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Motor Performance Anxiety and Its Relationship to the Accuracy of the Combined Circular Attack Movement in Fencing

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Abstrack

The importance of this research lies in understanding motor performance anxiety and its relationship with the accuracy of the circular compound attack thrust among students of the College of Physical Education and Sports Sciences. Players and students with high anxiety exhibit more anxiety-driven motivations than those with lower anxiety, as they are influenced by cognitive aspects and prior experience. The research problem emerged from the researcher's review of scientific sources, theses, and observation of training sessions, where a noticeable weakness in the accuracy of the circular compound attack thrust was observed, attributed to motor performance anxiety. Students show signs of weakness, loss of focus, and a drop in performance, especially in the early minutes of matches. Hence, the researcher aimed to study this issue and determine the impact of motor performance anxiety on the accuracy of this skill. The research objectives were :To identify motor performance anxiety and the accuracy of the circular compound attack thrust among students .To explore the relationship between the level of motor performance anxiety and the accuracy of the circular compound attack thrust. The researcher used a descriptive method with a survey and correlational approach. The population consisted of third-stage students (116 students in three groups A, B, C) at the College of Physical Education and Sports Sciences, Al-Ain University, Iraq, for the academic year 2024–2025. Key conclusions: There is an inverse relationship between motor performance anxiety and the accuracy of the circular compound attack thrust among students of the College of Physical Education and Sports Sciences, Al-Ain University, for the academic year 2024–2025.

Keywords: Motor Performance Anxiety; Accuracy of Circular Compound Attack Thrust; Students of College of Physical Education; Sports Sciences

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1. INTRODUCTION

The civilizational and intellectual progress the world is witnessing today did not come about by chance, but is the fruit of a long journey spanning decades, during which humanity invested its experiences, expertise, and scientific and intellectual gains. The world witnessed an industrial revolution that transformed it from previous eras described as darkness into a new era. An era of prosperity and progress encompassed various fields, including sports (Duan et al., 2024). The sports sector achieved remarkable advancements both internationally and locally, in individual and team events, through the achievements and records set by champions who won gold medals. This era began The achievements of the physical education lesson, which contributed effectively to teaching and developing motor skills, through good preparation, proper organization, and the use of teaching methods appropriate to the students' abilities and levels (Calero-Morales et al., 2023; P. Shi & Feng, 2022). Anxiety is one of the difficult problems that students face, especially in different play situations, and it has a significant impact on their motor performance. It is considered one of the factors that hinder motor performance for some students, and severe anxiety prevents the student from performing motor skills. The degree of anxiety can positively or negatively affect motor performance.

Fencing is one of the sports that requires high precision, quick reflexes, and constant interaction with the opponent. Despite its excitement and challenge, students may face the phenomenon of motor anxiety, which affects their performance and reduces their chances of success. Motor anxiety is a state of tension The psychological and physical factors that may hinder a student's ability to perform skillful movements effectively, which is reflected in their accuracy in attack and defense, require those concerned to explore the impact of motor anxiety on the performance of fencing players, and to overcome it in order to improve performance and achieve better results. Scientists agree that psychological preparation plays a vital and effective role in various sports activities, alongside physical, technical, and tactical preparation. Trait anxiety is a general lack of feeling among individuals during responses to stressful situations, and it differs from situational anxiety (Muhammad & Al-

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Ahmadi, 2022; Parmentier et al., 2024). Being more persistent, it becomes a personality trait, and the level of anxiety is higher than that of peers before, during, or after the exam. Similarly, an individual with a low level of anxiety will maintain this trait regardless of temporary circumstances. It involves it, and from here the importance of the research lies in understanding motor performance anxiety and its relationship to the accuracy of the circular combined attack among students of the Faculty of Physical Education and Sports Sciences. It appears that among players and students with high anxiety, the motivations and effects of anxiety are more pronounced than Learners or players with low anxiety are influenced by the cognitive aspect and prior experience (Chen et al., 2022; Ren et al., 2022).

Through reviewing scientific sources, examining various theses and dissertations, and observing previous and recent training sessions conducted by trainers, the researcher noted a clear weakness in the accuracy of the circular combined attack due to motor performance anxiety. This is a phase the student goes through where signs of weakness, loss of focus, and a decline in the performance of assigned tasks on the field appear, especially in the first minutes of the match, without knowing the real reason, although there are sometimes tests that confirm the student's physical and technical readiness. Physically some students fail to score goals either because of the importance of the match, poor preparation, or psychological factors, including motor anxiety, which affects the player in particular (Chun et al., 2022; Lee & Kang, 2024; L. Shi et al., 2024).

