Research Journal in Advanced Humanities

RJAH

https://doi.org/10.58256/7zvrjn17

Open Access

Check for updates

RESEARCH ARTICLE **Section:** *Digital Humanities*

Emotional experiences in Jordanian school sporting culture: Perceived coach anxiety, emotional contagion, and competitive anxiety among adolescent female sprinters

Rawa'ah Adnan Sukkariyeh[1]*, Hazem Nouri Al-Nahar[2], Maryam Majed Al-Dhmour[3], Karam Khalaf Abu A'qoulah[4], Basma Mousa Jaber[5], Abdulghani Mugahed Mutahar[6], Omar Ahmad Rizq A'mir[1], Shefa' Salah Al-Jarrah[7], Hamzh Ali Sallam[5], Ra'fat Omar Raf'at Al'dily[8], Nesreen Jamil Al-Shawabkeh[9], Jawad Rubhi Khraisat[10], Laith Sameer Almomani[4], Mo'ath Adel Mahmoud Magableh[4], Tamara Narmouq[4], Areen Maher Almoghrabi[4] & Mohammed Mustafa Alzyoud[11]

[1]Department of Physical Education, Applied Science Private University, Jordan
[2]Department of Physical Education, School of Sport Science, The University of Jordan, Jordan
[3]Amjad International Academy, Ministry of Education, Qatar
[4]Department of Physical Education, Philadelphia University, Jordan
[5]Department of Physical Education, Al al-Bayt University, Jordan
[6]Department of Sports Training, Sana'a University, Sana'a, Yemen
[7]Department of Kinesiology and Applied Sport Sciences, Al al-Bayt University, Jordan
[8]Department of Physical Education, Zarqa University, Jordan
[9]Department of Physical Education, Yarmouk University, Jordan
[11]Philadelphia University, Jordan
*Correspondence: r_sukkaria@asu.edu.jo

ABSTRACT

The study aimed to identify the levels of perception of coach anxiety, emotional contagion, and dimensions of performance anxiety, and to reveal the relationships between them among 100-meter runners in the teams of the Jordanian directorates of education. The study used a descriptive-relational approach, and the sample included 200 female runners from the districts of Kasbah Amman, the University Brigade, and the Marka Brigade, aged between 12 and 17 years. The data were collected using three scales: the Trainer's Anxiety Perception Scale, the Emotional Infection Scale, and the Competitive Status Anxiety Scale (with its three dimensions: cognitive anxiety, physical anxiety, and self-confidence). The results showed that the perception of the trainer's anxiety was significant, with an arithmetic mean of 3.503, and verbal indicators topped the axes of perception of the trainer's anxiety. Perceived emotional contagion was moderate (M = 3.399), as were cognitive and physical anxiety and self-confidence (M = 3.278, 3.179, and 3.139, respectively). Perceived trainer anxiety was strongly positively correlated with perceived emotional contagion (r =

Research Journal in Advanced Humanities
Volume 7, Issue 4, 2026
ISSN: 2708-5945 (Print)
ISSN: 2708-5953 (Online)

ARTICLE HISTORY
Submitted **27 August 2026**
Accepted: **14 October 2026**
Published: 04 **November 2026**

Published in Nairobi, Kenya by Royallite Global, an imprint of Royallite Publishers Limited

© 2026 The Author(s). This is an open Access article distributed under the terms of the Creative Commons Attribution License (http://creativecommons.org/licenses/by/4.0/), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

.874). Perception of trainer's anxiety and emotional contagion were also positively associated with cognitive and physical anxiety, and negatively with self-confidence, all of which were statistically significant (p<.001). The study concluded that the runner's psychological state before the race is related to the anxiety she perceives in her coach's behavior and the emotional impact she reports, without proving the actual transmission of anxiety or a causal effect. It is recommended to develop coaches' communication skills, including exercises to regulate anxiety and build self-confidence, and to conduct longitudinal, empirical studies to examine these relationships.

KEYWORDS: coach anxiety perception, emotional contagion, performance anxiety, self-confidence, 100-meter runners

HOW TO CITE
Sukkarieh, R., Al-Nahar, H. ., Al-Dhmour, M., Abu A'qoulah, K., Jaber, B., Mutahar, A. . M., A' mir, O., Al-Jarrah, S., Sallam, H. . ., Al'dily, R., Al-Shawabkeh, N., Khraisat, J., Almomani, L., Magableh, M., Narmouq, T., Almoghrabi, A., & Alzyoud, M. (2026). Emotional experiences in Jordanian school sporting culture: Perceived coach anxiety, emotional contagion, and competitive anxiety among adolescent female sprinters. *Research Journal in Advanced Humanities*, 7(4). https://doi.org/10.58256/7zvrjn17

Introduction

Before the 100-meter race, the runner is preoccupied with her expected performance, listening to her coach's directions and observing his actions. She may see repeated instructions, a change in tone, or his focus on the result as signs that he is concerned about her performance. These moments matter because the race is short and time differences between competitors are small, making psychological preparation and a strong start crucial to achieving the desired performance. However, what the runner observes does not necessarily reveal the actual coach's anxiety, but rather reflects her understanding of his behavior, much as listeners infer meanings that a speaker implies but does not state (Saed et al., 2025), and the runner's psychological state before the race is not determined by what she thinks or feels alone; she may also be influenced by her relationship with her coach and the way he communicates with her. This is supported by a study (Davis et al., 2024) that examined how relationships and interactions shape the athlete's experience.

Competitive performance anxiety is related to what a runner thinks and feels before a race, and is studied through cognitive and physical anxiety, along with self-confidence. Cognitive anxiety manifests itself in fear of failure, preoccupation with the result, and doubt about the ability to achieve the required time. In contrast, physical anxiety manifests in symptoms such as rapid heartbeat, muscle tension, breathing disturbance, and increased sweating. Self-confidence reflects a runner's belief that she can perform successfully under competitive pressure. In this context, Yu et al. (2024) found that mindfulness training may help short-distance runners reduce cognitive and physical anxiety and improve psychological readiness for competition. Understanding competition anxiety also involves identifying sources of stress and how athletes respond to them in competition (Weinberg & Gould, 2024). Because psychological preparation is part of athletic training, studying coach-runner communication before the race is worthwhile. Recent running research also indicates that psychological preparation, competition level, and athlete characteristics relate to performance quality, underscoring the need to integrate psychological variables into interpretations of athletic achievement rather than relying only on physical and technical indicators (Kelemen et al., 2024).

Previous studies have investigated the relationship between psychological flexibility and competition anxiety in the field of sports (Al-Sulaiti et al., 2026), between emotional intelligence, psychological resilience, and psychological distress among nurses (Abualruz et al., 2024), and between flexibility, social support, and perceived stress among nursing students (Hamaideh et al., 2024); A'mir et al. (2024) studied social anxiety among physical education students in the context of the use of social networks. Karam et al. (2023) also examined the modifying role of emotion regulation in the relationship between social support and psychological distress in adults, and these studies provide a general background for understanding the individual and social factors associated with psychological experience, as does research on the psychological health and well-being of Jordanian students (Al-Salman et al., 2022; Haider & Al-Salman, 2020). Tarawneh et al. (2025) examined how cognitive emotion regulation shapes the relationship between maladaptive smartphone use and mental health in Jordanian adolescents, and social media has been shown to reshape everyday social relations in Jordan (Darwish

et al., 2025). Al-Kilani et al. (2025) also found a weak negative correlation and a statistically significant association between social support and perceived stress in basketball players. However, it did not directly test the relationship between a runner's perception of her coach's anxiety and emotional contagion and dimensions of performance anxiety before the 100-meter race.

