and improving individuals' mental health. Many psychologists have pointed out that an individual's consistent engagement in various physical and sporting activities on a regular, continuous and uninterrupted basis will help them overcome certain negative psychological and emotional behaviours and disorders, such as anxiety, depression, fear, aggression and others. Furthermore, engaging in various physical and sporting activities contributes to improving an individual's mood and increases their sense of calm and contentment. Numerous studies have also indicated that pupils who take part in extracurricular physical and sporting activities enjoy significantly higher levels of mental health compared to those who do not engage in such activities. This is because pupils' participation in various extracurricular physical and sporting activities helps them to relieve the pressures of school life and provides them with a suitable environment for building social relationships with their peers. Furthermore, participation in extracurricular physical and sporting activities enhances participants' emotional stability and helps them to regulate, control and direct their behaviour; consequently, rates of violence and aggression among them decrease, which in turn has a positive impact on their enjoyment of high levels of mental health.

Furthermore, numerous reports by educational psychologists have concluded that engaging in various physical and sporting activities has a positive impact on individuals by making them feel at ease and increasing their levels of happiness, which in turn has a positive effect on their mental health. Many educational psychologists and mental health professionals have emphasised the importance of sporting activities for schoolchildren and all sections of society in promoting their mental health. They have advised people from all walks of life to take up physical and sporting activities, particularly those suffering from poor mental health, and have identified this as one of the best and most effective forms of treatment for achieving and enhancing mental well-being.

12. STUDY FINDINGS

This study was conducted to highlight the impact of extracurricular physical and sporting activities on the mental health of lower secondary school pupils. Based on the study's findings, within the limits of the methodology used and the sample studied, the following conclusions were reached:

- An increase in the volume and proportion of extracurricular sporting activities practised by pupils within educational institutions
- There is a positive correlation between the participation in extracurricular physical and sporting activities and mental health among lower secondary school pupils
- There are statistically significant differences between pupils who engage in extracurricular physical and sporting activities and those who do not, in the mental health dimensions of the scale used (self-confidence, optimism, effectiveness and clarity, cheerfulness, and relationships with others), with the results favouring those who engage in such activities

- Extracurricular physical and sporting activities play a crucial and vital role in promoting mental health among pupils.

11. STUDY SUGGESTIONS AND RECOMMENDATIONS

In light of the study's findings, the researchers propose the following:

- Ensure that extracurricular sporting activities are organised in educational institutions
- Intensify efforts to raise awareness of the importance of extracurricular physical and sporting activities within the school environment
- Encouraging pupils to take part in sport both within and outside school
- Seeking to raise community awareness of the importance of sport for an individual's mental health
- Equipping various educational institutions with sports facilities, whilst providing an ideal environment conducive to engaging in various physical and sporting activities.
- Ensuring that educational institutions have access to mental health professionals.
- Providing facilities and infrastructure, such as neighbourhood playgrounds, sports halls and other venues, in order to realise the principle of 'sport for all'
- Conducting further studies on the importance of various types of physical and sporting activities in promoting the mental health of different sections of society

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