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## Research Paper

## Achievement Motivation and Its Relationship to Handball Accuracy Among Third-Year Students at the Faculty of Physical Education and Sports Sciences at Al-Nisoor University

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### ABSTRACT

This study aimed to investigate the level of achievement motivation and passing accuracy in handball among third-year students at the College of Physical Education and Sports Sciences at Al-Nusour University. The study also sought to analyze the relationship between achievement motivation and the accuracy of handball passing within the study sample. To achieve the study objectives, the researcher adopted the descriptive approach using the correlational method, given its suitability to the nature of the problem under investigation. The research sample was intentionally selected from third-year students for the academic year 2024-2025. The number of participants was 20 students out of 154 students, representing 12.98% of the total study population. To ensure homogeneity of the sample members in physical characteristics (such as height, weight, and age), the researcher used the skewness coefficient as a statistical tool to verify homogeneity. The results of the study showed no statistically significant relationship between the level of achievement motivation and passing accuracy in handball among the sample members. This indicates that achievement motivation may not directly affect skill performance in this particular skill. This may be because handling accuracy depends more on technical and tactical factors, and skill-based, rather than relying on general psychological motivations, and that having a high level of motivation does not necessarily mean better performance in all skills, unless it is accompanied by organized and continuous technical training. The researcher recommends the necessity of strengthening training programs that focus on developing technical skills, such as handling accuracy, through repetition and regular training, and not relying only on raising the motivation to achieve, and integrating psychological training (such as motivation and self-confidence) within the training program in a complementary manner, not as the only factor affecting performance, and using multiple measurement tools that include psychological, physical and skill aspects to accurately evaluate athletic performance and explain individual differences between players.

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**KEYWORDS:** Achievement motivation, handling and handball

## 1. INTRODUCTION

To achieve athletic excellence and reach advanced global levels, developed countries have paid great attention to scientific research and sought to adopt the latest innovative scientific methods and approaches to support the training process. It has become clear that the science of sports training cannot be isolated from other sciences, particularly sports psychology, which contributes to understanding athletes' behavior, psychological characteristics, and the conditions associated with specialized activities. This positively impacts the development of athletes' performance and raises their level (Weinberg & Gould, 2019). "Handball is one of the sports characterized by its distinctive and diverse skillful performance, which is influenced by the opponent's movement, a variable whose movement is difficult to predict. This requires intuitive speed in handling the ball and high skill in quickly and skillfully transitioning from defense to attack from the moment of possession" (Alawi, 2006: 3). Therefore, it requires the student to exert great effort and perform continuously throughout their time on the field, whether in offensive or defensive situations without interruption. Hence, the importance of mastering basic skills becomes apparent, especially the skill of handling, which begins from the moment of possession of the ball until the attack on the opposing team's goal is completed and a goal is scored. This indicates that skill preparation is one of the decisive factors for achieving outstanding athletic performance. Skill is defined as the acquired ability of an individual to perform a specific motor task with high efficiency, achieving the desired result with the highest degree of mastery, while minimizing the effort and time required. Skill is the foundation of any athletic performance, as its achievement depends on the level of physical preparation, which in turn serves as the foundation upon which tactical preparation is built. Achievement motivation is an essential element in achieving goals, as it plays a guiding role in an individual's behavior toward achieving goals. In this context, human behavior is viewed as an organized response stemming from a drive to achieve gratification. These responses manifest either in interacting with anticipated goals to reduce the tension resulting from the motivation, or in actively pursuing the goal to alleviate this internal tension (Alawi: 2001: 45). From here lies the importance of the research in that the psychological aspect in general and achievement motivation in particular play an important role in the team's victory and loss, in addition to the skill aspect and the players' need for achievement motivation to contribute to reaching the required technical level and achieving victory.

### Research Problem

It is well known that the skill of handling and its accuracy are among the basic skills in handball, requiring continuous training to achieve optimal application. Through the researcher's observation and follow-up of handball training, she noted that most of those involved in the educational and training process do not take into account psychological characteristics, including achievement motivation, which the researcher believes is important in achieving accomplishments. Furthermore, it is

important in performing most handball skills, particularly the skill of accurate handling. Therefore, the researcher decided to study this problem by identifying the relationship between achievement motivation and accuracy in handball handling, and improving the skill level of the research sample members.