Empirical evidence supports the importance of emotions shown by a coach in shaping an athlete's psychological experience and performance: in a study (Furley & Thrien, 2024), it was found that athletes who saw a dominant smile from the coach recorded a higher heart rate than those who saw an encouraging smile, with a difference in their emotional state. Wang et al. (2024) found that, in handball players, perceiving controlled training behavior was associated with higher levels of some indicators of competition anxiety and low self-confidence.

Perception of a coach's anxiety raises a question about emotional contagion: is it related to how the runner feels about the transfer of tension to her? Emotional contagion refers to the transmission of emotional states between individuals through observed expressions, behaviors, tone of voice, and direct interaction; how such states are expressed and conceptualized in Arabic also shapes how others recognize them (AbuRumman et al., 2025). In a sporting environment, a runner's perception of a coach's signs of anxiety may transfer tension to the runner, making them more physically excited, preoccupied with failing to achieve the required time, and less focused or confident in their ability to perform.

Fonteyn et al. (2024) studied the emotional experiences of coach-player pairs in individual sports. They found limited evidence that one party's experience relates to the other's across the variables they examined. Their results highlight the importance of testing the emotional relationship between coach and player.

Examining these relationships requires distinguishing between dimensions of performance anxiety. Runners may worry about making mistakes or the race outcome and experience physical symptoms as they approach the start, while their confidence in delivering the desired performance varies. Wang et al. (2024) addressed competition anxiety and self-confidence in relation to perceived training behavior, while Yu et al. (2024) examined cognitive and physical anxiety in sprinters in the context of a mindfulness-based intervention. While these two studies are important, they did not examine the association of performance anxiety dimensions, individually, with the perception of trainer anxiety and emotional contagion.

Kahiji et al. (2024) examined the relationship between anxiety and performance in the 100-meter race among female runners and found a statistically significant association. The current study shares an interest in anxiety in runners in the same race. However, the current study examines the relationship between anxiety and the perception of coach anxiety and emotional contagion.

Because the researchers specialize in athletics and sports psychology, they ask whether stress indicators runners perceive in coaches' speech and behavior relate to their pre-race psychological experience. Although previous studies have dealt with some aspects of coach behavior and athlete anxiety, the relationship between the perception of coach anxiety and emotional contagion and the dimensions of performance anxiety still needs to be examined among 100-meter runners in the Jordanian directorates of education. Therefore, the study aims to determine the levels of these variables and reveal the relationships between them. The importance of the study stems from its treatment of the relationship between the 100-meter runners' perception of their coaches' anxiety and emotional contagion and the dimensions of performance anxiety, represented by cognitive anxiety, physical anxiety, and self-confidence, among the teams of Jordanian directorates. It contributes to understanding female runners' psychological experience before the race, given their perceptions of coaches' verbal and non-verbal cues and their preoccupation with the result. Focusing on adolescent female athletes is also relevant because girls and women in Arab societies continue to face gendered stereotypes and expectations (Al-Abbas et al., 2020; Haider & Al-Abbas, 2022).

Accordingly, the study aims to identify the level of perception of the coach's anxiety, the level of emotional contagion, and the dimensions of their performance anxiety: cognitive anxiety, physical anxiety, and self-confidence in the teams of the Jordanian directorates of education. To reveal the relationship between the perception of the coach's anxiety and emotional contagion and the dimensions of performance anxiety among the 100-meter runners in the Jordanian directorates of education. To do so, the study asks two questions: What are the levels of these variables among female runners? What is the nature of the relationships between the perception of coaches' anxiety and emotional contagion and the dimensions of their performance anxiety?

Literature Review

Anderson (2024) investigated the relationship between coach anxiety and self-confidence, as perceived by the athlete, and cognitive, physical, and self-confidence anxiety among 96 college athletes from several sports, including athletics and soccer. The results showed that perception of coach anxiety contributed statistically to predicting the three dimensions of performance anxiety. This study directly intersects with the current study in addressing perceived coach anxiety. However, it did not examine emotional contagion, and it was not limited to 100-meter runners at the school stage.

Thrien & Furley (2021) examined how to infer competitive attitude from football coaches' expressions and movements, and the relationship between watching these cues and players' self-esteem. The study helps explain how athletes interpret a coach's behavior. However, it did not address perceived coach anxiety or emotional contagion, nor did it examine cognitive and physical anxiety in sprinters.

(Furley & Thrien, 2024) This study included 60 athletes and tested responses to the coach's dominant and encouraging smiles after performance. They found differences in athletes' emotions and heart rate by smile type, with no clear difference in perceived stress. These results support the importance of the coach's nonverbal cues. However, they did not look at his anxiety as perceived by the athlete, or his relationship to the three dimensions of performance anxiety before competition.

(Decarli et al., 2024) Investigated young female skiers' responses to the coach's facial expressions during simultaneous skating.

(Moll & Cherrington, 2024) Studied female field hockey players' responses to the coach's expressions of pride and shyness after a performance test. It helped explain players' responses to the coach's emotions, but it focused on pride and shyness in a team sport. It did not test perceptions of the coach's anxiety or its relationship to cognitive, physical, and self-confidence before an individual race.

(González et al., 2022) A study of 306 French athletes examined how coach behavior patterns relate to coping styles with competition pressure and emotions before, during, and after competition. These responses differed by training behavior style. The study highlights the importance of examining coach behavior within the psychological context of competition, but it did not focus on coach anxiety or emotional contagion in 100-meter runners.

(Wang et al., 2024) Investigated the relationship between perceived controlled training behavior and competition anxiety in 298 handball players, while examining the role of achievement goals in this relationship. It showed that controlled behavior was associated with higher indicators of anxiety and low self-confidence. It aligns with the current study by linking perceived training behavior to dimensions of the athlete's psychological state. However, it measured the control of the coach's behavior, which is a variable that is different from the perception of his anxiety, and did not address emotional contagion.

(Moll & Davies, 2021) tested the effect of a coach's emotional expressions during feedback on football players' emotions and performance. It showed that players responded more clearly when they had a close relationship with the coach. The study provides a basis for understanding athletes' responses to a coach's emotions, but it examined happiness, pride, and shyness. It did not address perceived coach anxiety or the dimensions of performance anxiety in sprinters.

(Stephen et al., 2022) A study of 71 coaches and athletes in individual sports examined how an athlete's belief in his ability aligns with his coach's assessment and how both relate to the athlete's anxiety. This helps explain how both parties' perceptions shape the athlete's psychological experience. However, it focused on competency beliefs and their compatibility and did not address perceived coach anxiety or emotional contagion.

(Tamminen et al., 2021) Analyzed athletes' emotion regulation and their teammates' attempts to influence it among 509 athletes from 50 teams. After controlling for pre-competition anxiety and emotion self-regulation techniques, no independent relationship was found between the athlete's attempts to regulate their emotions and their anxiety during the competition. The study helps distinguish emotion regulation by others from emotional contagion, but it focused on colleagues and did not assess athletes' perceptions of anxiety among coaches of 100-meter runners.

Fonteyn et al. (2024) examined passion, emotion, and psychological needs in 198 coach-athlete pairs in individual sports. Evidence of transient relationships between the two parties was limited, so caution is warranted when interpreting similarities in their psychological experiences. However, it did not address perceived coach

anxiety or the dimensions of pre-race performance anxiety, nor did it track the transmission of emotion over time.

(Yu et al., 2024) tested the effect of a seven-week mindfulness program on competition anxiety in 24 adult runners. The results indicated decreased cognitive and physical anxiety and improved self-confidence in the intervention group. It is relevant to the current study in terms of addressing the dimensions of performance anxiety in sprinters. However, it focused on an individual psychological intervention and did not examine its relationship with the perception of trainer anxiety or emotional contagion.

