



# The Impact of Psychological Stress on the Competitive Performance Levels of Junior Volleyball Players

Dhurgham Abduladheem Abbas\*

Al-Qasim Green University, Student Activities Department, Iraq

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\*Correspondence: Dhurgham

Abduladheem Abbas

Email: [durgham@sport.uoqasim.edu.iq](mailto:durgham@sport.uoqasim.edu.iq)

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**Abstract:** Volleyball is a team sport, which demands complex physical, technical, tactical and psychological preparation to reach high level physical performance. Psychological factors are playing an increasing role in the sport context of modern sporting events because they directly affect the sports performance of the players, particularly among young players who undergo emotional and psychological changes at this stage of their lives. With the increase in competition, players are under a lot of psychological pressure and mental skills like self-confidence, concentration and decision making are a must to maintain performance and succeed. By observing Al-Qasim Volleyball Club players continuously it was observed that the psychological pressure that players experience before and during the match may have a negative impact on their performance in the match in various aspects such as focus, confidence and decision making on the court. Technical and physical efficiency can decrease due to high levels of psychological stress, while handling stress can improve efficiency and lead to positive outcomes. Thus, the present study was undertaken to study the effect of the psychological pressure on competitive performance of players of Al-Qasim Volleyball club and to find out the relation between psychological stress and athletic achievement in volleyball.

**Keywords:** Psychological Stress, Competitive Performance Level, Fundamental Skills

## Introduction

Volleyball is regarded as one of the major team sports that demands a high degree of physical, technical, and tactical proficiency, in addition to psychological preparation, which constitutes a fundamental factor in achieving athletic accomplishment. With the remarkable advancement of modern sports competitions, increasing attention has been directed toward the psychological aspects of athletes, as these factors exert a direct influence on competitive performance, particularly among youth players who undergo a sensitive developmental stage characterized by emotional and psychological fluctuations.

Psychological stress is considered one of the most prominent challenges confronting volleyball players during both training sessions and competitive events. Such stress may arise from coaches' and spectators' expectations, fear of failure, the desire to attain victory, as well as the inherently demanding nature of competition itself. These pressures may lead to diminished concentration and reduced self-confidence, thereby negatively affecting technical and tactical performance on the court. Conversely, the ability to effectively manage psychological stress may contribute significantly to enhancing performance efficiency and achieving favorable outcomes ([Shieh et al., 2023](#)).

Accordingly, the significance of this study stems from its attempt to examine the impact of psychological stress on the competitive performance level of youth volleyball players, with the aim of identifying the nature of the relationship between psychological stress and performance level, as well as determining the extent to which such stress influences players' ability to perform at their optimum level during sporting competitions ([Freitas et al., 2015](#)).

The importance of this research also lies in its focus on a crucial aspect of the psychological preparation of young volleyball players. A comprehensive understanding of the effects of psychological stress may assist coaches and specialists in designing psychological and training programs that contribute to improving competitive performance while minimizing the adverse effects of stress ([Horta et al., 2019](#)).

*Furthermore, the study seeks to:*

1. Identify the level of psychological stress experienced by youth volleyball players.
2. Clarify the relationship between psychological stress and competitive performance level.
3. Assist coaches in developing appropriate psychological programs to prepare players prior to competitions.
4. Enhance players' ability to regulate emotions and strengthen self-confidence during play.
5. Enrich the scientific literature and studies related to sports psychology and team sports.

## **Research Problem**

Volleyball is considered one of the team sports that requires a high level of physical, technical, and tactical skills, in addition to psychological preparation, which represents a fundamental factor in achieving athletic success. With the rapid development of sports competitions, increasing attention has been devoted to the psychological dimensions of athletes, owing to their direct impact on competitive performance, particularly among youth players who experience a sensitive stage marked by psychological and emotional fluctuations.

Modern sports competitions are characterized by intense challenges and psychological pressures, which necessitate that players possess psychological capabilities enabling them to maintain a stable level of competitive performance throughout the match and achieve victory. Through the researcher's experience and continuous observation, a noticeable decline and inconsistency in the competitive performance of certain players from Al-Qasim Sports Club Volleyball Team during official matches was identified. This observation suggests the existence of psychological factors that may adversely affect athletic performance. Accordingly, the researcher deemed it necessary to investigate psychological stress and its impact on competitive performance.

## **Research Objectives**

1. To identify the level of psychological stress among players of Al-Qasim Sports Club.
2. To determine the level of competitive performance among the players.

3. To examine the relationship between psychological stress and competitive performance.

### Research Hypothesi

1. There is a statistically significant inverse relationship between psychological stress and competitive performance among youth volleyball players of Al-Qasim Sports Club.

