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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.

## 1.6Definition of Terms

- **Physical Attributes (Components of Physical Fitness):** These refer to the characteristics that enable an individual to perform physical activities efficiently and effectively. They include strength, speed, endurance, flexibility, balance, coordination, agility, and accuracy. These attributes are fundamental for developing athletic and physical performance and are commonly used as criteria for assessing individuals' fitness levels. (Na'mah et al., 2022, 16)
- **Offensive Basketball Skills:** Offensive skills in basketball refer to the set of technical movements and actions performed by players with the aim of scoring points against the opposing team. These skills include various types of shooting (set shot, jump shot, and layup), passing (short and long passes), and dribbling (controlling the ball while moving). These skills constitute the foundation of offensive performance, allowing teams to overcome opponents' defenses and gain an advantage during the game. (Al-Qaisi, 2019, 19)

# 2. Theoretical Background and Previous Studies

## 2.1 Theoretical Background

### 2.1.1 Physical Attributes

- **Concept of Physical Attributes:** Physical attributes, also known as components of physical fitness, refer to a set of fundamental bodily capacities that form the basis for motor performance across various sports and daily activities. They indicate an individual's physical efficiency and capacity to perform exercises or daily tasks effectively without excessive fatigue. These attributes are key indicators of general health and physical ability, essential for the development of motor skills in sports activities. They are also considered a core element in evaluating athletes' and students' progress within physical education programs. (Shughati, 2014, 91)
- **Definition of Physical Attributes:** Physical attributes are the bodily characteristics that determine an individual's ability to perform physical movements efficiently. They constitute the foundation upon which athletic skills are built. (Hassan, 2008, 68)
- **Components of Physical Attributes:**
- Physical attributes, or fitness components, consist of a set of qualities that athletes possess in varying degrees depending on the nature of the sport and individual differences. These include:

❖ **Strength:** The ability to exert maximum force against resistance.
❖ **Speed:** The ability to perform movements in the shortest possible time.
❖ **Endurance:** The ability to sustain physical activity over a prolonged period without fatigue.
❖ **Flexibility:** The ability to perform movements through a wide range of motion in the joints.
❖ **Balance:** The ability to maintain body stability while stationary or moving.
❖ **Coordination:** The ability to synchronize body movements efficiently.
❖ **Agility:** The ability to change body direction quickly and accurately.

- ❖ **Accuracy:** The ability to direct movements toward a specific target correctly. (Saleh, 2005, 56)
- **Importance of Physical Attributes:** Physical attributes are a fundamental basis for developing an individual's motor and technical abilities. They enhance physical and athletic performance, improve adaptability to physical exertion, and reduce the risk of injury. Furthermore, they serve as vital indicators of overall health and fitness, and are used to measure physical readiness both in athletic contexts and daily life. Their significance is further highlighted by their role in developing motor competence in children and youth, which positively affects their physical and psychological well-being. (Oliveira, 2023, 3)

### 2.1.2 Offensive Skills in Basketball

- **Concept of Offensive Skills in Basketball:** Offensive skills in basketball refer to a set of fundamental motor and technical abilities used by players to break through the opponent's defense and score points. These skills include passing, dribbling, shooting, off-the-ball movement, and offensive rebounding. They are a core component in building and executing team offensive strategies effectively during gameplay (Sulaiman, 2012, p. 69)
- **Definition of Offensive Skills in Basketball:**
- Offensive basketball skills are a collection of technical and motor abilities used by players to score points and gain an advantage on the offensive end. (Cory, 2019, 43)
- **ypes of Offensive Skills in Basketball:**
- ❖ **Passing:** Transferring the ball accurately and quickly between players.
- ❖ **Dribbling:** Controlling the ball while advancing toward the basket.
- ❖ **Shooting:** Attempting to score by directing the ball into the basket using various techniques (set shot, jump shot, layup, etc.).
- **Importance of Offensive Skills in Basketball:** Offensive skills are among the most critical pillars upon which a team depends to score points and achieve victory. They represent the practical application of tactical strategies and directly contribute to technical superiority over the opposing team. Their importance lies in enabling players to perform organized movements, break through defensive formations, and exploit gaps effectively. Moreover, these skills enhance players' confidence and creativity in team play. Skills such as shooting, dribbling, passing, and off-the-ball movement create numerous offensive opportunities, whether through individual actions or coordinated teamwork, and are crucial for translating collective effort into tangible results on the scoreboard. (Kamal, 2005, 96)

## 2.2 Previous Studies

- **Study 1: Al-Jafri & Al-Oni (2024)** – *The Contribution of Selected Anthropometric and Physical Measurements to the Accuracy of Three-Point Shooting in Basketball*
  **Objective:** To analyze the extent to which selected anthropometric and physical measurements contribute to the accuracy of three-point shooting.
  **Findings:** The study revealed a relationship between certain anthropometric and physical measurements and three-point shooting accuracy, highlighting the importance of these variables in enhancing player performance.

- **Study 2: Abaub (2023)** – *The Contribution of Selected Anthropometric Measurements and Motor Abilities to the Accuracy of Layup Shooting in Basketball* **Objective:** To determine the contribution ratio of selected anthropometric measurements and motor abilities to the accuracy of performing layup shooting. **Findings:** The study showed that certain anthropometric features, such as overall height and arm length, along with motor abilities, have a positive effect on the accuracy of layup shooting.
- **Study 3: Al-Zubaidi (2020)** – *The Effect of Specialized Training on Power Endurance and Selected Compound Offensive Skills in Young Basketball Players* **Objective:** To investigate the impact of UPPER-LOWER training methods on the development of power endurance and compound offensive skills. **Findings:** The results demonstrated that training programs based on the UPPER-LOWER method were effective and contributed significantly to improving certain physical abilities and compound offensive skills among players of Al-Naft Sports Club.

## 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.

This result is inconsistent with the findings of Abdullah (2011), who indicated that students from the College of Administration and Economics at the University of Mosul experienced a high level of psychological stress.

**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. |