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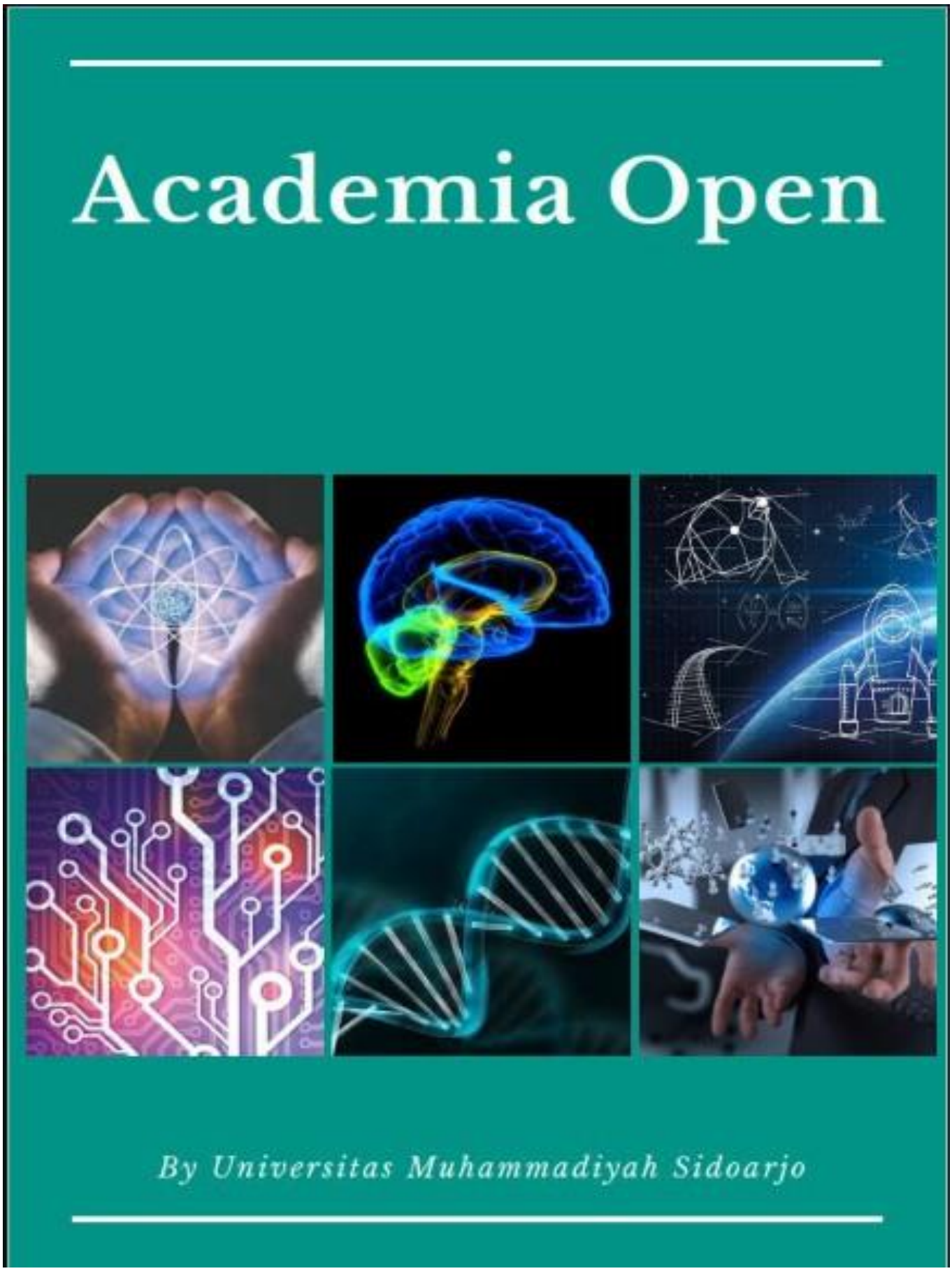

