

# To investigate the contribution of sports performance inventory in Athlete performance as a psychological measure

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## Abstract

The purpose of this study is to determine the role of sports performance inventories in athlete performance by incorporating the athlete's emotional control, team orientation, positive attitude, competitiveness, and mental toughness. Indeed, athletes face exterior challenges and internal ones that impair their performance. This study is cross-sectional and utilises a questionnaire to collect quantitative data. The sample size for this study was 780, based on a response rate of 45% among the respondent population of Jordanian athletes. This study finds that the psychological measures of athlete emotional control, team orientation, and positive attitude have a critical role in improving athletes' competitiveness and performance. This study is notable because it explored the psychological measures used to collect data from respondents to comprehend the relationship established in the theoretical framework for examining their involvement in athlete performance. Additionally, this work has substantial theoretical and practical implications for athletes seeking to better their performance.

**Keywords.** Sports performance inventory, athlete performance, athlete positive attitude, athlete competitiveness, and athlete emotion control

## 1. Introduction

Players' performance in any sport is crucial because various factors influence it. However, in the current era, due to varied conflicts and athletes from many cultures and backgrounds, it has become increasingly challenging to determine the aspects that contribute to athletes' performance. In this regard, athletes' behaviour has been rigorously evaluated while their performance has deteriorated, but no study area has examined the role of cognitive association for psychological practise involvement to comprehend the athlete's performance. Due to the low performance of athletes, their involvement is purely coincidental rather than based on their skills. On the other hand, it has become vital to understand the factors contributing to and influencing athletes' success in domestic, national, and worldwide competitions.

Emotional control refers to the ability of an individual to comprehend the emotion they are experiencing and adopt tactics for repressing that emotion (Wilczyńska et al., 2021). Additionally, it is self-evident that people may react favourably or adversely to any scenario without hesitation with the aid of emotional control. This emotional control is not limited to regulating the feeling; it is also critical for athletes to understand the emotion to react more effectively. Team orientation refers to the aims and objectives oriented on the team, in which athletes are encouraged to enhance their performance to help the team perform better (Luchesi et al., 2022). When players are motivated and have a goal relevant to the team's goal,

teams perform better in sports and games. However, this team orientation is crucial to athletes' performance, as performance is enhanced when athletes receive an external incentive from the team orientation. The athletes' positive attitude relates to a win-win situation, which is critical to consider when it comes to games (Mónico & Alferes, 2022). Players who are highly motivated and have a favourable attitude toward their performance build additional tactics to enhance their performance, and their plans are developed for implementation according to their attitude. However, unmotivated athletes and lack a positive mindset will not improve their performance suitably. Athlete competitiveness refers to the abilities and qualities that enable them to improve their performance (Pyankova & Arkalov, 2022). Motivated athletes want to improve their performance through their competitiveness and abilities. However, this vital component is necessary for long-term athlete development. Mental toughness is defined as the capacity to comprehend and control one's emotions while maintaining a good attitude in the proper direction (Lyle & Arnel, 2022). However, mental toughness is crucial for athletes to improve their performance when confronted with an emotional or psychological crisis.

Additionally, psychological variables assist athletes in long-term decision-making by assisting them in comprehending the circumstance and adapting their conduct appropriately. Athlete performance refers to an athlete's performance in games and sports (Roygaga et al., 2022). Environmental factors do not solely determine

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athletes' performance; it is also influenced by psychological factors, which function as roadblocks for successful athletes and help them enhance their performance.

This study aims to gain a better understanding of the impact of sports performance inventories in enhancing athlete performance. It is a reality that external and internal elements, colloquially referred to as emotional dissonance, operate as roadblocks to athlete performance. In this regard, this study developed a theoretical framework based on prior research recommendations to understand better the significance of sports performance inventories in developing the relationship between an athlete's psychological characteristics and their performance in games. Additionally, the study will determine to what extent these athletes are experiencing mental and psychological difficulties in formulating ways to improve their performance. Additionally, it is a reality that if athletes are not participating as much as they should due to social cognitive difficulties and emotional weakness, their performance is not expected. In this sense, this study will examine the effect of emotional control, team orientation, a positive attitude, and mental toughness in enhancing an athlete's performance.

This study is significant since no previous study has examined the importance of sports performance inventories in comprehending the role of Jordanian athletes. Without a doubt, numerous research has been undertaken to assess athletes' performance, but no study has concluded from a psychological or sports performance inventory factor standpoint. Additionally, this study aims to collect data from athletes to establish a relationship between the variables affecting athlete performance as described in a theoretical framework. On the other hand, this study attempts to provide theoretical and practical consequences for athletes' performance enhancement through the consideration of several sports inventory aspects. Notably, the conclusions of this study provide a path for Jordan's management and athletes to improve their performance to pursue a longer-term and more prosperous career.

## 2. Literature Review

### 2.1 Role of Athlete Emotional Control in Athlete Performance and Athlete Competitiveness

Emotional control is regarded as a factor that provides stability to the athletes in the moment of emotional crisis. According to [Zhu et al. \(2022\)](#), it is a reality that social and psychological crises are part of human life, and at the same time, being part of society, athletes are also experiencing a distinct form of emotional crisis. These difficulties are not limited to their personal lives. But sadly, they are having

issues in their athletic activities. However, [Estrada et al. \(2022\)](#) underlines that emotional crises prevent athletes from improving their skills and performing well in the games.

On the one hand, these crises are producing problems for athletes, as the result of emotional dissonance that players are confronting challenges when it comes to their performance. On the other hand, these emotional crises prevent the athletes from performing well by improving their tactics. [Caulfield et al. \(2022\)](#) reveal that the Olympics athletes are instructed not to restrict their activities and perform based on their emotional condition, but their management mentally addresses them. If athletes have reasonable emotional control and are not involved with any drawback of emotional dissonance, they would perform effectively in games. The participants of any highly motivated game with emotional intelligence quickly notice the undesirable state of feeling then adjust that scenario for devising tactics to improve their performance. According to the study by [Ramezani et al. \(2022\)](#), it is mentioned that emotional control drilling is part of training for the international football players' training programmes. Significantly, this emotional control is not limited to enhancing competitiveness based on the abilities of [Smith et al. \(2022\)](#). However, at the same time, it provides a strategy-making capability to the athletes to increase their performance by coping with the emotional crises simultaneously. Therefore, there is a significant function of athletes' emotional control in developing the abilities to promote competitiveness and increase their performance based on that competitiveness.

H1: There is a relationship between athlete emotional control and athlete performance.