Therefore, the researcher decided to study this problem and find out the extent of the impact of motor performance anxiety and its relationship to the accuracy of the circular compound attack among students of the College of Physical Education and Sports Sciences. To identify the level of motor performance anxiety and accuracy of the circular combined lunge among students of the Faculty of Physical Education and Sports Sciences. To determine the relationship between the level of motor performance anxiety and the accuracy of the circular combined lunge among students of the Faculty of Physical Education and Sports Sciences. The researcher hypothesizes that there is a statistically significant relationship between motor performance anxiety and the accuracy of the circular compound attack among students of the College of Physical Education and Sports Sciences.

2. RESEARCH AND METHODS

Students of the College of Physical Education and Sports Sciences at Al-Ain Iraqi Private University for the academic year 2024-2025. From October 6, 2024 to January 3, 2025. The indoor hall at the College of Physical Education and Sports Sciences at Al-Ain Iraqi Private University. The researcher used the descriptive method with the survey approach and correlational relationships, as it is suitable for the nature of the research (since descriptive research aims to collect data to try to test hypotheses or to answer questions related to the current situation of the research sample.

The selection of the research population and sample is closely linked to the objectives set by the researcher for their research. Often, when studying a phenomenon, it is difficult for the researcher to utilize the entire population, as it is impossible or even impossible to select, observe, or measure all of them. Individuals are under controlled conditions, therefore the researcher resorts to choosing a representative sample of the original population. The sample is that part of the population on which measurements are taken and is chosen according to scientific rules and methods so that it accurately represents the population (Abdul Sattar Dhamad: 2015). The research community was determined purposively, and it included third-year students in the College of Physical Education and Sports Sciences at Al-Ain Iraqi Private University for the academic year (2024-2025), numbering (116) students distributed across three sections (A, B, C).

The tools used in the research should be described to indicate the study's needs. As Muhammad Khalil et al. state, "The appropriate tool is determined in light of the research objectives, hypotheses, and the questions it seeks to answer. Tools are the means by which..." The researcher uses it to obtain information (Muhammad Khalil Abbas: 2011). In order for the researcher to complete his research in the best possible way, he must use tools and means that help him complete his work.

Observation: Careful observation is one of the essential tools in this research. The researcher's observations and recording of them all will help him solve and interpret everything that happened in the experiment.

Personal interviews: The researcher relied on personal interviews, especially in the early stages, to form the research idea and to be the solid basis for the research. Personal interviews are one of the most important and

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most frequently used means of collecting necessary data and information, due to their multiple advantages and flexibility.

Tests and Measures: These are all the means used by the researcher in her study. The researcher must make good choices regarding the tools of her study by identifying them and presenting them to the experts.

Arabic and foreign sources and references: This involves reviewing books and previous studies related to the research to understand the methodology, theoretical framework, and results of previous studies, and to support everything the researcher writes or concludes in the research. Many sources were consulted. Arabic and foreign scientific sources and references to support everything he writes or concludes in the research with these sources.

Analysis: Analysis means defining and specifying the type and quantity of values of variables and other important matters that are required to be available in the data to be analyzed.

The International Information Network (Internet): This is a global communication system that allows the exchange of information between smaller networks through which computers around the world are connected, operating according to specific systems known as the unified protocol, which is the Internet Protocol.

Data entry form: It is a means of collecting information used by the researcher to fill in the data related to the anthropometric measurement of the research sample (control and experimental). Computer programs and applications.

3. RESULTS AND DISCUSSION

The main experiment was conducted on Monday, October 14, 2024, at 11:00 AM in the fencing hall at Al-Ain University in Iraq. The test was administered to the research sample, which consisted of third-year students from the College of Physical Education and Sciences. The sports program at Al-Ain Iraqi Private University for the academic year 2024-2025 focused on the skill of accurate circular thrusting. The program involved (20) students and began with a warm-up, immediately before each student attempted the five given shots. Following this, a comprehensive explanation was given to the participants on how to perform the skill. The researcher prepared the test materials and presented it to the students, allowing ample time for warm-up before the test began. All necessary test materials were provided, and a thorough explanation was given to the participants. Each player was given five attempts to complete the test. On Tuesday, October 15, 2024, at 1:00 PM, the researcher administered the Motor Performance Anxiety Scale. The researcher provided a questionnaire consisting of 26 questions to measure motor performance anxiety and provided a thorough explanation of how to answer it. Arithmetic Mean, Standard Deviation, Coefficient of Variance, Pearson Correlation Coefficient and Percentage.

Presentation, Analysis, and Discussion of Test Results

Presentation, Analysis, and Discussion of the Results of the Motor Performance Anxiety Test and the Roundhouse Puncture Accuracy Test

Table 1. Shows the Arithmetic Means and Standard Deviations for Motor Performance Anxiety and Roundhouse Puncture Accuracy

Statistical methods	x	sd
Motor performance anxiety	3.04	0.54
Accuracy of the roundhouse attack	35.74	4.67

Table 1 shows us that the values of the arithmetic mean and standard deviation of the sample in the motor performance anxiety test are (3.04, 0.54), while the values of the arithmetic mean and standard deviation of the sample in the circular attack accuracy test are (35.74, 4.67). Correlation between the results of the motor performance anxiety test and the accuracy of the circular attack test in fencing.

