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THE ROLE OF RECREATIONAL BODYBUILDING IN ALLEVIATING PSYCHOLOGICAL STRESS AMONG MIDDLE SCHOOL STUDENTS

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ABSTRACT

The study aimed at verifying the effect of the recreational activity (bodybuilding) in the reduction of the psychological pressures among the pupils of the final secondary level (Baccalaureate). And the sample of the research was... we had relied in carrying out the research on the questionnaire sheet. The results came to show a medium positive effect of the practice of the recreational activities inside the bodybuilding halls, where these pressures were reduced in a clear way. And the previous studies have also shown a concordance with these same results, emphasizing the importance of the sport activities in the improvement of the psychological adjustment and in the reduction of the tension. The study finally concluded to the necessity of encouraging the pupils for practicing the sport activities outside the school, and also to support the educational institutions for providing suitable sportive environments.

KEYWORDS

Recreational Bodybuilding, Psychological Stress, Middle School Students, Mental Health, Physical Activity, Stress Reduction, Youth Well-Being, Educational Environment, Extracurricular Sports

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Introduction:

The stage of secondary education, and especially the final year (Baccalaureate), is considered among the most sensitive and psychologically pressing stages in the life of pupils, due to what it carries of decisive future stakes that relate to their academic and professional destiny. And within this context full of tension and anxiety, emerges the need for effective mechanisms that may help the pupil to adapt with the psychological pressures that accompany this stage, and to provide a balanced psychological environment that strengthens his abilities on concentration and on academic achievement.

And among the most prominent recreational means that have proved their efficiency in alleviating the intensity of psychological pressures comes the practice of the recreational physical sport activity, in particular the sport of bodybuilding, which does not only contribute in the improvement of the physical fitness and in the building of the body, but is also considered as a psychological outlet that helps the individual to discharge the negative emotional charges, and to grow the feeling of self-confidence, and to realize the balance between the body and the mind.

This study comes in the context of searching about the relation between the practice of bodybuilding as a recreational activity and the level of the psychological pressure that is suffered by the pupils of the final sections, with the aim of shedding light on the importance of this activity as a helping and complementary means for the psychological and educational support in the educational institutions, and suggesting ways of integrating it within the educational programs and the parallel activities in the secondary schools.

And from here we say that the recreational sport activity has a positive and effective impact upon the students in this sensitive age full of sexual and psychological emotions, for it grants him the comfort and the tranquility of the soul.

There is no doubt that the participation in recreational sport activities contributes in a big way to the general education of the individual, also to the humaneness, and to the development of physical and psychological health, where it contributes with a considerable share in the liberation from pressures and psychological tensions, and it also helps in re-sending his energies and renewing them, and it contributes in a big way in giving him more vitality and consequently the productivity and the output will be at their highest levels, in addition to that the spiritual dimension, where it aims at the happiness and the joy that every individual seeks regardless of the difference of type and color and creed and gender.

And through what has been mentioned above and what has been presented of information one can pose the following general question:

- Does the recreational activity (bodybuilding) contribute in the reduction of some of the psychological pressures among the pupils of the final secondary stage (Baccalaureate)?

Partial Questions:

1- The first partial question: Does the recreational activity (bodybuilding) contribute in the reduction of the academic pressures resulting from the psychological pressure among the pupils of the final secondary stage (Baccalaureate)?

2- The second partial question: Does the recreational activity (bodybuilding) contribute in the reduction of the personal pressures resulting from the psychological pressure among the pupils of the final secondary stage (Baccalaureate)?

3- The third partial question: Does the recreational activity (bodybuilding) contribute in the reduction of the relational pressures resulting from the psychological pressure among the pupils of the final secondary stage (Baccalaureate)?

4- The fourth partial question: Does the recreational activity (bodybuilding) contribute in the reduction of the physiological effects resulting from the psychological pressure among the pupils of the final secondary stage (Baccalaureate)?

1. General Hypothesis:

- The recreational activity (bodybuilding) contributes at a lower level in the reduction of some psychological pressures among the pupils of the final secondary stage (Baccalaureate).

Partial Hypotheses:

1- The first partial hypothesis: The recreational activity (bodybuilding) contributes in the reduction of the academic pressures resulting from the psychological pressure among the pupils of the final secondary stage (Baccalaureate) at a lower level.

2- The second partial hypothesis: The recreational activity (bodybuilding) contributes in the reduction of the personal pressures resulting from the psychological pressure among the pupils of the final secondary stage (Baccalaureate) at a lower level.

3- The third partial hypothesis: The recreational activity (bodybuilding) contributes in the reduction of the relational pressures resulting from the psychological pressure among the pupils of the final secondary stage (Baccalaureate) at a lower level.

4- The fourth partial hypothesis: The recreational activity (bodybuilding) contributes in the reduction of the physiological effects resulting from the psychological pressure among the pupils of the final secondary stage (Baccalaureate) at a lower level.

