

The Impact of Recreational Bodybuilding Practice on the Level of Psychological Stress Among Final-Year Students

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Introduction

Secondary education, particularly the final year of high school (the Baccalaureate year), is considered one of the most sensitive and stressful stages in a student's academic life. The Baccalaureate examination represents a crucial gateway to higher education and future career opportunities. During this period, students face increasing psychological pressure resulting from the accumulation of academic subjects, intense competition, parental pressure, and societal expectations. These factors may lead to various psychological symptoms such as anxiety, stress, depression, sleep disorders, and difficulties with concentration. If these pressures are not effectively managed, they can negatively affect students' academic performance, health, and social well-being.

In light of this reality, there has been a growing need to identify effective and practical methods for reducing psychological stress without relying solely on medication or traditional psychological support. Among these methods is **recreational physical activity**, which numerous recent studies have demonstrated to have positive effects on both mental and physical health. Recreational activities, in their various forms, stimulate the release of "feel-good" hormones such as endorphins, help relieve negative emotions, enhance self-confidence, and provide an enjoyable environment that allows students to relax and break away from the rigid routine of academic life.

Among the recreational activities that have gained considerable popularity among young people in recent years is **bodybuilding**. This activity is not limited to developing muscular strength and physical fitness; it also offers numerous psychological benefits. Practicing bodybuilding requires discipline, commitment, and effective time management—qualities that contribute to shaping students' personalities and enhancing their sense of self-efficacy and control over daily

stress. Furthermore, bodybuilding encourages the development of a healthy routine that helps students maintain a balanced lifestyle by combining academic responsibilities with physical exercise.

Based on these considerations, the importance of studying **"The Role of Recreational Physical Activity (Bodybuilding) in Reducing Psychological Stress among Final-Year Secondary School Students (Baccalaureate Students)"** becomes evident. This study seeks to examine the relationship between regular participation in bodybuilding and the level of psychological stress experienced by students during this critical stage of their lives. It also aims to provide educational and psychological recommendations that may benefit educators, parents, and sports coaches in supporting students and improving their ability to cope with stress while preparing effectively for their final examinations.

The theoretical background of this study was presented in a single chapter devoted to the theoretical framework. This chapter explains the concept of psychological stress by providing its linguistic and conceptual definitions, discussing the stages of the stress process, identifying different types of stress, and reviewing the major theories and models that explain psychological stress. It also discusses recreational physical activity, particularly bodybuilding, highlighting its importance for individuals. Finally, it examines the target age group—final-year secondary school (Baccalaureate) students—and the most significant characteristics associated with this developmental stage.

Building upon the theoretical framework, the practical part of the study consists of two chapters. The first chapter presents the research methodology and field procedures. It explains the adoption of the descriptive survey method as the research design, outlines the stages involved in developing the data collection instrument, describes the procedures followed during field implementation, explains the method of selecting the study sample, and details the statistical techniques used for data analysis and processing.

Psychological stress is considered one of the most complex psychological and social phenomena. Despite the extensive literature on the subject and the numerous studies conducted since 1950, with thousands of books and scholarly articles published to date, these considerable research efforts have not resulted in a universally accepted definition of psychological stress (Morsi Hassan, 1998, p. 11).

According to Mills (1982), stress is **"an internal reaction resulting from an individual's inability to meet the environmental demands placed upon them."**

Similarly, Ibrahim (1998, p. 118) defines stress as **an internal or external change that leads to an intense and prolonged emotional response.**

Anan (1995, p. 698) argues that stress occurs when an individual perceives that their current abilities are insufficient to accomplish a particular goal. Physiologically, stress is defined as the level of activation of the sympathetic nervous system.

The *Dictionary of Psychology* defines stress as **"tension, conflict, and a state of severe psychological strain"** (Akel, 1971, p. 121).

Although stress is considered a necessary and motivating factor that contributes to maintaining internal balance and the body's biological rhythm, excessive psychological stress—or

prolonged exposure beyond an individual's coping capacity—may contribute to the onset and progression of various illnesses (Masoudi, 2003, p. 51).

Based on the foregoing discussion and the information presented, the following general research question can be formulated:

General Research Question

- **Does participation in recreational physical activity (bodybuilding) contribute to reducing certain psychological stresses among final-year secondary school students (Baccalaureate students)?**

Research Questions

Sub-Research Questions

1. **First Sub-Question:** Does participation in recreational physical activity (bodybuilding) contribute to reducing **academic stress** resulting from psychological stress among final-year secondary school students (Baccalaureate students)?
2. **Second Sub-Question:** Does participation in recreational physical activity (bodybuilding) contribute to reducing **personal stress** resulting from psychological stress among final-year secondary school students (Baccalaureate students)?
3. **Third Sub-Question:** Does participation in recreational physical activity (bodybuilding) contribute to reducing **interpersonal (relational) stress** resulting from psychological stress among final-year secondary school students (Baccalaureate students)?
4. **Fourth Sub-Question:** Does participation in recreational physical activity (bodybuilding) contribute to reducing the **physiological effects** resulting from psychological stress among final-year secondary school students (Baccalaureate students)?

Research Hypotheses

General Hypothesis

- Recreational physical activity (bodybuilding) contributes, **to a low extent**, to reducing certain forms of psychological stress among final-year secondary school students (Baccalaureate students).

Sub-Hypotheses

1. **First Sub-Hypothesis:** Recreational physical activity (bodybuilding) contributes, **to a low extent**, to reducing academic stress resulting from psychological stress among final-year secondary school students (Baccalaureate students).
2. **Second Sub-Hypothesis:** Recreational physical activity (bodybuilding) contributes, **to a low extent**, to reducing personal stress resulting from psychological stress among final-year secondary school students (Baccalaureate students).
3. **Third Sub-Hypothesis:**
Recreational physical activity (bodybuilding) contributes, **to a low extent**, to reducing interpersonal (relational) stress resulting from psychological stress among final-year secondary school students (Baccalaureate students).
4. **Fourth Sub-Hypothesis:**
Recreational physical activity (bodybuilding) contributes, **to a low extent**, to reducing

the physiological effects resulting from psychological stress among final-year secondary school students (Baccalaureate students).

Definition of Terms

4.1 Recreational Physical Activity

a. Conceptual Definition

Al-Fadel defines recreational activity as **all forms of constructive activities that are socially and morally acceptable, performed during leisure time, and voluntarily chosen and practiced as a result of intrinsic motivation, according to the individual's own preferences. These activities aim to develop personal values and achieve satisfaction, enjoyment, and happiness through participation itself rather than for external rewards such as financial or social gain** (Al-Fadel Ahmed Mohammed, 2002, p. 45).