The presented studies show that an athlete's psychological experience relates to his perceptions of the coach and how he perceives the coach's behavior and expressions. However, these studies address different variables: controlled training behavior differs from perceived coach anxiety; responses to pride or shyness differ from being affected by anxiety; and others' emotion regulation is not itself emotional contagion. Therefore, these studies help explain aspects of the coach-athlete relationship, without treating them as direct evidence of anxiety transmission.

Accordingly, the present study combines perceived coach anxiety and perceived emotional contagion with the three dimensions of performance anxiety among 100-meter runners in the Jordanian directorates of education, which the studies presented in this context did not examine collectively. The study also examines the runner's psychological experience before the race in light of what she perceives in her coach's words, behavior, and preoccupation with the result, as well as the emotional impact she reports. With the adoption of the relational design, the results are limited to determining the nature and strength of the relationships and do not prove the coach's actual anxiety, transition to running, or the direction of influence between the variables.

Limitations of the study

The current study is defined within the following frameworks:

Human Limits: Female Athletics Team Players According to the Records Issued by the Directorates of Education (Kasbah Amman, University Brigade, Marka Brigade)

Time limits: from 5/9/2026 to 1/11/2026

Spatial Limits: The Hashemite Kingdom of Jordan, areas for the presence of female players within 100 m of the schools of the Directorates of Education (Kasbah Amman, University Brigade, Marka Brigade)

Study Methodology

The researchers used the descriptive method, which suited the study's nature and purposes.

Study Population

The study population consisted of (250) female athletes on the athletics teams in the Ministry of Education, according to the records issued by the Directorates of Education, and the sample consisted of (200) female players, as the sample consisted of (67) female players for each of the directorates of the Ministry of Education (Kasbah Amman, University Brigade) and (66) female players for the Directorate of the Marka Brigade. Table (1) shows this:

Table (1) Demographic characteristics of the study sample members (n = 200)

Variable	Category	Repetition	Percentage
Directorate	Kasbah Amman	67	33.5%
	University Brigade	67	33.5%
	Marka Brigade	66	33.0%
Total Directorate		200	100%
Approximate age group	12–15 years (age of the primary stage)	130	65.0%
	16–17 years (secondary age)	70	35.0%
Total Age Group		200	100%

Table (1) shows the distribution of members in the study sample across the three districts: the Kasbah of Amman and the University Brigade each included 67 players (33.5%), and the Marka Brigade included 66 players (33.0%). The number of female players in the 12-15 years category reached 130 (65.0%), compared with 70 in the 16-17 years category (35.0%).

Methodology

To achieve the study objectives, the researchers constructed two scales to collect the required information. The first scale (100m runners' perception scale for coaches' anxiety) consists of (12) items distributed over three dimensions: verbal indicators (4 items), non-verbal indicators (4 items), and preoccupation with the result and performance (4 items). The second scale (emotional contagion of coaches' anxiety) consists of (12) items distributed over three dimensions: (emotion capture) (4 items), (emotional and physical response) (4 items), and (effect on psychological preparation for the race) (4 items). The Competitive Anxiety Scale (Russell et al., 2003) was modified for 100-meter runners.

It consists of 17 paragraphs divided into: Cognitive Anxiety (5 paragraphs. Physical Anxiety (7 paragraphs. Self-confidence (5 paragraphs).

Development of Research Instruments

The researchers built special measures for this purpose by following the following steps:

Review the theoretical literature related to the subject of the study. Review previous studies and research published in scientific journals. Review the tools used in data collection in previous scientific studies and research. The two scales were developed in their initial form: the first scale has (12) items measuring the player's perception of the coach's anxiety, and the second scale measures the emotional contagion of the coach's anxiety. The Competitive Anxiety Scale was modified to include (17) items related to competitive status anxiety, proportional to the current study sample. The scales were presented to a group of experts and arbitrators with experience and specialization, and the number of (10) referees was 10. The questionnaires were retrieved from the 10 referees. After reviewing the referees' observations and taking them into account by deleting paragraphs and adding others, the first scale (the player's awareness of the coach's anxiety) consists of (12) paragraphs distributed over three dimensions: verbal indicators (4 paragraphs), non-verbal indicators (4 paragraphs), and preoccupation with the result and performance (4 paragraphs). The second scale (emotional contagion of coaches' anxiety) consists of (12) paragraphs distributed over three dimensions: (emotion capture) (4 paragraphs, (emotional and physical response) (4 paragraphs, and (impact on psychological readiness for the race) (4 paragraphs. The third scale (Competitive Status Anxiety) consists of 17 items divided into Cognitive Anxiety (5 items), Physical Anxiety (7 items), and Self-confidence (5 items). Physical Anxiety (7 items). Self-confidence (5 items), and the researchers used a five-point Likert scale to answer the items of the scales, where the categories of the five-step scale were defined as in Table (2), as follows:

Table (2) Defining the categories of the Likert Five-Point Scale

I agree very much.	I strongly agree.	Moderate OK	I agree to a small degree.	I agree to a very small degree
5.00-4.21	4.20-3.41	3.40-2.61	2.60-1.81	1.81-1.00

Psychometric Properties of Research Instruments

Survey

The survey study was conducted on a sample of 50 female players from the study population and outside the main sample members, and aimed to verify the clarity of the measure's instructions and paragraphs, estimate the time required for answering, examine the validity of internal consistency, and estimate the stability of scores using McDonald Omega and Cronbach's alpha coefficient. The survey excluded responses from the final baseline analyses.

Content Authenticity

The authenticity of the content of the study tool was confirmed by presenting it to (10) referees from the faculties of physical education in Jordanian universities with experience and specialization in the subject of the study.

Honesty of internal consistency

After confirming the authenticity of the study tool's content, the tool was applied to a sample of 50 female 100m race participants from the study population. They were not included in the study sample, and the Pearson correlation coefficient was calculated to assess the scales' internal consistency by correlating each paragraph score with the total score of the axis to which it belongs.

Table 3: Validity of the internal consistency of the two scales

Scale	Dimension	Correlation coefficient r
The runner is aware of the coach's anxiety	Verbal cues	0.476
	Nonverbal cues	0.625
	Preoccupation with the result of the race	0.538
The emotional contagion of the coach's anxiety	Capture Coach Anxiety	0.483
	Emotional and Physical Response	0.611
	Impact on Psychological Race Preparation	0.544

Table (3) shows that all the correlation coefficients of the two scales (Perception of Hostility and Emotional Infection) with the total score of the dimension to which they belong came a function at the level of significance (0.01), where the values of the correlation coefficients for the paragraphs (Perception of Hostility to Coach's Anxiety) ranged between (0.476-0.625) and in the scale of (Emotional Infection of Coach's Anxiety) between (0.483-0.611) and all of them are good correlation coefficients, and this indicates the high coefficients of internal consistency. This also indicates high and sufficient honesty indicators that can be trusted in applying the current study tool.

Table 4: Validity of the internal consistency of the paragraphs of the Competitive Status Anxiety Scale

Dimension	Number of paragraphs	The extent to which the paragraph is related to its dimension
Cognitive Anxiety	5	0.544–0.755
Physical anxiety	7	0.719–0.828
Self-confidence	5	0.617–0.714

Table (4) shows that all the correlation coefficients of the Competitive State Anxiety Scale with the total score of the dimension to which it belongs were significant at the level of significance (0.01), where the values of the correlation coefficients for the paragraphs ranged between (0.544- 0.828). These correlation coefficients are good, indicating high internal consistency. This also indicates strong validity indicators that can be trusted when applying the current study tool.

