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Multidimensional anxiety and its relationship to performance evaluation among youth basketball players of Hilla Club

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Abstract

The purpose of this study is to investigate the level of multidimensional anxiety and its association with the evaluation of offensive and defensive performance among youth basketball players of Hilla Club. The researcher employed a descriptive methodology, utilizing both the survey and case study approaches. The study sample consisted of fifteen (15) players representing the club. To achieve the research objectives, a multidimensional anxiety scale was constructed and validated following standard procedures of psychological scale development. Performance evaluation was carried out in accordance with the program adopted by the Central Basketball Federation for the Premier League. Data were statistically processed using the Statistical Package for Social Sciences (SPSS). The findings revealed relatively low levels of multidimensional anxiety among the players. The study concluded that multidimensional anxiety represents a significant psychological trait influencing athletes' responses and performance. Based on these results, it is recommended that greater attention be given to the psychological aspects of athletes, particularly multidimensional anxiety, in order to identify its most influential dimensions on performance and to enhance both offensive and defensive skills.

Keywords: Multidimensional anxiety, performance evaluation, basketball, psychological skills, Hilla club

Introduction

The development of athletes across various sporting activities is largely the result of continuous scientific research and studies, which have significantly contributed to the advancement of sports at all levels. Scientific progress is therefore considered the foundation upon which studies in the field of physical education and sports sciences are built. Among these fields, sport psychology is one of the most vital, as it addresses psychological phenomena such as anxiety, fear, and emotional arousal, and their direct relationship with athletic achievement.

Researchers in sport psychology have increasingly focused on the role of anxiety during training and competition, as it is a central psychological state that influences athletes' responses and performance. Levels of anxiety vary according to the athlete's cognitive and emotional appraisal of competitive situations, which in turn shapes behavioral responses (Osama Kamel Rateb, 2000) ^[1].

Basketball, whether during training or competition, exposes players to numerous psychological pressures often accompanied by emotional arousal and stress. Therefore, psychological preparation has become an essential complement to technical and physical preparation. A player's ability to regulate emotions, maintain self-control, and build self-confidence enhances psychological stability, thereby improving performance efficiency. Based on this context, the present study highlights the importance of investigating the level of multidimensional anxiety (physical, cognitive, emotional, psychological confidence, and social) among players of Hilla Basketball Club (youth category), and its relationship to their performance in offensive and defensive skills.

Research Problem

Anxiety occupies a central position in sport psychology due to its direct and evident impact on both psychological and physical functioning.

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It is considered one of the most influential emotional states affecting athletes' behavior and performance. Anxiety levels differ before, during, and after competitive situations, as anticipatory stress often disrupts psychological processes before the event, while actual engagement in competition may either reduce or intensify anxiety depending on the type of sport and the individual athlete's coping mechanisms.

Through the researcher's observations of matches in the Iraqi Youth Basketball League, it was noted that players' performance varied significantly from one match to another. This inconsistency was often attributed to an emphasis on technical and physical training, while insufficient attention was given to psychological preparation, particularly multidimensional anxiety. Given that psychological readiness is a cornerstone of holistic player preparation and team success, the researcher deemed it necessary to explore the relationship between multidimensional anxiety and performance evaluation among Hilla Club youth basketball players.

Research Objectives

- To identify the level of multidimensional anxiety among Hilla Club youth basketball players.
- To evaluate the performance of selected offensive and defensive skills among the players.
- To determine the relationship between multidimensional anxiety and performance evaluation among Hilla Club youth basketball players.

Research Hypothesis

There is a statistically significant relationship between multidimensional anxiety and performance evaluation among Hilla Club youth basketball players.

Research Fields

- **Human Field:** Players of Hilla Basketball Club (youth category) for the 2024-2025 season.
- **Time Field:** The period from October 24, 2024, to January 31, 2025.
- **Place Field:** Sports Talent Hall and the headquarters of the Iraqi Basketball Federation.

Research Methodology

The researcher employed the descriptive approach, specifically the survey and correlational methods, due to their appropriateness for the nature and objectives of the study.

Research Population and Sample

The research population consisted of the youth players of Hilla Basketball Club, with a total of 15 players. The study sample included 11 players who were officially registered and actively participated in matches. Four (4) players were excluded from the main study because they did not participate consistently in official competitions; instead, they were involved in the exploratory experiment.