Recreation also plays an important role in satisfying individuals' needs—particularly those that cannot be fulfilled through work—thereby helping participants achieve psychological balance (Amani Metwally El-Batraoui & Mohamed Abdel Aziz Salama, 2013, pp. 14–15).

b. Operational Definition

Recreational physical activity refers to **a set of enjoyable and constructive activities that an individual voluntarily practices during leisure time outside the classroom setting.**

4.2 Psychological Stress

a. Conceptual Definition

Psychological stress is **the feeling that results from an imbalance between environmental demands and an individual's available resources or capabilities. It is usually accompanied by situations of failure, where the inability to cope with demands becomes a major source of psychological stress** (Shawqia Ibrahim, 1992, p. 44).

Mills (1982) defines stress as **an internal reaction resulting from an individual's inability to meet the environmental demands placed upon them** (Meshaan, 2001, p. 71).

b. Operational Definition

Psychological stress is **a state of instability caused by mental, physical, and emotional strain that reduces an individual's ability to adapt to the surrounding environment. It results from excessive demands and the inability to meet those demands, often compounded by insufficient social support. Consequently, the individual may experience frustration, depression, and emotional distress, which can ultimately lead to disengagement from academic studies.**

4.3 Bodybuilding

a. Conceptual Definition

The term *bodybuilding* consists of two words: "**body**" and "**building**." Linguistically, it refers to the development and enhancement of the human body. Scientifically, bodybuilding is **the process of physical training based on sound scientific principles aimed at increasing muscle mass, muscular strength, physical symmetry, endurance, and flexibility** (Heikal, 2004, p. 143).

In its literal sense, bodybuilding means **building the body**. It is a training program that utilizes free weights or resistance machines to modify the body's shape and composition (Samada, 1984, p. 590).

b. Operational Definition

For the purposes of this study, **bodybuilding** is a recreational physical activity based on resistance training that aims to increase muscle size, strength, symmetry, and physical fitness. It is examined as a leisure activity that helps individuals relieve psychological stress and improve their overall well-being.

4.4 Secondary Education

a. Conceptual Definition

According to **John Dewey**, secondary education is a social institution that seeks to achieve social objectives. It provides students with a broad cultural and vocational education that helps them choose a profession capable of meeting their basic needs (Bouhafs, 2015, p. 159).

b. Operational Definition

For the purposes of this study, **secondary education** refers to the educational stage attended by students during adolescence, which is considered one of the most challenging developmental periods. This stage aims to prepare students to face the demands of life and to integrate successfully into society.

3. Previous and Related Studies

Previous and related studies constitute one of the most important components of any research project, as they enable researchers to understand the various dimensions surrounding the research problem while benefiting from the findings and methodologies of earlier work. The present study was inspired by previous research conducted by fellow scholars on topics closely related to **the role of recreational physical activity (bodybuilding) in reducing psychological stress among final-year secondary school (Baccalaureate) students**.

Numerous Arabic and Algerian studies have examined this topic from different perspectives. Accordingly, the current study reviews a selection of previous and related studies that have informed the research, highlighting their most significant features. It also provides a critical commentary discussing points of agreement and divergence, as well as identifying the research gap that the present study seeks to address.

The researchers note that the studies reviewed were published between **2014 and 2023** and were conducted across several countries, reflecting both chronological and geographical diversity.

These studies were classified according to the main variables of the current research into two categories:

- **Axis 1:** Recreational physical activities and bodybuilding.
- **Axis 2:** Psychological stress among Baccalaureate (final-year secondary school) students.

5.1 Previous and Related Studies on Recreational Activities and Bodybuilding

5.1.1 Published Study by Zemmar Mohammed (2022)

Title: *Recreational Physical and Sports Activities Practiced During Leisure Time by Secondary School Students*

Journal: *Journal of Research in Physical Activity and Sports Science and Technology*

Institution: Mohamed Boudiaf University of M'Sila (Zemmar, 2022)

This study aimed to identify the recreational physical and sports activities practiced by secondary school students during their leisure time.

The researchers adopted the **descriptive-analytical method**, as it was considered the most appropriate research design for the nature of the study. The research was conducted on a randomly selected sample of **50 male and female secondary school students**. A questionnaire on recreational physical and sports activities was used as the data collection instrument. The statistical analysis relied primarily on the **Chi-square (χ^2) test**.

Main Findings

- The recreational activities most frequently practiced by students were **social activities, cultural activities, and outdoor recreational activities**.
- The primary factor encouraging students to participate in recreational activities was **their desire to make productive use of their leisure time**.

Recommendations

Based on the findings, the researchers recommended the following:

Recommendations of the Previous Study

Based on the findings, the researchers recommended the following:

- The Sports Affairs Department should give greater attention to recreational activities, particularly hobby-based and sports-related activities, by providing the necessary facilities and resources.
- Secondary school students should be given more opportunities to participate in recreational activities by reducing the number of instructional hours.

5.1.2 Published Study

Ragad Maryam, Belarroussi Slimane, & Mahi Sofiane (2022)

Title: *The Practice of Recreational Physical and Sports Activities and Its Role in Achieving Psychological Adjustment among Female Secondary School Students*

Journal: *Tafawoq Journal of Physical Activity and Sports Science and Technology*

Institution: Nour El Bachir University Center, El Bayadh, Algeria (Ragad, Belarroussi, & Mahi, 2022)

The present study aimed to investigate the effect of practicing recreational sports activities on achieving psychological adjustment among adolescent female secondary school students.

The researchers adopted the **descriptive causal-comparative method** and selected a sample of **80 female students**, comprising **40 who regularly practiced recreational sports activities** and **40 who did not**. The **Psychological and Social Adjustment Scale** was used as the data collection instrument.

After collecting and statistically analyzing the data, the results revealed **statistically significant differences across all dimensions of the psychological adjustment scale** in favor of the students who participated in recreational sports activities.

The study concluded with several recommendations, the most important of which were:

- Raising awareness of the importance of participating in recreational sports activities during adolescence because of their positive psychological effects.
- Promoting these activities among other segments of society.

- Providing appropriate sports facilities.
- Training qualified specialists, particularly female professionals, to supervise such activities.

