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A Comparative Study of Psychological Stress Among Students of Selected Scientific and Humanitarian Colleges at the University of Duhok

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ABSTRACT

The current study aimed to examine psychological stress among students at the University of Duhok by achieving the following objectives: identifying the level of psychological stress among students from selected scientific and humanities colleges at the University of Duhok; determining the significance of differences in stress levels between students who engage in sports activities and those who do not; and examining the significance of differences in psychological stress based on the variables of college affiliation and gender.

The researchers defined the study population to include all students enrolled in the Colleges of Engineering, Science, Basic Education, and Physical Education and Sport Sciences during the 2023–2024 academic year, totaling 6,348 students. A sample of 388 students (male and female) was selected randomly, representing 6.11% of the total population. The study adopted the descriptive approach for data analysis.

The researchers utilized the Psychological Stress Scale developed by Ali (2005). The following statistical methods were employed: Pearson correlation coefficient, Spearman-Brown correction formula, means and standard deviations, independent samples t-test, one-way ANOVA, and Least Significant Difference (LSD) test.

The study yielded the following results:

1. A moderate level of psychological stress was observed among students from selected scientific and humanities colleges at the University of Duhok.
2. No statistically significant differences were found between the mean stress scores of students who engage in sports and those who do not.
3. Statistically significant differences were found among the participants based on the variables of college affiliation and gender.

Keywords: Psychological Stress, University Students, Scientific and Humanitarian Colleges, Gender Differences

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1. Introduction to the Research

1.1 Introduction and Importance of the Study:

Psychology is considered one of the important sciences that has a direct impact on achieving success and goals. It contributes to enhancing the academic level of students across various fields equally. It is one of the factors that students currently face in a life filled with daily pressures. In fact, it is regarded as one of the psychological factors accompanying human behavior and one of the most complex due to its overlap with other alternative concepts used in various daily life situations, such as fear, hesitation, conflict, anxiety, psychological pressure, and psychological stress. These factors are closely associated with most students who strive for success and fear failure (Fahad, 2012, 4).

Psychological stress, as a concept, refers to a change in the state of psychological balance that arises from functional manifestations perceived as a threat to the individual or the self. Psychological stress is diagnosed based on physiological responses to environmental stimuli, such that it can be evaluated as a threat to the individual's self (Al-Shabah, 1994, 3).

Psychological stress is considered one of the most important psychological manifestations facing students in the current era, which is full of complexities, problems, and the demands and pressures of daily life. It is also "one of the most common psychological phenomena accompanying human behavior and one of the most complex due to its overlap with other alternative concepts used in different life situations, such as psychological pressure, anxiety, conflict, and aggression" (Ali & Al-Sayyid, 1999, 40).

Psychological stress is one of the psychological phenomena that pose a threat to the lives of individuals and groups in the modern era, especially adolescents and students. Psychological stress results in psychological and physical harm, a decline in performance, and poor concentration. It has become the disease of this era, to the extent that the current era is labeled the "Age of Stress." Global statistics indicate that 80% of modern diseases are primarily caused by psychological stress, that 50% of individuals who consult doctors primarily suffer from stress, and that 25% of society suffers from some form of stress (Smith, 1993, 3).

From this standpoint, the importance of the current research lies in studying the state of psychological stress that appears among university students, which is one of the most significant and widely discussed topics in the present era. This study aims to reveal the level of psychological stress among university students. Through the process of measurement, results can be derived that help find solutions, methods, and ways to treat psychological stress, thereby achieving success and reaching the desired goals among students. Due to the importance of this topic, the researchers deemed it necessary to conduct this study to measure the level of psychological stress and compare it among students from different colleges at the university.

1.2 Research Problem:

Psychological stress is one of the most significant problems facing the majority of university students in organizing and facilitating their academic requirements. Due to the circumstances in which university students live—such as anxiety, psychological pressures, stress, living conditions, and academic demands—many students in the educational field set up programs, goals, or specific study plans at the beginning of each academic year to facilitate their studies, achieve outstanding success, and make good use of time. However, as days pass, they are sometimes surprised to find themselves reaching the end of the academic year without having achieved any of the plans, goals, or programs they had set or drawn up initially. As exams approach, their anxiety begins, and psychological pressure and stress increase, leaving a negative impact on their results and behavior, which ultimately leads to failure in achieving their intended goals.