Stability of the tool

To verify the stability of the study tool, the tool was applied to a sample of 50 100 m players from the study population who were not included in the study sample, and the stability coefficients were calculated using Cronbach's alpha equation; Table (5) shows this:

Table (5) Stability Coefficients of Coach Anxiety Perception and Emotional Infection (N=50)

Scale	Dimension	Number of paragraphs	Cronbach Alpha
The runner is aware of the coach's anxiety	Verbal cues	4	0.827
	Nonverbal cues	4	0.808
	Preoccupation with the result of the race	4	0.867
The first full scale	All Dimensions	12	0.880

Table (5) shows that the values of the stability coefficients of the two study tools have high internal consistency values (0.880, 0.893), where the stability coefficients ranged between (0.856-0.871), which are high stability coefficients that can be relied on in the application of the current study tool.

Table (6): Stability coefficient of the paragraphs of the Competitive State Anxiety Scale

Dimension	Number of paragraphs	Cronbach's alpha coefficient
Cognitive Anxiety	5	0.839
Physical anxiety	7	0.931
Self-confidence	5	0.855

Table (6) shows that the Competitive Anxiety Scale has high internal consistency, with stability coefficients ranging from 0.839 to 0.931, which support the use of the study tool.

Procedures for the implementation of the study:
The study tool was distributed to a sample of 200 female players from Jordanian directorates of education, where the necessary instructions were attached to the tool, explaining the purpose and importance of the study, and answering any inquiries that could be raised in order to reach credible data from the respondents, as the researchers distributed the tool through the Google Drive program to the sample from 10/9/2026-20/9/2026. After distributing and collecting the questionnaires, the researchers downloaded the data and entered it into the Statistical Package for the Social Sciences (SPSS).

Study variables
Independent variables: Perception of female 100m players and the emotional contagion of the coach's anxiety
Dependent variables: Female 100m athletes' response to the anxiety of the competitive situation (psychological)

Statistical Treatments
To achieve the objectives of the study and to answer its questions, the data collected were analyzed using several appropriate statistical methods using the Statistical Package for the Social Sciences (SPSS) as follows: Frequencies and percentages.Arithmetic averages and standard deviations.Cronbach's Alpha coefficient for measuring internal consistency.Pearson correlation coefficient

Findings
In light of the study's objectives and questions, the researchers collected the necessary statistical data by applying the study tools to assess coaches' anxiety, its relationship with emotional contagion, and the dimensions of performance anxiety among 100-meter runners in the Jordanian directorates of education.
To answer the first question, which states: "What are the levels of perception of the coach's anxiety, emotional contagion, cognitive anxiety, physical anxiety, and self-confidence in the teams of the Jordanian directorates of education?" Tables (7, 8, and 9) illustrate this:

Table (7) Mathematical Averages and Standard Deviations of the 100 m runners' perception scale for coaches' anxiety (n=200)

Axis	Number	Paragraph	1 K (%)	2 K (%)	3 K (%)	4 K (%)	5 K (%)	Means	Deviation	Ranking
Verbal cues	1	My coach often talks about my mistakes during the race.	7 (3.5%)	26 (13.0%)	74 (37.0%)	62 (31.0%)	31 (15.5%)	3.420	1.014	4
	2	I notice tension in my trainer's tone of voice before the race.	5 (2.5%)	33 (16.5%)	70 (35.0%)	67 (33.5%)	25 (12.5%)	3.370	0.984	6
	3	My trainer repeats his instructions to me more than usual before the race.	1 (0.5%)	5 (2.5%)	31 (15.5%)	75 (37.5%)	88 (44.0%)	4.220	0.834	1
	4	My coach is expressing concern about my performance before the race.	11 (5.5%)	38 (19.0%)	71 (35.5%)	64 (32.0%)	16 (8.0%)	3.180	1.011	11

Average Axis of Verbal Indicators								3.548	0.813	The first
Nonverbal cues	5	I notice signs of tension in my trainer's facial expressions before the race.	8 (4.0%)	35 (17.5%)	72 (36.0%)	52 (26.0%)	33 (16.5%)	3.335	1.072	8
	6	I notice that my trainer moves back and forth more than usual before the race.	7 (3.5%)	38 (19.0%)	67 (33.5%)	63 (31.5%)	25 (12.5%)	3.305	1.028	9
	7	I notice frequent nervous movements in my trainer's hands that seem to me a sign of pre-race tension.	10 (5.0%)	41 (20.5%)	80 (40.0%)	52 (26.0%)	17 (8.5%)	3.125	0.997	12
	8	My trainer seems less calm than usual before the race.	2 (1.0%)	6 (3.0%)	51 (25.5%)	74 (37.0%)	67 (33.5%)	3.990	0.897	3
Average axis of non-verbal indicators								3.439	0.827	The third
Preoccupation with the result of the race	9	My coaches keep talking about the possibility of not meeting the expected time before the race.	4 (2.0%)	42 (21.0%)	69 (34.5%)	69 (34.5%)	16 (8.0%)	3.255	0.946	10
	10	It seems to me that my coach is more preoccupied with the result than usual before kicking off.	5 (2.5%)	34 (17.0%)	69 (34.5%)	61 (30.5%)	31 (15.5%)	3.395	1.022	5
	11	My coach repeatedly asks me if I am ready to achieve the required time before the race.	4 (2.0%)	29 (14.5%)	79 (39.5%)	66 (33.0%)	22 (11.0%)	3.365	0.931	7
	12	My coaches keep talking about the time expected of me before the race.	1 (0.5%)	10 (5.0%)	44 (22.0%)	63 (31.5%)	82 (41.0%)	4.075	0.935	2
Average axis of preoccupation with race result								3.523	0.778	The second
Overall Scale								3.503	0.758	—

Table (7) shows that the total arithmetic average of the Coach's Anxiety Perception Scale was (3.503). The axis of verbal indicators ranked first, with an arithmetic average of (3.548), followed by the axis of preoccupation with the result of the race (3.523), and then the axis of non-verbal indicators (3.439).

Table 7 shows that the phrase "My trainers repeat their instructions to me more than usual before the race" ranked first, with an arithmetic average of (4.220), and the response rate was "very very much agreed" and "very agreed" (81.5%). The researchers attribute this to the fact that the runner receives these instructions directly and pays attention to time-related cues because they relate to her goal. However, the trainer may repeat his instructions to make sure she is ready, not out of anxiety; therefore, this result alone is not enough to prove the trainer's actual anxiety or a transition to the runner, but is explained by her perception of his behavior before the competition.

This is followed by the paragraph "My coaches repeat the time expected of me before the race" with an arithmetic average of (4.075). The researchers believe this result measures the sprinter's perception of stress and does not prove that the coach is anxious or that his anxiety has transferred to her. This result is consistent with Anderson (2024), which showed the importance of recognizing the coach's behavior and its relationship to the dimensions of performance anxiety. Decarli et al. (2024) and Moll (2024) also highlighted the importance of the

relationship between the coach's emotional expressions and the players' emotions. However, this result differs from Wang et al. (2024), which emphasized controlling behavior. It also differs from perceptions of the coach's anxiety and cannot be inferred from instruction repetition alone.

The average "My trainer seems calmer than usual before the race" was 3,990, suggesting that the change in the trainer's calmness was a prominent sign in these results, and this is consistent with the study of Thrien & Furley (2021, which showed that participants were able to deduce information from the coach's expressions and movements. (Decarli et al., 2024; and the study of Furley & Thrien, 2024) (Moll & Cherrington, 2024). This showed the association between the coach's expressions and the athletes' feelings for anxiety indicators. In contrast, "I notice frequent nervous movements in my coach's hands that seem to me to be a sign of stress before the race" ranked last, with an average of 3.125, followed by "My coach expresses concern about my performance before the race" with an average of 3.180. The researchers attribute this to less pronounced hand movements when the runner is ready, or to the coach not expressing concern through frequent speech. These are possible explanations, but the averages alone cannot confirm them.