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The Impact of Psychological Exercises in a Competitive Environment on Enhancing Mental Resilience and Endurance And development Some Types of Scoring in Futsal

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Abstract

General Background: Psychological preparation has become an essential component of modern sports training because athletic performance depends not only on physical and technical abilities but also on mental factors that support performance under pressure. **Specific Background:** In futsal, players frequently encounter high-pressure situations that require emotional stability, rapid decision-making, psychological endurance, and sustained performance during competition. **Knowledge Gap:** Limited use of psychological exercises conducted in competitive environments during training has been associated with reduced capacity among players to manage competitive pressure and maintain optimal scoring performance. **Aims:** This study aimed to identify the role of psychological exercises performed in a competitive atmosphere in increasing psychological resilience and endurance while developing selected scoring skills in futsal players. **Results:** The experimental findings showed significant improvement in psychological resilience, psychological endurance, and scoring skills from both stationary and moving situations, with the experimental group demonstrating greater progress than the control group following training procedures conducted under simulated competitive conditions. **Novelty:** Thestudy integrates psychologically simulated competitive training with scoring skill development, connecting psychological and technical dimensions within a structured training approach for futsal players. **Implications:** The findings support the inclusion of competitive psychological training within regular coaching programs to strengthen mental preparedness and support consistent technical performance in competitive sports environments.

Highlights:

- Competitive simulations produced higher psychological stability during training activities.
- Experimental participants achieved greater progress in stationary and movement-based shooting tasks.
- Structured mental preparation supported more consistent performance under match pressure.

Keywords: Psychological Training; Mental Resilience; Psychological Endurance; Futsal Performance; Scoring Skills

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Introduction

Scientific methods have contributed significantly to the development of athletic performance. With science, man understood himself and his environment, and he began to develop his physical and psychological abilities, which contributed to enhancing human performance and reaching advanced levels of achievement.

Modern sports have witnessed remarkable development, no longer being limited to physical and technical aspects, but also incorporating psychological factors, which became a cornerstone of success in the field of sports.

Players are evaluated not only on physical fitness and talent, but also on their responses to reactive decision-making and stressful scenarios that come from competing at a high level. The importance of psychological preparation is highlighted in team sports, especially futsal, which is characterized by fast-paced performance, which involves fast-paced action and constant decision-making under pressure.

Hence, psychological drills—especially ones conducted in a competitive environment—have become an effective means of strengthening mental resilience and enhancing a player's psychological endurance, which positively impacts their on-field performance. [1] defines psychological endurance as "the athlete's ability to withstand the pressures they face during matches and training and to adapt to them. This depends on the player's experience and resilience, and is achieved through continued participation in domestic and international competitions. This generates sufficient experience that helps raise the level of psychological endurance.". This sentiment is echoed by [2] “Through psychological resilience, the player is helped to cope with difficult situations, which are considered frustrating or depressing matters that are incompatible with self-realization require confronting them and not giving in to failure.”. And concerning mental toughness, [3] said “the athlete's possession of psychological skills that contribute to raising the level of performance, including attention, coping with stress, motivation, and self-confidence.”, meanwhile [4], proclaims that “an individual possesses a set of traits such as a high degree of commitment while performing required tasks, a high degree of challenge, and a high degree of control over professional and life matters.”

This highlights the importance of the study, enacting simulations of set game scenarios, with the goal of preparing players to calculate and act on a plan dynamically, which can keep players consistent throughout a full match’s duration.

Furthermore, integrating these exercises with shooting skills contributes to improving accuracy and increasing the effectiveness of the team's offensive performance. The research attempts to link the psychological aspect with the technical aspect, particularly shooting skills, thus providing a comprehensive scientific perspective that helps coaches design modern drilling programs that consider both the psychological and technical dimensions.

1. Research Problem

Psychological factors are fundamental and directly influence athletic performance, particularly in fast-paced, action-packed sports like futsal. During matches, players face competitive situations demanding high concentration, emotional stability, and the ability to make quick decisions under pressure. This necessitates psychological preparation and exercises that simulate real-world competitive environments.