In light of previous studies, research findings, and research trends addressed in this study, the research problem is defined by the following two questions:

- What is the level of psychological stress among students of selected scientific and humanitarian colleges at the University of Duhok?
- Are there differences in psychological stress between students of selected scientific and humanitarian colleges at the University of Duhok?

1.3 Research Objectives:

The research aims to identify the following:

1. The level of psychological stress among students of selected scientific and humanitarian colleges at the University of Duhok.
2. The significance of differences in the level of psychological stress between students who practice sports and those who do not.
3. The significance of differences in psychological stress among students of selected scientific and humanitarian colleges according to the variables of college and gender.

1.4 Research Hypotheses:

After reviewing some previous studies on the topic of psychological stress, the following hypotheses were formulated:

1. The level of psychological stress among students of selected scientific and humanitarian colleges is high at the significance level (0.05).
2. There is no significant difference in the opinions of students who practice sports and those who do not at the significance level (0.05).
3. There is no significant difference in the opinions of students from selected scientific and humanitarian colleges according to the demographic variables (college – gender) at the significance level (0.05).

This hypothesis branches into the following two sub-hypotheses:

- There is no significant difference in the opinions of students from selected scientific and humanitarian colleges according to the demographic variable (college) at the significance level (0.05).
- There is no significant difference in the opinions of students from selected scientific and humanitarian colleges according to the demographic variable (gender) at the significance level (0.05).

1.5 Scope of the Study:

1.5.1 Human Scope:

The study sample includes students from selected scientific and humanitarian colleges at the University of Duhok.

1.5.2 Temporal Scope:

The research was conducted during the second semester of the academic year (2023–2024).

1.5.3 Spatial Scope:

This research was carried out in the Colleges of Engineering, Science, Basic Education, and Physical Education and Sport Sciences at the University of Duhok.

1.6 Definition of Terms

- **Psychological Stress:** Lazarus and Folkman (1984) define psychological stress as a relationship between the individual and the environment that the individual appraises as taxing or exceeding his or her resources and as endangering his or her well-being.
- **Psychological Stress (Operational Definition):** The total score obtained by the student on the Psychological Stress Scale developed by Ali (2005), which was adopted in the present study.
- **Scientific and Humanitarian Colleges (Operational Definition):** The four colleges of the University of Duhok included in this study (Engineering, Science, Basic Education, and Physical Education and Sport Sciences).

2. Theoretical Background and Previous Studies

2.1 Theoretical Background

2.1.1 The Concept of Psychological Stress

The concept of stress was introduced into the life sciences by Selye (1956), who described it as the non-specific response of the body to any demand placed upon it. In this view, the body first reacts to the stressor, then tries to resist it, and finally becomes exhausted if the demand continues.

Later, Lazarus and Folkman (1984) proposed the transactional model of stress, which shifted attention from the stressor itself to the way the individual perceives it. In this model, the individual first evaluates whether a situation is threatening or harmful (primary appraisal) and then evaluates whether he or she has the resources needed to cope with it (secondary appraisal). Stress therefore arises when the demands of a situation are perceived to exceed the available coping resources. In line with this view, Cohen, Kamarck and Mermelstein (1983) introduced the concept of perceived stress, which reflects the degree to which individuals regard the situations in their lives as unpredictable, uncontrollable and overloading, and they developed the Perceived Stress Scale to measure it.

2.1.2 Sources of Psychological Stress Among University Students

In a critical review of the literature, Robotham and Julian (2006) identified examinations and assessment, academic workload, financial difficulties, adjustment to a new social environment and concern about future employment as the main sources of stress among higher education students. Hamaideh (2011) found that self-imposed stressors were the most common stressors among university students in Jordan, followed by pressures. In addition, Bayram and Bilgel (2008) reported that students who were dissatisfied with their education had higher stress scores than those who were satisfied.

2.1.3 Effects of Psychological Stress

A moderate level of stress may motivate students to work and achieve, but high or prolonged stress has negative effects on their psychological and physical health and on their academic performance. These effects include anxiety, low mood, difficulty concentrating, sleep problems and reduced academic achievement (Robotham & Julian, 2006). Stress also often occurs together with depression and anxiety (Bayram & Bilgel, 2008).

2.1.4 Psychological Stress, Gender and Physical Activity

Previous research indicates that the experience of stress differs between males and females.

Matud (2004) found that women reported higher levels of chronic stress and minor daily stressors than men, and that men and women differed in the coping styles they used. Physical activity is also considered a protective factor against stress. Large studies of university students have shown that students who are physically active report lower perceived stress than inactive students (VanKim & Nelson, 2013), and that regular aerobic exercise can reduce perceived stress among university students (Herbert et al., 2020).