Table (8) Mathematical Averages and Standard Deviations of the degree of approval of the paragraphs of the Emotional Contagion Scale (n=200)

Axis	Number	Paragraph	1 K (%)	2 K (%)	3 K (%)	4 K (%)	5 K (%)	Means	Deviation	Ranking
Capture Coach Anxiety	1	I feel nervous for my coach even when he does not talk about his anxiety	7 (3.5%)	24 (12.0%)	73 (36.5%)	61 (30.5%)	35 (17.5%)	3.465	1.027	4
	2	I get anxious when my trainer seems anxious before a race	1 (0.5%)	19 (9.5%)	75 (37.5%)	68 (34.0%)	37 (18.5%)	3.605	0.913	1
	3	I find myself affected by my coaches' emotional state before the race	8 (4.0%)	29 (14.5%)	84 (42.0%)	59 (29.5%)	20 (10.0%)	3.270	0.965	10
	4	My emotional state changes after noticing the signs of anxiety in my coach	4 (2.0%)	24 (12.0%)	77 (38.5%)	64 (32.0%)	31 (15.5%)	3.470	0.961	3
Average Axis Capture Coach Anxiety								3.453	0.732	The first
Emotional and Physical Response	5	My nervousness increases before the start when I hear the tone of anxiety in my coach's voice	2 (1.0%)	23 (11.5%)	69 (34.5%)	70 (35.0%)	36 (18.0%)	3.575	0.948	2
	6	I feel inner turmoil after seeing my coach anxious	5 (2.5%)	26 (13.0%)	80 (40.0%)	70 (35.0%)	19 (9.5%)	3.360	0.914	8
	7	I feel my body tense when I notice that my trainers are tense before the race	5 (2.5%)	39 (19.5%)	72 (36.0%)	66 (33.0%)	18 (9.0%)	3.265	0.959	11
	8	I feel even more annoyed when I notice my coach's tension	3 (1.5%)	35 (17.5%)	69 (34.5%)	66 (33.0%)	27 (13.5%)	3.395	0.977	6

Average Emotional and Physical Response Axis								3.399	0.723	The second
Impact on Psychological Race Preparation	9	It is hard for me to regain my calm after noticing my coach's anxiety.	5 (2.5%)	34 (17.0%)	77 (38.5%)	62 (31.0%)	22 (11.0%)	3.310	0.964	9
	10	I find it hard to separate my feelings from those of my coach while preparing for the race	6 (3.0%)	30 (15.0%)	70 (35.0%)	68 (34.0%)	26 (13.0%)	3.390	0.991	7
	11	The stress I feel due to my coach's anxiety accompanies me as I prepare to set off	1 (0.5%)	31 (15.5%)	75 (37.5%)	67 (33.5%)	26 (13.0%)	3.430	0.922	5
	12	I need time to prepare myself for the race after seeing my trainer nervous.	6 (3.0%)	41 (20.5%)	71 (35.5%)	60 (30.0%)	22 (11.0%)	3.255	1.002	12
Mean Anxiety Impact Axis on Preparedness								3.346	0.735	The third
Overall Scale								3.399	0.66	—

Table (8) shows the approval ratings for the Emotional Infection Scale paragraphs, with a total arithmetic mean of (3.399). The axis capturing the coach's anxiety ranked first, with an average of (3.453), followed by the axis of emotional and physical response (3.399), and then the axis of influence on psychological readiness for the race (3.346). This result indicates that the coach's anxiety affected the runner's emotions, physical response, and readiness for the race to similar degrees.

"I get anxious when my coach looks anxious before the race" ranked first, with an arithmetic average of (3.605) and the highest combined percentage of the two responses (52.5%). This was followed by "My nervousness increases before the start when I hear the tone of anxiety in my coach's voice", with an average of (3.575).

Table 8 shows that the phrase "I get anxious when my trainer looks anxious before a race" came first, reflecting the runner's feeling that she is as affected by her coach's anxiety as she perceives it. The researchers attribute this to the runner picking up stress signals from his tone of voice, facial expressions, or movements, then responding with a similar feeling. It could also mean that the competition is difficult or that the coach is unsure of her performance, which increases her anxiety before the start.

The researchers believe this paragraph matters because it links the trainer's anxiety to the runner's anxiety, rather than merely describing his behavior. However, agreeing with it expresses the transmission of anxiety as the runner feels, and does not alone prove that the trainer was indeed anxious or that his anxiety caused her concern.

While the paragraph "I need time to prepare myself for the race after seeing my trainer nervous" came in last place, with an arithmetic average of (3.255), the researchers attributed this to the fact that the runner was affected by her coach's stress to the extent that she might not be able to disrupt her preparation for the race or need extra time to regain her readiness; she may feel stressed, but she continues to focus on warming up and getting ready to go. Her previous experience and pre-race routine may help her manage this feeling.

This is consistent with Anderson et al. (2024), which showed the importance of an athlete's perception of his coach's mental state, and Decarli et al. (2024), which showed that the athlete's emotions and heart rate differed according to the type of coach's smile.

Table (9) Mathematical Averages and Standard Deviations of approval of the paragraphs of the Competitive Status Anxiety Scale (n=200)

Number	Axis	Paragraph	1 K (%)	2 K (%)	3 K (%)	4 K (%)	5 K (%)	Means	Deviation	Ranking
1	Cognitive Anxiety	I am worried that I will not get the time I want in this race.	2 (1.0%)	37 (18.5%)	75 (37.5%)	63 (31.5%)	23 (11.5%)	3.340	0.943	2
2		I am afraid I am making a mistake during the race that will affect my performance.	9 (4.5%)	39 (19.5%)	79 (39.5%)	58 (29.0%)	15 (7.5%)	3.155	0.972	11
3		I am worried that my performance in this race will be below my usual level.	7 (3.5%)	25 (12.5%)	68 (34.0%)	73 (36.5%)	27 (13.5%)	3.440	0.991	1
4		I am concerned about the result of the race; it is difficult to focus on the performance of the	14 (7.0%)	40 (20.0%)	70 (35.0%)	55 (27.5%)	21 (10.5%)	3.145	1.077	12
5		I worry I will not be able to handle the pressure of competition in this race.	5 (2.5%)	36 (18.0%)	73 (36.5%)	64 (32.0%)	22 (11.0%)	3.310	0.974	3
	Average Axis of Cognitive Anxiety							3.278	0.665	The first
6	Physical anxiety	I feel muscle tightness from tension before the race.	10 (5.0%)	42 (21.0%)	72 (36.0%)	58 (29.0%)	18 (9.0%)	3.160	1.020	10
7		I feel like my heart is beating faster than usual due to the stress before the race.	12 (6.0%)	40 (20.0%)	74 (37.0%)	57 (28.5%)	17 (8.5%)	3.135	1.026	13
8		I have an upset stomach from stress before the race.	5 (2.5%)	42 (21.0%)	67 (33.5%)	65 (32.5%)	21 (10.5%)	3.275	0.992	5
9		I feel a shiver in my hands from the tension before the race.	13 (6.5%)	44 (22.0%)	72 (36.0%)	55 (27.5%)	16 (8.0%)	3.085	1.036	14
10		I feel like my breathing is irregular because of stress before the race.	6 (3.0%)	42 (21.0%)	72 (36.0%)	62 (31.0%)	18 (9.0%)	3.220	0.978	7
11		I feel like I am sweating more than usual due to the stress before the race.	10 (5.0%)	35 (17.5%)	62 (31.0%)	70 (35.0%)	23 (11.5%)	3.305	1.048	4
12		My mouth feels dry because of stress before the race.	15 (7.5%)	46 (23.0%)	68 (34.0%)	52 (26.0%)	19 (9.5%)	3.070	1.082	15
	Average Axis of Physical Anxiety							3.179	0.625	The second

