

7-18-2026

The Impact of Yoga and Mindfulness Training on Reducing Ground-Based Separation Anxiety during High Apparatus Skills in Gymnastics

Zahraa Hazim Yuneus

University of Baghdad, College of Physical Education and Sports Sciences for women, Iraq,
Zahraa.Hazem1204a@copew.uobaghdad.edu.iq

Liqaa' Abdulzahra Obaid

University of Baghdad, College of Physical Education and Sports Sciences for women, Iraq,
liqaa.abdulzahra@copew.uobaghdad.edu.iq

Hind Waleed Kalf

University of Baghdad, College of Physical Education and Sports Sciences for women, Iraq,
hind.walid@copew.uobaghdad.edu.iq

Hind Salem Tayeh

University of Baghdad, College of Physical Education and Sports Sciences for women, Iraq,
hind.s@copew.uobaghdad.edu.iq

Follow this and additional works at: <https://jcopew.uobaghdad.edu.iq/journal>

Recommended Citation

Yuneus, Zahraa Hazim; Obaid, Liqa' Abdulzahra; Kalf, Hind Waleed; and Tayeh, Hind Salem (2026) "The Impact of Yoga and Mindfulness Training on Reducing Ground-Based Separation Anxiety during High Apparatus Skills in Gymnastics," *Modern Sport*: Vol. 25: Iss. 3, Article 12.
DOI: <https://doi.org/10.54702/2708-3454.2146>

This Special Issue Article is brought to you for free and open access by Modern Sport. It has been accepted for inclusion in Modern Sport by an authorized editor of Modern Sport.



SPECIAL ISSUE ARTICLE

The Impact of Yoga and Mindfulness Training on Reducing Ground-Based Separation Anxiety during High Apparatus Skills in Gymnastics

Zahraa Hazim Yuneus¹*, Liqa' Abdulzahra Obaid², Hind Waleed Kalf³,
Hind Salem Tayeh⁴

University of Baghdad, College of Physical Education and Sports Sciences for women, Iraq

Abstract

Modern sports increasingly recognize psychological factors alongside physical performance. In gymnastics, emotional stability is critical, particularly for high-flying skills that involve significant heights, aerial spins, and precise landings. These demands make gymnasts vulnerable to fear, separation anxiety, and loss of control during flight, leading to hesitation, reduced confidence, and technical errors. The study aims to develop a training program integrating yoga and mindfulness to reduce ground-separation anxiety and improve high-altitude skill performance. The research hypothesizes statistically significant differences between pre- and post-tests in both anxiety levels and skill performance, favoring the post-test. An experimental methodology was adopted, with a purposive sample of 25 junior gymnasts from Hilla Gymnastics Club — 20 for the main experiment and 5 for exploratory purposes. The findings demonstrated a statistically significant reduction in separation anxiety scores, dropping from a baseline mean of 54.30 at pretest to 41.85 at posttest, with a t-value of 8.96, which corresponds to a 22.9% decrease. Concurrently, performance accuracy was markedly enhanced, falling from 5.24 cm to 2.95 cm. The study concluded that yoga and mindfulness exercises effectively reduced separation anxiety among junior gymnasts, improved flight accuracy and balance, and enhanced landing quality. The research recommends incorporating yoga and mindfulness into daily training, regularly monitoring players' psychological well-being, training coaches in relaxation and mental focus techniques, and creating a safe training environment that builds performance confidence, and this achieves one of the sustainable development goals of the United Nations in Iraq which is (Quality Education).

Keywords: Yoga exercises, Mindfulness exercises, Separation anxiety, High air skills

1. Introduction

Sports activities of today have seen increasing attention being paid to the psychological dimension in addition to physical and technical dimensions, since success in the sports field is not determined only by physical qualities but also by stability. It is an important constituent for attaining success, particularly in such types of sports where there is a lot of risk involved, like gymnastics (Beenen et al., 2025).

Gymnastic feats done at a height are one of the activities that induce much anxiety in gymnasts due

to the involvement of being suspended at a certain height while spinning around and then balancing themselves. As such, gymnasts experience fear and separation anxiety in relation to the feeling of losing balance when airborne. Anxiety will adversely impact the athlete's performance by limiting self-confidence and causing mistakes. (Brenner, 2024).