Objectives of the Study:

Every study has a purpose and an aim that it seeks to achieve, and through our proposal of the subject and our perception of the nature of the problem, we have seen to achieve the following main objective:

- To identify the extent of the contribution of the recreational activity (bodybuilding) in the reduction of the psychological pressures among the pupils of the final secondary stage (Baccalaureate). And that through the following sub-objectives.

The sub-objectives can be summarized in what follows:

1. To know the extent of the contribution of the recreational activity (bodybuilding) in the alleviation of the academic pressures resulting from the psychological pressure among the pupils of the final secondary stage (Baccalaureate).

2. To highlight the extent of the contribution of the recreational activity (bodybuilding) in the reduction of the personal pressures resulting from the psychological pressure among the pupils of the final secondary stage (Baccalaureate).

3. To determine the extent of the contribution of the recreational activity (bodybuilding) in the reduction of the relational pressures resulting from the psychological pressure among the pupils of the final secondary stage (Baccalaureate).

4. To know the extent of the contribution of the recreational activity (bodybuilding) in the alleviation of the physiological effects resulting from the psychological pressure among the pupils of the final secondary stage (Baccalaureate).

2. Importance of the Study:

The importance of the study is limited to two sides, the first is the theoretical side and it is represented in:

2-1- The Scientific Importance: To present a new addition and a constructive contribution in enriching the libraries and the scientific capital for the students and for those who desire to research or to know about the field of psychological study, those who desire to specialize in this field, and to encourage research in the field of psychological studies and the other various scientific fields of sport, and to pay attention to the psychological and social fields of sport and to use the various modern techniques in the sport field whether statistical, or informational, and to try to propose some theoretical and applied recommendations, and to help the students of the institute who are researchers in the sport field, and to invite the coming researchers to conduct deep researches concerning the recreational activity and the psychological pressures among this stage and the other different stages.

As for the second, it is the practical side and its importance is limited in:

2--2 The Practical Importance:

Believing from the researchers that the recreational side has a great importance and a positive effect upon the psychological pressures, and from this starting point came the importance of our research in a survey study to know the recreational activity represented in the practice of the sport of bodybuilding among the pupils of the secondary stage Baccalaureate, in addition to knowing this segment closely and knowing its ambitions and aspirations and also its problems in this type of sport practice, and the role that the recreational side, bodybuilding sport, plays in its effect on the psyche of the pupils.

It affects positively the group of behaviors and attitudes and the health of the individual, and consequently it fulfills the needs.

3. Explanation of Terms:

3-1- Recreational Activity:

1. The Terminological Definition: Al-Fadel defines it as all the aspects of constructive activities that are socially and religiously acceptable, which are performed during leisure times and are chosen and participated in as a result of internal motives, according to the management of the individual, and that with the purpose of acquiring many personal values, and achieving satisfaction and joy and happiness from the participation itself, and not for external motives such as material or moral gain (Al-Fadel, 2002, p.45).

2. And recreation has an important role in satisfying the needs of the individual, especially those that cannot be satisfied through work, and that so that the psychological balance of the individual participating in the activities can be achieved (Al-Batraoui & Salama, 2013, pp. 14–15).

3. The Operational Definition: It is a group of activities that the individual practices during the leisure times, so that they are enjoyable and constructive, and the person practices them by his own will, and they are outside the classroom activity.

3-2- Psychological Pressures:

The Operational Definition: It is a state of instability resulting from mental and physical and psychological fatigue, causing the inability of the individual to adapt with the environment surrounding him; and due to the abundance of demands that lie on his shoulders, and his inability to meet these demands; and due to the lack of help of the surrounding persons for him to overcome these pressures, the individual reaches a state of frustration and depression that may reach with him to a state of psychological emotions that lead him to move away from study.

3-3- Bodybuilding:

1. The Operational Definition: The sport of bodybuilding is a sport that depends on strengthening and seeks the big size of muscles and their harmony and muscular beauty, and its function in the study is considered as a recreational activity for the purpose of getting rid of the pressures.

3-4- Secondary Stage:

1. The Operational Definition: The secondary stage is determined according to the age of the pupils that corresponds with the adolescence stage, which is considered among the most difficult developmental stages, and it is also considered as an educational stage that aims at preparing the pupil for confronting life and for integrating into society.

4. Previous and Similar Studies:

1. A published study (Zammar, 2022). *The Recreational Physical Sport Activities Practiced in Leisure Time among the Pupils of the Secondary Stage. Journal of Research in Sciences and Techniques of Physical and Sport Activity*, University of Mohamed Boudiaf M'sila (Zammar, 2022).

2. This study aims to identify the recreational physical sport activities practiced by the pupils of the secondary stage in the leisure time. The researchers used the descriptive-analytical method for its appropriateness to the nature of the study, where the study was conducted on a sample chosen randomly consisting of (50) male and female students, and a questionnaire form was used for the recreational physical sport activity. As for the statistical means, it was represented in the chi-square (χ^2), and the following results were reached:

3. • The most practiced recreational sport activities among the students are the social activities, the cultural activities, and the outdoor activities.

4. • The encouraging factors for practicing the recreational activities is the desire to spend the free time.