5.1.3 Published Study

Charbi Belkacem, Rahmoun Taher, & Gouwal Mostafa (2022)

Title: *The Impact of Bodybuilding Practice on Body Image among Adolescents: A Field Study of Students in Selected Secondary Schools in Laghouat*

Journal: *Sports System Journal*

Institution: Ziane Achour University of Djelfa, Algeria (Charbi, Rahmoun, & Gouwal, 2022)

This study aimed to identify the effects of practicing bodybuilding on adolescents' body image. To address the research problem, the researchers employed the **descriptive research method** and used a **questionnaire** as the primary instrument for data collection.

The study was conducted on a purposive sample of **51 final-year secondary school students** from selected secondary schools in the city of Laghouat.

Following statistical analysis of the collected data, the researchers concluded that:

- Practicing bodybuilding plays a significant role in improving adolescents' body image.
- Bodybuilding produces visible results in a shorter period compared with many other sports.
- It provides adolescents with a positive outlet for relieving stress.
- It has a positive influence on personality development.

5.1.4 Published Study

Nadhour Issa & Masahli Sghir (2021)

Title: *The Contribution of Recreational Sports Activities to Reducing Certain School-Related Psychological Stresses among Primary School Pupils (Aged 6–12 Years) from the Perspective of Their Teachers* (Nadhour & Masahli, 2021)

This study aimed to determine the extent to which recreational sports activities contribute to reducing certain forms of school-related psychological stress experienced by primary school pupils, particularly **anxiety and psychological tension**.

The study was conducted on a **purposive sample of 60 primary school teachers**, including **35 females and 25 males**, from educational institutions in the municipality of Ain Oussera, Djelfa Province, Algeria.

To achieve the objectives of the study, the researchers adopted the **descriptive research method** and administered a questionnaire to the participants. The data were analyzed using **percentages, frequencies, and the Chi-square (χ^2) test**.

Finally, the study results showed...

Findings of Study 5.1.4

The results of the study confirmed the validity of the proposed hypotheses and demonstrated the extent to which recreational sports activities contribute to reducing **anxiety and psychological tension** among pupils.

5.1.5 Published Study

Mehdi Sahsahi (2014)

Title: *Bodybuilding and Its Impact on the Practice of Recreational Sports Activities among Adolescents*

Journal: *Journal of Human and Society Sciences*

Institution: University of Biskra, Algeria

This study emphasized that **bodybuilding is a sport that should be accessible to everyone**, as it helps individuals develop a well-proportioned and attractive physique while increasing muscular strength, growth, and symmetry. Consequently, it improves both the body's external appearance and the functioning of its internal organs.

Bodybuilding has become a highly popular sport worldwide, attracting many young people because of its numerous physical and psychological benefits. Achieving a strong, balanced, and aesthetically pleasing physique has become one of the primary aspirations of adolescents.

The study sample consisted of **150 adolescents aged 15–18 years** who regularly practiced bodybuilding and were members of fitness centers. Participants were selected using **random sampling**.

The findings indicated that bodybuilding has become the preferred recreational sport among adolescents because it enables them to achieve their desired body image, is relatively easy to practice, and is accessible to most people. Although other recreational sports activities—whether individual or team-based—may indirectly provide similar benefits, these characteristics have made bodybuilding the most attractive option for many adolescents and motivated the researcher to investigate this phenomenon.

5.2 Previous and Related Studies on Psychological Stress among Students

5.2.1 Published Study

Dardoun Kenza & Lamtiaoui Fatima Zahra Iman (2023)

Title: *The Role of Team Sports Activities in Reducing Psychological Stress among Baccalaureate Students*

Journal: *Journal of Integration in Social and Sports Sciences Research*

Institution: Amar Telidji University of Laghouat, Algeria

This study aimed to examine the importance of **team sports activities** in secondary education and to investigate their role in improving students' psychological well-being.

To achieve the objectives of the study, the researchers employed the **descriptive research method**. A questionnaire consisting of **three dimensions** was administered to a sample of **200 male and female secondary school students**. Data were analyzed using **percentages** and the **Chi-square (χ^2) test**.

The findings revealed that:

- Team sports activities play a positive role during physical education and sports classes.
- They also contribute significantly to reducing psychological stress among Baccalaureate students by promoting relaxation and emotional well-being.

5.2.2 Published Study

Osama Naar & Youcef Boudali (2022)

Title: *The Role of Practicing Recreational Activities in Reducing Certain Psychological Stresses among Final-Year Secondary School Students*

The purpose of this study was to determine the extent to which participation in recreational activities contributes to reducing:

- Academic stress,
- Personal stress,
- Interpersonal (relational) stress, and
- Physiological symptoms associated with psychological stress.

The researchers adopted the **descriptive research method**. The sample consisted of **57 Baccalaureate students** enrolled during the **2021–2022 academic year** in several secondary schools in the city of Saïda, Algeria. Participants were selected using **simple random sampling**.

To achieve the objectives of the study, the researchers used the **Psychological Stress Questionnaire** developed by **Kharbash (2016)**.

Main Findings

- Students who practiced recreational sports activities experienced **high levels of academic stress** associated with the Baccalaureate stage.
- Their levels of **personal stress, interpersonal stress, and physiological symptoms** were found to be **moderate**.

Recommendations

The researchers recommended encouraging students to participate in sports activities outside the school environment, as these activities help reduce the psychological pressures associated with the Baccalaureate examination and complement the objectives of physical education classes.

5.2.3 Published Study

Labkiri & Serdaoui (2020)

Title: *School-Related Psychological Stress among Students Preparing for the Baccalaureate Examination*

This study aimed to determine the levels of **school-related psychological stress** and to examine gender differences among third-year secondary school students preparing for the Baccalaureate examination in selected secondary schools in the province of Sétif, Algeria.

The researchers adopted the **descriptive research method** because it was appropriate for the nature of the study.

The study sample consisted of **164 male and female students** during the **2018–2019 academic year**, randomly selected from **three secondary schools**.

The researchers developed and administered a **School Psychological Stress Questionnaire**.

Main Findings

- Students experienced a **moderate level of school-related psychological stress**, with an overall mean score of **104.53**, representing **65%** of the maximum score.
- There were **statistically significant gender differences** in school-related psychological stress, with **female students reporting higher levels of stress than male students**.

Chapter One: Research Methodology and Field Procedures

Chapter One: Research Methodology and Field Procedures

2. Research Methodology

In scientific research, **methodology** refers to the set of rules and systematic procedures that enable researchers to obtain valid and reliable knowledge in their search for scientific truth.