## 2. RESEARCH OBJECTIVES

1. To identify achievement motivation and accuracy in handball handling among third-year students at the College of Physical Education and Sports Sciences at Al-Nusour University.
2. To find the relationship between achievement motivation and accuracy in handball handling among the research sample members.

### Research Hypothesis

There is a significant correlation between achievement motivation and accuracy in handball handling among the research sample members.

### Research Areas

**Human scope:** (20) third-year students in the College of Physical Education and Sports Sciences at Al-Nusour University.

**Temporal scope:** From September 25, 2024 to April 13, 2025.

**Spatial scope:** Handball court at the College of Physical Education and Sports Sciences at Al-Nusour University.

## 3. RESEARCH METHODOLOGY

Methodology is of great importance in scientific research, as the value and results of the research are closely linked to the methodology followed by the researcher. The methodology is the intellectual steps taken by the researcher to solve a specific problem (Al-Shawk and Fathi, 2004: 5). The researcher used the descriptive method using the correlation method, as it is the most appropriate method for the nature of the research problem.

### Research Sample

The researcher intentionally selected the sample from third-year students at the College of Physical Education and Sports Sciences at Al-Nisour University for the academic year 2024/2025. The sample numbered 20 students out of a total of 154 students. Therefore, the sample percentage reached 12.98% of the original research population. To ensure the main experiment was highly accurate, the researcher used the skewness coefficient to determine the homogeneity of the sample for height, weight, and age, as shown in Table 1.

**Table 1:** Shows the homogeneity of the sample in the variables of height, weight, and age

Variables	Mean	Std	Skewness
Height	171.6	2.456	1.267
Weight	66.5	1.333	1.556
Age	20.5	1.434	1.678

### Methods, tools, and devices used in the research

1. Data collection methods: Arabic and English sources and references, questionnaire, handling accuracy test, testing and measurement, personal interviews, support team.
2. Devices and tools used in the research: Handball court, (5) balls, pen, camera, score sheet for the tested players, measuring tape, stopwatch.

### Field Research Procedures:

#### 1. Achievement Motivation Scale

This scale was designed by (Joulis) and translated by (Mohammed Hassan Alawi) and used by the researcher (Nizar Nazim Al-Khashali: 2012). This scale consists of (20) items divided into two dimensions: the first is the success motivation dimension and the second is the failure avoidance dimension. Correction: The scale consists of phrases for the success motivation dimension, which are (20, 18, 16, 14, 12, 108, 42), and all of them are positive phrases in the direction of the dimension. The number of phrases is (14, 8, 4), which is the opposite of the dimension. The phrases for the failure avoidance dimension are (19, 17, 15, 13, 11, 9, 75, 31), and all of them are positive phrases in the direction of the dimension. The number of phrases is (19, 17, 11), which is the opposite of the dimension. The phrases for each dimension are corrected separately according to the following (Alawi: 1998: 184-185):

- Note that the total score for the scale is 100 points are divided into two sections: 50 points towards the success motivation dimension and 50 points towards the failure avoidance dimension. Statements in the direction of the dimension are corrected as follows:
- To a very great extent. 5 points, To a great extent. 4 points, To a medium extent. 3 points, To a small extent. 2 points, To a very small extent. 1 point.
- Statements in the opposite direction of the dimension are corrected as follows: To a very great extent. 1 point, To a large extent. 2 points, To a medium extent. 3 points, To a small extent. 4 points, To a very small extent. 5 points.

#### 2. 30-second passing accuracy test: (Al-Tarfi: 2013: 296)

**Test objective:** To measure passing accuracy and ball repetition speed.

**Performance Method:** The student stands 3 or 4 meters from the wall, holding a handball. Upon hearing the signal, they throw the ball at the wall, then pick it up again. They continue throwing the ball at the wall until the allotted time (30 seconds) expires. An indoor handball court, a handball, and a timer are also available.

**Tools and Resources:** Recording Method: One attempt only. The student records the number of times the ball touches the wall during the allotted time.

#### 3. Experimental Test

The researcher conducted the experiment on Monday, January 6, 2025, randomly selecting (4) students from the same level and class. They were excluded from the main experiment. The purpose of the experiment was to determine the following:

1. To determine the time required to complete the test.
2. To identify the support team.
3. To ensure the validity of the tools used in the experiment.
4. To identify any potential drawbacks that the researcher and the research may face.