Tools and instruments of the study

To achieve the objectives of the study, the following tools and instruments were used:-

- Arabic and foreign reference sources.
- Expert questionnaires for scale validation.
- The Multidimensional Anxiety Scale.
- A computer device (HP, one unit).
- An electronic calculator (CASIO, one unit).

- Stationery and office supplies (papers, pens).

Field procedures of the research

- **Construction of the multidimensional anxiety scale:** The multidimensional anxiety scale was constructed according to the standard scientific steps required in developing psychological measurement tools, as outlined below:
- **Determining the purpose of the scale:** The main objective of preparing this scale was to identify the level of multidimensional anxiety among youth players of Hilla Basketball Club.

Selection of the scale

The researcher adopted the Multidimensional Anxiety Scale developed by *Mortada Kazem Abadi (2015)*. This scale was originally applied to a sample drawn from members of central Olympic sports federations. The scale consists of 76 items, each with three response alternatives: *Yes*, *Sometimes*, *No*, with weights of (3, 2, 1) respectively.

The items are distributed across five dimensions:

- Physical anxiety
- Cognitive anxiety
- Emotional anxiety
- Confidence-related anxiety
- Psychosocial anxiety

Validity of the scale items

The items of the Multidimensional Anxiety Scale were presented to a panel of seven (7) experts and specialists in sport psychology and related fields. Their responses were analyzed using the Chi-square (χ^2) test to compare the frequencies of agreement and disagreement. The calculated values of χ^2 exceeded the tabular value of 3.84 at a degree of freedom (1) and a significance level of (0.05). This confirmed that all items were valid and appropriate for measuring multidimensional anxiety.

Instructions of the Scale

Clear and simple instructions were prepared to ensure accurate responses from the players. The wording of the items was revised for clarity and precision, with emphasis on maintaining honesty in responses while concealing the true purpose of the test. Respondents were informed that their answers would remain confidential and used exclusively for scientific purposes. Practical examples were provided to demonstrate how to answer the items, and participants were given sufficient time to read and understand the instructions before responding.

Exploratory experiment of the scale

An exploratory experiment was conducted on a sample of 4 players from Hilla Basketball Club (youth category) on Friday, October 24, 2025. The purpose was to test the clarity of instructions and items. The results showed that the scale was understandable, and the average time to complete the questionnaire was 23 minutes. Based on these findings, the scale was deemed ready for main application.

Main application of the scale

The finalized scale was administered to the main study sample of 11 players on Friday, November 25, 2025, at the Sports Talent Hall in Hilla city.

Scoring the multidimensional anxiety scale

The final version of the scale consisted of 76 items, distributed across five dimensions. A three-point Likert scale was used with response alternatives: *Yes (3 points)*, *Sometimes (2 points)*, *No (1 point)*. The maximum possible score on the scale was 228, while the minimum score was 76.

Internal consistency of the scale

Internal consistency was examined using Pearson's correlation coefficient between each item and the total score of the scale. The analysis, conducted on the full sample (11 players) using SPSS, showed correlation values ranging from 0.38 to 0.72, indicating acceptable internal consistency across all items.

Psychometric properties of the scale

- **Validity of the scale:** Content validity was ensured by presenting the items, alternatives, and instructions to a panel of experts in sport psychology, who confirmed their appropriateness.
- **Reliability of the scale:** Reliability was assessed using the split-half method. The items were divided into odd and even subsets, and correlations were calculated between the two halves. Pearson's correlation yielded a coefficient of 0.84, indicating high reliability. The Spearman-Brown formula was then applied to estimate full-test reliability, yielding a value of 0.91, which

demonstrates a high level of reliability.

Performance Evaluation

The researcher identified the most essential skills contributing to winning in basketball, as outlined by Marwan Abdel Majeed (1999). These skills included offensive and defensive skills, in addition to playing time as an indicator of player effectiveness. Performance evaluation was based on the official statistical program approved by the Iraqi Central Basketball Federation (Statistics Committee). The evaluation relied on a professional statistical team that documented player performance in each official match, with results archived on the federation's official website. For this study, the researcher analyzed the performance records of Hilla Basketball Club (youth category) across 16 matches, focusing on:

- Playing time
- Scoring (points)
- Final passes (assists)
- Defensive rebounds
- Offensive rebounds

Statistical Methods

Data were analyzed using the Statistical Package for the Social Sciences (SPSS). Descriptive statistics and inferential statistical tests were applied according to the study's objectives and hypotheses.