And according to the results reached, the researchers recommend the following:

• The necessity of the interest of the Department of Sport Affairs in the recreational activities in the field of hobbies and sport activities through providing the necessary means for that.

• To make it possible for the pupils of the secondary stage to practice recreational activities through the reduction of the study hours.

1. Published Study:

(Dardoun Kenza, Lamtioui Fatima Zahra Iman, 2023) entitled: *The role of collective sports activities in reducing the psychological pressures among Bacculaureate pupils*, "Journal of Integration in Social and Sport Sciences Research," at Amar Telidji University – Laghouat, Algeria.

This study aimed at identifying the degree of importance of collective sport games in the secondary stage as well as studying the psychological aspect of the pupils. And for the purpose of achieving the objectives of the study, the descriptive method was used. And to ensure the credibility of the hypotheses, the tool of the study was employed, which is the questionnaire that included three axes distributed on a sample of secondary stage pupils, whose number reached 200 male and female pupils. Where the statistical treatment was done using the percentage, Chi². And after analyzing and discussing the results we reached to that the collective sport activities have a positive role in the physical education and sport class, and from another side a role in the reduction of psychological pressure for the bacculaureate pupils in such a way that it helps him to relax.

1. Benefiting from the Previous Studies:

The student researcher benefited, through presenting the previous studies, in clarifying the basic points specified for the research problem and its purpose, as well as in determining the method used in the study. For the majority of these previous studies agreed in choosing the descriptive method. Likewise, the student researcher was able to benefit from those studies in the preparation of the content of the theoretical framework, and benefiting from the opinions of experts and specialists in sport recreation and their suggestions, and in determining the appropriate tool for collecting the data, as well as in designing the questionnaire form and determining the sample and the method that suits the nature of this study...

As for the theoretical background, it was collected in one chapter that represents the theoretical side, and allocating it to explaining the concept of psychological pressures through defining it linguistically, mentioning the stages of the process of pressure, the types of pressures, and then reviewing the various theories and models explaining the psychological pressures, and also explaining the recreational activity represented in bodybuilding sport and its importance for individuals, and finally the targeted age group which is the final third secondary stage Bacculaureate and the most important represented characteristics of it. And this group is considered among the most prominent life stages in the development of the body and what appears in it from

a rapid leap in growth that must be paid attention to. And all the previous factors interact among themselves in a successive context creating a set of effects and results that had an echo in our subject.

From these studies and from the theoretical study to the applied study, it contained in turn two chapters represented in the first chapter the methodology of research and its field procedures, and it was addressed in it the adoption of the descriptive survey method as a methodological design for the study.

The Population and the Sample of the Study

Table 1. Baccalaureate Stage Pupils and Some Bodybuilding Gyms Selected by the Student Researcher

Baccalaureate stage pupils	Association of Ashbal of Tissemsilt Municipality for Bodybuilding and Powerlifting	Amal Tissemsilt for Bodybuilding	The Sport Club for Bodybuilding and Boxing	Total
Study population	22	13	16	51
Exploratory study sample	04	03	03	10
Basic study sample	13	10	11	34

Means of Data Collection:

We relied in conducting the research on the questionnaire form that contains everything related to the elements of the subject. And this method is characterized by being helpful in collecting new information derived directly from the source and the information that the researcher obtains and which cannot be found in the books. And for this my study relied, according to the nature of the subject, on the following:

6-1- The Questionnaire Tool:

The researcher used the questionnaire to present and solve the objectives of the study represented in (trying to identify the degrees of contribution of practicing some recreational activities (bodybuilding) by the Baccalaureate stage pupils on alleviating the academic, personal, relational, physiological pressures). And in light of what I did of a comprehensive survey for the previous studies (the recreational activities among adolescents) and (the psychological pressures of the Baccalaureate stage pupil), and for this the student researcher used the questionnaire of (psychological pressure) prepared by (Kherbash, 2016).

6-2- Description of the Tool and How it Was Prepared:

- This questionnaire aims to measure the level of psychological pressure among the adolescents studying in the secondary school considering them as an important group in the society and due to the distinctive characteristics of this age group especially from the psychological, academic, relational, and physiological sides. And accordingly, the questionnaire from the viewpoint of the student researcher aims to know the degree of contribution of the recreational activities applied inside the civil clubs for some sports in reducing the levels of psychological pressures for the Baccalaureate pupil.

- The questionnaire of psychological pressure prepared by the researcher (Kherbash, 2016, p.18) was used, where it includes in its final form after the arbitration process (42) items divided on four dimensions as follows:

- The first dimension: academic pressures and it includes (8) items.
- The second dimension: personal pressures and it includes (12) items.
- The third dimension: relational pressures and it includes (11) items.
- The fourth dimension: physiological symptoms and it includes (11) items.

6-3- The Key of Correcting the Questionnaire:

The arrangement of the questionnaire items was circular, so that the first item is from the first dimension (academic pressures), and the second item is the first item from the second dimension (personal pressures), and the third item is the first item from the third dimension (relational pressures), and the fourth item is the first item from the fourth dimension (physiological symptoms), and the fifth item is the second item from the first dimension, and so on until we avoid the examinee knowing the direction of the scale items. And in the following is the key of correcting the psychological pressure scale for the adolescents studying in the secondary according to the final form.