2.2 Previous Studies

- **Study 1: Bayram and Bilgel (2008)** – *The Prevalence and Socio-Demographic Correlations of Depression, Anxiety and Stress Among a Group of University Students*

  Objective: To determine the prevalence of depression, anxiety and stress among university students in Turkey and their relationship with socio-demographic variables.

  Sample and Tool: 1,617 university students, who completed the Depression Anxiety and Stress Scale (DASS-42).

  Findings: About 27% of the students had stress at a moderate or higher level. Female students and first- and second-year students had higher stress scores, as did students who were dissatisfied with their education.

- **Study 2: Hamaideh (2011)** – *Stressors and Reactions to Stressors Among University Students*

  Objective: To identify the stressors experienced by university students in Jordan and their reactions to these stressors.

  Sample and Tool: 877 university students selected by stratified random sampling, who completed the Student-Life Stress Inventory.

  Findings: Self-imposed stressors were the most common, followed by pressures, and cognitive reactions were the most common reactions to stress. Stress was negatively correlated with the students' perceived health and with their parents' level of education.

- **Study 3: VanKim and Nelson (2013)** – *Vigorous Physical Activity, Mental Health, Perceived Stress, and Socializing Among College Students*

  Objective: To examine the relationship between vigorous physical activity, mental health, perceived stress and socializing among college students.

  Sample and Tool: 14,804 undergraduate students from 94 four-year colleges in the United States; perceived stress was measured with the Cohen Perceived Stress Scale.

  Findings: Students who met the recommendations for vigorous physical activity were less likely to report perceived stress and poor mental health than those who did not.

- **Study 4: Herbert et al. (2020)** – *Regular Physical Activity, Short-Term Exercise, Mental Health, and Well-Being Among University Students: The Results of an Online and a Laboratory Study*

  Objective: To examine mental health, well-being and regular physical activity among university students, and to explore the effects of a short-term aerobic exercise programme.

  Sample and Tool: 185 students from German universities, who completed standardized self-report measures of depression, anxiety, perceived stress and well-being.

  Findings: All students reported experiencing stress. Regular physical activity was

negatively correlated with depression, anxiety and perceived stress, and a six-week low- to moderate-intensity aerobic exercise programme reduced depression and perceived stress.

2.3 Benefit from Previous Studies

The previous studies show that psychological stress is common among university students, that it may differ according to gender and year of study, and that physical activity is associated with lower stress. The present study benefited from them in formulating its problem and hypotheses and in interpreting its results. It differs from them in that it compares students of scientific and humanitarian colleges at the University of Duhok, and students who practice sports with those who do not.

3. Research Methodology and Procedures

3.1 Research Methodology:

The researchers used the **comparative descriptive method** in this study, as it is the most appropriate for this type of research. This method relies on studying the phenomenon as it exists in reality by obtaining data from its primary sources. A questionnaire was used as the tool for data collection.

3.2 Research Population:

The research population consists of all students from the four academic years across selected colleges at the University of Duhok. The total number of students in the original population was 6,348 male and female students, distributed across four colleges (Engineering, Science, Basic Education, and Physical Education and Sport Sciences), according to the statistics of these colleges for the academic year (2023–2024). The participants were selected by expert faculty members and specialists (see Appendix 2). Table (1) illustrates this distribution.

Table (1): Distribution of the Research Population According to Gender Variable

No.	College	Males	Females	Total
1	College of Engineering	711	503	1,214
2	College of Science	530	966	1,496
3	College of Basic Education	1,470	1,750	3,220
4	College of Physical Education and Sport Sciences	297	121	418
	Total	**3,008**	**3,340**	**6,348**

3.3 Research Sample:

The researchers distributed 450 questionnaires to a simple random sample of students from the Colleges of Engineering, Science, Basic Education, and Physical Education and Sport Sciences at the University of Duhok. A total of 394 questionnaires were retrieved, of which 6 were excluded due to being unsuitable for analysis. The final research sample consisted of 388 questionnaires, representing 6.11% of the total study population and 86.22% of the distributed questionnaires.Table (2) shows the distribution of the research sample according to the independent variables.