However, a lack of mental preparation can limit a player's ability to cope with psychological pressure and negatively impact their resilience and psychological endurance during play. Previous observations indicate a relative weakness among some futsal players in managing psychological pressure during competitions.

This negatively impacts their performance, particularly in executing scoring skills that require high accuracy and emotional stability. This is attributed to the limited use of psychological exercises designed within a competitive environment during training sessions. Therefore, the need arose to study the impact of using psychological exercises performed in a competitive setting on developing resilience and psychological endurance, and the extent to which this translates into improved scoring skills among futsal players, with the aim of achieving more stable and effective performance in crucial situations.

2 . Research Aims

The aim is to identify the effect of psychological exercises in a competitive environment, to increase resilience and psychological endurance to develop some skills of scoring in futsal.

3 . Research Hypotheses

There is a positive effect of psychological exercises in a competitive atmosphere to raise the psychological resilience and endurance to develop the skill of scoring in futsal.

4 . Study Scope

A. Participants: Futsal players at Maysan Sports Club

B. Setting: The sports hall at the College of Physical Education/University of Maysan

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C. Timeframe: From 22/11/2025 to 20/1/2026

Method

A. Methodology and Field Procedures

The researcher used the experimental method with an equivalent groups design (control and experimental) and with pre- and post-testing, as it was suitable for solving the research problem.

B . Research community and samples

The research population was defined Cas the players of Maysan Sports Club in futsal, numbering 25 players. A purposive sample of 20 players (80% of the population) was selected.

After that, the sample was divided into two groups (control and experimental), each group consisting of 10 female players. Group homogeneity was confirmed using the coefficient of difference and equivalence between the two groups, as in Table 1, using the (t) test for uncorrelated samples, according to Table 2.

Table 1: The homogeneity of the control and experimental groups in the research variables is demonstrated.

perimental Group			ntrol Group			sts
17	56	.32	74	64	.12	eight / kg
36	25	3.45	52	52	3.41	ight / cm
53	34	.36	11	31	.24	e / years
45	42	51	1	34	25	aining Age / years

Table 2: The equivalence of the control and experimental groups in the research variables is demonstrated.

tistical nificance	value	lculated *t*-value	perimental Group		ntrol Group		sts
n-significant	41	62	76	.43	68	.31	ychological endurance/points
n-significant	14	.13	71	7.64	25	7.56	ychological resilience/poi nts
n-significant	2		64	23	74	21	pring from a standstill/points
n-significant	51	55	98	21	84	32	pring while moving/points

C. Information gathering methods, research tools and devices

1. **Information gathering methods**
   References and sources.
   Tests and measurements.
2. **Equipment included: a stopwatch, measuring tape, medical scale, football field, seven balls, a goal, cones, and a whistle.**

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D. Research Procedures

1. Identifying research variables

Research variables were determined through dissection of previous studies and research that the researcher deemed necessary for this study, which included:

- Psychological resilience.
- Psychological Endurance.
- Scoring while at a standstill and also while moving.

2. Psychological evaluation and skill tests used

- The Psychological Endurance Scale: The researchers [5] designed a standardized scale for psychological resilience and relied on the study presented by [6] The scale consists of three domains: (challenge, control, commitment). The dimensions were also three dimensions. Due to the clarity and novelty of its items, it consists of (42) items that measure aspects of the individual's psychological resilience. In addition, the four-point rating scale was investigated, for which the four answer alternatives were given (always applies to me, often applies to me, a little applies to me, never applies to me). The scores were (4, 3, 2, and 1) for positive statements and (1, 2, 3, 4) for negative statements. That is, the highest score for the scale is 168 and the lowest score for the scale is 42.
- Psychological Resilience Scale [22]: The psychological hardiness scale designed by [7] was used, which consists of (50) items. The items of the scale are answered according to a five-point scale with total scores of 250. The positive items are given (1, 2, 3, 4, 5), while the negative items are given (1, 2, 3, 4, 5).
- Shooting test from a standstill [8]:
- Purpose: assessing the scoring accuracy while the player is standing still.
- Tools: (6) futsal balls, tape, measuring tape, and goalpost.
- Test description: The goal is divided from each post into three squares, each measuring 80 cm. Each area has a specific score. (6) Futsal balls are placed on the penalty line, with a distance of (1) m between each one. The player performed six shots from the penalty line following a start signal. The procedure was repeated for all trials, taking sufficient time between the executions of each shot.
- Assessment:
- The score is calculated based on the total points obtained from 6 attempts according to the regions.
- The dividing rope is within the larger degree, while outside the specified area, the degree is zero.