In this context, mindfulness has emerged as an important approach for supporting athletic output and promoting psychological resilience, due to its part in nurturing interpersonal bonds, self-organization, skill, and ability (Kanauija et al., 2023). Yoga is a

Received 10 January 2026; revised 26 February 2026; accepted 15 March 2026.
Available online 18 July 2026

* Corresponding author.

E-mail addresses: Zahraa.Hazem1204a@copew.uobaghdad.edu.iq (Z. H. Yuneus), liqaa.abdulzahra@copew.uobaghdad.edu.iq (L. A. Obaid), hind.walid@copew.uobaghdad.edu.iq (H. W. Kalf), hind.s@copew.uobaghdad.edu.iq (H. S. Tayeh).

<https://doi.org/10.54702/2708-3454.2146>

2708-3454/© 2026 The Author(s). Modern Sport. This is an open access article under the CC BY 4.0 Licence (<https://creativecommons.org/licenses/by/4.0/>).

mind-body collaborative sport that allows for balanced and integrated practice, involving mental, cognitive, and physical exercises (Ali, 2025).

In recent years, modern psychological training strategies have emerged, most notably yoga and mindfulness training, which have proven effective in achieving muscle relaxation, regulating breathing, increasing body awareness, enhancing focus and momentary attention, as well as reducing levels of anxiety and psychological stress (Si et al., 2024).

Studies confirm that motor exercises improve aerial somersault performance when based on well-designed scientific programs (Ahmed et al., 2021).

Hence, the need arose to employ these psychological methods and Movement within training programs for gymnasts, due to its potential role in reducing separation anxiety and improving skill performance in high-air skills.

The importance of the research lies in the fact that it highlights the integration of modern psychological methods with skill training, which contributes to the development of comprehensive preparation programs that take care of the player physically and psychologically, and provides results that can benefit coaches and teachers in the field of gymnastics.

1.1. Research problem

Through the researcher's observation and his experience, field research has shown that a number of gymnasts, especially in the educational or emerging stages, suffer from feelings of anxiety and fear while performing aerial skills, which lead to a lack of self-confidence, hesitation in performance, and a high rate of technical errors, and may sometimes result in avoiding the skill or withdrawing from the activity.

Despite the great attention given to physical and technical preparation, the psychological aspect does not receive enough organized training, leaving the player vulnerable to emotional pressures that affect his performance.

1.2. Research objectives

1. Developing a training program using yoga and mindfulness for gymnasts.
2. Identifying the program's impact on reducing separation anxiety on the ground.
3. Identifying the program's impact on improving high-altitude air skills performance.

1.3. Research hypotheses

1. There are statistically significant differences between the pre- and post-measurements in sep-

aration anxiety on Earth, in favor of the post-measurement.

2. There are statistically significant differences between the pre- and post-tests in high-air skills performance, in favor of the post-test.
3. There is a significant correlation between reduced anxiety and improved skill performance.

1.4. Research areas

- **Human domain:** 25 gymnasts from Al-Hillah Club for the juniors.
- **Time frame:** From 1/10/2025 to 27/11/2025.
- **Spatial field:** The gymnastics hall at Al-Hilla Sports Club.

1.5. Search of terms

- **Yoga:** A set of physical, breathing, and relaxation exercises aimed at achieving balance between body and mind and reducing psychological stress (Cadieux et al., 2021).

- **Mindfulness:** A state of awareness and focus on the present moment without judgment, while consciously and systematically observing thoughts, feelings, and emotions (Askar, 2009).

- **Separation anxiety on Earth:** An emotional state of fear and tension felt by a gymnast when performing aerial movements away from the ground as a result of the feeling of losing control or being exposed to falling (Musa, 2019).

- **High air skills:** Gymnastics motor skills involve rising above the ground and performing turns, jumps, or aerial transitions before landing (Jouda, 2023).

2. Theoretical framework and previous studies

2.1. Theoretical studies

2.1.1. Gymnastics and its importance

Gymnastics is an individual sport that requires a high level of strength, flexibility, coordination, balance, and neuromuscular control, as it depends on the precise technical performance of floor and aerial movements.

Comprehensive preparation of a gymnast (physical, technical, and psychological) is essential for achieving optimal performance and minimizing errors and injuries (Shehata, 2003).

2.1.2. High-air skills in gymnastics

High-air skills represent a set of movements performed by the player while elevated above the

ground, such as jumps, spins, and aerial somersaults, and require:

- Kinetic timing accuracy
- Balance and physical control
- self-confidence
- Courage and high alertness

Any psychological disturbance or fear during flight can lead to loss of control, poor landing, and a higher error rate (Bani Hamdan, 2012).

