

INTERCONNECTION BETWEEN SPORTS COMPETITIVE ANXIETY, SELF ESTEEM AND SPORTS PERFORMANCE OF YOUNG ATHLETES

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ABSTRACT

For long, anxiety experiences have remained the focus of sport psychologists' research interest as anxiety can directly affect quality of the performance of athletes. A cross section design was used to study competitive anxiety, self esteem and performance of young athletes in Lahore. In total, 93 young athletes were studied from 2 public and three private universities in Lahore. The sample included men (n= 61) and women (n= 32) who regularly took part in various sports and even participated in competitive events. The sample was contacted during their free hours after their training sessions and classes. All participants filled demographic form designed for the study followed by Sports competitive anxiety test, sports performance checklist and Rosenberger's self esteem scale. The findings reveal that competitive sports anxiety shared significant inverse correlation with both self esteem ($p < 0.01$) and sports performance ($p < 0.01$). Whereas, self esteem and sports performance shared significant positive correlation ($p < 0.01$). Competitive sports anxiety, self esteem and sports performance shared significant correlation with age and income. Significant gender differences were also observed in study variables. The strong interconnection between sports competitive anxiety, self esteem and performance of athletes must be taken into consideration in order to improving the performance of athletes.

Keywords: Sports anxiety; Athletic performance; Self esteem; Competitive behavior.

INTRODUCTION

Sports psychology links psychology with sport sciences and one of the main focus of the field is placed on anxiety of athletes and associated factors (Smith & Smoll, 1990). Competitive sports anxiety consists of nervousness, fear of failure and worry that athletes are likely to experience before or during the sports competitions.

Competitive anxiety is also known as sports anxiety and refers to the psychological distress that arises in

competitive sports situations. Competitive sports anxiety can be of three main types including cognitive anxiety, somatic anxiety and state anxiety. Cognitive anxiety includes worry about performance, fear of failure and concerns about social judgment and expectations about performance. Somatic anxiety focuses primarily on physiological symptoms like sweating, tension and rapid heartbeat. State anxiety is an anxiety reactions experienced in specific

situations or contexts. Competitive anxiety can stem from unrealistic and high expectations about performance, fear of negative self and social evaluations, past performances that fell short of expectations, fear of poor performance, concerns about others perceiving their anxiety, mental challenges, previous negative experiences, and personal beliefs about their sports skills (Mottaghi et al., 2013).

This type of anxiety can considerably impact an athlete's confidence and performance, and often leads to impaired decision making, decreased focus and compromised physical capabilities. Anxiety can debilitate and facilitate the self-esteem and performance of the athletes (Neil et al., 2012). As anxiety can easily effect the confidence, quality of locomotor skills, mastery and self-esteem of the athlete particularly before highly competitive games (Tossici et al., 2024). Anxiety and stress control is pertinent for avoiding a state of distress in sport competitions as it may lead to negative psychological and performance outcomes (Souter et al., 2018). Anxiety in athletes can be exacerbated by tough practice routines, pressures of performing well, negative life experiences, negative attitude of the coaches, financial struggles, pressure of competition (Shah et al., 2016) and these problems predisposes athletes to several dangers including but not restricted to high risk of injuries, poor performance outcomes, low confidence (Neil et al., 2012), high distractions, depression and other mental health problems, poor self-esteem (Gouttebarga et al., 2016; Nixdorf et al., 2013; Tossici et al., 2024).

For almost all athletes, their performance shape their identity recognition and future of their sports career (Cheon & Lee, 2019). Affective state like anxiety of the athletes is reported to have direct link with athlete's performance particularly in amateur and competitive sports athletes (Yang et al., 2015). Other than anxiety, the performance of athletes is affected by self-esteem as well (Yang et al., 2024). Self-esteem affects performance of athletes by improving tenacity, motivation and resilience of the athletes as literature at large describes the interconnection between self-esteem,

wellbeing and performance of the athletes (Yang et al., 2024).

Self-esteem plays an essential role in sports performance by influencing perception of athlete's self-worth, ability to perform under pressure, resilience, and how they respond to challenges. Athletes with high self-esteem tend to exhibit greater confidence in their skills, which can lead to improved performance outcomes. Low self-esteem can easily lead to feelings of worthlessness, self-doubt, reluctance to take risks, fear of failure which can hinder sports performance. Moreover, self-esteem also impacts an athlete's mental state during competition. High self-esteem can foster a positive mindset which enables athletes to focus on their performance instead of potential negative outcomes. This cognitive clarity is particularly significant in high-pressure situations, where the ability to remain calm and composed can make a significant difference in performance. On the other hand, athletes with low self-esteem may experience anxiety and stress, which can impair their focus and decision-making abilities during critical moments in competition.