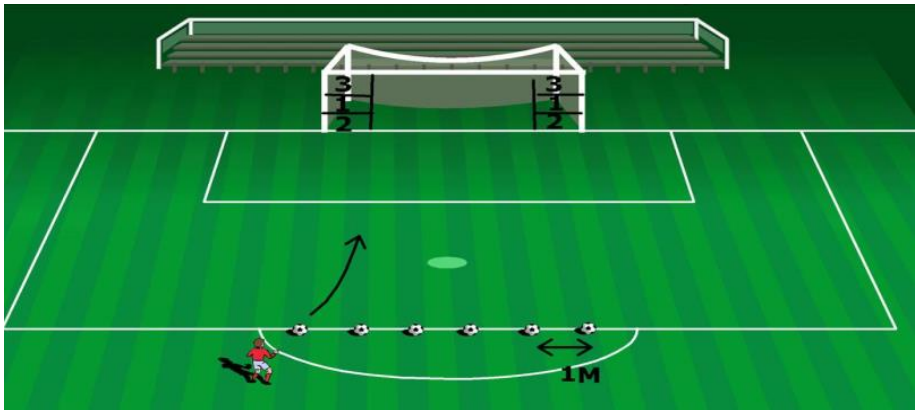

Figure 1: Illustrating the layout of the accuracy test

- Shooting test while moving [9]
- Purpose: assessing the scoring accuracy while the player is moving.
- Tools: (7) futsal balls, training cone, measuring tape, goalpost.
- Test performance method: (7) balls are distributed in the penalty area. The player starts by running from behind the goalpost on the penalty arc towards the first ball, scores, and then returns to circle the goalpost. He then goes for the second ball, and so on with all the balls. The shots must be taken from above-ground level. The player is free to choose the form, and foot used in scoring, for as long as the action is performed from a running start.
- Score calculation: The score is calculated by the sum of the points obtained by the player from scoring the seven balls as follows: The player is given (3) points if the ball enters the two specified areas (1, 2). The player is given one point if the ball enters the specified area (3). The player is given zero points if the ball doesn't enter the goalpost.

E. Exploratory experiment

The exploratory experiment was conducted on 22/11/2025 on the original research sample by applying some exercises related to the psychological aspect in a competitive atmosphere in order to standardize them and know the extent of their suitability for the research sample and to find and know the difficulties that the research faces in applying them.

F. Field experience

1. Pre-tests: performed on 29/11/2025
2. Psychological exercises in a competitive environment: futsal drills, particularly shooting from a stationary position and while moving, were developed in a competitive environment, mimicking match conditions in terms of psychological pressure related to the match result, the opponent's strength, and the presence of a crowd. The drills were implemented for (8) weeks, carefully adjusting the training load in terms of intensity, volume, and rest periods. The drills were also incorporated into the main part of the head coach's program for the experimental group, while the control group relied on the coach's drills. The number of training sessions per week was (2) sessions. The nature of the drills used was based on competition and high psychological pressure during training. The intensity ranged from (90-

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100%), and the volume was determined based on intensity, time, and rest based on heart rate. The drills were implemented from 30/11/2025 to 19/1/2026.

3. Post-tests: performed on 20/1/2026

G. Statistical methods:

the test utilized IBM's SPSS platform to process the data gathered.