H2: There is a relationship between athlete emotional control and athlete competitiveness.

### 2.2 Role of Team Orientation in Athlete Competitiveness

Team orientation refers to the collective work of all team members toward the achievement of the team's specific goals and objectives. In this aspect, team orientation plays a vital influence on players' performance. [Salcinovic et al. \(2022\)](#) emphasise that athletes who focus exclusively on their development plans for performance purposes cannot increase their competitiveness based on their talents. On the one hand, team orientation is advocated to help athletes improve their performance through exchanging knowledge, risk-taking abilities, and information. On the other hand, some athletes believe that if they share their information and strategies for appearing in competitive games, it will be difficult for them to differentiate themselves within the team, as they believe that all players will be aware of the strategies for improving their

performance. According to Yukhymenko-Lescroart and Sharma's study (2022), jealousy elements are also evident in athletes' performance, but team performance can be enhanced to the standard level by eliminating them. De Backer et al. (2021) indicate that athletes who are not influenced by social, political, or physiological reasons but instead function as team members without ego or disaster are more productive, informative, and seem as team leaders to increase their team performance. However, Perelman et al. (2022) point out that athletes' competitiveness is also dependent on team orientation, as this concept and methods are developed and implemented in various world-class teams to enhance athletes' competitiveness.

H3: There is a relationship between team orientation and athlete competitiveness.

### **2.3 Role of Athlete Positive Attitude in Athlete Competitiveness and Athlete Performance.**

The athletes' positive attitude relates to their ability to think effectively while increasing their performance and their competitiveness to win the game. Positive athletes indeed enhance their ability to improve their performance through the talent Madrak et al. (2022), but they also produce outstanding innovation and work in their target market. According to Phrathep et al. (2022), these athletes are accountable for their team's success because they serve as team leaders. This is because of their excellent attitude and mental capacity to establish a positive attitude. Certain athletes possess psychological and emotional intelligence, and their attitude causes their concerns to trump their performance, but they gradually develop techniques to increase their competitiveness (Madigan et al., 2022). On the other side, some athletes are incredibly damaging and preoccupied with minor flaws in their performance, to the point where they cannot increase their competitiveness due to their criticism.

Similarly, these types of athletes are underperforming, but their competitiveness is also jeopardised. In this regard, Matsuzaki et al. (2022) emphasise the need for athletes to develop strategies to comprehend their productive position in the team and work with a positive attitude on the team orientation concept to improve their competitiveness. Athletes' competitive abilities and performance are also influenced by external motivating factors and elements that influence them. Rintaugu et al. (2022) are also contingent on the athletes' favourable attitudes. The more optimistic an athlete is, the more productive and competitive their performance in Woods, Dunne, Gallagher, and Harney will be (2022). The players of international sports such as football, cricket, and basketball have positive attitudes, as evidenced by

questionnaires and data analysis. As a result of this attitude, they are more receptive to risk-taking and developing plans with novel approaches to improve their performance. Meanwhile, these athletes serve as role models for those who lack the capacity or willingness to raise their motivation and performance depending on their abilities.

H4: There is a relationship between athlete positive attitude and athlete competitiveness.

H5: There is a relationship between athlete positive attitude and athlete performance.

### **2.4 Role of Athlete Competitiveness in Athlete Performance**

Athlete competitiveness refers to an athlete's abilities and skills when actively participating in sports activities. According to Zhamardiy et al. (2021), this competitiveness does not come naturally to athletes but develops through time as players mature and their talents improve. On the one hand, players who improve their competitiveness skills and ability to conduct activities during sports are more successful. It is self-evident that athletes must be competitive and perform well to succeed (Paccaud & Marcellini, 2022). On the other side, some athletes place a low premium on enhancing their competitiveness within their teams and their ability to perform at a lower level than other competitors. However, as Apollaro et al. (2022) demonstrate, this competitiveness is not just determined by external variables also by athletes' emotional management, team orientation, and athlete attitude. Seligman et al. (2022) indicate that the more positive an athlete's attitude, the more team-oriented his strategy will be, and the more emotional control he will have, the more competitiveness he will generate based on his skills. Additionally, these athlete variables are critical for athletes to increase their performance when competing at the national and international levels. Importantly, Evans et al. (2022) assert that tactics for proper skill development and drill sessions to increase athletes' competitiveness should be an integral part of management strategies to motivate athletes to perform well.

H6: There is a relationship between athlete competitiveness and athlete performance.

### **2.5 Mediating Role of Athlete Competitiveness in Athlete Emotional Control, Team Orientation, Athlete Positive Attitude, and Athlete Performance**

It is a truth that athletes' performance is determined by their competitiveness and a variety of other elements. The sports inventory components are crucial in enhancing athletes' performance at national and international competitions (Meng & Yang, 2022). To begin, McGuckin et al. (2022) assert that athletes'

emotional management also improves their performance. However, athlete emotional control assists athletes in developing competitiveness, and as a result of that competitiveness, athletes' performance improves. Second, according to Allahabadi et al. (2022), team orientation has a critical role in increasing athletes' competitiveness, establishing better strategies, and improving athletes' performance. Athletes do well at international events as a result of team orientation concepts. With team orientation, the entire team works toward a common objective, and athletes cooperatively achieve that goal (Williams et al., 2022). Additionally, some teams operate independently, and each athlete on these teams has their way of thinking and coping with situations. These teams are understaffed due to their poor performance as a result of their lack of team-oriented aims. Thirdly, athletes' positive attitudes are critical for their competitiveness and their success in games and sports. Athletes who have less negative thinking and cognitive dissonance can increase their performance and competitiveness with the support of a positive mindset. Barbosa et al. (2022) emphasise that most competitors in the Olympic games grow their competitiveness over time due to their upbeat attitude since they are unconcerned about the athletes from other countries and instead focus on their performance. Notably, a positive attitude assists athletes in improving their performance and increasing their competitiveness through creative and productive skill development. According to Çetin and Koçak (2022), athletes' positive attitudes motivate them to establish tactics and sustain relationships with other team members to do team-oriented tasks collaboratively. The majority of athletes who have team-oriented goals are optimistic because they do not regard the minor mistakes of their teammates and instead focus on improving their performance for increased productivity. In this regard, it is critical to consider the relationship between athletes' competitiveness and performance when it comes to national and international games to achieve success by developing collective strategies and enhancing athletes' competitiveness and performance. Figure 1 depicts the relationship between the variables—theoretical Foundations.

H7: There is a mediating role of athlete competitiveness between the relationship of athlete emotional control and athlete performance.

H8: There is a mediating role of athlete competitiveness between the relationship of team orientation and athlete performance.