Table (2): Distribution of the Research Sample According to the Variables of Sport, College, and Gender

No.	Personal Information	Category	Count	Percentage
1	Sport	Practicing Students	270	69.59%
		Non-Practicing Students	118	30.41%
		Total	**388**	**100%**
2	College	Engineering	85	21.91%
		Science	130	33.51%
		Basic Education	112	28.86%
		Physical Education and Sport Sciences	61	15.72%
		Total	**388**	**100%**
3	Gender	Male	178	45.88%
		Female	210	54.12%
		Total	**388**	**100%**

3.4 Research Instrument

3.4.1 Psychological Stress Scale:

The researchers reviewed theoretical literature and previous studies that addressed the topic of psychological stress. They adopted the Psychological Stress Factors Scale developed by *Ali (2005)*. The scale consisted of 30 items, both positive and negative. The positive items are numbered (8, 13, 15, 19), while the negative items are numbered (1, 2, 3, 4, 5, 6, 7, 9, 10, 11, 12, 14, 16, 17, 18, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30).

Weighting of Positive Items:

- (3) points for the response *Always*
- (2) points for the response *Rarely*
- (1) point for the response *Sometimes*

Weighting of Negative Items:

- (3) points for the response *Sometimes*
- (2) points for the response *Rarely*
- (1) point for the response *Always*

3.4.2 Validity of the Psychological Stress Scale (Face Validity):

To verify the face validity of the research instrument, a panel of expert judges—comprising faculty members and specialists in the fields of sports psychology, measurement, and evaluation—was consulted. The researchers presented the preliminary version of the questionnaire to them (Appendix 2) to obtain their opinions regarding its suitability. The instrument was approved by 100% of the experts and specialists without any modifications to the questionnaire items. Appendices (3) and (4) present the final version of the research instrument.

3.4.3 Reliability of the Psychological Stress Scale (Split-Half Method):

To ensure the reliability of the psychological stress questionnaire, the split-half method was employed using a sample of 30 male and female students selected from outside the main

research sample. This was done to estimate the reliability of the questionnaire. After correcting the responses based on odd- and even-numbered items for each method, Pearson's correlation coefficient was used to calculate the relationship between the scores of odd and even items. The correlation coefficient was then adjusted using the Spearman-Brown correction formula. The reliability coefficient was found to be 0.78, which is a strong indicator of the instrument's reliability. Table (3) illustrates this.

Table (3): Reliability Coefficient Using the Split-Half Method

Sample Size	Correlation Coefficient Before Correction	Adjusted Coefficient (Spearman-Brown Formula)
30	0.64	0.78

3.5 Pilot Study:

The scale was applied to a sample of 8 male and female students from the research population. The aim was to determine the degree of respondents' engagement, identify any ambiguous statements, and estimate the average time required to complete the scale, which ranged between 10 to 12 minutes.

3.6 Main Study:

The scale was administered to the full research sample of 450 male and female students after providing them with instructions on how to respond, guided by observations from the pilot study. The data collection period extended from March 24, 2024 to April 4, 2024.

3.7 Statistical Tools:

The researchers used the Statistical Package for the Social Sciences (SPSS) to statistically process the data collected in this study. The following statistical methods were employed:

1. Pearson's correlation coefficient to calculate the reliability using the split-half method.
2. Spearman-Brown correction formula to adjust the reliability coefficient in the split-half method.
3. Arithmetic means and standard deviations to determine the level of psychological stress among the sample.
4. Independent samples t-test to identify significant differences in psychological stress between students who practice sports and those who do not, as well as differences according to gender.
5. One-way ANOVA to examine significant differences in psychological stress based on college.
6. Least Significant Difference (L.S.D.) test to identify differences between colleges.

4. Presentation, Analysis, and Discussion of Results

This chapter addresses the research questions by presenting, analyzing, interpreting, and discussing the findings in light of the research hypotheses. It also links the results to previous studies and provides recommendations and suggestions for future research based on the findings. The presentation is as follows:

First: Testing the First Hypothesis

To test the first research hypothesis, which states:

The level of psychological stress among students of selected scientific and humanitarian colleges is high at the significance level (0.05), the total score was divided into three levels:

- From 30 to 49.33: Low level
- From 49.34 to 69.66: Moderate level
- From 69.67 to 90: High level

Then, the mean score for psychological stress among the research sample was calculated. The results were as follows:

Table (4): The Level of Psychological Stress Based on the Mean Score Among the Research Sample

Variable	Number of Items	Mean	Standard Deviation	Low Level (30–49.33)	Moderate Level (49.34–69.66)	High Level (69.67–90)	Level
Psychological Stress	30	65.57	7.444	30–49.33	49.34–69.66	69.67–90	Moderate

The results shown in Table (4) indicate that the mean score of psychological stress lies within the moderate level. Therefore, the hypothesis stating that *"the level of psychological stress among students of selected scientific and humanitarian colleges is high at the significance level (0.05)"* is rejected. This suggests that the students from some scientific and humanitarian colleges experience psychological stress at a moderate level.