H.

Results and Discussion

According to Tables 3 and 4, the results indicate significant improvement and development in the psychological aspect, especially in resilience and endurance, as well as in the quality of shooting, both stationary and while moving, for both the control and experimental groups. This indicates the achievement of the principles and objectives of the training used and its connection to the psychological aspect. Therefore, [10] believes that "the successful coach is skilled in organizing the physical and psychological energies of the players and how to control and manage the thoughts and feelings of his players during competition which makes their performance develop in the right direction" [11] state: "The goal of sports training is to bring the athlete to the highest level of athletic achievement in their chosen sport or activity, both physically and psychologically".

Table 3: This shows the (t) values of the differences between the pre-tests and post-tests of the control group.

tistical Significance	value	culated *t*-value	ndard Error	$\bar{X}$		sts
nificant	0	82	41	52	31	ychological endurance/points
nificant	0	78	64	9.24	7.56	ychological resilience/points
nificant	0	36	12	12	21	oring from a standstill/points
nificant	0	46	34	1	32	oring while moving/points

Note. $\bar{X}_1$ = pre-test mean; $\bar{X}_2$ = post-test mean

Table 4: The values (t) represent the differences between the pre-test and post-test scores of the experimental group.

tistical Significance	value	culated *t*-value	ndard Error	$\bar{X}$		sts
nificant	0	76	14	65	43	ychological endurance/points
nificant	0	71	87	1.56	7.64	ychological resilience/points
nificant	0	65	95	2	23	oring from a standstill/points
nificant	0	6	45	21	21	oring while moving/points

Note. $\bar{X}_1$ = pre-test mean; $\bar{X}_2$ = post-test mean

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Table 5: The (t) values for the post-hoc differences between the control and experimental groups in the tests used.

tistical nificance	value	lculated *t*-ue	perimental Group		ntrol Group		sts
nificant	0	4	74	65	74	52	ychological endurance/points
nificant	0	98	68	1.56	65	9.24	ychological resilience/points
nificant	0	27	84	2	89	12	oring from a standstill/points
nificant	0	59	52	21	65	1	oring while moving/points

Regarding the psychological aspect and its role in preparation and training, [12] emphasizes that "standardized and organized training programs based on scientific principles contribute to the development of the physical, technical, and psychological levels of athletes".

According to Table 5, the experimental group showed significantly greater improvement than the control group. This indicates that psychological exercises conducted in a competitive environment yield better results because they enhance the player's confidence and raise the level of their resilience. [13] states that "individuals with high mental toughness are more resilient, resistant, achieving, internally controlled, leading, capable, active, and realistic; because mental toughness and its components act as a psychological variable that mitigates the impact of stressful events on the physical and mental health of the individual. Thus, the hardier individuals are exposed to pressures and do not fall ill".

Meanwhile, [14] believes that psychological resilience in an athlete means possessing the confidence to face any situation with a high degree of positivity during competition, and the ability to maintain the highest level of their capabilities and potential, regardless of the pressures in the competitive sports situation.

In terms of psychological endurance, the exercises also enhanced this psychological aspect as a result of the intensity of the load used. Therefore, [15] sees that "attaining the required increase in psychological endurance for athletic achievement leads to the emergence of psychological endurance phenomena. Psychological endurance has a decisive influence on motives, as it indirectly affects the stimulation of readiness for achievement. Furthermore, psychological endurance that has a long-term effect can lead to changes in inherited psychological conditions".

[16] [17] confirms that psychological tolerance is "ambiguity is a personality trait when it functions as part of an individual's adaptation to their internal and external environments. It is part of the hierarchical organization of an individual's values; as such, it serves as a method of evaluation rather than a treatment for reality".

Conclusions and Recommendations

1. Conclusions:

- Psychological exercises in a competitive atmosphere are essential for increasing mental toughness and endurance and scoring in futsal.
- Training environments that simulate match conditions enhance the required psychological aspects such as toughness, psychological endurance, and skill performance.