Literature also reports that sports competitive anxiety, self-esteem and performance of the athletes are reported to be mitigated by a range of factors including personality traits, gender, age, type of sports, training schedule and types (Sancho & Ruiz-Juan, 2014). Empirical literature on different aspects of sports is scarce in Pakistan and review revealed significant gaps even in most significant sports related areas, like factors affecting sport's performance, physical and emotional health of athletes etc. The literature revealed that the researches conducted in Pakistan only focused on competitive sports anxiety and linked it with goal orientation, motivation and fear of failure only one study associated it with performance (Ahmed & Safdar, 2020; Amjad et al., 2018). The present study was designed to study the link between sports competitive anxiety with self-esteem and sports performance as the literature pointed out to the interconnection between these three variables and vital role of anxiety and self-esteem on performance. The study aimed to

explore the association between competitive sports anxiety, self esteem and sports performance among young athletes.

METHOD

The research used cross sectional research design to collect data from 93 young athletes selected through purposive sampling technique. The sample size was determined through g-power calculator with medium effect size. Participants were selected from two public and three private universities in Lahore. The sample included both men (n= 61) and women (n= 32) who regularly took part in various sports and even participated in competitive events at intercity and provincial level sports competitions. The sample was identified with the help sports departments staff particularly coaches who helped the researchers to contact the athletes. All participants filled three measures namely demographic questionnaire- specifically design for this study to get personal information and details of their participation in sports.

Sports Competitive Anxiety test was based on 15 statements that recorded responses using seldom, sometimes and often responses and has reliability ranging from 0.88 to 0.98. The items assessed cognitive competitive anxiety and physical competitive anxiety with scores ranging from 10 (lower anxiety) to 30 (highest anxiety).

Sports Performance Checklist developed by Hakkak was used to examine the performance of the participants. It had 18 items assessing the performance and outcomes of athletes and sports teams with reliability ranging from 0.79 to 0.89.

Rosenberger's Self esteem Scale which assessed self esteem through 10 items that recorded responses from strongly disagree to strongly agree. The scale ranges from 0-30. Scores between 15 and 25 are within normal range; scores below 15 suggest low self-esteem with reported reliability ranging from 0.81 to 0.92. All study measures had well established psychometric properties and frequently applied by researchers to quantify the competitive sports anxiety, self esteem and sports performance.

The design and procedures were reviewed and approved by the concerned ethical review boards through letter number ERRC-039-01-2023. After formal approval from ethical and research review committee the permission to collect data from the concerned authorities was also taken. Then the participants were contacted after their training sessions, provided with the detailed brief of the research and their ethical rights as participants. Upon getting their consent, the participants were given a typed written set of research measures to record their responses related to the study variables. All participants filled data collection individually and in the same sequence while researcher remained available to them for any assistance required to understand the items or to record their responses. The data was recorded anonymously and coded according to the ethical standards. The data was analyzed mechanically by using SPSS's version 22 and used a combination of descriptive and inferential statistical procedures. Frequency, percentages, mean, standard deviation and correlation were used as primary statistical procedures to summarize the participant's responses and to study the research objectives.

RESULTS

The findings are presented in two sections that is, the descriptive analysis on demographic carried out through frequency, percentages mean scores and standard deviation. The second set of analyses used correlation and t test which was used to measure associations between study variables and mean differences in scores of study variables across gender.

Minimum age of the participants was 17 years and maximum was 29 years with mean age of 23, SD=7.41. Most of the participants belonged to joint family system (66 percent) and had average household income of 27 thousands a month. Most of the participants (53 percent) were taking part in more than one sports, however, those who were competing at provincial or national level competitions were concentrating on only one sport. None of the participant have had significant history of medical or psychological illness.

In total 63 percent of the participants reported experiencing physical anxiety whereas, almost 34 percent of participants

reported having experienced cognitive anxiety before competitions.