This may be attributed to several factors, such as a lack of focus on the required academic goals, excessive preoccupation with life's daily demands and problems, insufficient attention to studying course materials effectively, anxiety about exams and the possibility of failure, and concerns about unemployment after graduation.

Second: Testing the Second Hypothesis

To test the hypothesis which states: There is no significant difference in the opinions of students who practice sports and those who do not at the significance level (0.05), the researchers applied the independent samples t-test after verifying the normal distribution of the research sample. The results were as follows:

Table (5): t-Test Results for Psychological Stress Between Practicing and Non-Practicing Students

Group	Sample Size	Mean	Standard Deviation	Calculated t-Value	Degrees of Freedom	Significance Level	Interpretation
Practicing	270	65.53	7.556	-0.135	386	0.893	Not Significant
Non-Practicing	118	65.64	7.212				

Based on the results in Table (5), there is no statistically significant difference in psychological stress between students who practice sports and those who do not, since the p-value (0.893) exceeds the significance level of 0.05. Therefore, the hypothesis is accepted, indicating that practicing sports does not lead to a significant difference in psychological stress levels among the students in this sample.

Third: Testing the Third Main Hypothesis

To test the main hypothesis which states: There is no significant difference in the opinions of students from selected scientific and humanitarian colleges according to the demographic variables (college – gender) at the significance level (0.05), the results were as follows:

1. Testing the First Sub-Hypothesis:

This sub-hypothesis states: There is no significant difference in the opinions of students from selected scientific and humanitarian colleges according to the demographic variable (college) at the significance level (0.05).

To test this hypothesis, the researchers calculated the sum of squares and mean square values using one-way ANOVA as the statistical method. The results indicated that there are statistically significant differences among the four groups in terms of psychological stress, as shown in Table (6).

Table (6): One-Way ANOVA for Psychological Stress According to the Variable of College

Variable	Source of Variation	Sum of Squares	Degrees of Freedom	Mean Square	F-Value	Significance Level	Interpretation
Psychological Stress	Between Groups	1,409.994	3	469.998	9.008	0.000	Significant
	Within Groups	20,035.263	384	52.175			
	Total	21,445.258	387				

Conclusion: Since the p-value (0.000) is less than the significance level (0.05), the sub-hypothesis is **rejected**, indicating that **students' psychological stress levels differ significantly according to their college**.

Since the results indicate the presence of statistically significant differences at the 0.05 significance level in psychological stress due to the variable of college among the research sample, it is necessary to identify the source of these differences. Given the unequal sample sizes among the groups, the researchers used the Least Significant Difference (L.S.D.) test to determine the specific locations of the differences, as shown in Table (7).

Table (7): L.S.D. Test Results for Comparisons in Psychological Stress According to the College Variable

Comparison Groups	Mean Difference	Standard Error	Significance Level	Interpretation
Engineering × Science	−5.128*	1.008	0.000	Significant difference
Engineering × Basic Education	−2.209*	1.039	0.034	Significant difference
Engineering × Physical Education and Sport Sciences	−2.842*	1.212	0.020	Significant difference
Science × Basic Education	2.919*	0.931	0.002	Significant difference
Science × Physical Education and Sport Sciences	2.286*	1.121	0.042	Significant difference
Basic Education × Physical Education and Sport Sciences	−0.633	1.149	0.582	Not significant

These results indicate the following:

1. There is a statistically significant difference in psychological stress at the 0.01 level between the mean score of the first group (College of Engineering) and the second group

(College of Science), with the difference in favor of the second group (College of Science).
2. There is a statistically significant difference in psychological stress at the 0.05 level between the mean score of the first group (College of Engineering) and the third group (College of Basic Education), with the difference in favor of the third group (College of Basic Education).
3. There is a statistically significant difference in psychological stress at the 0.01 level between the mean score of the first group (College of Engineering) and the fourth group (College of Physical Education and Sport Sciences), with the difference in favor of the fourth group (College of Physical Education and Sport Sciences).
4. There is a statistically significant difference in psychological stress at the 0.01 level between the mean score of the second group (College of Science) and the third group (College of Basic Education), with the difference in favor of the second group (College of Science).
5. There is a statistically significant difference in psychological stress at the 0.05 level between the mean score of the second group (College of Science) and the fourth group (College of Physical Education and Sport Sciences), with the difference in favor of the second group (College of Science).
6. No statistically significant differences were observed in psychological stress between the third group (College of Basic Education) and the fourth group (College of Physical Education and Sport Sciences).