2.1.3. Sports anxiety and separation anxiety on Earth

Sports anxiety is an emotional state that accompanies competition or skill performance, and it manifests as psychological and muscular tension, rapid heartbeat, and poor concentration.

Separation anxiety on the ground is particularly evident in gymnastics during aerial movements, where the athlete fears falling or losing balance, leading:

- Hesitation in performance
- slow motor response
- Low self-confidence
- Low achievement level

This negatively affects the learning and mastery of skills (Askar, 2009).

2.1.4. Yoga training

Yoga is a system of physical, breathing, and relaxation exercises that aims to achieve balance between body and mind, and its benefits for athletes include:

- Reducing muscle tension
- Improve flexibility and balance
- Regulating breathing
- Reducing anxiety and emotional stress
- Increased relaxation and focus

Therefore, it is an effective method in the psychological and physical preparation of players (Jouda, 2023).

2.1.5. Mindfulness

Mindfulness is a mental training that focuses on paying attention to the present moment with full awareness, without distractions or preconceived notions, and helps the athlete to:

- Improving focus and attention
- Controlling negative thoughts
- Controlling emotions
- Boosting self-confidence
- Improving the quality of skill performance

Numerous recent studies have demonstrated its role in reducing anxiety and improving athletic performance (Jouda, 2023).

2.1.6. The relationship between yoga, mindfulness, and skill performance

Combining yoga and mindfulness contributes to:

- Combining yoga and mindfulness contributes to:
- Achieving physical and mental relaxation
- Reduce anxiety and fear levels
- Increased motor awareness
- Improving balance and control during flight

This has a positive impact on high-air gymnastics performance (Jouda, 2023).

2.2. Previous studies

• Study of Al-Shammari (2021)

The address: The effect of yoga exercises in reducing anxiety and improving motor balance in individual sports athletes.

The problem: The researcher noted high levels of anxiety and psychological stress among individual sports players during training and competitions, which negatively affected motor balance and performance quality, with little attention paid to using relaxation and yoga techniques within training programs, which necessitated the preparation of a psycho-physical training program to address this problem.

Goals:

1. Identifying the level of anxiety among players of individual sports.
2. Developing a training program using yoga exercises.
3. Understanding the program's effect on reducing anxiety and improving motor balance.

Assumptions:

1. There are statistically significant differences between the pre- and post-tests in the level of anxiety, in favor of the post-test.
2. There are statistically significant differences in the level of motor balance, in favor of the post-test measurement.

Research methodology: The experimental method with a single group (pre-test-posttest).

Research sample: (20) players from individual sports aged (14–16) years.

Conclusions:

1. A significant decrease in the level of psychological anxiety after applying yoga exercises.
2. Improvement in balance and motor control.

• **Study of Mohammed (2022)**

The address: The effectiveness of mindfulness training in reducing anxiety and improving skill performance among artistic gymnasts.

The problem: It was found that gymnasts had poor concentration and high levels of anxiety and fear while performing difficult skills, which led to many technical errors and a low level of achievement, with little use of modern psychological programs such as mindfulness. Therefore, the study sought to test the effectiveness of this type of training.

Goals:

1. Identifying the effect of mindfulness training in reducing sports anxiety.
2. To identify its effect on improving focus and attention during skill performance.
3. Statement of the impact of this on the level of technical performance in gymnastics.

Assumptions:

1. There are statistically significant differences between the pre- and post-tests in sports anxiety, in favor of the post-test.
2. There are statistically significant differences in skill performance level, in favor of the post-test.
3. There is a correlation between reduced anxiety and improved performance.

Research methodology: The experimental method with a two-group design (experimental and control).

Research sample: (24) gymnasts were divided into two equal groups of (12) players each.

Conclusions:

1. A clear decrease in anxiety levels was observed in the experimental group.
2. Improvement in focus and motor accuracy while performing skills.

3. Mindfulness training has proven effective in improving the quality of artistic performance.

3. Methodology and field procedures

3.1. Research methodology

The researcher relied on the experimental method because of the nature of the problem is that it aims to identify the effect of an independent variable (yoga and mindfulness training) on dependent variables (separation anxiety on the ground and high aerobic skill performance level).

It has been used and designing a single group with pre- and post-measurements to measure the amount of change that occurs before and after the application of the training program.