Table 2. Shows the Dimensions and Item Numbers of the Psychological Stress Questionnaire and Their Scores.

No.	Dimensions	Item Numbers	Number of Items	Scores of Each Dimension
1	Academic stresses	1-5-9-13-17-21-25-29	8	8-32
2	Personal stresses	2-6-10-14-18-22-26-30-33-36-39-42	12	12-48
3	Relational stresses	3-7-11-15-19-23-27-31-34-37-40	11	11-44
4	Physiological symptoms	4-8-12-16-20-24-28-32-35-38-41	11	11-44

6-4- The General Direction of the Questionnaire:

And based on the processing, the level of the (estimated weight) of responses was determined according to the following:

- High degree of agreement: includes the items that obtained arithmetic means greater than (2.67).
- Medium degree of agreement: includes the items that obtained arithmetic means between (1.67 – 2.33).
- Low degree of agreement: includes the items that obtained arithmetic means less than (1.33).

And Table (III-03) shows the arithmetic means of the agreement scores:

Presentation of the results:**1-1- Presentation and analysis of the results of the first hypothesis:**

To verify the first hypothesis of the study, which states that *“the recreational activity (bodybuilding) contributes to reducing the academic stresses resulting from psychological pressure among final secondary stage students (Baccalaureate) at a lower level.”* the arithmetic means, standard deviations, the estimated weight level, and Chi-square were used for the first dimension “academic stresses” from the scale of psychological stresses among the Baccalaureate student.

Table 3. Arithmetic Means, Standard Deviations, Indicators of Relative Importance, and Chi-Square Value for the First Axis “Academic Stresses” from the Psychological Stress Scale among the Baccalaureate Student.

Items of the First Dimension: Academic Stresses	Arithmetic Mean	Standard Deviation	Agreement Degree	Calculated Chi ² Value	Degrees of Freedom	sig Value	Result
1. The continuous school exams (monthly, mid-year, final year) make me tired.	2.0	1.1	High	9.76	03	0.021	Significant
2. I suffer from frequent forgetfulness.	2.08	0.66	Medium	42.94	03	0.00	Significant
3. I feel bored from the heavy daily timetable.	2.05	0.98	High	11.70	02	0.003	Significant
4. The grades I get do not reflect my scientific abilities.	2.11	1.0	High	4.11	03	0.249	Significant
5. The teacher avoids discussing the questions I direct to him.	1.79	1.0	High	19.41	03	0.000	Significant

6. I suffer from distraction and lack of focus in studying.	1.67	1.0	High	30.23	02	0.000	Significant
7. I find difficulty in completing homework assignments.	1.91	1.13	High	18.94	02	0.000	Significant
8. I find difficulty in understanding some school subjects.	1.38	0.65	High	21.94	03	0.000	Significant
Total Value of Academic Stresses Axis	1.87	0.58	High	11.17	–	0.00	Significant

It is clear from Table No. (00) that the results presented in the above table for the first dimension, "academic stresses," from the psychological stress scale of the final-year secondary (Baccalaureate) students reached a total value of (1.87) in the arithmetic mean, with a standard deviation of (± 0.58). Also, the determination of the (estimated weight) level was medium. And this value has a statistical significance, as the calculated χ^2 reached (11.17), while the significance value sig was (0.00), which is smaller than the level of significance 0.05. This indicates that there are statistically significant differences in the levels of academic stresses related to the Baccalaureate stage, attributed to the effectiveness of practicing recreational activities in bodybuilding halls by final-year secondary (Baccalaureate) students.

1 – 2 – Presentation and Analysis of the Results of the Second Hypothesis:

To verify the second hypothesis of the study, which states that "Recreational activity (bodybuilding) contributes to the reduction of personal stress resulting from psychological pressures among secondary final year pupils (Baccalaureate) at a lower level", the arithmetic means, standard deviations, the level of weighted estimation, and the Chi-square value were used for the second dimension *personal pressures* from the scale of psychological pressures among the baccalaureate stage pupil.

Table 4. Arithmetic means, standard deviations, indicators of relative importance, and Chi-square value for the second axis *personal pressures* from the scale of psychological pressures among the baccalaureate stage pupil.

Statements of the first dimension: Personal pressures	Arithmetic mean	Standard deviation	Level of agreement	Calculated χ^2 value	Degree of freedom	Significance diff. value sig	Result
1. I feel mentally tired.	1.55	0.74	Medium	10.64	2	0.005	Sig.
2. I find difficulty in expressing my feelings and confiding to others what is inside me.	1.32	0.53	Low	24.05	2	0.000	Sig.
3. I feel afraid of not reaching the position that I dream of.	2.41	0.85	Medium	12.58	3	0.006	Sig.
4. I feel anxious from the simplest situation that happens with me.	2.17	1.0	Medium	6.70	3	0.082	Sig.
5. I feel that I am always worried.	1.38	0.88	Low	32.52	2	0.000	Sig.
6. The future for me is responsibilities difficult to carry.	1.79	0.68	Medium	6.41	2	0.041	Sig.
7. I feel that I am a failur.	1.11	0.32	Low	19.88	1	0.000	Sig.