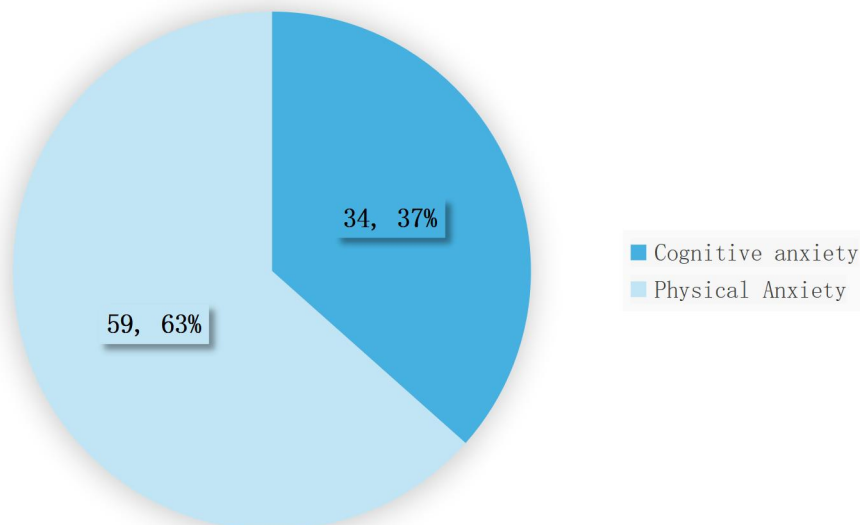


Figure 1: Frequency of physical and cognitive anxiety among participants

Table 1 Descriptive Analysis of Study Variables

Variables	M (SD)
Sports Competitive Anxiety	20.14 (6.25)
Cognitive competitive anxiety	7.38 (2.00)
Physical competitive anxiety	9.66 (3.61)
Self Esteem Score	17.27 (10.93)

The findings reveal that the average competitive anxiety score was towards the higher side indicating significant anxiety experienced before the start of competition. The mean score of physical competitive anxiety was higher than the cognitive competitive anxiety scores and observed to be towards the high anxiety range. Female athletes were observed to score higher on cognitive anxiety than physical anxiety, male athletes had higher scores on physical

anxiety compared to cognitive anxiety. Whereas, the mean self-esteem scores were in the normal range. The average anxiety score of women athletes (M= 13.16, SD=1.94) was lower than men athletes (M= 18.52, SD=5.31) with $t=5.51(df=91; 95\% CI= 3.43-7.29; p<0.001)$. However, self esteem scores of women athletes (M=22 , SD=4.01) were higher than male athletes (M= 15, SD= 6.21) with $t = 5.77 (df=91; 95\% CI= 4.58 - 9.41; p<0.001)$.

Table 2 Correlation between the Study Variables

	Anxiety	Self Esteem	Performance
Anxiety	-		
Self Esteem	-.59*	-	
Performance	-.37*	.61*	-

*p<0.01

The findings reveal that high competitive sports anxiety was associated with lower levels of self-esteem and lower sports performance. Higher self-esteem was found to be associated with higher levels of sports performance.

Competitive sports anxiety was observed to share a significantly positive association

with increased age ($r = 0.33, p<0.01$), male gender ($r = 0.21, p<0.05$) and higher income ($r = 0.26, p<0.05$). On the other hand, sports performance was found to be inversely related with increased age ($r = -0.29, p<0.01$), female gender ($r = -0.18$), lower income ($r = -0.20, p<0.05$). Self-esteem was observed to be positively ($p<0.01$) related with relatively younger

age ($r = 0.28, p < 0.05$), female gender ($r = 0.45, p < 0.01$), higher income ($r = 0.41, p < 0.01$) respectively.

DISCUSSION:

Performance of athletes is usually affected by a range of factors particularly a phenomenon common to many athletes, that is, sports anxiety or competitive anxiety. Competitive anxiety is experienced by many athletes across several sports and competitive levels. Competitive anxiety is also reported to be closely linked with self-esteem of the athletes. The relationship between competitive sports anxiety, self-esteem, and sports performance is complex and multifaceted. Research has shown that high levels of sports anxiety are often associated with lower levels of self-esteem, as athletes may internalize their anxiety as a reflection of their abilities and worth. This negative cycle can lead to a decrease in performance and overall satisfaction with one's athletic endeavors. The aim of this research was to evaluate the relationship of competitive sports anxiety with sports performance and self-esteem of young athletes. The findings indicated inverse association between competitive sports anxiety, self-esteem and sports performance. Self-esteem noted to have a positive relationship with sports performance. Male and female athletes were observed to score higher on different types of competitive anxiety and also showed significant score variations on anxiety, performance and self-esteem. Study variables also showed varied pattern of relationships across age and income groups.