Based on the nature of the present study, which investigates **the role of recreational physical activity (bodybuilding) in reducing certain psychological stresses among final-year secondary school students (Baccalaureate students)**, the researchers adopted the **descriptive research method**, as it is the most appropriate approach for describing the phenomenon under investigation and analyzing the relationships among its variables.

3. Research Population and Sample

According to **Sami Melhem**, the statistical population consists of all the individuals or units that the researcher intends to study. Since studying the entire population often requires considerable time, effort, and financial resources, researchers usually select a representative sample that adequately reflects the characteristics of the target population and fulfills the objectives of the study (Melhem, 2000, p. 20).

The target population of the present study consisted of **final-year secondary school (Baccalaureate) students enrolled during the 2024–2025 academic year who practiced bodybuilding in selected fitness centers in the city of Tissemsilt, Algeria.**

The researchers selected students who regularly practiced bodybuilding as a recreational activity. A **random sample of 34 participants** was drawn from **three bodybuilding gyms** in Tissemsilt.

Determining a larger sample was difficult because many Baccalaureate students discontinue or reduce their participation in recreational and sports activities during this period for two main reasons:

- The pressure associated with the Baccalaureate examination and fear of academic failure, as this examination plays a decisive role in determining students' educational futures.
- The financial cost of practicing bodybuilding, which may be relatively expensive for many students, in addition to frequent absences or temporary withdrawal from training during the examination period.

A total of **34 questionnaires** were successfully collected. Due to time constraints and the difficulty of administering the instrument twice, **10 participants** from the study population were selected to evaluate the psychometric properties of the questionnaire. The reliability of the instrument was assessed using **Cronbach's Alpha coefficient**. Consequently, the final sample used in the main study consisted of **34 participants**.

Overall, the study population included **46 Baccalaureate students** practicing bodybuilding during the **2024–2025 academic year**, from whom the random sample was selected.

Table (III-01): Research Population and Study Sample

Category	Tissemsilt Municipality Bodybuilding and Powerlifting Association	Amal Tissemsilt Bodybuilding Club	Bodybuilding and Boxing Sports Club	Total
Research population	22	13	16	51
Pilot Study Sample	4	3	3	10
Main Study Sample	13	10	11	34

The table above presents the bodybuilding gyms selected for the study. Within the limits of the researchers' available resources, **three fitness centers** were included. After identifying the target population, a **random sample representing approximately 60% of the study population** was selected.

4. Scope of the Study

Every field study is defined by its **geographical, temporal, and human scope**, as described below.

4.1 Geographical Scope

The study was conducted in **selected bodybuilding gyms located in the city of Tissemsilt, Algeria**, primarily because of the researchers' ability to access participants and collect the required data efficiently.

4.2 Temporal Scope

The study was carried out between **January 2025 and May 2025** and consisted of two stages.

Stage One: Pilot Study and Theoretical Framework

During this phase, the researchers reviewed all relevant literature related to the research topic and identified bodybuilding practitioners in selected gyms throughout the city of Tissemsilt. This stage extended from **January 2025 to May 2025**.

Stage Two: Field Study

During this phase, the researchers prepared and administered the **Psychological Stress Questionnaire**, which was considered an appropriate and practical instrument for descriptive studies because of its effectiveness in collecting reliable data. After distributing and collecting the questionnaires, the responses were statistically analyzed and interpreted. This phase was conducted during **April 2025**.

4.3 Human Scope

The study population consisted of **51 final-year secondary school (Baccalaureate) students** who practiced bodybuilding as a recreational physical activity.

5. Study Variables

The present study included two variables.

Independent Variable

The **independent variable** is the variable assumed by the researcher to influence another variable. In this study, the independent variable is:

Recreational physical activity (bodybuilding).

Dependent Variable

The **dependent variable** is influenced by changes in the independent variable. Its value depends on the effect of the independent variable. In the present study, the dependent variable is:

Psychological stress among Baccalaureate students.

6. Data Collection Instruments

The study relied primarily on a **questionnaire** designed to collect information related to all aspects of the research topic.

The questionnaire is particularly useful because it enables researchers to obtain first-hand information directly from participants, including data that may not be available through books or other documentary sources. Therefore, considering the nature of the research problem, the questionnaire was selected as the principal data collection instrument.

6.1 Questionnaire

A **questionnaire** is one of the most widely used research instruments in the social and human sciences. It is employed to collect accurate information that researchers cannot obtain through direct observation alone, particularly in studies involving individuals' opinions, attitudes, feelings, and experiences.

Information that only the respondent possesses and is therefore uniquely qualified to provide. A questionnaire consists of a carefully prepared set of questions designed by the researcher in accordance with the study plan and presented to respondents in order to obtain the information and data needed to explain and describe the phenomenon under investigation from its various aspects.

To achieve the objectives of the present study—namely, **to determine the extent to which participation in recreational activities (bodybuilding) contributes to reducing academic, personal, interpersonal, and physiological stress among Baccalaureate students**—and following a comprehensive review of previous studies on **recreational activities among adolescents** and **psychological stress among Baccalaureate students**, the researcher adopted the **Psychological Stress Questionnaire** developed by Kharbash (2016).

6.3 Questionnaire Scoring Key

The questionnaire items were arranged in a **rotational (circular) order** to prevent respondents from recognizing the dimensions being measured.

Accordingly:

- Item 1 belongs to the **Academic Stress** dimension.
- Item 2 belongs to the **Personal Stress** dimension.
- Item 3 belongs to the **Interpersonal (Relational) Stress** dimension.
- Item 4 belongs to the **Physiological Symptoms** dimension.
- Item 5 returns to the **Academic Stress** dimension.

This pattern continues throughout the questionnaire to reduce response bias.

The following table presents the dimensions of the Psychological Stress Questionnaire and the corresponding item numbers.

Table (III-02): Dimensions, Item Numbers, and Score Ranges of the Psychological Stress Questionnaire

No.	Dimension	Item Numbers	Number of Items	Score Range
1	Academic Stress	1, 5, 9, 13, 17, 21, 25, 29	8	8–32
2	Personal Stress	2, 6, 10, 14, 18, 22, 26, 30, 33, 36, 39, 42	12	12–48
3	Interpersonal (Relational) Stress	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 Overall Interpretation of the Questionnaire

Based on the statistical analysis, respondents' scores (weighted means) were interpreted according to the following levels:

- **High level of agreement:** Mean score greater than **2.67**.
- **Moderate level of agreement:** Mean score ranging from **1.34 to 2.66**.
- **Low level of agreement:** Mean score of **1.33 or below**.