### Scope of the Research

1. Human Scope: Youth volleyball players of Al-Qasim Sports Club for the 2026 season.
2. Spatial Scope: Al-Qasim Indoor Sports Hall at Al-Qasim Youth and Sports Forum.
3. Temporal Scope: From 1 \ 10 \ 2025 to 1 \ 2 \ 2026.

### Methodology

"The researcher adopted the descriptive method using the correlational approach, as it was deemed most appropriate for the nature of the research problem".

### Research Population and Sample

The researcher identified the research population as the youth players of Al-Qasim Sports Club for the 2026 season, consisting of (18) players participating in training sessions and official competitions. The entire population was selected using the comprehensive enumeration method.

### Research Instruments, Equipment, and Tools Employed

1. The Sports Psychological Stress Scale.
2. A Competitive Performance Evaluation Form.
3. Personal interviews and direct observation.
4. Scientific sources and references related to the subject of the research.
5. An HP laptop computer.
6. Training markers.
7. Ten volleyballs.
8. An official volleyball court.
9. Two electronic stopwatch timers.
10. Fifteen pens.

### Field Research Procedures

#### Preparation of the Psychological Stress Scale for Volleyball Players

To measure the level of psychological stress among volleyball players, the researcher adopted the Sports Psychological Stress Scale developed by Osama Kamel Ratib, Ibrahim Khalifa, and Osama Al-Asfar. This scale is regarded as one of the recognized instruments in the field of sports psychology for assessing the sources of psychological stress experienced by athletes.

The scale consists of a set of items distributed across several dimensions, the most prominent of which are ([Rossi et al., 2024](#)):

1. Competitive sports stress.
2. Training-related stress.
3. Coaching and administrative staff pressure.
4. Academic demands and time management stress.
5. Social and family pressures.

Responses to the scale items are based on a graded Likert scale, in which the player indicates the degree of perceived psychological stress through multiple options such as: (Always, Often, Sometimes, Rarely, Never).

The researcher employed this scale after verifying its scientific validity and reliability, as it was presented to a panel of specialists and experts in volleyball, totaling (11) experts. The instrument received full approval (100%).

The selected tests were standardized and subsequently presented to experts and specialists in volleyball, totaling (10) experts, and received full approval (100%). The tests include:

- **Serving Accuracy Test**

This test aims to measure the player's ability to direct the serve accurately toward designated target zones within the opponent's court.

Determining the Competitive Performance Tests for Youth Volleyball Players ([Boladeras et al., 2025](#)) In determining the level of competitive performance among youth volleyball players, the researcher relied on a set of standardized skill-based tests commonly used in the field of sports measurement and evaluation. These tests aim to assess the player's ability to execute fundamental skills under competitive conditions.

## **Performance**

### **Method:**

The player performs a predetermined number of serves toward targets marked within the court, with scores awarded according to the precision of each successful hit.

- **Spike Test**

This test aims to assess the power and accuracy of executing the spike during competitive play.

## **Performance**

### **Method:**

The player performs a series of spike attacks toward designated areas within the court, and points are awarded based on both accuracy and power of execution.

- **Blocking Test**

This test measures the player's ability to time jumps, elevate effectively, and successfully block the ball during play.

## **Performance**

### **Method:**

The player executes blocking movements at the net, and performance is evaluated according to the success rate in intercepting the ball.

## Pilot Study

A pilot study was conducted on 10/10/2025 on a sample of (6) players using the psychological performance anxiety scale, as well as the volleyball skills of spike and blocking. After a period of 16 days, the experiment was repeated on the same individuals on 26/10/2025.

*The aim of this pilot study was to* (Rebelo et al., 2024):

- Ensure the participants' understanding of the tests.
- Determine the total time required for administering the scale and tests.
- Verify the suitability of the measurement instruments.
- Identify potential difficulties during implementation.

### 1. Validity of the Test

"Validity refers to the extent to which a test measures what it is intended to measure (Milavić et al., 2013)." To ensure test validity, the instruments were presented to a group of experts and specialists to obtain their judgments regarding the extent to which the tests were appropriate for the intended purpose.

### 2. Reliability of the Test

It is defined as the extent to which, if the test is re-administered to the same individuals, it yields identical or highly consistent results (Berriel et al., 2020). The test-retest method was employed with an interval of (16) days between the two applications. The data were statistically processed using Pearson's simple correlation coefficient, as illustrated in Table (1).

### 3. Test Objectivity

Objectivity refers to the degree to which test results remain unaffected by the evaluator's subjectivity or personal bias. The scoring was conducted by qualified assessors: Prof. Dr. Aayed Karim Al-Kinani (Volleyball) and Asst. Prof. Dr. Wael Mohan (Volleyball). The data were also statistically analyzed using Pearson's simple correlation coefficient, as presented in Table (1).