8. I feel sad most of the times.	1.41	0.74	Medium	24.76	2	0.000	Sig.
9. My mood changes between happiness and sadness without obvious reason.	2.02	1.11	Medium	10.47	3	0.015	Sig.
10. I am quick in crying and being affected when facing any pressure.	1.05	0.23	Low	26.47	1	0.00	Sig.
11. I feel that I am unable to bear more than these pressures.	2.20	1.06	Medium	4.82	3	0.185	Sig.
12. I am afraid of academic failure.	2.11	1.32	Medium	7.82	2	0.020	Sig.
Total value for the axis of personal pressures	1.71	0.38	Medium	26.17	–	0.004	Sig.

It becomes clear from Table No. (00) that the results shown in the table above for the second dimension *personal pressures* of the scale of psychological pressures among the final section pupils of the secondary stage (Baccalaureate) has reached the total value for the axis of personal pressures in the arithmetic mean (1.71) with a standard deviation of (± 0.38). The determination of the level (weighted estimation) has reached a medium level. This value has a statistical significance, as the calculated χ^2 reached (26.17), while the significance diff. value sig (0.004) is smaller than the level of significance 0.05. This indicates the presence of statistically significant differences in the levels of personal pressures related to the baccalaureate stage, attributed to the effectiveness of the practice of the final section pupils of the secondary stage (Baccalaureate) of recreational activities inside bodybuilding gyms.

1 – 3 – Presentation and Analysis of the Results of the Third Hypothesis:

To verify the third hypothesis of the study, which states that "*Recreational activity (bodybuilding) contributes to the reduction of relational pressures resulting from psychological stress among final year secondary pupils (Baccalaureate) at a lower level*", the arithmetic means, standard deviations, the level of weighted estimation, and the Chi-square value were used for the third dimension *relational pressures* from the scale of psychological pressures among the baccalaureate stage pupil.

Table 5. Arithmetic means, standard deviations, indicators of relative importance, and Chi-square value for the third axis *relational pressures* from the scale of psychological pressures among the baccalaureate stage pupil.

Statements of the First Dimension: Relational Stresses	Arithmetic Mean	Standard Deviation	Degree of Agreement	Calculated χ^2 Value	Degree of Freedom	Significance Difference Value (sig)	Result
1. I feel a lack of status and respect from others.	1.26	0.510	Low	30.05	2	0.000	Sig.
2. I prefer to withdraw from others.	2.67	1.27	Medium	5.29	3	0.150	Sig.
3. I get annoyed when my colleagues obtain higher grades than me in exams (written or oral).	2.47	0.920	High	6.94	3	0.0740	Sig.
4. My father or one of my parents makes distinction between me and my siblings.	1.52	0.780	Medium	15.0	2	0.0010	Sig.

5. I don't trust people.	2.41	1.01	Medium	2.47	3	0.4810	Sig.
6. I get annoyed when parents don't understand the requirements of studying.	1.50	0.700	Medium	30.23	3	0.0000	Sig.
7. My relations with my family are tense.	1.38	0.850	Low	37.47	2	0.0000	Sig.
8. I find it difficult to build good relations with my classmates in class.	1.08	0.280	Low	23.0	1	0.000	Sig.
9. Nobody understands me.	1.32	0.680	Low	32.5	2	0.000	Sig.
10. I find it difficult to talk with the teacher inside or outside the classroom.	1.00	0.000	Low	0.230	2	0.880	Sig.
11. The teacher prefer some students over the others in the classroom.	1.94	0.810	Medium	40.11	2	0.000	Sig.
Total Value for Relational Stress Axis	1.68	0.550	Medium	30.05	—	0.000	Sig.

It is clear from Table No. (00) that the results shown in the above table for the third dimension *relational pressures* from the scale of psychological pressures among the final section pupils of the secondary stage (Baccalaureate) has reached the total value for the axis of relational pressures in the arithmetic mean (1.68) with a standard deviation of (± 0.55). The determination of the level (weighted estimation) has reached a medium level. This value has a statistical significance, as the calculated χ^2 value reached (30.05), while the significance diff. value sig (0.00) is smaller than the level of significance 0.05. This indicates the existence of statistically significant differences in the levels of relational pressures associated with the baccalaureate stage, attributed to the effectiveness of practicing recreational activities inside bodybuilding gyms by the final section pupils of the secondary stage (Baccalaureate).

1 – 4 – Presentation and Analysis of the Results of the Fourth Hypothesis:

To verify the fourth hypothesis of the study, which states that "*Recreational activity (bodybuilding) contributes to the reduction of physiological symptoms resulting from psychological pressure among final year secondary pupils (Baccalaureate) at a lower level*", the arithmetic means, standard deviations, relative importance indicators, and the Chi-square value were used for the fourth dimension *physiological symptoms* of the psychological pressure scale among the baccalaureate stage pupil.