According to Table (7), the p-values are less than 0.05, thus the null hypothesis stating that "there is no significant difference in the opinions of students from selected scientific and humanitarian colleges according to the demographic variable (college) at the 0.05 significance level" is rejected, and the alternative hypothesis is accepted, which states that "there is a significant difference in students' opinions based on the college variable at the 0.05 level."

The results reveal that negative psychological stress among engineering students is lower than that of students in other colleges. This implies that engineering students experience higher levels of psychological stress compared to others. This may be attributed to the difficulty of the subjects taught in the College of Engineering, which is a scientific college requiring extended hours of study and review. It demands high intellectual effort, focus during exams, and both theoretical and practical lectures, all of which contribute to elevated stress levels.

On the other hand, students in the College of Science exhibited the lowest level of psychological stress among all four colleges. This might be due to greater self-confidence, less fear of academic and life demands, or possibly because these students make good use of their free time to study, resulting in a lower stress level.

For the remaining colleges (Basic Education and Physical Education and Sport Sciences), students showed a moderate level of psychological stress.

2. Testing the Second Sub-Hypothesis

This sub-hypothesis states:
"There is no significant difference in the opinions of students from selected scientific and humanitarian colleges according to the demographic variable (gender) at the significance level (0.05)."

To test this hypothesis, the researchers applied the independent samples t-test after verifying the normal distribution of the research sample. The results were as follows:

Table (8): t-Test Results for Psychological Stress Between Students According to the Gender Variable

Group	Sample Size	Mean	Standard Deviation	Calculated t-Value	Degrees of Freedom	Significance Level	Interpretation
Male	178	64.07	7.538				
Female	210	66.83	7.139	-3.699	386	0.000	Significant

Based on Table (9), the p-value is less than 0.05, which leads to the rejection of the null hypothesis that states:
"There is no significant difference in the opinions of students from selected scientific and humanitarian colleges according to the demographic variable (gender) at the 0.05 significance level."

Instead, the alternative hypothesis is accepted, which states:
"There is a significant difference in the opinions of students from selected scientific and humanitarian colleges according to the gender variable at the 0.05 significance level."

Accordingly, we conclude that there is a difference in the participants' views regarding psychological stress. Specifically, the negative psychological stress among female students is lower than among male students, meaning that females experience lower levels of psychological stress compared to males.

This may be attributed to the fact that female students tend to be more committed to studying regularly, often engaging in daily study habits, unlike male students who may accumulate academic material until just before exams, which in turn intensifies psychological stress as exams approach.

5. Conclusions, Recommendations, and Suggestions

5.1 Conclusions:

Based on the statistical analysis of the research data, the following conclusions were drawn:

1. The research sample suffers from a moderate level of psychological stress.
2. The results indicated that practicing sports does not reduce the level of psychological stress among university students in the selected scientific and humanitarian colleges.
3. The findings also revealed that demographic variables, specifically college and gender, have an influence on the level of psychological stress among members of the research sample.

5.2 Recommendations:

In light of the research objectives and findings, the researchers offer the following recommendations:

1. Develop and implement psychosocial support programs and workshops aimed at enhancing students' skills in managing and reducing psychological stress.

2. Refer university students experiencing psychological stress to a professional mental health specialist for appropriate psychological counseling and treatment.

5.3 Suggestions:

The researchers propose conducting the following studies:

1. Conduct an experimental study to examine the effectiveness of counseling programs (developmental, preventive, and therapeutic) in reducing psychological stress among university students, in order to help improve their mental health.
2. Conduct a study that investigates the relationship between psychological stress and academic achievement among university students.

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Appendix (1)

Expert Opinion Questionnaire on the Preliminary Version of the Psychological Stress Scale

Dear Respected Professor .....
Peace and blessings be upon you,
Warm greetings,

The researchers are conducting a study entitled: "A Comparative Study of Psychological Stress Among Students of Selected Scientific and Humanitarian Colleges at the University of Duhok" as part of the requirements for obtaining a Bachelor's degree in Sport Sciences.