H9: There is a mediating role of athlete competitiveness

between the relationship of athlete positive attitude and athlete performance.

## 2.6 Moderating Role of Mental Toughness on the Relationship of Athlete Emotional Control and Athlete Performance

Mental toughness refers to an individual's capacity to deal with emotional and cognitive difficulties. In this sense, when it comes to the athlete, the more positive and productive athletes generating ways to increase the team's performance have the mental fortitude to compromise on emotional difficulties to collaborate with other team members. According to Boobani, Grants, and Boge's study (2022), mental toughness must be considered when examining the circumstances and elements affecting the athlete's performance while establishing a strategy to increase an athlete's performance. Chauke and Malatji (2022) demonstrate that successful athletes worldwide are mentally demanding because they do not consider minor errors or hesitations in their path to success but instead develop strategies based on their performance to correlate the factors necessary for developing long-term competitiveness, which will ultimately help them improve their performance. Similarly, athletes who lack mental toughness suffer grave consequences due to their lack of drive and cognitive difficulties. Due to their lack of competitiveness, Grobler et al. (2022) did not play well in the games. It is critical to remember that athletes must be socially, ethically, and emotionally challenging, and they must not let the little warriors stand in their way of victory. At the same time, athletes must be psychologically challenging since they must take a risk and compete in games against individuals from other cultures (Clark et al., 2022). However, the athletes must prepare themselves with a positive attitude to develop mental toughness and not consider all elements in each situation but focus on their aim. It would be advantageous for athletes to design strategies and objectives according to a timeframe and accomplish these objectives to increase their competitiveness and performance. Similarly, Clark et al. (2022) assert that athletes' mental toughness benefits them when they work on team-oriented objectives, as the primary task for team-oriented goals is to deal with any obstacles to achievement and tolerate them by inspiring and increasing the team's performance. Successful athletes in world-class games are motivated and mentally tough enough to make harsh decisions while leading teams to increase performance.

H10: Mental toughness moderates the relationship between athlete emotional control and performance.

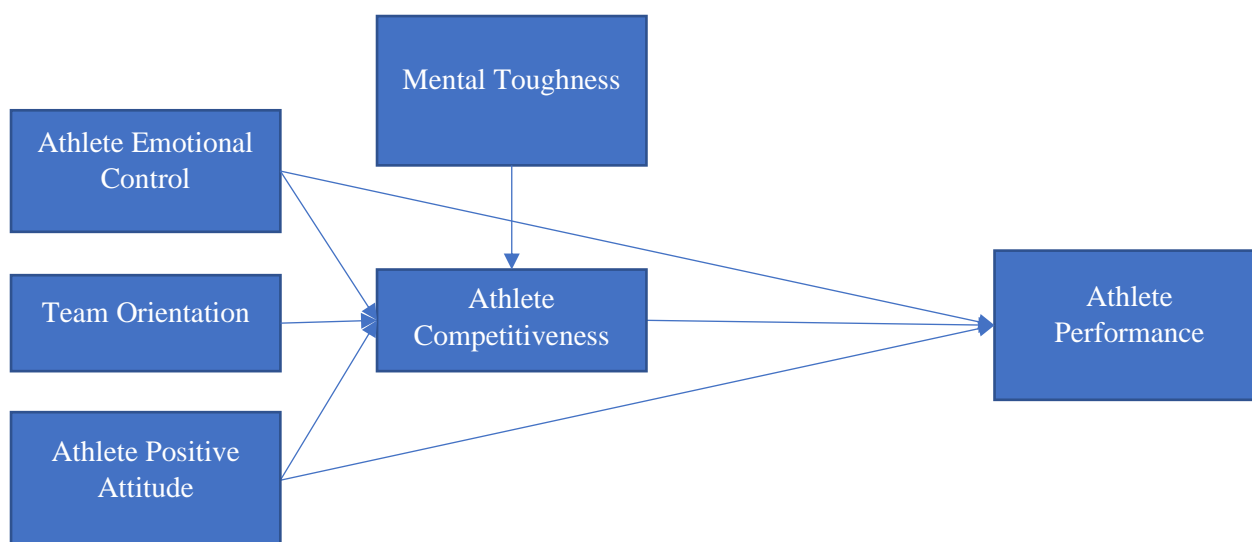


Figure 1. Theoretical Framework

### 3. Prepare Questionnaire and Data Collection Method

The questionnaire was developed for this study to collect data from respondents to analyse the data and determine the relationship between the theoretical framework's hypotheses. The questionnaire was written in English because the study's target demographic is literate in the language. The questionnaire was divided into two distinct sections in this regard. The first segment collected demographic data on the respondents. However, in the second phase of the questionnaire, the respondents were presented with the scale items for each variable on a 5-point Likert scale. Four scale items from Ford et al. (1986) were used to assess the athlete's emotional management. These scale items were designed to assess athletes' emotional strength and highlight how athletes can be emotionally intense.

Additionally, four scale items were drawn from Ford et al.'s (1986) study to assess team orientation. These scale items were designed to assess the influence of team orientation on the competitiveness and performance of athletes. Similarly, four scale questions from Ford et al. (1986) were used to assess athlete positive attitude, and four scale items from Ford et al. (1986) were used to assess athlete competitiveness. These scale components were derived from previous research examining the influence of athlete positive attitude and competition in athlete performance. Similarly, five scale items from Ford et al. (1986) were used to examine the role of mental toughness as a moderator in the relationship between athlete emotional control and performance. Finally, four scale items from Ford et al. (1986) were used to understand how athletes perform about several elements that directly influence their performance.

With paid support, the questionnaire was printed and addressed to the intended responder. The target

demographic was predicted to respond at a rate of 45%, and 780 questionnaires were distributed along with brief introductory information explaining the study's goal. Additionally, respondents were assured that their responses to the questionnaire would be kept confidential and would not be shared with any third party for any purpose. However, they were informed of the study's significance to acquiring impersonal and trustworthy data. Similarly, respondents were provided with the researcher's email address to obtain an answer to any query.

Additionally, respondents received responses to their queries. Additionally, they were invited to return the questionnaire for data analysis purposes. After completing all of the stages and obtaining replies, 355 questionnaires were collected. Specifically, respondents were compensated for their valuable time contributing to this study.

### 4. Findings and Results

#### 4.1 Convergent Validity

The reliability and validity of the hypotheses were examined in this study using Smart PLS 3 data analysis software. PLS Algorithm was used because Ramayah et al. (2018) propose it as a technique for modern studies. Thus, the extracted values for factor loadings, composite reliability, and average variance are listed in Table 1. Loadings of Factors, CR, and AVE. The factor loadings for each variable were more than 0.60, which Wong recommends for maximum validity (2013).