3.2. Society and research sample

The research sample was selected purposively, and their number was 25 players from Al-Hilla Gymnastics Club in the junior category, 20 of whom were selected for the main trial, and 5 players for the exploratory trial.

3.3. Sample homogeneity search

The researcher one by performing homogenization coefficients on the variables (age, height, weight, the age training to ensure the homogeneity of the sample members.

Table 1 shows the lowest and highest values, the arithmetic mean, and the standard deviation in the basic measurements. The skewness coefficients came close to zero, which indicates the lack of dispersion, the normality of the values, and the homogeneity of the research sample.

It is clear from the Table 2 The lowest and highest values, the arithmetic mean, and the standard

Table 1. Descriptive statistics and homogeneity of the sample in age, height, weight, and training age.

Variable	Unit of Measurement	Mean	Standard Deviation	Skewness
Age	Years	14.32	0.88	0.41
Height	cm	154.6	5.72	-0.36
Weight	kg	46.85	4.95	0.27
Training Age	Years	3.1	0.74	-0.52

Table 2. Statistical characterization for measurements and tests for the sample under study.

No.	Scales and Tests	Minimum Value	Maximum Value	Mean	Standard Deviation	Skewness Coefficient	Kurtosis Coefficient
1	Separation Anxiety Scale on Ground (d)	41	68	54.3	7.15	0.38	-0.72
2	Performance Accuracy Test (cm)	2.1	8.6	5.24	1.63	0.44	-0.58
3	In-Flight Balance Test (sec)	6.2	9.1	7.58	0.82	-0.36	-0.41
4	Landing Quality Test (kg)	62.4	89.3	75.65	6.74	0.29	-0.67

Table 3. Discriminant validity of scales and tests.

Scales and Tests	Upper Quartile (n = 10) Mean	± SD	Lower Quartile (n = 10) Mean	± SD	Calculated t-value	Discriminant Validity Coefficient
Separation Anxiety Scale on the Ground (d)	45.6	3.85	63.2	4.4	9.2	0.91
Performance Accuracy Test (cm)	3.25	0.95	7.8	1.2	9.74	0.93
In-Flight Balance Test (sec)	8.27	0.4	6.65	0.55	9.03	0.90
Landing Quality Test (kg)	68.9	4.6	84.1	5.1	8.37	0.89

deviation in measurements and tests the skewness coefficients were close to zero, and the kurtosis coefficients were within (± 3), indicating a lack of dispersion, normality of values, and homogeneity of the research sample.

3.4. Data collection tools

The researcher relied one on the following tools:

- Arabic and foreign sources and references
- Data registration forms
- Separation anxiety scale on Earth
- Gymnastics skill performance tests
- Proposed training program (Yoga and Mindfulness)
- Auxiliary equipment (gymnastics mat, gymnastic equipment, stopwatch, camera)

3.5. Tests and measures used in the research

3.5.1. Separation anxiety scale on Earth

A psychological questionnaire that measures the level of anxiety and fear associated with performing aerial skills. It consists of a set of items that are answered to a graduated scale, and the total score is calculated to indicate the level of anxiety.

3.5.2. Skills performance test

Expert gymnastics judges evaluated the high-air skills performance, depending on:

- Performance accuracy
- Balance during flight
- Landing quality
- Overall technical degree

3.5.3. Experience exploratory

The researcher conducted one exploratory experiment on (5) players and from outside the original research sample, with the aim:

- Checking the functionality of the tools
- Knowing the time required for the tests
- Identifying potential obstacles
- Assistant Team Training

3.5.4. Scientific basis of the test

Validity: The validity of the scales and tests for the pilot sample was calculated by discriminant validity by comparing the extreme quartiles between the highest and lowest quartiles, and this was verified using the t-test and the discriminant validity coefficient as in Table 3.

Table 3 shows statistically significant differences between the upper and lower quartiles in all measures and tests. The calculated t-values were greater than the critical value at 18 degrees of freedom and a significance level of 0.05, indicating the ability of these tests to differentiate between high- and low-level players. Furthermore, the discriminant validity coefficients showed high values exceeding 0.80, confirming the high degree of validity of the instruments and their suitability for application in the current study.

Stability: Stability verified for tests physical level on the research sample by reapplying Tests (the study exploratory Second) Five days after the first measurement, the value of “t” and the reliability coefficient between the two applications were calculated.