2. Recommendations:

- Adopting psychological training in a competitive environment is important and essential for increasing mental toughness and psychological endurance, and for improving scoring in futsal.
- Emphasis should be placed on using competitive training environments in accordance with the conditions of the match, as this enhances the required psychological aspects such as resilience, psychological endurance, and skill performance.

References

Baniyah, H. H. (2014). Construction of a psychological hardiness scale and its application to first-division club players in some team sports in Baghdad governorate (Master's thesis, Al-Mustansiriya University, College of Physical Education and Sports Sciences).

Al-Darweeshi, N. A. (2001). Psychological endurance among youth leaders and students and its relationship to age, gender, organization, and leadership position (Unpublished master's thesis, University of Baghdad, College of Education Ibn Rushd).

Creswell, S. (1997). Key questions on mental toughness. University of Western Australia.

Yas, A. (2008). The impact of the rational emotional style on developing optimism among middle school female students (Unpublished thesis, University of Diyala).

Al-Jubouri, Z. H. F., & Al-Fartousi, A. A. U. (2015). Psychological endurance and its relationship to achievement level in the 400m sprint. Journal of Physical Education Studies and Research, 43.

Rezaei, F., Foroughi, M., & Bagherzadeh, F. (2012). Comparing the effect of instructional and motivational self-talk on basketball skills. European Journal of Experimental Biology, 2(1), 77–83.

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Zimmerman, B. J. (2000). Attaining self-regulation: A social cognitive perspective. In M. Boekaerts, P. R. Pintrich, & M. Zeidner (Eds.), Handbook of self-regulation (pp. 13–39). Academic Press.

Khalaf, H. B., et al. (2021). The effect of McCarthy's model on teaching the skill of scoring in football to students. Journal of Physical Education Studies and Research, 67.

Hamza, R. H. (2003). The effect of special exercises on developing specific endurance and its relationship to skill performance in football (Doctoral dissertation, University of Baghdad, College of Physical Education).

Rateb, O. K. (1995). Sports psychology: Concepts and applications. Dar Al-Fikr Al-Arabi.

Ibrahim, M. A. M., & Al-Yasiri, M. J. (2010). Modern trends in sports training science. Al-Warraq for Publishing and Distribution.

Al-Ani, M. A. S. (2001). The effect of a proposed training program on some physical and skill abilities in basketball for junior players (Master's thesis, University of Baghdad, College of Physical Education).

Al-Shawaf, G. (2010). Psychological hardiness as a moderator variable for the relationship between creative abilities and psychological stress of female adolescents in the Kingdom of Saudi Arabia (Unpublished thesis, Arabian Gulf University).

Karen, A. (2002). Mental toughness: Brain power for sport. EBSCO Publishing.

Al-Wais, K. T. (1981). Sports psychology. Directorate of Dar Al-Kutub for Printing and Publishing.

Al-Bahadli, A. K. N. (1994). Tolerance of ambiguity and its relationship to academic achievement among university students (Master's thesis, University of Baghdad, College of Arts).

Khamees, S. A. (2014). Psychological endurance and its relationship to competitive anxiety among female volleyball players. University of Babylon Journal: Humanities, 22(3).

Schunk, D. H., & Zimmerman, B. J. (2003). Self-regulation and learning. Lawrence Erlbaum.

Tahmasebi Boroujeni, A., & Shahbazi, M. (2011). The effect of instructional and motivational self-talk on basketball passing skills. World Applied Sciences Journal, 12(1), 59–64.

Theodorakis, Y., Weinberg, R., Natsis, P., Douma, I., & Kazakas, P. (2000). The effects of motivational versus instructional self-talk on improving motor performance. The Sport Psychologist, 14(3), 253–272.

Theodorakis, Y., Hatzigeorgiadis, A., Giannoudis, G., & Chroni, S. (2008). Self-talk and sports performance: A meta-analysis. Psychology of Sport and Exercise, 9(1), 54–65.