Similarly, the composite reliability for each variable was more than 0.80, indicating that the results are valid. Additionally, the average variance recovered for each variable was more significant than 0.50, as Wong recommends (2013). The results indicate a high degree of reliability and validity in Figure 2+—measurement Model.

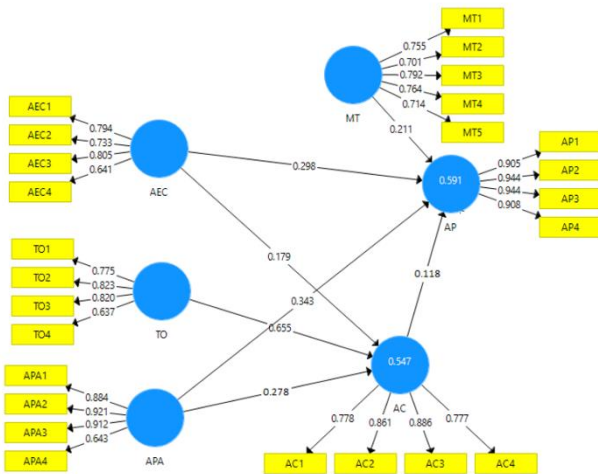


Figure 2. Measurement Model

Table 1

Factor Loadings, CR and AVE

Variables	Items	Loadings	Alpha	CR	AVE
Athlete Emotional Control	AEC1	0.794	0.733	0.833	0.556
	AEC2	0.733			
	AEC3	0.805			
	AEC4	0.641			
Team Orientation	TO1	0.775	0.764	0.850	0.589
	TO2	0.823			
	TO3	0.82			
	TO4	0.637			
Athlete Positive Attitude	APA1	0.884	0.862	0.909	0.719
	APA2	0.921			
	APA3	0.912			
	APA4	0.643			
Athlete Performance	AP1	0.905	0.944	0.960	0.857
	AP2	0.944			
	AP3	0.944			
	AP4	0.908			
Mental Toughness	MT1	0.755	0.811	0.862	0.556
	MT2	0.701			
	MT3	0.792			
	MT4	0.764			
	MT5	0.714			
Athlete Competitiveness	AC1	0.778	0.846	0.896	0.684
	AC2	0.861			
	AC3	0.886			
	AC4	0.777			

4.2 Discriminant Validity

The discriminant validity between variables is determined using the PLS Algorithm in this section of the study. Additionally, the HTMT model was utilised to determine discriminant validity because it is a well-established and accurate method for determining discriminant validity. According to the results in Table 2. Discriminant Validity, all values were less than 0.90, which is the suggested value for discriminant validity by Ringle et al. (2015). In this

regard, the results indicate that the variables have a high degree of discriminant validity.

Table 2

Discriminant Validity

	AC	AEC	AP	APA	MT	TO
AC						
AEC	0.741					
AP	0.514	0.833				
APA	0.581	0.892	0.776			
MT	0.727	0.825	0.699	0.745		
TO	0.888	0.874	0.679	0.864	0.846	

AC= Athlete Competitiveness, AEC= Athlete Emotional Control, AP= Athlete Performance, APA= Athlete Positive Attitude, MT= Mental Toughness, and TO= Team Orientation

4.3 The PLS-SMEs Analysis

In this section, the hypotheses were tested to check their significance or insignificance, according to Table 3. Direct Effects results, H1 was tested to check its significance, and according to the results, AEC has a significant effect on AP ( $\beta = 0.298, t = 3.1915, p = 0.000$ ), and H1 is supported. H2 was tested to check its significance. According to the results, AEC has a significant effect on AC ( $\beta = 0.179, t = 2.523, p = 0.012$ ), and H2 is supported. H3 was tested to check its significance. According to the results, TO significantly affects AC ( $\beta = 0.655, t = 11.25, p = 0.000$ ), and H3 is supported. H4 was tested to check its significance. According to the results, APA significantly affects AC ( $\beta = 0.278, t = 4.790, p = 0.000$ ), and H4 is supported. H5 was tested to check its significance. According to the results, APA significantly affects AP ( $\beta = 0.343, t = 4.790, p = 0.000$ ), and H5 is supported. H6 was tested to check its significance. According to the results AC has a significant effect on AP ( $\beta = 0.118, t = 2.458, p = 0.000$ ), and H6 is supported. The results of bootstrapping can be seen in Figure 3. Structural Model.

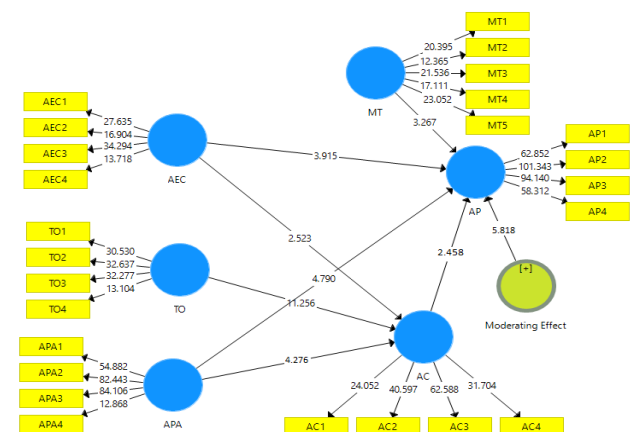


Figure 3. Structural Model

**Table 3**

*Direct Effects*

Hypotheses	B	STDEV	T Values	P Values	Decision
H1. AEC -> AP	0.298	0.076	3.915	0.000	Supported
H2. AEC -> AC	0.179	0.071	2.523	0.012	Supported
H3. TO -> AC	0.655	0.058	11.256	0.000	Supported
H4. APA -> AC	0.278	0.065	4.276	0.000	Supported
H5. APA -> AP	0.343	0.072	4.790	0.000	Supported
H6. AC -> AP	0.118	0.048	2.458	0.000	Supported

AC= Athlete Competitiveness, AEC= Athlete Emotional Control, AP= Athlete Performance, APA= Athlete Positive Attitude, MT= Mental Toughness, and TO= Team Orientation

**4.4 Mediating and Moderating Effects**

In this section of the study, the indirect effects of variables are identified in Table 4. Indirect Effects. According to the results, AC mediates the relationship between AEC and AP ( $\beta = 0.023$ ,  $t = 2.301$ ,  $p = 0.000$ ); hence H7 is supported. Similarly, AC mediates the relationship between APA and AP ( $\beta = 0.034$ ,  $t = 5.818$ ,  $p = 0.000$ ), therefore H8 is supported. Additionally, according to the results, AC

mediates the relationship between TO and AP ( $\beta = 0.055$ ,  $t = 1.718$ ,  $p = 0.000$ ). Therefore, H9 is supported.