3.5.5. Pre-tests

Pre-tests were conducted on the research sample on 10/14/2025.

3.5.6. Training program (yoga and mindfulness)

Prepared by the researcher one a training program that included yoga and mindfulness exercises aimed at reducing anxiety and improving focus and motor control.

Program features:

- Program duration: (8) weeks
- Number of units per week: (3) units
- Unit time: (30–40) minutes
- It is applied before or after skills training.

Unit content:

- breathing and relaxation exercises
- Yoga poses to improve balance and flexibility
- Mental focus and meditation exercises
- Body awareness and attention exercises for the present moment

Table 4. Test results for the research sample.

Tests and Scales	Pre-test		Post-test		Mean Difference	SD Difference	Calculated t-value	Significance
	Mean	SD	Mean	SD				
Separation Anxiety Scale on the Ground (d)	54.3	7.15	41.85	5.9	12.45	6.22	8.96	Significant
Performance Accuracy Test (cm)	5.24	1.63	2.95	1.1	2.29	1.31	7.84	Significant
In-Flight Balance Test (sec)	7.58	0.82	8.86	0.55	1.28	0.62	9.22	Significant
Landing Quality Test (kg)	75.65	6.74	66.4	5.3	9.25	5.42	7.63	Significant

3.5.7. Post-tests

The post-tests were conducted on 11/21/2025 on the research sample.

3.5.8. Statistical methods

The researcher used one the Statistical Package for the Social Sciences (SPSS) is a statistical tool used for data processing, and it is one of the most important statistical methods used:

- The arithmetic mean.
- Standard deviation.
- Percentage.
- Pearson's correlation coefficient.
- test (t)

3.6. Presentation, analysis, and discussion of the results

3.6.1. View results Variables under investigation And its analysis

Table 4 shows significant differences between the pre-test and the post-test in all study variables favoring the post test.

3.7. Analysis and discussion of test results

3.7.1. Separation anxiety scale on Earth

The results in the table showed that the arithmetic mean of the separation anxiety scores on Earth in the pre-test was (54.30) with a standard deviation of (7.15), while it decreased in the post-test to (41.85) with a standard deviation of (5.90). The average difference between the two measurements was (12.45) degrees, with a calculated (T) value of (8.96), which is greater than the tabulated value, indicating that there are statistically significant differences in favor of the post-test.

In addition, Attribution to the researcher the substantial reduction in anxiety among these athletes can be attributed to the efficiency of yoga and mindfulness training programs. Yoga and mindfulness training facilitated muscle relaxation, deep breathing, and emotional stability, thus enabling the athletes to overcome the fear of carrying out high-altitude activities while gaining confidence and security in their performances. This is consistent with psychological

research findings indicating that mindfulness training leads to decreased anxiety and improved focus.

3.7.2. Performance accuracy test

The results indicate a clear improvement in performance accuracy, as the arithmetic mean decreased from (5.24 cm) in the pre-test to (2.95 cm) in the post-test, i.e., the error decreased by (2.29 cm), and the calculated (T) value was (7.84), which is statistically significant.

This improvement can be explained by the fact that reduced anxiety helped the athletes increase their focus and attention while executing the skill, which positively affected their motor control and neuromuscular coordination. Yoga exercises also improve proprioception and fine motor control, which are essential for gymnastics skills that require high precision in landing and ground contact.

3.7.3. Balance test during flight

The results showed an increase in the arithmetic mean of the balance from (7.58) to (8.86) degrees, with a difference of (1.28) degrees, and a value of (T) of (9.22), which is statistically significant.

The researcher believes One This improvement is attributed to the nature of yoga exercises, which rely on static postures and control of the body's center of gravity, leading to the development of sensory balance systems (vestibular, visual, and muscular). Furthermore, the mental clarity resulting from mindfulness helps the athlete control body position during flight and reduce random movements, thus enhancing balance and aerodynamic stability.

3.7.4. Landing quality test

From these findings, there is a decrease in the mean impact force upon landing from 75.65 kg to 66.40 kg, showing a decrease in impact force by 9.25 kg, and reaching a T-value of 7.63, which is highly significant and shows an increase in performance upon landing. The increased performance is due to reduced stress levels and lower muscle tension that have led to more fluid landing performances and increased ability of the muscles to withstand impact. Furthermore, use of breathing and relaxation techniques improved

neuromuscular coordination, leading to lesser impact force during landings.