**Table 1:** Reliability and Objectivity Coefficients of the Tests

Variables	Reliability	Sig	Objectivity	Sig
Psychological Stress Scale	0.97	0.000	-	-
Technical Performance of the Serve	0.94	0.000	0.96	0.000
Serve Accuracy	0.92	0.000	0.95	0.000
Technical Performance of the Spike	0.94	0.000	0.98	0.000
Spike Accuracy	0.91	0.000	0.91	0.000
Technical Performance of the Block	0.93	0.000	0.95	0.000
Block Accuracy	0.95	0.000	0.96	0.000

## Main Experiment

The pre-tests were administered to the research sample on 29/10/2025 at 5:00 p.m., in the Al-Qasim Indoor Sports Hall at the Al-Qasim Youth and Sports Forum.

## Statistical Methods

The study data were processed using the Statistical Package for Social Sciences (SPSS). The following statistical tools were employed: mean, standard deviation, Pearson's simple correlation coefficient, Levene's test, paired-samples t-test, and independent-samples t-test.

## Result and Discussion

### Presentation, Analysis, and Discussion of the Results of the Psychological Stress Scale and the Skills of Serving, Spiking, and Blocking

**Table 2:** Statistical Results of the Tests:

Variables	Mean	Standard Deviation
Psychological Stress Scale	7.45	10.42
Technical Performance of the Serve	7.10	1.02
Serve Accuracy	7.11	1.04
Technical Performance of the Spike	7.78	1.04
Spike Accuracy	7.42	2.53
Technical Performance of the Block	8.12	1.21
Block Accuracy	7.01	0.88

Table (2) illustrates the values of the means and standard deviations for the psychological stress scale among youth volleyball players.

### Presentation of the Results of the Relationship between Psychological Stress and the Skills of Serving, Spiking, and Blocking, with Analysis and Discussion

**Table 3:** Statistical Results of the Tes

Variables	Correlation Coefficient	Sig	Significance
Psychological Stress Scale × Technical Performance of the Serve	0.37	0.174	Non-significant
Psychological Stress Scale × Serve Accuracy	0.32	0.166	Non-significant
Psychological Stress Scale × Technical Performance of the Spike	0.22	0.201	Non-significant
Psychological Stress Scale × Spike Accuracy	0.36	0.127	Non-significant
Psychological Stress Scale × Technical Performance of the Block	0.38	0.063	Non-significant
Psychological Stress Scale × Block Accuracy	0.32	0.172	Non-significant

Table (3) presents the correlation coefficients of the studied variables, all of which were found to be statistically non-significant. This indicates that as psychological stress increases, the performance level of youth volleyball players tends to decline.

## Discussion

From the above table, it is evident that findings from recent studies in the field of volleyball indicate that psychological stress exerts a direct influence on the level of performance of fundamental skills among players, whether offensive or defensive. Research has shown that athletes exposed to high levels of tension and psychological pressure

experience a decline in concentration and accuracy when executing skills such as serving, receiving, setting, and spiking, which consequently has a negative impact on technical performance during competition (Muazu Musa et al., 2021).

Furthermore, as psychological pressure increases, the level of cohesion and cooperation among team members decreases. The study also confirms that a positive psychological environment and moral support contribute significantly to reducing tension and enhancing collective performance (Bahauddin et al., 2026).

This demonstrates that psychological preparation is no less important than physical and technical preparation in volleyball (Moreira et al., 2013). Through the analysis of the results, it can be asserted that psychological stress represents one of the fundamental factors affecting the skill performance of volleyball players, as it leads to reduced concentration and an increase in technical errors (Freitas et al., 2014). In contrast, psychological support, team cohesion, and self-confidence contribute to the development of fundamental skills and the achievement of superior performance (Costa et al., 2024). Therefore, research studies recommend the necessity of an integrated psychological preparation program alongside physical and technical training, with the involvement of a sports psychologist within athletic teams.

## Conclusion

Whether this was a general trend applicable to all aspects of the volleyball skill set of youth players is apparent, as an increase in psychological stress was correlated with a noticeable decrease in the skill of the players. The results also indicated that youth volleyball players are relatively high in their psychological stress that can be detrimental to their technical and competitive performance. On the basis of these results, the authors emphasize the need for creation of special psychological preparation programs for players, continuous psychological preparation in competitions and regular psychological assessment of players' mental state. In addition, the study suggests the need to conduct training programs for coaches on the topic of sports psychology and develop their skills in working with the psychological state of athletes. Lastly, it is recommended that other sports disciplines should be studied, in a similar manner, to gain more knowledge on the effects of psychological stress in sports.

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