Table 2. Shows the Values of the Correlation Coefficient, Its Calculated and Tabulated Significance, and Statistical Significance

Motor performance anxiety	7.39	3.05	2.26	Significant
Shooting accuracy	6.83	2.99	2.25	Significant

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Table 2 shows the correlation coefficient, the tabulated value, and the calculated value of the correlation significance and statistical significance between the researched tests. It was found that the correlation coefficient between motor performance anxiety and the accuracy of the circular attack was (6.881), with a calculated value of (3.05). Higher than the tabulated value (2.26) at a critical point (18) and a significance level (0.05), which is a high correlation relationship.

The results of the research tests revealed a correlation between motor performance anxiety and the accuracy of the indirect attack (circle attack) in fencing among students of the College of Physical Education and Sports Sciences at Al-Ain University in Iraq. It was found that the higher the performance anxiety, the greater the accuracy of the indirect attack. The accuracy of the circular lunge was lower among physical education and sports science students, and conversely, the lower their motor performance anxiety, the higher their lunge accuracy (Veličković et al., 2025). This is because the skill depends heavily on the degree of motor performance anxiety; therefore, attention should be paid to increasing their abilities. Physical and mental conditioning, as well as efforts to improve the players' psychological state before entering sporting competitions, are crucial to overcoming any weaknesses that may arise. Self-confidence, a growing sense of self-worth, becomes a powerful and positive motivator for improving performance and overcoming anxiety And the fears (Rahmawati et al., 2025).

The results indicate that motor performance anxiety significantly affects the accuracy of performing the circular combined attack among students of the Faculty of Physical Education and Sports Sciences. It is essential to develop training and psychological strategies to improve performance and reduce the effects of anxiety, which will contribute to in raising the level of students and enhancing their competitiveness. This study aimed to explore the relationship between motor performance anxiety and the accuracy of executing the circular combined lunge among students of the Faculty of Physical Education and Sports Sciences (Qin & Zhao, 2025). Motor performance anxiety is a psychological factor that can negatively affect technical performance in sports activities, It requires high precision and concentration, like fencing. While the circular combination attack is considered a fundamental skill in fencing, it requires a balance between speed, accuracy, and motor control.

The results showed that the students in the sample had a moderate level of motor performance anxiety. This can be explained by the nature of the academic environment, which may create additional pressure on students, especially when performing skills that require high precision, such as the circular combination attack. This anxiety stems from multiple factors such as fear of failure, pressure to achieve peak performance, or low self-confidence. The results showed that the accuracy of students' execution of the circular compound attack was average to good, indicating that the students possess a certain level of proficiency. Acceptable technical skills, but some aspects such as distance control, lunge timing, and muscle coordination may need improvement. It was observed that students who showed lower levels of motor performance anxiety achieved better results in lunge accuracy, indicating that An inverse relationship exists between the two variables (Wilkerson et al., 2025).

Statistical analysis revealed a significant negative correlation between motor performance anxiety and the accuracy of the circular combined lunge. This means that the higher the level of anxiety, the lower the accuracy of the performance, and vice versa. This result can be explained by the fact that anxiety increases muscle tension. It distracts, affecting the player's ability to execute the movement accurately. The impact of anxiety may be greater in fencing due to the nature of the game, which relies on quick reactions and precise execution.

Working to reduce the level of motor performance anxiety among students of the College of Physical Education and Sports Sciences at Al Ain University for the academic year 2024-2025; 2) Developing several educational and training aids that work to further reduce motor performance anxiety, which plays an important role in developing the accuracy of the circular attack lunge among students of the College of Physical Education and Sports Sciences, Al Ain University, for the academic year 2024-2025; 3) Developing several educational and training aids that work to further reduce motor performance anxiety, which plays an important role in developing the accuracy of the circular attack lunge among students of the College of Physical Education and Sports Sciences, Al Ain University, for the academic year 2024-2025; 4) Conduct similar studies with other samples to determine the effect of accuracy in the circular attack and the motor performance anxiety reduction scale; 5) Coaches should motivate players before competition to reduce anxiety levels and improve the psychological and morale state of students at the College of Physical Education and Sports Sciences, Al Ain University.

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4. CONCLUSION

There is an inverse relationship between motor performance anxiety and the accuracy of the circular combined lunge among students of the College of Physical Education and Sports Sciences at Al Ain University during the 2024-2025 academic year. Performance anxiety has a negative correlation with the accuracy of the circular combined lunge among students at the College of Physical Education and Sports Sciences, Al Ain University, during the 2024-2025 academic year. The accuracy of the circular combined lunge is positively affected by a decrease in performance anxiety among students at the College of Physical Education and Sports Sciences, Al Ain University, during the 2024-2025 academic year.

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