4. Conclusions

1. Yoga and mindfulness training reduced separation anxiety on the floor among junior gymnasts.
2. Reduced anxiety improves accuracy, flight performance and balance, and landing quality.
3. The training program is effective in combining psychological and physical preparation for aerobic skills.

5. Recommendations

1. Incorporate yoga and mindfulness exercises into your daily training sessions.
2. Monitoring the psychological anxiety of players on a regular basis.
3. Training trainers in relaxation and mental focus techniques.
4. Providing a safe training environment that fosters confidence during performance.

Author's declaration

Conflicts of interest

None.

We confirm that all tables and figures in this article are ours and written by the researchers themselves.

Ethical-clearance

This manuscript approved by the Scientific Committee of the College of Physical Education and Sports Sciences for Women, University of Baghdad, Iraq, on (2024/10/01).

Author's contributions

All contributions to this study were carried out by the listed authors. Zahraa Hazim Yuneus contributed to the study design, supervision of the research procedures, and final revision of the manuscript. Liqa' Abdulzahra Obaid contributed to data collection, organization, and implementation of the experimental program, as well as drafting the manuscript. Hind Waleed Kalf contributed to data collection, implementation of the experimental procedures, and preparation of the initial draft of the manuscript. Hind Salem Tayeh contributed to data organization and analysis. Also contributed to reviewing, editing, and finalizing the manuscript.

The study also benefited from the assistance of a number of experts: **Dr. Aayed Al-Nusairi** (Statistics), **Dr. Ameerah Mahmoud** and **Dr. Hanan Abdel Latif** (Revision), and **Asst. Prof. Dr. Fatimah Mohammed Al-Asadi** (Translation), Directorate of Scholarships and Cultural Relations, Ministry of Higher Education and Scientific Research.

Facilitating the task

This study was supported by the College of Physical Education and Sports Sciences for Women, University of Baghdad.

Roles of each researcher in the research

- **First researcher:** Zahraa Hazim Yuneus was responsible for the conceptualization of the research idea, study design, supervision of the research procedures, interpretation of the results, and final revision of the manuscript.
- **Second researcher:** Liqa' Abdulzahra Obaid participated in data collection, organization, and implementation of the experimental program, and contributed to drafting the manuscript.
- **Third researcher:** Hind Waleed Kalf contributed to data collection, implementation of the experimental procedures, and preparation of the initial draft of the manuscript.
- **Fourth researcher:** Hind Salem Tayeh assisted in data organization, statistical processing, and interpretation of results, also contributed to reviewing, editing, and finalizing the manuscript.

Funding statement

This research received no external funding.

Data availability

The datasets generated during and/or analyzed during the current study are available from the corresponding author on reasonable request.

References

- Ahmed, M. S., Jasim, R. A. S., & Ghanim, M. R. (2021). The effect of special exercises on learning the straight front aerial somersault skill in artistic gymnastics [in Arabic]. *International Journal of Sports Sciences*, 3(11), 17–24. [https://doi.org/10.71377/44929\times\\$37](https://doi.org/10.71377/44929\times$37)
- Ali, A. H. A. A. (2025). The effect of Hatha yoga exercises on mindfulness and attention distraction among secondary school female students [In Arabic]. *Journal of Comprehensive Educational Research*, 26(48). <https://doi.org/10.21608/jsei.2025.421737.1770>