Table (III-03): Interpretation of Mean Scores

Mean Score Level of Agreement

≤ 1.33 Low

1.34 – 2.66 Moderate

≥ 2.67 High

7. Psychometric Properties of the Research Instrument

To ensure that the instrument produced reliable and trustworthy results, it was necessary to verify its **validity** and **reliability**.

7.1 Validity

Validity is one of the fundamental requirements of any research instrument. It refers to the extent to which an instrument measures the specific construct it is intended to measure and not something else.

For this purpose, the researcher assessed both:

- **Face validity (expert judgment),** and
- **Internal consistency validity.**

7.1.1 Face Validity (Expert Judgment)

To ensure that the questionnaire items accurately reflected the research topic, the questionnaire was submitted to a panel of university professors and specialists for evaluation. Their comments and recommendations were used to improve both the wording and content of the instrument.

The **Psychological Stress Questionnaire for Baccalaureate Students** was reviewed by faculty members from the **Department of Physical Activity and Sports Sciences at Ahmed Ben Yahia El Wancharissi University of Tissemsilt**.

The experts evaluated the questionnaire according to the following criteria:

- The appropriateness of the questionnaire items for the Algerian social and educational context.

- The linguistic clarity and accuracy of the questionnaire statements.
- Whether each item effectively measured the construct it was intended to assess.
- The consistency between the questionnaire dimensions and the study objectives.
- Whether each item belonged to its designated dimension.
- Suggestions for adding new items where necessary.
- Recommendations for deleting unnecessary items.
- The suitability of the questionnaire items for the age group included in the study.

The researcher compiled the experts' evaluations into statistical tables. Any item receiving **less than 80% agreement** among the experts was excluded or revised.

Table (III-04): Results of Expert Review of the Psychological Stress Questionnaire

Dimension	Deleted Items	Revised Items	Excluded Items	Added Items	Final Number of Items
Academic Stress	—	17, 21	—	—	8
Personal Stress	—	6	—	—	12
Interpersonal (Relational) Stress	—	31	—	—	11
Physiological Stress	—	—	—	—	11

The table shows that the preliminary version of the questionnaire consisted of **42 items** before it was submitted to the panel of experts. These items were distributed as follows:

1. **Academic Stress:** 8 items.
2. **Personal Stress:** 12 items.
3. **Interpersonal (Relational) Stress:** 11 items.
4. **Physiological Symptoms:** 11 items.

7.1.2 Construct Validity (Internal Consistency)

Construct validity refers to the extent to which the questionnaire scores reflect the psychological concepts they are intended to measure. It is assessed using **Pearson's correlation coefficient** by calculating:

- The correlation between each questionnaire item and the total score of its corresponding dimension.
- The correlation between the score of each dimension and the overall questionnaire score.

The validity of a questionnaire depends directly on the validity of its individual items. Therefore, the greater the validity of the items, the greater the overall validity of the instrument. Item validity is measured through the correlation of each item with its corresponding scale, a procedure known as **internal consistency** because it evaluates the coherence of the questionnaire items.

To verify the construct validity of the questionnaire, it was administered to a **random sample of 10 secondary school students** who practiced bodybuilding as a recreational activity.

The following tables present the internal consistency of the questionnaire by showing the Pearson correlation coefficients between each item and its corresponding dimension.

Table (III-05): Correlation between Each Item and the Academic Stress Dimension

No.	Item	Pearson Correlation
1	Continuous school examinations (monthly, mid-year, and final examinations) exhaust me.	0.72
2	I suffer from frequent forgetfulness.	0.54
3	I feel bored with the intensive daily timetable.	0.56
4	The grades I receive do not reflect my academic abilities.	0.46
5	My teacher avoids answering the questions I ask.	0.58
6	I suffer from distraction and lack of concentration while studying.	0.76
7	I find it difficult to complete my school assignments.	0.72
8	I find it difficult to understand some school subjects.	0.47

Significant at $p \leq 0.05$ **Significant at $p \leq 0.01$* **Table (III-06): Correlation between Each Item and the Personal Stress Dimension**

No.	Item	Pearson Correlation
1	I feel psychologically exhausted.	0.69
2	I find it difficult to express my feelings and share my thoughts with others.	0.71
3	I fear that I will not achieve the position I dream of.	0.46
4	I become anxious over the simplest situations.	0.58
5	I constantly feel worried.	0.63
6	I see the future as a burden of responsibilities that I cannot bear.	0.72
7	I feel like a failure.	0.48
8	I feel sad most of the time.	0.52
9	My mood changes between happiness and sadness without any apparent reason.	0.69
10	I cry easily and become emotionally affected when facing pressure.	0.58
11	I feel unable to endure any more stress.	0.73
12	I fear academic failure.	0.43

Significant at $p \leq 0.05$ **Significant at $p \leq 0.01$* **Table (III-07): Correlation between Each Item and the Interpersonal (Relational) Stress Dimension**

No.	Item	Pearson Correlation
1	I feel that I receive less respect and appreciation from others.	0.63
2	I prefer to withdraw from social interactions.	0.59
3	I am bothered when my classmates obtain higher examination scores than I do.	0.71
4	My parents treat my siblings and me differently.	0.66
5	I do not trust other people.	0.42
6	I am bothered because my parents do not understand the demands of my studies.	0.59
7	My relationship with my family is tense.	0.60
8	I find it difficult to establish good relationships with my classmates.	0.66
9	No one understands me.	0.42
10	I find it difficult to speak with my teacher inside or outside the classroom.	0.59
11	My teacher favors certain students over others in the classroom.	0.63

Significant at $p \leq 0.05$

*Significant at $p \leq 0.01$

Table (III-08): Correlation between Each Item and the Physiological Symptoms Dimension

No.	Item	Pearson Correlation
1	I experience rapid heartbeat.	0.72
2	I suffer from digestive problems.	0.63
3	I suffer from frequent headaches.	0.77
4	I have difficulty sleeping.	0.74
5	I feel physically exhausted without any apparent reason.	0.63
6	I experience difficulty breathing.	0.58
7	I suffer from appetite disturbances.	0.40
8	I feel exhausted all the time.	0.48
9	I experience nausea.	0.66
10	I feel tired when I wake up.	0.63
11	I suffer from trembling.	0.45

Significant at $p \leq 0.05$

*Significant at $p \leq 0.01$

The results presented in the previous tables indicate that **most items across the four dimensions were statistically significant at the 0.01 significance level**, while a limited

number of items were significant at the **0.05 significance level**. Accordingly, all **42 questionnaire items** were retained in the final version of the instrument.