Results and Discussions

Table 1: Presents the means and standard deviations of the study variables

Statistical transactions	Anxiety scale	Time	Points	Final handling	Defensive follow-up	Offensive follow-up
Mean	164.125	254.34	84.125	18.88	32.75	15.88
STD	6.56	115.88	55.45	16.04	18.19	9.33

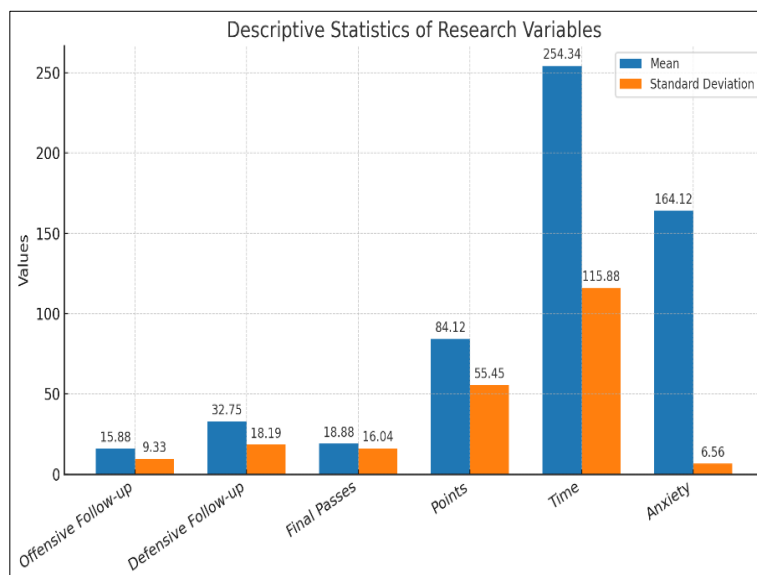


Fig 1: Illustrates the statistical coefficients of the research variables

Based on the results shown in Table 2 and Figure 1, it was found that the arithmetic mean of the *Anxiety Multidimensional Scale* reached 164.125. When compared with the hypothetical mean value of 157, the results indicate that the study sample demonstrated a level of multidimensional anxiety above the average. At this level, the individual's ability to maintain behavioral control

decreases, leading to reduced flexibility and increased rigidity in responding to various situations. Consequently, the individual requires greater effort to maintain appropriate and adaptive behavior in different aspects of life (Alawi, 1992, p. 280) [3].

The researcher believes that such elevated levels of anxiety have a negative impact on performance, whereby the higher

the level of anxiety among players, the greater the detrimental effect on their athletic performance. Furthermore, the results also demonstrate the arithmetic means and standard deviations for *time*, *points*, *final passes*, *defensive follow-up*, and *offensive follow-up* related to the performance of Al-Hilla Sports Club basketball team during the 2024-2025 Iraqi Premier League season. The analysis

covered 16 matches, with the expectation that the team will complete approximately 20 matches by the end of the sports season.

Presenting, analyzing, and discussing the results of the correlation between the research variables

Table 2: Presents the correlation coefficients among the research variables. This table provides insights into the strength and direction of the relationships between the studied variables, which will be further analyzed and discussed in the subsequent section

Variables	Correlation coefficient	Significance level	Statistical significance
Multidimensional Anxiety \times Time	0.9	0.002	Sig.
Multidimensional Anxiety \times Points	0.79	0.02	Sig.
Multidimensional Anxiety \times Handling	0.71	0.047	Sig.
Multidimensional Anxiety \times Defensive Pursuit	0.42	0.305	Non sig.
Multidimensional Anxiety \times Offensive Pursuit	0.6	0.116	Non sig.
Time \times Points	0.86	0.996	Sig.
Time \times Handling	0.79	0.019	Sig.
Time \times Defensive Retrieval	0.64	0.086	Non sig.
Time \times Offensive Retrieval	0.62	0.102	Non sig.
Points \times Handling	0.73	0.039	Sig.
Points \times Defensive Retrieval	0.82	0.012	Sig.
Points \times Offensive Retrieval	0.77	0.025	Sig.
Handling \times Defensive Retrieval	0.41	0.305	Non sig.
Handling \times Offensive Retrieval	0.27	0.513	Non sig.
Defensive Retrieval \times Offensive Retrieval	0.84	0.009	Sig.