- Al-Shammari, A. H. (2021). *The effect of yoga exercises in reducing anxiety and improving motor balance among athletes in individual sports* (Master's thesis, University of Baghdad). [in Arabic]
- Askar, M. (2009). *Sports psychology*. Master Publishing House. [in Arabic]
- Bani Hamdan, S. (2012). *Artistic gymnastics from A to Z*. Arab Community Library for Publishing and Distribution. [in Arabic]
- Beenen, K. T., Vosters, J. A., & Patel, D. R. (2025). Sport-related performance anxiety in young athletes: A clinical practice review. *Translational Pediatrics*, 14(1), 127–138. <https://doi.org/10.21037/tp-24-258>
- Brenner, J. S. (2024). Mindfulness for young athletes. *Sports Health*, 16(2), 300–302. <https://doi.org/10.1177/19417381231209219>
- Cadieux, E. G., Gemme, C., & Dupuis, G. (2021). Effects of yoga interventions on psychological health and performance of competitive athletes: A systematic review. *Journal of Science in Sport and Exercise*, 3(2), 158–166. <https://doi.org/10.1007/s42978-020-00104-y>
- Jouda, M. A. (2023). *Yoga: Between sports practice and therapy*. Tayba Foundation for Publishing and Distribution. [in Arabic]
- Kanaujia, S., Saraswati, P., Singh, A., Singh, N., Kataria, N., & Yadav, P. (2023). Effect of yoga and mindfulness on psychological correlates in young athletes: A meta-analysis. *Journal of Ayurveda and Integrative Medicine*, 14(4), 100725. <https://doi.org/10.1016/j.jaim.2023.100725>
- Mohammed, A. J. (2022). *The effectiveness of mindfulness training in reducing anxiety and improving skill performance among artistic gymnasts* (Master's thesis, Al-Mustansiriya University). [in Arabic]
- Musa, J. (2019). *Burnout and psychological stress among athletes*. Amman, Jordan. [in Arabic]
- Shehata, M. I. (2003). *Foundations of gymnastics education*. Arab Thought House for Printing and Publishing. [in Arabic]
- Si, X., Yang, Z., & Feng, X. (2024). A meta-analysis of the intervention effect of mindfulness training on athletes' performance. *Frontiers in Psychology*, 15, 1375608. <https://doi.org/10.3389/fpsyg.2024.1375608>

أثر تدريبات اليوغا واليقظة الذهنية في تقليل قلق الانفصال عن الأرض أثناء مهارات القلبات الهوائية في الجمباز

زهراء حازم يونس¹، لقاء عبدالزهره عبيد²، هند وليد كلف³، هند سالم تايه⁴

جامعة بغداد، كلية التربية البدنية وعلوم الرياضة للبنات، العراق

ملخص البحث:

تشهد الرياضة الحديثة اهتمامًا متزايدًا بالعوامل النفسية إلى جانب الأداء البدني. وفي رياضة الجمباز، يُعد الاستقرار الانفعالي عنصرًا أساسيًا، ولا سيما في مهارات الهواء العالي التي تتطلب ارتفاعات كبيرة، ودورات هوائية، وهبوطًا دقيقًا. وتجعل هذه المتطلبات لاعبي الجمباز عرضة للخوف، وقلق الانفصال عن الأرض، وفقدان السيطرة أثناء الطيران، مما يؤدي إلى التردد، وانخفاض الثقة بالنفس، وازدياد الأخطاء الفنية. ويهدف البحث إلى إعداد برنامج تدريبي يدمج بين اليوغا واليقظة الذهنية لخفض قلق الانفصال عن الأرض وتحسين أداء مهارات الهواء العالي. ويفترض البحث وجود فروق ذات دلالة إحصائية بين القياسين القبلي والبعدى في كل من مستويات القلق وأداء المهارات، ولصالح القياس البعدى. واعتمد الباحثون المنهج التجريبي، واختيرت عينة قصدية مكونة من (25) لاعبًا ناشئًا من لاعبي نادي الحلة للجمباز، بواقع (20) لاعبًا للتجربة الرئيسية و(5) لاعبين للتجربة الاستطلاعية. وأظهرت النتائج انخفاضًا ذا دلالة إحصائية في درجات قلق الانفصال عن الأرض، إذ انخفض المتوسط من (54.30) في الاختبار القبلي إلى (41.85) في الاختبار البعدى، بقيمة (ت = 8.96)، وهو ما يمثل انخفاضًا بنسبة (22.9%)، كما تحسنت دقة الأداء بانخفاض الخطأ من (5.24 سم) إلى (2.95 سم). واستنتج البحث أن تدريبات اليوغا واليقظة الذهنية أسهمت بفاعلية في خفض قلق الانفصال عن الأرض لدى لاعبي الجمباز الناشئين، وتحسين دقة الطيران والاتزان، وتعزيز جودة الهبوط. ويوصي البحث بإدراج تدريبات اليوغا واليقظة الذهنية ضمن الوحدات التدريبية اليومية، ومتابعة الحالة النفسية للاعبين بصورة دورية، وتدريب المدربين على أساليب الاسترخاء والتركيز الذهني، وتوفير بيئة تدريبية آمنة تعزز الثقة في الأداء، بما يساهم في تحقيق أحد أهداف التنمية المستدامة للأمم المتحدة في العراق، وهو التعليم الجيد.

الكلمات المفتاحية: تدريبات اليوغا، تدريبات اليقظة الذهنية، قلق الانفصال، مهارات الهواء العالي.