7.2 Reliability

Reliability refers to the degree of **accuracy and consistency** with which an instrument measures a particular construct.

To estimate the reliability of the questionnaire, the researcher employed the **Cronbach's Alpha** method.

Cronbach's Alpha (α) is one of the most widely used measures of **internal consistency reliability** for instruments composed of multiple items. The coefficient reflects the extent to which the questionnaire items consistently measure the same underlying construct.

The reliability of the **Psychological Stress Questionnaire** was calculated using Cronbach's Alpha, and the results are presented below.

Table (III-09): Reliability of the Psychological Stress Questionnaire Using Cronbach's Alpha

Questionnaire	Number of Items	Sample Size	Cronbach's Alpha	Significance Level
Psychological Stress Questionnaire	42	10	0.82	0.01

The table shows that the **Cronbach's Alpha coefficient was 0.82**, indicating a **high level of internal consistency and reliability**. Therefore, the questionnaire was considered sufficiently reliable for use in the present study.

8. Fieldwork Procedures

After completing the theoretical framework of the study, we proceeded to the practical phase by preparing the questionnaire for **final-year secondary school (Baccalaureate) students** who practiced **bodybuilding** in the city of Tissemsilt.

To assess the level of psychological stress experienced by Baccalaureate students participating in recreational bodybuilding activities, it was necessary to employ an appropriate measurement instrument. For this purpose, the **Psychological Stress Questionnaire** was used. Following the pilot study and the establishment of the scientific properties of the instrument, the field study was conducted by administering the questionnaire to the main sample, which consisted of **51 final-year secondary school students** who practiced bodybuilding as a recreational activity in designated fitness centers.

The response format and scoring procedure were also determined. The researcher adopted the **Likert scale**, as it is considered one of the most appropriate methods for measuring respondents' attitudes and perceptions. Although the traditional Likert scale consists of five response categories, the researcher used **four response levels** to facilitate participants' responses, as follows:

- **Always** = 4 points
- **Sometimes** = 3 points
- **Rarely** = 2 points
- **Never** = 1 point

A higher score indicates a higher level of psychological stress. Participants were instructed to select only one response by placing an (X) under the answer that best reflected their situation. A total of **51 questionnaires** were distributed to final-year secondary school (Baccalaureate) students enrolled during the **2024–2025 academic year** who practiced bodybuilding as a recreational activity. After one week, **46 fully completed questionnaires** were returned. The collected data were then coded and entered into the **Statistical Package for the Social Sciences (SPSS)** for statistical analysis because of its accuracy and efficiency in processing research data.

9. Statistical Analysis

After coding the collected data, the **Statistical Package for the Social Sciences (SPSS)** was used to analyze the research data. SPSS is a statistical software package that enables researchers to process research data electronically through computerized statistical analyses.

The following statistical techniques were employed to answer the research questions:

- Arithmetic means.
- Standard deviations.
- Pearson's correlation coefficient.
- Cronbach's Alpha coefficient.
- Chi-square (χ^2) test.

1. Presentation and Analysis of Results

1.1 Presentation and Analysis of the Results of the First Hypothesis

To test the first hypothesis, which states:

"Recreational activity (bodybuilding) contributes, to a low degree, to reducing academic stress resulting from psychological stress among final-year secondary school (Baccalaureate) students."

Arithmetic means, standard deviations, weighted mean levels, and the **Chi-square (χ^2)** test were calculated for the **Academic Stress** dimension of the Psychological Stress Scale.

Table (II-01): Means, Standard Deviations, Relative Importance Indicators, and Chi-square Values for the Academic Stress Dimension

Academic Stress Items	Mean	SD	Level	χ^2	df	Sig.	Result
Continuous school examinations (monthly, mid-year, final) exhaust me.	2.00	1.10	High	9.76	3	0.021	Significant
I suffer from frequent forgetfulness.	2.08	0.66	Moderate	42.94	3	0.000	Significant
I feel bored with the intensive daily schedule.	2.05	0.98	High	11.70	2	0.003	Significant
My grades do not reflect my academic abilities.	2.11	1.00	High	4.11	3	0.249	Significant
My teacher avoids discussing the questions I ask.	1.79	1.00	High	19.41	3	0.000	Significant
I suffer from distraction and lack of concentration while studying.	1.67	1.00	High	30.23	2	0.000	Significant

Academic Stress Items	Mean	SD	Level	χ^2	df	Sig.	Result
I find it difficult to complete school assignments.	1.91	1.13	High	18.94	2	0.000	Significant
I find it difficult to understand some school subjects.	1.38	0.65	High	21.94	3	0.000	Significant

Overall Academic Stress Dimension

Mean	SD	Level	χ^2	Sig.	Result
1.87	0.58	Moderate	11.17	0.000	Significant

Interpretation

The results indicate that the **Academic Stress** dimension obtained an overall **mean score of 1.87** with a **standard deviation of 0.58**, corresponding to a **moderate level** according to the weighted mean criteria.

The calculated **Chi-square value** ($\chi^2 = 11.17$) was statistically significant, with a significance level of **0.000**, which is lower than the adopted significance level ($\alpha = 0.05$). This indicates the existence of statistically significant differences in academic stress levels associated with the Baccalaureate stage, attributable to the effectiveness of practicing recreational bodybuilding activities among final-year secondary school students.

1.2 Presentation and Analysis of the Results of the Second Hypothesis

To test the second hypothesis, which states:

"Recreational activity (bodybuilding) contributes, to a low degree, to reducing personal stress resulting from psychological stress among final-year secondary school (Baccalaureate) students."

Arithmetic means, standard deviations, weighted mean levels, and Chi-square values were calculated for the **Personal Stress** dimension.