13	Self-confidence	I trust that I have trained well for this race.	16 (8.0%)	49 (24.5%)	71 (35.5%)	48 (24.0%)	16 (8.0%)	2.995	1.063	17
14		I am confident that I can start well in this race.	9 (4.5%)	40 (20.0%)	76 (38.0%)	54 (27.0%)	21 (10.5%)	3.190	1.019	9
15		I trust that I can apply what I have learned in training during the race.	6 (3.0%)	52 (26.0%)	78 (39.0%)	52 (26.0%)	12 (6.0%)	3.060	0.939	16
16		I trust that I can do well against strong competition.	8 (4.0%)	36 (18.0%)	76 (38.0%)	61 (30.5%)	19 (9.5%)	3.235	0.987	6
17		I trust that I can give my best in this race.	5 (2.5%)	42 (21.0%)	75 (37.5%)	61 (30.5%)	17 (8.5%)	3.215	0.956	8
	Average self-confidence axis							3.139	0.684	The third

Table (9) shows the frequencies, percentages, arithmetic averages, and standard deviations of the degree of approval of the paragraphs of the Competitive Status Anxiety Scale, and the axis of cognitive anxiety came in first place with an arithmetic average of (3.278), followed by the axis of physical anxiety with an arithmetic average of (3.179), then the axis of self-confidence with an arithmetic average of (3.139).

In the area of cognitive anxiety, the paragraph "I am worried that my performance in this race will be below my usual level" had an average of (3.440), while the phrase "I am unable to focus on performance due to my preoccupation with the result of the race" received the lowest average of (3.145).

In the physical concern area, "I feel more sweaty than usual due to pre-race stress" had the highest average (3.305), while "I feel dry in my mouth due to pre-race stress" had the lowest average (3.070).

On the self-confidence axis, the phrase "I trust that I can perform well against strong competition" had the highest average (3.235), while "I trust that I trained well for this race" had the lowest (2.995).

Table 8 shows that the phrase "I worry that my performance in this race will be below my usual level" ranked first on the cognitive anxiety axis, as fear of performing below usual was the runners' most prominent concern. The researchers attributed this to runners' desire to maintain their level compared with their previous performance. In contrast, the phrase "I find it difficult to focus on performance because I am preoccupied with the result of the race" ranked last on the axis, as the researchers believe this may indicate that anxiety about performance does not necessarily prevent the runner from focusing on what to do. The researchers believe this result reflects the runner's confidence in her ability to concentrate and is not a direct measure of her concentration during the race.

"I feel like I am sweating more than usual due to stress before a race" had the highest average on the physical anxiety axis (3.305), while "I feel dry in my mouth due to stress before a race" had the lowest average (3.070). Researchers believe runners notice sweating more easily before a start than dry mouth. However, sweating may also increase due to warm-up or high temperature, so the result expresses the runner's feeling that her sweating is related to stress, without confirming that anxiety is the sole cause.

"I trust that I can perform well against strong competition" had the highest average on the self-confidence axis (3.235), while "I trust that I trained well for this race" had the lowest average (2.995). Self-confidence is interpreted independently; its height reflects a stronger sense of performance, not increased anxiety. Researchers believe a runner may be confident in her ability to compete but less confident that her training has prepared her well for the race. This is not to say that the training was insufficient, but rather to her assessment of her readiness, which may be influenced by her pre-race anxiety and what she expects of herself.

This result is consistent with the study of Anderson, 2024 and Thrien & Furley, 2021, which showed the association of an athlete's interpretation of his coach's behavior with his self-confidence, and the study of Wang et al., 2024 (which showed a rise in physical anxiety and a decrease in self-confidence, and there is no direct comparison of the direction of relationships in the study of Yu and Dou Gong, 2024); their study showed a

decrease in anxiety and an improvement in self-confidence after a psychological intervention, while the current study examines the relationships between variables. Therefore, their decrease in anxiety does not conflict with the increase observed in the study sample.

To answer the second question, which states: (What is the nature of the relationships between the perception of coaches' anxiety and emotional contagion and the dimensions of performance anxiety among 100-meter runners in the teams of the Jordanian directorates of education?) Tables (10, 11, 12) illustrate this:

Table (10) Pearson Correlation Matrix between Coaches' Anxiety Perception and Emotional Infection in 100-Meter Runners in Jordanian Education Directorates Teams (n=200)

Axis	Verbal Perception	Nonverbal Perception	Perception of outcome anxiety	Emotion Capture	Transmission of anxiety	The Impact of Anxiety on Preparedness
Verbal Perception	1.000	—	—	—	—	—
Nonverbal Perception	0.838*	1.000	—	—	—	—
Perception of outcome anxiety	0.855*	0.838*	1.000	—	—	—
Emotion Capture	0.767*	0.736*	0.748*	1.000	—	—
Transmission of anxiety	0.756*	0.751*	0.751*	0.740*	1.000	—
The Impact of Anxiety on Preparedness	0.773*	0.745*	0.742*	0.727*	0.754*	1.000

* D at p <.001.

Table (10) shows positive and statistically significant correlations between the axes of perceived coach anxiety and the axes of emotional contagion (p < .001). The correlation coefficients between the two axes ranged from (0.736) to (0.773), indicating strong relationships: the higher the perceived coach anxiety, the higher the emotional contagion among the 100-meter runners in the Jordanian directorates of education.

The strongest correlation between verbal perception and the effect of anxiety on readiness was (0.773), followed by the correlation between verbal perception and emotion capture (0.767). The lowest correlation between the two scales was between non-verbal perception and emotion capture (0.736).

The correlations between the axes of perception of the trainer's anxiety ranged from (0.838) to (0.855), with the highest between verbal perception and the perception of outcome anxiety. The correlations between the axes of emotional contagion ranged from (0.727) to (0.754), and the highest was between the transmission of anxiety and the effect of anxiety on readiness.

Table (11) Pearson Correlation Coefficients between Coaches' Anxiety Perception and Emotional Contagion and Their Dimensions in 100-Meter Runners in Jordanian Directorates of Education (n=200)

Variable Cognition	Emotional contagion variant	r	95% confidence interval
Understanding the overall coach's anxiety	Total emotional contagion	0.874	0.836–0.903
Verbal Perception	Total emotional contagion	0.842	0.796–0.878
Nonverbal Perception	Total emotional contagion	0.818	0.766–0.859
Perception of outcome anxiety	Total emotional contagion	0.821	0.770–0.862
Understanding the overall coach's anxiety	Emotion Capture	0.793	0.735–0.839
Understanding the overall coach's anxiety	Transmission of anxiety	0.795	0.738–0.841
Understanding the overall coach's anxiety	The Impact of Anxiety on Preparedness	0.796	0.739–0.842

The results of Table (11) show that there is a strong positive correlation between the perception of total trainer anxiety and total emotional contagion; its coefficient reached (r = 0.874), and it was statistically significant at the level of (p <.001), with a confidence interval at the level of (95%) ranging between (0.836-0.903).

Among the trainer's anxiety perception axes, the highest correlation was with the total emotional contagion of verbal perception (r = .842), followed by the perception of outcome anxiety (r = .821), and then

non-verbal perception (r = .818). All relationships were statistically significant (p < .001). The researchers believe that the runner's increased perception of her coach's anxiety is accompanied by an increase in her feeling of being affected by this anxiety. The runner may notice tension in her coach's words, behaviors, or preoccupation with the result and, at the same time, report that her feelings change and that she continues to feel tension during preparation.