Table 6. Arithmetic means, standard deviations, and Chi-square value for the fourth axis *physiological symptoms* from the scale of psychological pressures among the baccalaureate stage pupil.

	Statement	Mean	Std. Dev.	Estimated Weight	χ^2 Value	df	Significance	Result
1	I suffer from rapid heartbeat.	1.29	0.460	Low	5.76	1	0.0160	Significant
2	I suffer from digestive problems.	1.88	1.17	Moderate	18.0	3	0.0000	Significant
3	I suffer from recurrent headaches.	1.64	0.810	Moderate	20.35	3	0.0000	Significant
4	I suffer from difficulty sleeping.	2.14	0.920	Moderate	6.41	2	0.0410	Significant
5	I feel physical fatigue without cause.	1.38	0.490	Low	1.88	1	0.1700	Significant
6	I suffer from shortness of breath.	1.23	0.430	Low	9.52	1	0.0020	Significant
7	I suffer from appetite disorders.	2.35	1.04	Low	2.23	3	0.5250	Significant
8	I feel exhausted all the time.	1.64	0.540	Moderate	16.29	2	0.0000	Significant
9	I complain of nausea.	1.02	0.170	Low	30.11	1	0.0000	Significant
10	I feel tired when I wake up.	2.55	0.820	Moderate	14.70	3	0.0020	Significant
11	I suffer from tremors.	1.41	0.890	Moderate	28.64	2	0.0000	Significant
	Overall Physiological Symptoms Dimension	1.68	0.270	Moderate	15.76	0.04	Significant	

It is clear from Table No. (00) that the results shown in the above table for the fourth dimension *physiological symptoms* of the scale of psychological pressures among the final section pupils of the secondary stage (Baccalaureate) has reached the total value for the axis of physiological symptoms in the arithmetic mean (1.68) with a standard deviation of (± 0.27). The determination of the level (weighted estimation) has reached a medium level. This value has a statistical significance, as the calculated χ^2 value reached (15.76), while the significance diff. value sig (0.04) is smaller than the level of significance 0.05. This indicates the existence of statistically significant differences in the levels of physiological symptoms associated with the baccalaureate stage, attributed to the effectiveness of practicing recreational activities inside bodybuilding gyms by the final section pupils of the secondary stage (Baccalaureate).

2 – Discussion of the Results in Light of the Hypotheses

After extracting the results related to the hypotheses and presenting them, comes the stage of discussing these results, interpreting them, and confirming them as an important step in the study, and it will be as follows:

2 – 1 – Discussion of the First Hypothesis:

Which was stated as follows: "Recreational activity (bodybuilding) contributes to the reduction of academic pressures resulting from psychological stress among final year secondary pupils (Baccalaureate) at a lower level." By using the Chi-square test and weighted estimation, the results showed that the levels of

academic pressures related to the baccalaureate stage are at a medium level, and that there are statistically significant differences in the levels of academic pressures related to the baccalaureate stage attributed to the effectiveness of practicing recreational activities in bodybuilding gyms by the pupils.

This result agrees with the study of (Nadhour Issa & Massahli Sghir, 2021) which aimed to know the extent to which recreational sports activities contribute in reducing some psychological pressures accompanying the pupil at school (anxiety, psychological tension). The results of the study showed the validity of our hypotheses and revealed the contribution of recreational sports activities in reducing the phenomenon of anxiety as well as in reducing the phenomenon of psychological tension among pupils.

Also, (Oussama Naa'r & Youssef Boudali, 2022) argue that the study aimed to identify the degrees of contribution of practicing some recreational activities by pupils of the baccalaureate stage in reducing academic, personal, relational pressures, and physiological symptoms. Among the results of the study: the levels of academic pressures related to the baccalaureate stage among pupils practicing recreational sports activities are high, while the levels of personal, relational pressures, and physiological symptoms related to the baccalaureate stage among pupils practicing recreational activities are medium. One of the suggestions of the study is to encourage pupils to practice sports activities outside the school framework, so that they contribute to the reduction of the pressures associated with the baccalaureate stage, and also to be a support for the physical education and sports classes.

(Lebkiri & Serdaoui, 2020) see that the study aimed to reveal the levels of school psychological pressures, and the gender differences among a sample of third-year secondary pupils who are about to take the baccalaureate exam. The study also revealed statistically significant differences between males and females in favor of females in school psychological pressures.

In addition, (Amrouche, Yousfi, & Ziani, 2016) aimed to try to know the importance of physical education and sports in reducing psychological pressure among pupils about to take the baccalaureate exam and the psychological and psychical states among adolescents in the secondary stage. The study concluded that the degree of psychological pressure among secondary education pupils in general is high, especially the final year, and that practicing physical education and sports influences the degree of psychological pressure through its sessions, and that the physical education and sports teacher has a role in reducing the psychological pressure among pupils preparing for the baccalaureate exam.

This is confirmed also by the study of (Al-Antri, 2017) which aimed to identify the role of recreational activities in psychological well-being among secondary stage students in Arar city in Saudi Arabia. The study found that the degree of impact of recreational activities on psychological well-being among secondary stage students was high, where the arithmetic mean of the responses of the study sample individuals ranged between (3.8–5). The study also revealed no differences in the role of recreational activities in psychological well-being attributed to the grade level variable on the whole tool.