Discussion of Table 2

The results presented in Table 2 indicate the presence of a strong and significant negative correlation between *multidimensional anxiety* and each of the following variables: *time*, *points*, and *final passes*. Conversely, weak and non-significant negative correlations were observed between *multidimensional anxiety* and both defensive and offensive follow-ups. This suggests that as the level of anxiety increases, players' performance in terms of points, final passes, and follow-ups tends to decrease.

The researcher attributes this to the accumulation of negative thoughts among players, stemming from their perception of ordinary competitive situations as threatening ones. Such perceptions trigger a range of emotional and physiological changes, including fatigue, physical exhaustion, and heightened stress responses (Nebras Younis Mohammed, 2007) [6]. Moreover, psychological pressures such as fear of poor performance in front of spectators, nervous tension during competitions, and concerns about negative public opinions further contribute to waste scoring opportunities and team losses. Consequently, players become more vulnerable to anxiety and fear, especially when constantly exposed to competitive environments. These findings align with the perspective of Al-Naqeeb (1990) [7], who emphasized that psychological factors in sports competitions play a decisive role in determining the quality of performance and the level of achievement attained. Emotional states, particularly heightened excitement and anxiety, are strongly influenced by surrounding circumstances and competition atmosphere, which in turn affect athletic performance (Al-Naqeeb, 1990, p. 55) [7].

Furthermore, Table 2 demonstrates a strong and significant positive correlation between time and both points and final passes, while weaker and non-significant correlations were found between time and both defensive and offensive follow-ups. Additionally, significant positive correlations were observed between points and each of final passes,

defensive follow-ups, and offensive follow-ups. In contrast, weak and non-significant positive correlations were found between final passes and both types of follow-ups. Importantly, a strong and significant positive correlation was observed between defensive follow-ups and offensive follow-ups.

The researcher concludes that these outcomes reflect the performance of the Al-Hilla Sports Club basketball team across 16 matches in the 2024-2025 Iraqi Premier League season, where the team secured 7 wins and 9 losses, scoring a total of 1,094 points while conceding 1,191 points. Although the team participated in 22 league matches, the analysis was limited to 16 matches that were completed by the third month of the season. The team's results highlight the psychological and performance-related challenges that contributed to its decline to ninth place, after previously occupying higher ranks in the league.

Conclusions

- The study revealed that the level of multidimensional anxiety among the players was above the average.
- Multidimensional anxiety was found to negatively influence the performance outcomes of the Al-Hilla Basketball Club team.
- A strong and significant negative correlation was observed between multidimensional anxiety and each of the following variables: *time*, *points*, and *final passes*, as well as the execution of the basketball lay-up skill on the vaulting horse in gymnastics.
- A significant correlation was also identified between multidimensional anxiety and the accuracy of the overhead serve in tennis among first-division club players.
- A significant correlation was found between multidimensional anxiety and the accuracy of underhand serve reception in volleyball among first-division club players.

Recommendations

- Greater attention should be given to psychological preparation, ensuring it receives the same importance as other aspects of training.
- Emphasis should be placed on studying multidimensional anxiety as a personality-related condition that influences athletes' responses, with a focus on identifying the most influential dimensions affecting performance.
- Further research is needed to explore the relationship between multidimensional anxiety and skill performance accuracy in other sports, given its importance in the psychological preparation of athletes.
- Coaches and practitioners are encouraged to implement psychological training methods such as mental training and relaxation techniques, as these have been shown to mitigate the negative effects of anxiety dimensions on athletic performance.

References

1. Rateb OK. Psychological skills training and its applications in the sports field. 1st Ed., Cairo: Dar Al Fikr Al Arabi; 2000.
2. Jassim AS. Psychology of football. 1st Ed., Najaf: Dar Al-Diaa for Printing and Design; 2008.
3. Alawi MH. Psychology of training and competition. 4th ed. Cairo: Dar Al-Maaref Press; 1992.
4. Obaidi MK. Constructing a multidimensional anxiety scale for first division football players in Maysan Governorate, Iraq.
5. Ibrahim MAM. Tests, measurement and evaluation in physical education and sports psychology. 1st Ed., Amman: Dar Al Fikr for Printing, Publishing and Distribution; 1999.
6. Mohammed NY. Psychological characteristics of sports competition. Iraqi Sports Academy; 2007. Available from: <http://iraqisportsacademy.com>
7. Al-Naqeeb YK. Sports psychology. Riyadh: Leadership Preparation Institute, Saudi Committee for Physical Education and Sports; 2015.