To achieve the objectives of the study, it is essential to use a tool that is characterized by objectivity, validity, and reliability. Therefore, the researchers have adopted the scale developed by Ali (2005).

In view of your extensive experience and knowledge in collaborative academic work, the researchers present the items of this scale to you for consultation and guidance, seeking your valuable feedback regarding their appropriateness, and invite you to propose any necessary modifications or additions you deem essential.

Please note that the response options follow a three-point Likert scale to ensure accurate evaluation: (Rarely, Sometimes, Always)

We sincerely thank you for your cooperation in supporting scientific research.

Researchers

Signature:
Name and Degree:
Specialization:
Academic Title:

Psychological Stress Scale

No.	Items	Valid	Invalid	Notes
1	I feel exhausted by the many daily burdens and activities.			
2	My stress is caused by external factors beyond my control.			
3	I am surrounded by circumstances I am forced to live with.			
4	I cannot complete my assignments despite setting a schedule to accomplish them.			
5	I have ordinary problems that I cannot find proper solutions for.			
6	I do not like studying and cannot take the risk of changing it.			
7	I am not satisfied with my relationship with other students.			
8	I feel responsible for the happiness of my classmates.			
9	I feel embarrassed to ask my classmates for help.			
10	I do not know the purpose of my university studies.			
11	I feel disappointed because I have not achieved my life goal.			
12	I feel empty despite the academic success I achieve.			
13	I feel happy when I find a spirit of competition among students.			
14	I feel that my classmates let me down in difficult situations.			
15	I suppress my anger and do not express it when I disagree with my classmates.			
16	I get very angry when my feelings are hurt by my classmates.			
17	I do not accept criticism from my classmates.			
18	I feel anxious about losing my future or failing academically.			
19	There is no need to show sadness or express it or offer sympathy in case of failure.			

20	I do not trust that things will get better.
21	I find it hard to remember everything that happens to me during the day.
22	I feel I lack the ability to understand others.
23	I feel I do not have enough energy to complete my daily tasks.
24	I feel uncomfortable participating in class discussions.
25	I feel distressed by my limited financial ability to obtain my academic needs.
26	I feel weak in making my own decisions.
27	I am bothered by my inability to express my emotions.
28	I am bothered by deep thinking required to achieve success.
29	I find it difficult to get along with my classmates.
30	I am bothered by my parents' excessive attention to my academic performance.

Appendix (2)

Names of Experts and Specialists

No.	Name	Specialization	Affiliation
1	Asst. Prof. Dr. Jameel Ahmed Hussein	Measurement and Evaluation	University of Duhok / College of Physical Education and Sport Sciences
2	Asst. Prof. Dr. Warhil Asim Mohammed	Sports Psychology	University of Duhok / College of Physical Education and Sport Sciences
3	Lecturer Dr. Nihad Ibrahim Tayeb	Measurement and Evaluation	University of Duhok / College of Physical Education and Sport Sciences
4	Lecturer Dr. Behzad Ahmed Saleh	Sports Psychology	University of Duhok / College of Physical Education and Sport Sciences
5	Lecturer Dr. Raheeq Matti Abdulmasih	Sports Psychology	University of Duhok / College of Physical Education and Sport Sciences
6	Assistant Lecturer Dr. Halkat Mohammed Sadiq Saleh	Sports Psychology	University of Duhok / College of Physical Education and Sport Sciences
7	Assistant Lecturer Khairy Ahmed Salim	Sports Psychology	University of Duhok / College of Physical Education and Sport Sciences

Appendix (3)
Final Version of the Psychological Stress Questionnaire
Dear Student,
Warm greetings,
The researchers are conducting a Bachelor's degree study in Psychology titled: "A Comparative Study of Psychological Stress Among Students of Selected Scientific and Humanitarian Colleges at the University of Duhok."
The aim of the study is to explore the level of psychological stress among university students. You are the central focus of this study, and your sincere and accurate responses will form the foundation for the success of this research and the achievement of its goals.
Please be assured that all the data and information you provide in this questionnaire will be used strictly for scientific research purposes.
Therefore, you are kindly requested to complete the following:

1. Fill in the preliminary information by placing a (√) mark in the appropriate blank.
2. Carefully read each statement in the questionnaire and mark (√) next to the option that best reflects your opinion — with complete objectivity.