**Table 4**

*Indirect Effects*

Hypotheses	B	STDEV	T Values	P Values	Decision
H7. AEC -> AC -> AP	0.023	0.01	2.301	0.000	Supported
H8. APA -> AC -> AP	0.034	0.005	6.800	0.000	Supported
H9. TO -> AC -> AP	0.055	0.032	1.718	0.000	Supported

AC= Athlete Competitiveness, AEC= Athlete Emotional Control, AP= Athlete Performance, APA= Athlete Positive Attitude, MT= Mental Toughness, and TO= Team Orientation

Furthermore, according to Table 5. Moderating effect, moderation analysis is identified. The result demonstrates that MT moderates the relationship between AEC and AP ( $\beta = 0.064$ ,  $t = 5.818$ ,  $p = 0.000$ ), hence H10 is supported. Furthermore, according to Figure 4. Moderation Direction, MT strengthens the positive relationship between AEC and AP. Therefore, it is not only the significant moderator, but at the same time, it strengthens the relationship of the variables.

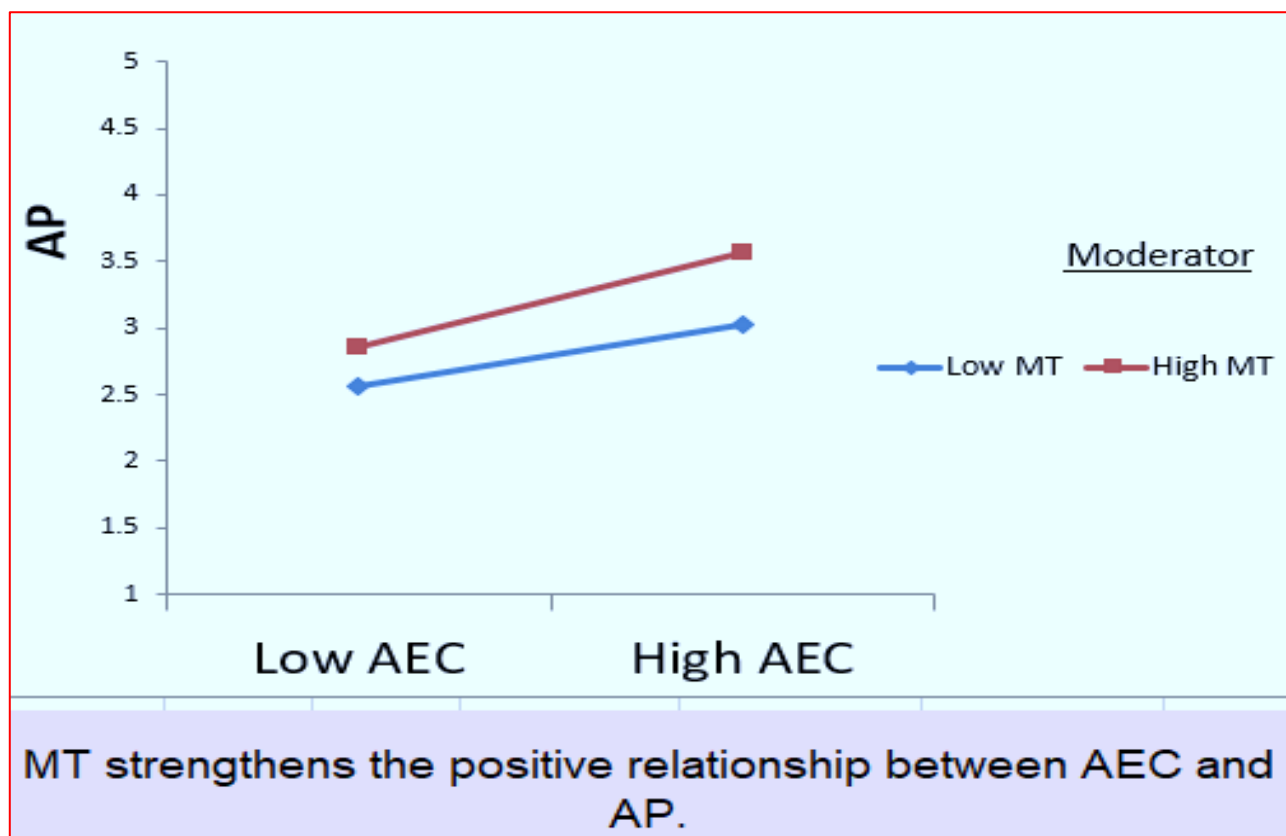


Figure 5. Moderation Direction

**Table 5**

*Moderating Effect*

Hypotheses	B	STDEV	T Values	P Values	Decision
H10. Moderating Effect -> AP	0.064	0.011	5.818	0.000	Supported

## 5. Discussion and Conclusions

There is a significant association between average emotional control, athlete competitiveness, and athlete performance, as shown by the findings of H1 and H2. Athletes from industrialised countries are taught to perform successfully by developing emotional fortitude in all circumstances. These athletes are in the lead due to their performance and lack of negative attitudes and ego issues. If athletes are emotionally stable, they will prioritise their competition and performance over pointless hobbies (De Backer et al., 2021). The emotionally intense athletes think their prize is based on their performance and competitiveness, refusing to succumb to stereotypes. As a result of their competition and performance, these athletes are successful and well-known internationally. As a result, athletes must be emotionally robust, which has a significant impact on their performance and competitiveness.

According to the findings of H3, there is a significant association between athlete competition and team orientation. Undoubtedly, athletes who implement team-oriented tactics receive recognition, and their performance improves. There is a link between team orientation and athlete competitiveness, as competitiveness occurs when individuals work in teams and share knowledge to better their performance. Athletes that are highly motivated and have a strong team orientation are more logically involved in performing and enhancing their skills on world-class teams. Similarly, Fournier et al. (2022) suggest that athletes should explore how team orientation can make it simpler for them to participate effectively and perform well based on their competitiveness. Competitiveness talents and abilities are not hereditary, but mutual sharing of information and interchange of athletes' actions help to improve them.