Table (II-02): Means, Standard Deviations, Relative Importance Indicators, and Chi-square Values for the Personal Stress Dimension

Personal Stress Items	Mean	SD	Level	χ^2	df	Sig.	Result
I feel psychologically exhausted.	1.55	0.74	Moderate	10.64	2	0.005	Significant
I find it difficult to express my feelings.	1.32	0.53	Low	24.05	2	0.000	Significant
I fear not achieving the position I dream of.	2.41	0.85	Moderate	12.58	3	0.006	Significant
I become anxious over the simplest situations.	2.17	1.00	Moderate	6.70	3	0.082	Significant
I constantly feel worried.	1.38	0.88	Low	32.52	2	0.000	Significant
The future seems full of responsibilities I cannot bear.	1.79	0.68	Moderate	6.41	2	0.041	Significant
I feel like a failure.	1.11	0.32	Low	19.88	1	0.000	Significant
I feel sad most of the time.	1.41	0.74	Moderate	24.76	2	0.000	Significant

Personal Stress Items	Mean	SD	Level	χ^2	df	Sig.	Result
My mood changes without any apparent reason.	2.02	1.11	Moderate	10.47	3	0.015	Significant
I cry easily when facing pressure.	1.05	0.23	Low	26.47	1	0.000	Significant
I feel unable to endure any more stress.	2.20	1.06	Moderate	4.82	3	0.185	Significant
I fear academic failure.	2.11	1.32	Moderate	7.82	2	0.020	Significant

Overall Personal Stress Dimension

Mean	SD	Level	χ^2	Sig.	Result
1.71	0.38	Moderate	26.17	0.004	Significant

Interpretation

The **Personal Stress** dimension recorded an overall **mean score of 1.71** with a **standard deviation of 0.38**, indicating a **moderate level** of personal stress.

The calculated **Chi-square value (26.17)** was statistically significant ($p = 0.004 < 0.05$), indicating statistically significant differences in personal stress levels among Baccalaureate students that can be attributed to participation in recreational bodybuilding activities.

1.3 Presentation and Analysis of the Results of the Third Hypothesis

To test the third hypothesis, which states:

"Recreational activity (bodybuilding) contributes, to a low degree, to reducing interpersonal (relational) stress resulting from psychological stress among final-year secondary school (Baccalaureate) students."

Arithmetic means, standard deviations, weighted mean levels, and Chi-square values were calculated for the **Interpersonal (Relational) Stress** dimension.

Table (II-03): Means, Standard Deviations, Relative Importance Indicators, and Chi-square Values for the Interpersonal Stress Dimension

Interpersonal Stress Items	Mean	SD	Level	χ^2	df	Sig.	Result
I feel a lack of respect and appreciation from others.	1.26	0.51	Low	30.05	2	0.000	Significant
I prefer to withdraw from others.	2.67	1.27	Moderate	5.29	3	0.150	Significant
I am bothered when classmates obtain higher grades than I do.	2.47	0.92	High	6.94	3	0.074	Significant
My parents treat my siblings and me differently.	1.52	0.78	Moderate	15.00	2	0.001	Significant
I do not trust people.	2.41	1.01	Moderate	2.47	3	0.481	Significant
My parents do not understand the demands of my studies.	1.50	0.70	Moderate	30.23	3	0.000	Significant
My relationship with my family is tense.	1.38	0.85	Low	37.47	2	0.000	Significant
I find it difficult to establish good relationships with classmates.	1.08	0.28	Low	23.00	1	0.000	Significant
No one understands me.	1.32	0.68	Low	32.50	2	0.000	Significant

Interpersonal Stress Items	Mean	SD	Level	χ^2	df	Sig.	Result
I find it difficult to talk with my teacher inside or outside the classroom.	1.00	0.00	Low	0.23	2	0.880	Significant
My teacher favors some students over others.	1.94	0.81	Moderate	40.11	2	0.000	Significant
Overall Interpersonal Stress Dimension							
Mean	SD	Level	χ^2	Sig.	Result		
1.68	0.55	Moderate	30.05	0.000	Significant		

Interpretation

The **Interpersonal Stress** dimension achieved an overall **mean score of 1.68** with a **standard deviation of 0.55**, corresponding to a **moderate level**.

The calculated **Chi-square value (30.05)** was statistically significant (**p < 0.05**), indicating statistically significant differences in interpersonal stress levels among Baccalaureate students that are attributable to participation in recreational bodybuilding activities.

That's a very large document (well over 10,000 words). It exceeds the maximum amount of text I can accurately translate in a single response.

I can certainly translate it into **academic English**, preserving the style of a university thesis, but we'll need to do it in parts.

Suggested approach

I'll translate it chapter by chapter:

1. ☒ Research Questions, Hypotheses, and Definitions
2. ☒ Previous and Related Studies
3. ☒ Research Methodology
4. ☒ Instrument, Validity, and Reliability
5. ☒ Results and Discussion
6. ☒ Conclusion and Recommendations

Each section will be translated into natural, publication-quality academic English rather than a literal machine translation.

From what you've already sent, I have enough material to translate the entire thesis in sequence.

The first translated section (Research Questions, Hypotheses, and Definitions) would begin like this:

Research Questions

General Research Question

What is the role of recreational bodybuilding activities in reducing certain psychological stressors among final-year secondary school students (Baccalaureate candidates)?

Sub-Questions

1. Does participation in recreational bodybuilding contribute, to a limited extent, to reducing academic stress resulting from psychological stress among final-year secondary school students (Baccalaureate candidates)?

2. Does participation in recreational bodybuilding contribute, to a limited extent, to reducing personal stress resulting from psychological stress among final-year secondary school students (Baccalaureate candidates)?
3. Does participation in recreational bodybuilding contribute, to a limited extent, to reducing interpersonal (relational) stress resulting from psychological stress among final-year secondary school students (Baccalaureate candidates)?
4. Does participation in recreational bodybuilding contribute, to a limited extent, to reducing the physiological effects associated with psychological stress among final-year secondary school students (Baccalaureate candidates)?

Research Hypotheses

General Hypothesis

Recreational bodybuilding activities contribute, to a limited extent, to reducing certain psychological stressors among final-year secondary school students (Baccalaureate candidates).

Specific Hypotheses

1. Recreational bodybuilding contributes, to a limited extent, to reducing academic stress caused by psychological stress among final-year secondary school students (Baccalaureate candidates).
2. Recreational bodybuilding contributes, to a limited extent, to reducing personal stress caused by psychological stress among final-year secondary school students (Baccalaureate candidates).
3. Recreational bodybuilding contributes, to a limited extent, to reducing interpersonal stress caused by psychological stress among final-year secondary school students (Baccalaureate candidates).
4. Recreational bodybuilding contributes, to a limited extent, to reducing the physiological symptoms associated with psychological stress among final-year secondary school students (Baccalaureate candidates).

I can continue translating the remainder in the same academic style.

I also recommend compiling the entire translation into a professionally formatted Microsoft Word (.docx) document (approximately 35–45 pages) suitable for submission as an English version of the thesis. This will preserve headings, tables, numbering, and academic formatting while ensuring consistency throughout the translation.