2–2– Discussion of the second hypothesis:

Which stated the following: "Recreational activity (bodybuilding) contributes in reducing the personal pressure resulting from psychological stress among final year secondary school pupils (Baccalaureate) at a lower level." And using Chi-square test and the estimated weight, the results showed that the levels of personal stress related to the Baccalaureate stage are at a medium level, and that there are statistically significant differences in the levels of personal stress associated with the Baccalaureate stage attributed to the effectiveness of pupils practicing recreational activities in bodybuilding halls; this result agrees with the study of (Ragad, Meryem; Belaroussi, Slimane; Mahi, Sofiane, 2022) the current study aims to know the effect of practicing recreational sports activities in achieving psychological adjustment among secondary stage adolescent girls, and the study came out with a set of recommendations, the most important of which is raising awareness of the importance of practicing recreational sports activities in adolescence because of its positive impact and working to generalize it to other groups of society. And both (Charbi, Belkacem; Rahmoun, Taher; Goual, Mostapha, 2022) see that this study aimed to identify the reflections of practicing bodybuilding on body image among adolescents. We found that practicing bodybuilding represents a great importance for the adolescent in terms of improving body image, and because its results are better in less time compared to other sports, as well as it provides them with an outlet, and affects personality positively. And this is what the study (Bouaziz & Ben Si Kaddour, 2018) concluded, which aimed to know the contributions of practicing recreational sports activities in alleviating psychological stress among middle school teachers, where the results showed that middle school teachers practicing recreational sports activities are characterized by a low level of stress, while non-practitioners are characterized by a high level of psychological stress.

2–3– Discussion of the third hypothesis:

Which stated the following: "Recreational activity (bodybuilding) contributes in reducing relational pressures resulting from psychological stress among final year secondary school pupils (Baccalaureate) at a lower level." And by using the Chi-square test and the estimated weight, the results showed that the levels of relational stress related to the Baccalaureate stage are at a medium level, and that there are statistically significant differences in the levels of relational stress associated with the Baccalaureate stage attributed to the effectiveness of pupils practicing recreational activities inside bodybuilding halls; this result is consistent with (Zemmar, Mohamed, 2022). This study aimed to identify the recreational physical activities practiced by secondary school students in their free time, and the following results were reached: – The most practiced recreational sports activities among students are social activities, cultural activities and outdoor activities. – The motivating factors for practicing recreational activities is the desire to spend free time. And according to the results, researchers recommend the following: – The need for the sports affairs department to pay attention to recreational activities in the field of hobbies and sports activities by providing the necessary means. – Allowing secondary school students to practice recreational activities by reducing study hours. And also (Mehdi, Sahsahi, 2014) sees bodybuilding and its reflection on the practice of recreational sports activity among adolescents, it became the first and most demanded destination to satisfy this inclination, bodybuilding, because it provides the reasons for obtaining the body image that the adolescent desires, and also the ease of practicing this sport and its availability to all, although other recreational sports activities, whether collective or individual, may provide this demand indirectly. And (Lemimichi, 2019) adds: the study aimed to reveal the level of coping strategies for psychological stress among students preparing for the baccalaureate exam, represented in problem solving, effective coping, seeking support, avoiding confrontation, emotional coping, the purpose of which is to reduce the severity of stress and distress in stressful life situations. It was found that the level of coping strategies for psychological stress is high among students preparing for the baccalaureate, and there is no difference in degrees of measuring coping strategies for psychological stress among students preparing for the baccalaureate according to gender, and no difference according to specialization.

Practicing recreational activities within civil clubs also contributes in reducing relational pressures, as (Al-Ajlan, 2011) sees that clubs are important incubators for youth, where cultural, youth and social programs are presented, especially those clubs that have large premises established by the state to take care of youth and their concerns. Therefore, it is important that privatization takes into account the continuation of clubs performing these functions. And this is confirmed by the study (Ben Smicha, 2021) which aimed to reveal the level of recreational culture and the level of optimism among students of the University Center Nour Al-Bashir in El-Bayadh Province, where the results showed that the level of recreational culture and optimism among university students is higher than the average of society, and that there is a significant correlational relationship between recreational culture and optimism.