Thank you for your cooperation.
Researchers

Illustrative Example:

No.	Items	Always	Sometimes	Rarely
1	I feel exhausted by the many daily burdens and activities.		√	
2	My stress is caused by external factors beyond my control.	√		

Second: Psychological Stress Scale

No.	Items	Always	Sometimes	Rarely
1	I feel exhausted by the many daily burdens and activities.			
2	My stress is caused by external factors beyond my control.			
3	I am surrounded by circumstances I am forced to live with.			
4	I cannot complete my assignments despite setting a schedule to accomplish them.			
5	I have ordinary problems that I cannot find suitable solutions for.			
6	I do not like studying and cannot risk changing it.			
7	I am not satisfied with my relationship with other students.			
8	I feel responsible for the happiness of my classmates.			
9	I feel embarrassed to ask my classmates for help.			
10	I do not know the purpose of my university studies.			
11	I feel disappointed because I have not achieved my life goal.			
12	I feel empty despite the success I achieve in my studies.			
13	I feel happy when I find a spirit of competition among students.			
14	I feel that my classmates let me down in difficult situations.			

15	I suppress my anger and do not express it when I disagree with my classmates.	
16	I get very angry when my feelings are hurt by my classmates.	
17	I do not accept criticism from my classmates.	
18	I feel anxious about losing my future or failing in my studies.	
19	There is no need to show sadness or express it or offer sympathy in case of failure.	
20	I do not trust that things will get better.	
21	I find it difficult to remember everything that happens to me during the day.	
22	I feel that I lack the ability to understand others.	
23	I feel I do not have enough energy to complete my daily tasks.	
24	I feel uncomfortable participating in class discussions.	
25	I feel distressed due to my limited financial ability to obtain my study needs.	
26	I feel that I am weak in making decisions.	
27	I am bothered by my inability to express my emotions.	
28	I am bothered by deep thinking required to achieve success.	
29	I find it difficult to get along with my classmates.	
30	I am bothered by my parents' excessive concern with monitoring my academic progress.	

Appendix (4)
Questionnaire on the Psychological Stress Scale — Kurdish Version (Kurmanji Dialect)
Dear male student: ..... Dear female student: .....
Greetings and respect,
The researchers are conducting a Bachelor's level study in Psychology titled: "A Comparative Study of Psychological Stress Among Students of Selected Scientific and Humanitarian Colleges at the University of Duhok."
The study aims to identify the level of psychological stress among university students.
Since you are a key focus in this study—God willing—your honest and accurate responses will be the foundation for the success of this research and for achieving its objectives. Please note that the data and information provided in this questionnaire will be used solely for scientific purposes.
Therefore, you are kindly requested to complete the following:

1. Complete the initial data by placing a (√) in the appropriate blank.
2. Please carefully read each statement in this questionnaire and place a (√) mark next to the option that best reflects your opinion.

Thank you for your cooperation.
Researchers

Second: Psychological Stress Scale

No.	Item
1	The large number of daily responsibilities and activities makes me feel tired.
2	I cannot control my stress due to external factors.
3	I am forced to live with conditions that I have no control over.
4	I cannot complete my tasks even though I have created a timetable to finish them.
5	I have simple problems but cannot find appropriate solutions for them.
6	I do not enjoy studying and cannot take the risk of changing it.
7	I am not satisfied with my relationship with my fellow students.
8	I feel responsible for the happiness of my friends.
9	I feel ashamed to ask my classmates for help.
10	I do not know the goal of my university education.
11	I feel hopeless because I haven't been able to achieve my life goal.
12	I feel empty even though I have achieved success in my studies.
13	I feel happy when I sense a spirit of competition with other students.
14	I feel that my friends let me down in difficult situations.
15	I suppress my anger and don't express it when I disagree with my friends.
16	I get very angry when my feelings are hurt by my classmates.
17	I do not accept criticism from my classmates.
18	I feel anxious about losing my future or failing in my studies.
19	There is no need to show sadness or express it or offer condolences in the event of failure.
20	I do not believe that things will get better.

21	I find it difficult to remember everything that happens during the day.
22	I feel that I lack the ability to understand others.
23	I feel I do not have the energy needed to complete daily tasks.
24	I feel uncomfortable participating in discussions in class.
25	I feel distressed because of my weak financial ability to afford study needs.
26	I feel that I am weak when it comes to making decisions.
27	My inability to express my emotions bothers me.
28	Overthinking in order to succeed bothers me.
29	I feel that it is difficult to get along with my fellow students.
30	My father's excessive concern about monitoring my academic performance bothers me.