According to the findings of H4 in H5, a significant association exists between athletes' positive attitudes, athlete competitiveness, and athlete performance. First, an athlete who is highly motivated and actively involved in teamwork to better their performance is more likely to have a good attitude. On the other side, athletes with a negative attitude disregard their performance and competitiveness in favour of stereotypes. For athletes, it is critical to have a positive attitude throughout the games and to focus their attentions exclusively on improving their competitiveness and performance for the sake of their future success (González-García et al., 2022). However, this optimistic attitude is also visible in world-class athletes who respond positively to numerous cultural contexts. Thus, athletes' training sessions must develop their

positive attitude and perception of various situations to perform better.

There is a significant association between athlete competitiveness and athlete performance, as determined by the results of H6. The athlete's competitiveness is determined by the talents and abilities of the athletes they acquire through their unique shared information. In this context, Lima et al. (2021) assert that athletes' competitiveness is not natural but results from a positive mindset, team-oriented principles, and emotional management. Indeed, athletes' success is closely related to their competitiveness. If athletes' competitiveness is increased, their performance will undoubtedly improve. Likewise, athletes who do not perform well in their talents are not sharpened as a result of their competitiveness.

According to the findings of H7, H8, and H9, athlete competition acts as a mediating factor in the relationship between athlete emotional control, positive attitude, team orientation, and performance. Indeed, it is discovered that by increasing athletes' competitiveness, their performance improves as well. In this regard, athletes' competitiveness must be enhanced by developing a good attitude and the emotional control necessary to perform well in every situation. Simultaneously, athletes must enhance their performance by honing their abilities, skills, and strength to create and go to the next level. Certain athletes fail to perform successfully owing to a lack of competitiveness.

According to the findings of H10, mental toughness has a strong moderating effect on the association between athlete emotional control and performance. Additionally, it is a positive moderation, and as a result, if athletes' emotional management is positive through the use of mental toughness, this has a higher effect on athlete performance. Without a doubt, mental toughness enables an athlete to perform in any situation by approaching it rationally. As a result, mental toughness is crucial for athletes to increase their performance through the capacity of athletes to control their emotions.

## 6. Implementations

This study has substantial theoretical ramifications while filling a void in the literature. To begin, no previous research has examined the significance of sports performance inventories from the psychological standpoint of assessing the influence of player emotional regulation, team orientation, and positive attitude on athlete performance. This gap in the literature has not been addressed, particularly in Jordan's games and sports. Thus, this study used psychological perception measurements to deduce the relationship between the many variables stated in the theoretical framework.



However, this study emphasises that it is the athletes' and management's job to add team-oriented goals and objectives since these variables will make it simpler for athletes to perform well during the games. Athletes' involvement in emotional control is critical, and management and athletes should work together to develop a strategy for understanding and controlling different emotions at different events and using emotional intelligence to improve performance.

Meanwhile, Yukhymenko-Lescroart and Sharma (2022) assert that the function of an athlete's positive attitude is critical since positive athletes outperform average and negative athletes. Notably, this study established that mental toughness has a considerable moderating effect on athlete emotional control and performance. Additionally, psychologically strong athletes have an easier time controlling their emotions and participating actively in games.

Additionally, this study gives practical implications that the athlete's management should implement to improve the performance of Jordanian athletes. Notably, the study revealed that an athlete's emotional control, team-oriented approach, and an optimistic attitude all substantially improve an athlete's performance. This study suggests that management should approach athletes to improve their performance by teaching them to be emotionally intense and to handle both good and negative emotions during games and events. Athletes who focus on team-oriented concepts and have collective aims are more likely to succeed. In this sense, this study emphasises the importance of athletes pursuing team-oriented goals, which must be given by team management.

Meanwhile, this study established that an athlete's positive attitude plays a vital effect on athletic performance. Undoubtedly, athletes who have a good

attitude toward their opponents and the game are more compatible with their respective sports. However, building a positive attitude is not straightforward; instead, management should strengthen the athlete's ability to maintain a happy attitude in any situation (Zhamardiy et al., 2021). Similarly, this study demonstrates that athlete competitiveness substantially affects athlete performance. The administration must consider the players' competitiveness, and training sessions should be undertaken to prepare them for the future with new technology breakthroughs. While technology innovation is not exclusive to athletes, it does assist them in improving their performance over time. Additionally, athletes must be psychologically challenging, as they must have a positive attitude in all circumstances. If athletes and their management consider these innovations, they can significantly improve the performance of Jordanian athletes.

## 7. Future Directions

The purpose of this study was to examine the role of sports performance inventories from the perspective of psychological assessments to determine the extent to which these elements influence athlete performance. However, this study has limitations because it assessed mainly psychological elements associated with sports performance. This study advises that additional research be conducted to determine the relationship between social and practical aspects such as performance development, correlation with management, and technological training tools to improve athletes' performance. Future research should not focus on the same variables but on the various aspects that act as roadblocks to athletes' success, according to athletes' distinct cultures and cognitive abilities.

## References

- Allahabadi, S., Gatto, A. P., & Pandya, N. K. (2022). ACL tears in the National Football League from 2013 to 2020: analysis of the 2020 season after delays and schedule changes from the early CoViD-19 pandemic relative to prior seasons. *Orthopaedic journal of sports medicine*, 10(2). <https://doi.org/10.1177/23259671221076045>
- Apollaro, G., Rodríguez, Y. Q., Herrera-Valenzuela, T., Hernández-Mendo, A., & Falcó, C. (2022). Relative and Chronological Age in Successful Athletes at the World Taekwondo Championships (1997–2019): A Focus on the Behaviour of Multiple Medallists. *International Journal of Environmental Research and Public Health*, 19(3), 1425. <https://doi.org/10.3390/ijerph19031425>
- Barbosa, L. P., Sousa, C. V., da Silva Aguiar, S., Gadelha, A. B., Nikolaidis, P. T., Villiger, E., & Knechtle, B. (2022). The beginning of success: Performance trends and cut-off values for junior and the U23 triathlon categories. *Journal of Exercise Science & Fitness*, 20(1), 16-22. <https://doi.org/10.1016/j.jesf.2021.11.002>
- Boobani, B., Grants, J., & Boge, I. (2022). Effects of Outdoor Activity, Electro Photonic Imaging Technique on Stress Level and Mental Toughness on Latvian Taekwondo Athletes. *InterConf*, (99), 856-869. <https://doi.org/10.51582/interconf.19-20.02.2022.096>