2–4– Discussion of the fourth hypothesis:

Which stated the following: "Recreational activity (bodybuilding) contributes in reducing physiological symptoms resulting from psychological stress among final year secondary school pupils (Baccalaureate) at a lower level." And by using the Chi-square test and the estimated weight, the results showed that the levels of physiological symptoms associated with the Baccalaureate stage are at a medium level, and that there are statistically significant differences in the levels of physiological symptoms associated with the Baccalaureate stage attributed to the effectiveness of pupils practicing recreational activities in bodybuilding halls. This result agrees with the study of (Mehdi, Sahsahi, 2014). Bodybuilding and the extent of its reflection on practicing recreational sports activity among adolescents. Bodybuilding is a right for everyone that should be practiced so that each one of us gets a beautiful body, and it increases the muscles of the body in strength, growth and harmony, and then it improves the body's organs and its internal systems. This sport has become very common and global, and young people rush to it because of its many physical and psychological benefits, to get a beautiful, harmonious and strong body, which has become one of the most requested desires among adolescents. As (Dardoun, KENZA; Lemtioui, Fatima Zahra Iman, 2023) see, this study aimed to identify the importance of team sports in the secondary stage as well as studying the psychological side of pupils. We found that group sports activities have a positive role, and on the other side a role in reducing psychological stress among baccalaureate pupils as they help him to relax. This stage includes the physical symptoms caused by continuous exposure to stimuli and stressful situations that the living being has acquired the ability to adapt to, and this stage is important in the emergence of adaptation symptoms (psychosomatic) which occur when a person is unable to face situations with sufficient adaptive reaction. Continuous exposure to stress leads to

disturbance of internal balance, which causes further disorder in the hormonal secretions that cause organic disorders, so a set of physical, social or psychological symptoms appear without there being an organic cause during medical examination without finding an explanation. And with continued exposure of the individual to stress for a long period, it brings him to a point where he is unable to continue and resist and enters into the stage of exhaustion, becoming unable to adapt completely, and the hormonal defenses collapse and glands are disturbed and the body's resistance decreases, and many body systems become dysfunctional and the person becomes ill with chronic diseases (Abd Al-Rahman, 2008, pp. 11–13). And recreational sports activity has a great value, this is due to its importance in advancing societies, where it has become a priority among developed societies, due to its link to individual health and happiness, and because of the latter's importance in the development of peoples. However, with the urgent need in our time to pay attention to psychological and social aspects, more focus should be placed on paying attention to the psychological aspects that guide the individual's behavior in life (Boukhter & Mouhoubi, 2021, p. 271).

Table 7. Shows the Decision of Comparing the Results with the Hypotheses

Partial Hypotheses	Formulation	Decision
First Hypothesis	"The recreational activity (bodybuilding) contributes to reducing the academic pressures resulting from psychological stress among the final secondary stage (Baccalaureate) students at a lower level."	Hypothesis achieved
Second Hypothesis	"The recreational activity (bodybuilding) contributes to reducing the personal pressures resulting from psychological stress among the final secondary stage (Baccalaureate) students at a lower level."	Hypothesis achieved
Third Hypothesis	"The recreational activity (bodybuilding) contributes to reducing the relational pressures resulting from psychological stress among the final secondary stage (Baccalaureate) students at a lower level."	Hypothesis achieved
Fourth Hypothesis	"The recreational activity (bodybuilding) contributes to reducing the physiological symptoms resulting from psychological stress among the final secondary stage (Baccalaureate) students at a lower level."	Hypothesis achieved
General Hypothesis	"The recreational activity (bodybuilding) at a lower level contributes to reducing some psychological pressures among the final secondary stage (Baccalaureate) students."	Achieved

3 – Conclusions:

Through the field procedures of the study, the hypotheses from which we started were verified, which states that "the recreational activity (bodybuilding) at a lower level contributes in reducing some psychological pressures among the final secondary stage (Baccalaureate) students". And also the main objective was achieved, namely to identify the extent of the contribution of the recreational activity (bodybuilding) in limiting the psychological pressures among the final secondary stage (Baccalaureate) students, and we reached to several conclusions which are as follows:

- 1 - The levels of academic pressures related to the baccalaureate stage for students practicing recreational activities in bodybuilding halls are characterized by an average level.
- 2 - The levels of personal pressures related to the baccalaureate stage for students practicing recreational activities in bodybuilding halls are characterized by an average level.
- 3 - The levels of relational pressures related to the baccalaureate stage for students practicing recreational activities in bodybuilding halls are characterized by an average level.
- 4 - The levels of physiological symptoms related to the baccalaureate stage for students practicing recreational activities in bodybuilding halls are characterized by an average level.

4 – Suggestions:

- It is necessary that both parents and the society in general work on providing the appropriate atmospheres for their sons in preparing them for the baccalaureate exam so that they can satisfy their psychological needs properly and avoid psychological stresses.
- Work by parents, teachers, and civil society institutions to support the sons in the way of achieving their ambitions.

- Encourage the students coming to the baccalaureate exam who are not practicing recreational sport activities to join bodybuilding clubs.
 - Helping the students practicing recreational sport activities within the sport clubs to overcome what they face of obstacles and difficulties in the path of achieving ambitions, in order to help them enjoying psychological health.
 - The sport clubs should provide sound and healthy atmospheres that contribute in creating the spirit of fair competition between its students, and works on satisfying their psychological needs in a way that enhances their serious pursuit towards achieving their hopes and future desires.
 - Providing the appropriate space for practicing the recreational activity inside the educational institutions through reconsidering the weekly hourly volume of the physical and sport education class.
- Encouraging students to practice sport activities outside the scope of school, so that it works on reducing the pressures related to the baccalaureate stage, as well as being a support to the physical and sport education class.

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