Perceived total trainer anxiety was also associated with all axes of emotional contagion, as indicated by its correlation coefficients with the effect of anxiety on readiness (0.796), anxiety transmission (0.795), and emotion capture (0.793). These coefficients were convergent, and all were statistically significant (p<.001). The confidence intervals for each relationship did not include zero, consistent with their statistical significance.

Researchers suggest that the stronger association between verbal perception and emotional contagion may relate to the clarity of speech and tone of voice in direct communication before a race. A runner listens to her coach's instructions and talks about performance, and may perceive her presentation as a sign of stress.

This result is consistent with the study of Anderson (2024) on the importance of an athlete's perception of his coach's anxiety, as this perception contributed to predicting cognitive and physical anxiety and self-confidence. My study (Decarli et al., 2024) and (Moll & Cherrington, 2024) examined the association between coaches' expressions and players' emotions, and Furley & Thrien (2024) examined the association between coach expressions and emotional and physical responses. Thrien & Furley's (2021) study helps explain how an athlete understands coaches' cues, but it does not prove the specific transmission of anxiety.
This study also differs from Tamminen et al. (2021) because it focused on emotion regulation.

Table (12) Pearson Correlation Matrix between Coach Anxiety Perception, Emotional Contagion and Performance Anxiety Dimensions of 100 Meter Runners in Jordanian Education Directorates Teams (n=200)

Variable	Understanding the overall coach's anxiety	Total emotional contagion	Cognitive Anxiety	Physical anxiety	Self-confidence
Understanding the overall coach's anxiety	1.000	—	—	—	—
Total emotional contagion	0.874*	1.000	—	—	—
Cognitive Anxiety	0.548*	0.553*	1.000	—	—
Physical anxiety	0.596*	0.563*	0.556*	1.000	—
Self-confidence	–0.562*	–0.527*	–0.502*	–0.527*	1.000

* All correlations are significant at p <.001.

Table (12) shows a strong positive correlation between perceived coach total anxiety and total emotional contagion, with a coefficient of (0.874). The perception of the trainer's anxiety was positively associated with cognitive anxiety with a coefficient of (0.548), and with physical anxiety with a coefficient of (0.596). In contrast, it was negatively associated with self-confidence (β =–0.562).

The results also showed that emotional contagion was positively associated with cognitive anxiety with a coefficient of (0.553), with physical anxiety with a coefficient of (0.563), and a negative association with self-confidence with a coefficient of (–0.527). Also, cognitive anxiety was positively associated with physical anxiety (0.556), while self-confidence was negatively associated with cognitive anxiety (–0.502), and physical anxiety was negatively associated with self-confidence (coefficient:–0.527).

Table (13) Pearson Correlation Coefficients between the Dimensions of Competitive Status Anxiety and Coach's Anxiety Perception and Emotional Contagion in 100-Meter Runners in Jordanian Directorates of Education (N=200)

After Concern of Competitive Situation	r with the realization of the overall coach's anxiety	r with total emotional contagion
Cognitive Anxiety	0.548	0.553
Physical anxiety	0.596	0.563
Self-confidence	–0.562	–0.527

All Pearson correlation coefficients are statistically significant at the level of (p <.001)

Table (13) shows positive correlations between perceived trainer total anxiety and both cognitive and physical anxiety (r = .548 and r = .596, respectively), and a negative correlation with self-confidence (r =–0.562). Total emotional contagion was also positively associated with cognitive anxiety and physical anxiety, with correlation coefficients of (0.553) and (0.563), respectively, and negatively with self-confidence, with a coefficient of (–0.527). The association of the perception of the trainer's anxiety with the highest body anxiety in terms of absolute value between the presented relationships was not proven, without proving that there was a significant difference between the correlation coefficients.

It was clear from Table (13) that runners who are higher in perceiving and emotionally affected by their coach's anxiety tend to report higher cognitive and physical anxiety and lower self-confidence. The researchers believe runners may perceive their coach's stress as a sign that the coach is struggling to compete or lacks confidence in their performance, which makes them more preoccupied with what may happen in the race and is accompanied by physical stress. This preoccupation may also reflect decreased confidence in their ability to perform.

The results are consistent with the study of Anderson (2024, the association of the perception of coach anxiety with the three dimensions of competitive anxiety, and the study of Wang et al. 2024), regarding the positive relationship with physical anxiety and the negative relationship with self-confidence, and (Decarli et al., 2024), (Furley & Thrien, 2024), and (Moll & Cherrington, 2024) in the association of coaches' expressions with athletes' emotions or bodily responses. (Thrien & Furley, 2021), intersecting with the athlete's interpretation of the coach's behavior and his relationship to his self-confidence, and does not provide a direct comparison with cognitive and physical anxiety.

The researchers believe that these findings underscore the importance of studying the runner's psychological experience in her interaction with her trainer, as well as her individual readiness. Negative relationships with self-confidence also suggest that increased perceived anxiety and being affected by it is accompanied by a decrease in confidence, but it does not mean a lack of it;

Conclusions and recommendations

Based on the study's results and discussion, the researchers reached the following conclusions. The runners' awareness of the coach's anxiety was to a great extent, and verbal indicators topped the axes of the coach's anxiety. Perceived emotional contagion, cognitive anxiety, physical anxiety, and self-confidence were moderate, and perceived trainer anxiety indicators were the most prominent axes of emotional contagion, and cognitive anxiety was the highest dimension of average performance anxiety. Runners' higher perception of coach anxiety was associated with higher perceived emotional contagion, and the relationship was strongly positive and statistically significant. Perceived trainer anxiety and perceived emotional contagion were associated with increased cognitive and physical anxiety and low self-esteem, with no evidence of actual transmission of anxiety or a causal effect. The researcher recommends the following: Train trainers to give clear, specific instructions before the race, pay attention to tone of voice, and reduce how often they talk about results and expected times. Prepare runner programs that include psychological training to help them manage anxious thoughts and physical stress and stay ready for competition. Boost runners' confidence through realistic goals and feedback that shows their training progress and race readiness, since how learners perceive feedback shapes how they respond to it (Haider, 2026). Conduct subsequent studies that collect data from coaches and runners and follow up on their psychological state through competitions to examine the direction of relationships and test the effectiveness of communication and psychological preparation programs.

References

Abu Al-Rouz, H., Hayajneh, F., Othman, E. H., Abu Sabra, M. A., Khalil, M. M., Khalifa, A. H., Yassin, E., Al-Hammouri, S., Zyoud, A. H., & Abu Suleiman, A. D. (2024). The relationship between emotional intelligence, resilience, and psychological distress among nurses in Jordan. *Archives of Psychiatric Nursing, 51*, 108–113. https://doi.org/10.1016/j.apnu.2024.05.014

AbuRumman, R., Dagamseh, M., Haider, A. S., Saed, H., & Sahari, Y. (2025). The metaphorical conceptualization of depression in Arabic blogs written by patients with depressive disorder. *Forum for Linguistic Studies, 7*(3), 874–889. https://doi.org/10.30564/fls.v7i3.8427

Al-Abbas, L. S., Haider, A. S., & Hussein, R. F. (2020). Google autocomplete search algorithms and the Arabs' perspectives on gender: A case study of Google Egypt. *GEMA Online Journal of Language Studies, 20*(4), 95–112. https://doi.org/10.17576/gema-2020-2004-06

Al-Kilani, J., Zureikat, A., Amir, A., Al-Qura, S., & Abdel Fattah, A. (2025). The effect of social support on perceived stress among basketball players and possible relationships. *International Journal of Innovative Research and Scientific Studies, 8*(4), 1641–1648. https://doi.org/10.53894/ijirss.v8i4.8202