- Caulfield, J. L., Lee, F. K., & Baird, C. A. (2022). Navigating the Ethically Complex and Controversial World of College Athletics: A Humanistic Leadership Approach to Student Athlete Well-Being. *Journal of Business Ethics*, 1-15. <https://doi.org/10.1007/s10551-021-05027-4>
- Çetin, O., & Koçak, M. (2022). Repeated Sprint Ability of Youth Football Players in the Same Age Category According to Playing Position and Competition Level. *Montenegrin Journal of Sports Science and Medicine*, 11(1), 59-63. <https://doi.org/10.26773/mjssm.220307>
- Chauke, T. A., & Malatji, K. S. (2022). A Narrative Systematic Review of the Mental Toughness Programme Offered by the National Youth Development Agency. *Academic Journal of Interdisciplinary Studies*, 11(1), 280. <https://doi.org/10.36941/ajis-2022-0025>
- Clark, J. D., Mallett, C. J., & Coulter, T. J. (2022). Personal strivings of mentally tough Australian Rules footballers. *Psychology of Sport and Exercise*, 58, 102090. <https://doi.org/10.1016/j.psychsport.2021.102090>
- De Backer, M., Van Puyenbroeck, S., Franssen, K., Reynders, B., Boen, F., Malisse, F., & Broek, G. V. (2021). Does Fair Coach Behavior Predict the Quality of Athlete Leadership Among Belgian Volleyball and Basketball Players: The Vital Role of Team Identification and Task Cohesion. *Frontiers in Psychology*, 12, 645764. <https://doi.org/10.3389/fpsyg.2021.645764>
- Estrada, X., Priego, M., Morente, A. R., & Mora, C. A. (2022). Relationship between emotional intelligence, burnout and health perception in a sample of football Spanish referees. *Retos: nuevas tendencias en educación física, deporte y recreación*, (44), 960-975. <https://dialnet.unirioja.es/descarga/articulo/8304535.pdf>
- Evans, J., Lower-Hoppe, L., McCray, K., Brgoch, S., Ryder, A., & Burkhard, B. (2022). Sexual Violence Prevention Among Intercollegiate Athletes, Recreational Athletes, and Non-Athletes: Environmental Considerations for Program Interventions. *Sport Social Work Journal*, 1(1), 136-162. <https://openjournals.bsu.edu/sportsocialworkjournal/article/view/3715>
- Ford, J. K., MacCallum, R. C., & Tait, M. (1986). The application of exploratory factor analysis in applied psychology: A critical review and analysis. *Personnel psychology*, 39(2), 291-314. <https://doi.org/10.1111/j.1744-6570.1986.tb00583.x>
- Fournier, C., Parent, S., & Paradis, H. (2022). The relationship between psychological violence by coaches and conformity of young athletes to the sport ethic norms. *European Journal for Sport and Society*, 19(1), 37-55. <https://doi.org/10.1080/16138171.2021.1878436>
- González-García, H., Martinent, G., & Nicolas, M. (2022). A Temporal Study on Coach Behavior Profiles: Relationships With Athletes Coping and Affects Within Sport Competition. *Journal of Sport and Exercise Psychology*, 1(aop), 1-9. <https://doi.org/10.1123/jsep.2021-0071>
- Grobler, H., du Plooy, K., Kruger, P., & Ellis, S. (2022). The prevalence of common mental disorders and its relationship with mental toughness in professional South African rugby players. *South African Journal of Psychology*, 52(1), 61-72. <https://doi.org/10.1177/00812463211009422>
- Lima, Y., Denerel, N., Öz, N. D., & Senisik, S. (2021). The psychological impact of COVID-19 infection on athletes: example of professional male football players. *Science and Medicine in Football*, 5(sup1), 53-61. <https://doi.org/10.1080/24733938.2021.1933156>
- Luchesi, M. S., Couto, B. P., Gabbett, T. J., Praça, G. M., Oliveira, M. P., & Sayers, M. G. (2022). The influence of the field orientation on physical demands in soccer small-sided games. *International Journal of Sports Science & Coaching*. <https://doi.org/10.1177/17479541211068830>
- Lyle, d. I. C., & Arnel, A. D. (2022). Exploring mental toughness among selected private university elite athletes in Manila: A qualitative study. *International Journal of Psychology and Counselling*, 14(1), 7-16. <https://doi.org/10.5897/IJPC2020.0634>
- Madigan, D. J., Olsson, L. F., Hill, A. P., & Curran, T. (2022). Athlete Burnout Symptoms Are Increasing: A Cross-Temporal Meta-Analysis of Average Levels From 1997 to 2019. *Journal of Sport and Exercise Psychology*, 1(aop), 1-16. <https://doi.org/10.1123/jsep.2020-0291>
- Madrak, E., Volberding, J. L., & Harris, A. M. (2022). Determining Varying Levels of Cultural Competence in Athletic Trainers Compared to Other Healthcare Providers When Treating Lesbian or Gay Patients. *International Journal of Athletic Therapy and Training*, 1(aop), 1-5. <https://doi.org/10.1123/ijatt.2020-0119>
- Matsuzaki, Y., Chipman, D. E., Perea, S. H., & Green, D. W. (2022). Unique Considerations for the Pediatric Athlete During Rehabilitation and Return to Sport After Anterior Cruciate Ligament Reconstruction. *Arthroscopy, sports medicine, and rehabilitation*, 4(1), e221-e230. <https://doi.org/10.1016/j.asmr.2021.09.037>