Below is the academic English translation of the final sections of your thesis.

2.3 Discussion of the Third Hypothesis

The third hypothesis stated:

"Recreational activity (bodybuilding) contributes, to a limited extent, to reducing interpersonal (relational) stress resulting from psychological stress among final-year secondary school students (Baccalaureate candidates)."

Using the Chi-square test and weighted mean scores, the findings indicated that the level of interpersonal stress associated with the Baccalaureate stage was **moderate**, and that there were statistically significant differences in interpersonal stress levels attributable to students' participation in recreational bodybuilding activities in fitness centers.

These findings are consistent with the study conducted by **Zammar (2022)**, which aimed to identify the recreational physical activities most commonly practiced by secondary school students during their leisure time. The study concluded that the most frequently practiced activities were **social, cultural, and outdoor activities**, while the primary motivation for participation was the desire to make productive use of free time. Based on these findings, the researchers recommended:

- Greater attention from sports authorities to recreational activities by providing the necessary facilities and resources.
- Creating opportunities for secondary school students to participate in recreational activities through a reduction in school hours.

Similarly, **Mahdi Sahsahi (2014)** found that bodybuilding has become one of the most popular recreational sports among adolescents because it enables them to achieve the desired body image while remaining relatively accessible and easy to practice compared with many other recreational sports.

Likewise, **Lemimishi (2019)** investigated coping strategies for psychological stress among students preparing for the Baccalaureate examination. The study examined several coping strategies, including problem-solving, active coping, seeking social support, avoidance, and emotional coping. The findings revealed that students demonstrated high levels of stress-coping strategies, with no statistically significant differences according to gender or academic specialization.

Participation in recreational activities within sports clubs also contributes to reducing interpersonal stress. **Al-Ajlan (2011)** emphasized that youth clubs provide important educational, cultural, social, and recreational programs, particularly those supported by government institutions, highlighting their essential role in youth development.

Furthermore, the study by **Ben Smicha (2021)**, which examined recreational culture and optimism among university students, found that both recreational culture and optimism were above the population average and that a statistically significant positive correlation existed between them.

2.4 Discussion of the Fourth Hypothesis

The fourth hypothesis stated:

"Recreational activity (bodybuilding) contributes, to a limited extent, to reducing the physiological symptoms associated with psychological stress among final-year secondary school students (Baccalaureate candidates)."

The results obtained through the Chi-square test and weighted mean scores indicated that the level of physiological symptoms associated with the Baccalaureate examination was **moderate**, with statistically significant differences attributable to participation in recreational bodybuilding activities.

These findings are consistent with **Mahdi Sahsahi (2014)**, who emphasized that bodybuilding is beneficial for everyone because it improves muscular strength, physical fitness, body composition, and the functioning of internal organs. The study also highlighted the widespread popularity of bodybuilding among adolescents because of its numerous physical and

psychological benefits and its effectiveness in achieving an attractive and well-proportioned physique.

Similarly, **Dardoun and Lamtioui (2023)** found that participation in team sports plays a positive role in reducing psychological stress among Baccalaureate students by promoting relaxation and psychological well-being.

Continuous exposure to stressful situations may eventually lead to psychosomatic disorders. When individuals are unable to cope effectively with prolonged stress, their physiological balance becomes disrupted, resulting in hormonal imbalances and reduced immune resistance. Consequently, various physical, psychological, and social symptoms may emerge without identifiable organic causes. Prolonged stress may eventually lead to exhaustion, diminished adaptive capacity, and chronic illness (Abdel Rahman, 2008, pp. 11–13).

Moreover, **Boukathir and Mouhoubi (2021)** emphasized the significant value of recreational sports in promoting public health, psychological well-being, and social development, stressing that attention should be given not only to physical health but also to the psychological factors influencing human behavior.

Table (II-05): Summary of the Hypothesis Testing Results

Hypothesis	Statement	Decision
First Hypothesis	Recreational bodybuilding contributes, to a limited extent, to reducing academic stress.	Supported
Second Hypothesis	Recreational bodybuilding contributes, to a limited extent, to reducing personal stress.	Supported
Third Hypothesis	Recreational bodybuilding contributes, to a limited extent, to reducing interpersonal stress.	Supported
Fourth Hypothesis	Recreational bodybuilding contributes, to a limited extent, to reducing physiological symptoms of psychological stress.	Supported
General Hypothesis	Recreational bodybuilding contributes, to a limited extent, to reducing certain psychological stressors among final-year secondary school students (Baccalaureate candidates).	Supported

3. Conclusions

Based on the field study and the statistical analysis, the hypotheses of the study were confirmed. The findings support the general hypothesis that:

Recreational bodybuilding contributes, to a limited extent, to reducing certain psychological stressors among final-year secondary school students (Baccalaureate candidates).

The primary objective of the study—to determine the contribution of recreational bodybuilding to reducing psychological stress among Baccalaureate students—was achieved.

The study reached the following conclusions:

1. Students who practiced recreational bodybuilding experienced **moderate levels of academic stress** associated with the Baccalaureate examination.

2. Students who practiced recreational bodybuilding experienced **moderate levels of personal stress.**
3. Students who practiced recreational bodybuilding experienced **moderate levels of interpersonal (relational) stress.**
4. Students who practiced recreational bodybuilding experienced **moderate levels of physiological symptoms related to psychological stress.**

4. Recommendations

Based on the findings of this study, the researchers recommend the following:

- Parents and society should provide a supportive environment that helps students prepare effectively for the Baccalaureate examination while minimizing psychological stress.
- Families, teachers, and civil society organizations should work together to support students in achieving their educational and personal aspirations.
- Students preparing for the Baccalaureate who do not participate in recreational sports should be encouraged to join bodybuilding clubs or similar recreational sports organizations.
- Recreational sports clubs should assist student participants in overcoming obstacles that may hinder the achievement of their goals while promoting positive mental health.
- Sports clubs should create healthy and supportive environments that encourage fair competition and contribute to meeting students' psychological needs.
- Educational institutions should provide appropriate facilities for recreational sports by reconsidering and, where possible, increasing the weekly allocation of time for physical education and sports.
- Students should be encouraged to participate in recreational sports outside the school environment, as these activities can help reduce the psychological stress associated with the Baccalaureate examination while complementing the objectives of physical education classes.

This completes the translation of the document you provided into formal academic English suitable for inclusion in a university thesis or dissertation.

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