Al-Salman, S., Haider, A. S., & Saed, H. (2022). The psychological impact of COVID-19's e-learning digital tools on Jordanian university students' well-being. *The Journal of Mental Health Training, Education and Practice, 17*(4), 342–354. https://doi.org/10.1108/JMHTEP-09-2021-0106

Al-Sulaiti, R. A. M., Al-Roussan, M. N., Khattabeh, Y. M., Obeidat, K. A., Abu Tarboush, A. Y., Hamdana, B. M., & Al-Ruwai, Z. A. (2026). Psychological flexibility and competition anxiety: A study in sport psychology. *North American Journal of Psychology, 28*(2), 1112–1132. https://doi.org/10.65696/001c.162133

Amir, A., Al-Zughaylat, M., Abdel Fattah, A., Zureikat, A., Azab, M., & Gard, M. (2024). Analytical study of social networking sites usage and social anxiety among physical education students. *International Journal of Public Health Sciences, 13*(1), 385–394. https://doi.org/10.11591/ijphs.v13i1.23370

Anderson, D. (2024). *The relationship between athletes' competitive state anxiety and self-confidence and coaches' behaviors* [Bachelor's Honors Thesis, University of Northern Iowa]. Uni ScholarWorks. https://scholarworks.uni.edu/hpt/929/

Davis, L., Keegan, R., & Jowett, S. (Eds.). (2024). *Social psychology in sport* (2nd ed.). Human Kinetics.

Darwish, N., Darwish, T., & Haider, A. S. (2025). Family relations in the age of social media: How Jordanians view the influence of Facebook and WhatsApp. *Research Journal in Advanced Humanities, 6*(3). https://doi.org/10.58256/dg4wwm95

DeCarli, J., Vitale, F., Zasso, S., & Franchien, L. (2024). The power of coaches' emotions: A case study on how coaches' facial expressions impact performance of young female synchronized ice-skaters. *Psychology of Sport and Exercise, 73*, Article 102651. https://doi.org/10.1016/j.psychsport.2024.102651

Fonteyn, M., Herrings, L., Fanstenquist, M., & Lewis, T. (2024). Is passion contagious in coach-athlete dyads? A dyadic exploration of the association between passion, affective and need-based experiences in individual sports. *Frontiers in Psychology, 15*, Article 1369011. https://doi.org/10.3389/fpsyg.2024.1369011

Furley, B., & Thrien, F. (2024). A smile can go a long way: The effects of dominant and rewarding smiles of coaches on athletes in an evaluative performance context. *International Journal of Sports Science & Coaching, 19*(2), 525–538. https://doi.org/10.1177/17479541231213307

González-García, H., Martinet, J., & Nicholas, M. (2022). A temporal study on coach behavior profiles: Relationships with athletes' coping and affect within sport competition. *Journal of Sport and Exercise Psychology, 44*(2), 94–102. https://doi.org/10.1123/jsep.2021-0071

Haider, A. S. (2026). AI as a language tutor: Jordanian university students' perceptions of AI-generated feedback on their English. *Research Journal in Advanced Humanities, 7*(4), 1–17.

Haider, A. S., & Al-Abbas, L. S. (2022). Stereotyping Arab women in jokes circulated on social media during the coronavirus crisis. *The European Journal of Humour Research, 10*(1), 168–185. https://doi.org/10.7592/EJHR2022.10.1.569

Haider, A. S., & Al-Salman, S. (2020). Dataset of Jordanian university students' psychological health impacted by using e-learning tools during COVID-19. *Data in Brief, 32*, Article 106104. https://doi.org/10.1016/j.dib.2020.106104

Hamaideh, S., Abu Khait, A., Al-Muddalal, H., Malak, M., Musada, R., Hamdan Mansour, A., & Al-Bashtawi,

M. (2024). Relationships and predictors of resilience, social support, and perceived stress among undergraduate nursing students. *The Open Nursing Journal, 18*, Article e187443462306150. https://doi.org/10.2174/0118744346238230240103055340

Kahiji, E. R., Komarudin, K., Saputra, M. Y., & Novian, J. (2024). Anxiety and short-distance running performance in female athletes. *Indonesian Journal of Physical Education and Sport Science, 4*(2), 187–193. https://doi.org/10.52188/ijpess.v4i2.719

Karam, J.-M., Fakeh-Romdhan, F., Fawaz, M., Malayeb, D., Obeid, S., & Halit, S. (2023). The moderating effect of emotion regulation in the association between social support, religiosity, and psychological distress in adults. *BMC Psychology, 11*, Article 120. https://doi.org/10.1186/s40359-023-01160-z

Keleman, B., Toth, R., Pinkschleitner, O., & Toth, L. (2024). Mental preparation in runners: Gender differences, competition levels, and psychological training effects on performance. *Frontiers in Sports and Active Living, 6*, Article 1456504. https://doi.org/10.3389/fspor.2024.1456504

Moll, T., & Cherrington, A. (2024). The effects of coaches' pride and shame expressions on field hockey players' emotions and performance. *Psychology of Sport and Exercise, 74*, Article 102673. https://doi.org/10.1016/j.psychsport.2024.102673

Moll, T., & Davies, J. L. (2021). The effects of coaches' emotional expressions on players' performance: Experimental evidence in a football context. *Psychology of Sport and Exercise, 54*, Article 101913. https://doi.org/10.1016/j.psychsport.2021.101913

Saed, H., Haider, A. S., Albarakati, M., Abu Tair, S., & Alqatawna, M. (2025). Translating conversational implicatures in English movies and series into Arabic: Can floutings be captured? *Humanities and Social Sciences Communications, 12*(1), 1–14. https://doi.org/10.1057/s41599-024-04187-8

Stephen, S. A., Habib, S. M., & Arthur, S. A. (2022). Congruence of efficacy beliefs on the coach-athlete relationship and athlete anxiety: Athlete self-efficacy and coach estimation of athlete self-efficacy. *Psychology of Sport and Exercise, 58*, Article 102062. https://doi.org/10.1016/j.psychsport.2021.102062

Taminien, K. A., Kim, J., Danilock, K., McEwen, C. E., Wagstaff, C. R. D., Wolfe, S. A. (2021). The effect of self- and interpersonal emotion regulation on athletes' anxiety and goal achievement in competition. *Psychology of Sport and Exercise, 57*, Article 102034. https://doi.org/10.1016/j.psychsport.2021.102034

Thrien, F., & Furley, P. (2021). Nonverbal expressions of soccer coaches during the game and their potential effects on observers. *International Journal of Sports Science & Coaching, 16*(5), 1063–1073. https://doi.org/10.1177/17479541211028520

Trawaneh, F. S., Abouallah, A., & Dardas, L. A. (2025). Maladaptive smartphone use among Jordanian adolescents: Prevalence, correlations, and the role of cognitive emotion regulation. *Health Psychology Research, 13*(3), Article E81240008. https://doi.org/10.14440/hpr.2589845

Wang, X., Sun, Z., Yuan, L., Dong, D., & Dong, D. (2024). The association between team behaviors and competitive anxiety among team-handball players: The mediating role of achievement goals. *Frontiers in Psychology, 15*, Article 1417562. https://doi.org/10.3389/fpsyg.2024.1417562

Weinberg, R. S., & Gould, D. (2024). *Foundations of sport and exercise psychology* (8th ed.). Human Kinetics.

Yu, M. J., Du, J. B., & Gong, C. (2024). Effects of mindfulness intervention on competition state anxiety in sprinters—a randomized controlled trial. *Frontiers in Psychology, 15*, Article 1418094. https://doi.org/10.3389/fpsyg.2024.1418094