- McGuckin, M. E., Turnnidge, J., Bruner, M. W., Lefebvre, J. S., & Côté, J. (2022). Exploring youth sport coaches' perceptions of intended outcomes of leadership behaviours. *International Journal of Sports Science & Coaching*, 17(3), 463-476. <https://doi.org/10.1177/17479541221076247>
- Meng, T., & Yang, J. Y. (2022). Intervention of Football Players' Training Effect Based on Machine Learning. In *2022 2nd International Conference on Consumer Electronics and Computer Engineering (ICCECE)* (pp. 592-595). IEEE. <https://doi.org/10.1109/ICCECE54139.2022.9712823>
- Mónico, L. S., & Alferes, V. R. (2022). The Effect of Religious Beliefs and Attitudes in Intrinsic and Extrinsic Optimism and Pessimism in Players of Games of Chance. *Religions*, 13(2), 97. <https://doi.org/10.3390/rel13020097>
- Paccaud, L., & Marcellini, A. (2022). How to Be a Man Differently: Intersectionality of Gender and Disability in the Life Course of a Powerchair Athlete. *Men and Masculinities*. <https://doi.org/10.1177/1097184X211064320>
- Perelman, H., Schwartz, N., Yeoward-Dodson, J., Quiñones, I. C., Murray, M. F., Dougherty, E. N., Townsel, R., Arthur-Cameselle, J., & Haedt-Matt, A. A. (2022). Reducing eating disorder risk among male athletes: A randomized controlled trial investigating the male athlete body project. *International Journal of Eating Disorders*, 55(2), 193-206. <https://doi.org/10.1002/eat.23665>
- Phrathep, D., Donohue, B., & Allen, D. (2022). Family-Based Optimization Intervention Implemented through Video-Conferencing to Address Major Depressive Disorder in a Latina Adolescent Athlete During COVID-19. *Sport Social Work Journal*, 1(1), 13-34. <https://openjournals.bsu.edu/sportsocialworkjournal/article/view/3689>
- Pyankova, S., & Arkalov, D. (2022). Factors of Increasing Sustainability of State Sports Organizations from the Perspective of Systemic Approach. In *International Scientific and Practical Conference "Sustainable development of environment after Covid-19"(SDEC 2021)* (pp. 244-248). Atlantis Press. <https://dx.doi.org/10.2991/assehr.k.220106.044>
- Ramayah, T., Cheah, J., Chuah, F., Ting, H., & Memon, M. A. (2018). Partial least squares structural equation modeling (PLS-SEM) using smartPLS 3.0. In *An updated guide and practical guide to statistical analysis* (2nd ed.). Kuala Lumpur, Malaysia: Pearson. <https://www.researchgate.net/profile/Hiram-Ting/publication/341357609>
- Ramezani, M., Kordi Yoosefinejad, A., Motealleh, A., & Ghofrani-Jahromi, M. (2022). Comparison of flexion relaxation phenomenon between female yogis and matched non-athlete group. *BMC Sports Science, Medicine and Rehabilitation*, 14(1), 1-7. <https://doi.org/10.1186/s13102-022-00406-4>
- Ringle, C., Da Silva, D., & Bido, D. (2015). Structural equation modeling with the SmartPLS. *Brazilian Journal Of Marketing*, 13(2), 56-73. <https://doi.org/10.5585/remark.v13i2.2717>
- Rintaugu, E., Mwangi, F., Andanje, N., Tian, X., Fuku, N., & Kidokoro, T. (2022). Mental Toughness Characteristics of Male University Athletes in Relation to Contextual Factors. *Journal of Human Kinetics*, 81(1), 243-251. <https://doi.org/10.2478/hukin-2022-0019>
- Roygaga, C., Patil, D., Boyle, M., Pickard, W., Reiser, R., Bharati, A., & Blanchard, N. (2022). APE-V: Athlete Performance Evaluation using Video. In *Proceedings of the IEEE/CVF Winter Conference on Applications of Computer Vision* (pp. 691-700). IEEE. <https://doi.org/10.1109/WACVW54805.2022.00076>
- Salcinovic, B., Drew, M., Dijkstra, P., Waddington, G., & Serpell, B. G. (2022). Factors Influencing Team Performance: What Can Support Teams in High-Performance Sport Learn from Other Industries? A Systematic Scoping Review. *Sports Medicine-Open*, 8(1), 1-18. <https://doi.org/10.1186/s40798-021-00406-7>
- Seligman, E., Beasley, M. A., Christino, M. A., Miller, P. E., Kobelski, G., & Stracciolini, A. (2022). Changes in training patterns and confidence to return to sport in United States collegiate athletes during the COVID-19 pandemic. *The Physician and Sportsmedicine*, 1-6. <https://doi.org/10.1080/00913847.2022.2046957>
- Smith, A. B., Gay, J. L., Arent, S. M., Sarzynski, M. A., Emerson, D. M., & Torres-McGehee, T. M. (2022). Examination of the Prevalence of Female Athlete Triad Components among Competitive Cheerleaders. *International journal of environmental research and public health*, 19(3), 1375. <https://doi.org/10.3390/ijerph19031375>
- Wilczyńska, D. M., Abrahamsen, F., Popławska, A., Aschenbrenner, P., & Dornowski, M. (2021). Level of anxiety and results of psychomotor tests in young soccer players of different performance levels. *Biology of Sport*, 39(3), 571-577. [http://ptkt.termedia.pl/Journal/-78/pdf-44150-10?filename=11\\_01854\\_Article.pdf](http://ptkt.termedia.pl/Journal/-78/pdf-44150-10?filename=11_01854_Article.pdf)
- Williams, R. M., Bliven, K. C. H., Morris, S. N., Boltz, A. J., Robison, H. J., Chandran, A., & Valier, A. R. S. (2022). Non-Time-Loss and Time-Loss Injuries in Secondary School Girls' Volleyball Athletes: A Report From the National Athletic Treatment, Injury, and Outcomes Network Surveillance Program. *Journal of sport rehabilitation*, 1(aop), 1-8. <https://doi.org/10.1123/jsr.2021-0269>
- Wong, K. K.-K. (2013). Partial least squares structural equation modeling (PLS-SEM) techniques using SmartPLS. *Marketing Bulletin*, 24(1), 1-32. [http://phdtrident.pbworks.com/w/file/attach/108111218/PLS\\_important\\_effect\\_size.pdf](http://phdtrident.pbworks.com/w/file/attach/108111218/PLS_important_effect_size.pdf)

- Woods, S., Dunne, S., Gallagher, P., & Harney, S. (2022). Is a pandemic as good as a rest? Comparing athlete burnout and stress before and after the suspension of organised team sport due to Covid-19 restrictions, and investigating the impact of athletes' responses to this period. *Psychology of sport and exercise*, *60*, 102168. <https://doi.org/10.1016/j.psychsport.2022.102168>
- Yukhymenko-Lescroart, M. A., & Sharma, G. (2022). The role of coaching identity and life purpose orientations in holistic athlete development. *International Journal of Sports Science & Coaching*, *17*(3), 477-489. <https://doi.org/10.1177/17479541211073546>
- Zhamardiy, V., Shkola, O., Kravchenko, I., Butov, R., Shekhavtsov, M., Radchenko, A., & Kabatska, O. (2021). Modern approaches to the formation of professional readiness of future specialists in physical rehabilitation in the context of restoring the health of athletes. *Journal for Educators, Teachers and Trainers*, *13*(1), 9-15. <http://dx.doi.org/10.47750/jett.2022.13.01.002>
- Zhu, Y., Sun, F., Li, C., Huang, J., Hu, M., Wang, K., He, S., & Wu, J. (2022). Acute effects of mindfulness-based intervention on athlete cognitive function: An fNIRS investigation. *Journal of Exercise Science & Fitness*, *20*(2), 90-99. <https://doi.org/10.1016/j.jesf.2022.01.003>