#### 4. Main Experiment

The researcher conducted the main experiment on a handball field at the College of Physical Education and Sports Sciences at Al-Nusour University on Sunday, January 12, 2025. With the assistance of the support team, tests were conducted on the research variables: achievement motivation and handball accuracy among the research sample. The data were transcribed and statistically processed to arrive at results that achieve the study's objectives.

#### Statistical Methods

The researcher used the statistical package (SPSS) to extract results and process data. (Yassin: 1999: 155) (Al-Samarrai: 1988: 18).

### 4. RESULTS

#### Presentation, analysis, and discussion of the results

Presentation and analysis of the results of the achievement motivation and handball handling accuracy tests.

**Table 2:** Shows the t-values between the pre- and post-tests of the achievement motivation and handball handling accuracy tests for the research sample

Variables	Units	Mean	Std
Achievement motivation	Degree	74.60	5.41
Handling accuracy	Degree	27.85	3.85

**Table 3:** shows the calculated (r) values, the tabulation, and the significance of the differences for the achievement motivation and handball handling accuracy tests for the research sample members

Variables	Units	(r) calculated	(r) tabulated	Significance of differences
Achievement motivation	Degree	0.38	0.42	No sig.
Handling accuracy	Degree			

### 5. DISCUSSIONS

In light of the results shown in Table 3, it was found that there is an insignificant correlation between achievement motivation and handball accuracy. The researcher attributes this to the lack of interest of those working in the educational and training fields in the psychological aspect, particularly achievement motivation, due to its important and effective role in all sports activities, as it is one of the main components upon which the training process is built. "Achievement motivation is one of the basic psychological factors that contribute to directing an individual's behavior toward achieving desired goals. It motivates the individual to exert continuous effort and strive for success, which leads to a reduction in the stress resulting from the presence of motivation and enhances behavioral responses associated with expected goals" (Abdulridha: 2023: 285). This confirms that students who possess higher levels of motivation

are more focused, accurate, and committed to implementing basic skills. This correlation indicates that psychological factors, particularly achievement motivation, play a fundamental role in improving skill performance, as they motivate students to work hard and persevere to achieve accurate and effective results during performance. These results are consistent with what researcher Wen has indicated in the psychological field, stating that achievement motivation is an important internal driver that influences the quality and efficiency of motor performance, especially in team sports that require precise communication between players, such as handball. Students who strive for achievement are more aware of the importance of accurate passing as part of their overall achievement within the team. In the current study, the lack of a correlation indicates that psychological factors, such as achievement motivation, may not be the sole determining factor in improving skill performance in this age group or within this educational context. This finding is supported by a study conducted by Zuber *et al.* (2020), who found that achievement motivation, despite its importance, is not the only factor influencing athletic performance, and that other factors, such as motor abilities and technical skills, play a greater role in determining performance levels (Lochbaum: 2020: 173-205). Furthermore, Lochbom *et al.*'s (2020) study indicates that the effect of achievement motivation on performance may vary based on the cultural and social context, meaning that the relationship between motivation and performance is not constant and may be affected by multiple external factors. Based on these findings, it is recommended to focus on developing students' technical and physical skills, in addition to enhancing other psychological factors, such as self-confidence and concentration, to achieve an overall improvement in athletic performance (Zuber, 2020, p. 606).

## 6. CONCLUSIONS

1. The study results did not show a statistically significant relationship between achievement motivation and passing accuracy in handball, indicating that achievement motivation may not directly affect skill performance in this particular skill.
2. This may be due to the fact that passing accuracy depends more on technical, tactical, and skill factors than on general psychological motivation.
3. The results demonstrate that a high level of motivation does not necessarily mean better performance in all skills unless accompanied by organized and continuous technical training.
4. The results indicate the need to adopt comprehensive training programs that go beyond the psychological aspect, but also include physical, skill, and technical aspects that directly affect performance.
5. The study emphasizes the importance of diversifying measurement methods and relying on more than one variable to explain individual differences in athletic performance among students.

## Recommendations

1. It is necessary to enhance training programs that focus on developing technical skills, such as passing accuracy, through repetition and regular training, rather than relying solely on increasing achievement motivation.
2. Integrate psychological training (such as motivation and self-confidence) into the training program as a complementary element, rather than as the sole factor influencing performance.
3. Use multiple measurement tools that include psychological, physical, and skill aspects to accurately assess athletic performance and interpret individual differences among players.
4. Focus on teaching and improving the technical and tactical foundations of dribbling, given its direct impact on accuracy during match performance.

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