The pattern of relationship found between main study variables was consistent with findings of some other studies (Sanader et al., 2021). Anxiety is an affective experience which can be attributed to a variety of factors including but not restricted to temperamental predispositions, self perception, environmental and circumstantial factors (Humphrey et al., 2000) performance record, performance expectations, pressure to perform and self-esteem (Lopes-Dos-Santos et al., 2020). The anxiety score in the present study was observed to be towards the higher side which aligned with other researches

reporting higher levels of anxiety, stress and depression among student athletes (Egan, 2019; NCAA, 2014). Another reason might be that a large majority of participants was taking part in individual sports competitions which was likely to have mitigated anxiety compared to team supports as was reported in the literature that linked team sports activities with lower levels of competitive anxiety (Marín-González et al., 2022; Martínez-Gallego et al., 2022].

The consequences of higher anxiety commonly include lower motivation to perform, compromised emotional health, increased risk of burn out, poor self-esteem and confidence and poor performance (Lewthwaite, 2019). This was also evident in the results of the present study as competitive anxiety was higher in those who had poor performance score and weak self-esteem (Hagiwara et al., 2017). In present study sports anxiety observed to be related positively with younger age which aligned with the previous findings reporting that younger athletes generally had lower instances of competitive anxiety as they have lower competitive pressures compared to older athletes (Zhang et al., 2024).

Self esteem is a significant aspect of one's identity, influences various aspects of functioning and plays a vital role in achieving positive outcomes (Ahmed et al., 2014). Self esteem of the athletes has been described as an important variable that impact not only the performance but the post competition attitude and self evaluation of the athletes of their performance (Gotwals & Wayment, 2002). Anxiety scores were negatively associated with self esteem in present research which aligned well with findings of other researches (Sanader et al., 2021). Better self esteem showed better sports performance in the present study which aligns well with other researches as reporting similar findings (Pruessner et al., 1999). The possible reason might be that individuals with better self esteem tend to have positive image of their capabilities and self (Connor, 2014) which links with strategies employed to resist anxiety, fear of failure and other negative pressures (Pruessner et al., 1999).

Results of the present study indicated significant gender differences, in sports anxiety, self esteem and athletic performance, as female athletes showed lower anxiety and higher self-esteem and better performance. This trend diverged partially from the findings of other researches reporting higher levels of cognitive and physical anxiety in female athletes compared to male athletes (Amaro & Brandão, 2023). However, in present study, female athletes had lower composite score on anxiety compared to male athletes, however, scored higher on cognitive anxiety than physical anxiety. On the other hand, this trend was observed to be opposite in male athletes which aligned with researches reporting gender differences in experience of sports anxiety (Jones et al., 2019). Finding that female athletes scored higher on cognitive anxiety than males was supported by findings of other researches reporting same trend (Ischer et al., 2013). There was a possibility that male athletes in our study had higher pressure to perform and higher expectations attached to their performance making them more anxious. At times male athletes face relatively higher levels of expectations from coaches and society, face more pressures to perform well and may have stronger fear of failure compared to female athletes (Sanader et al., 2021) contributing to more anxiety (Davis et al., 2019).

The differences in results might also be the result of differences in cultural and contextual differences between the participants of present study and those in researches conducted in western countries.

According to the literature, performance of athletes and their health is the result of interplay of multiple factors including various psychological phenomena such as emotional well being, distress, temperament, age, satisfaction of basic needs etc. (Li et al., 2019). Present research observed an interesting pattern of association between these variables as higher sports performance was observed to be related with younger age and better self esteem. This finding is supported by the findings of the other researches reporting similar trend of association between these variables (Martin & Gill, 2019). Sports performance was noted to be better in

athletes who were younger in age, females and were in relatively lower income group. The reason might be that these groups were more focused on proving themselves and might also be aware of their limitations pushing them to work hard. They probably were to establish a good status through high performance and to work hard to secure their position in the team.

Regardless of the fact that the present study was amongst very few studies conducted in the area of sports psychology in Pakistan, it involves some limitations. One limitation was that the study only employed student athletes, it would have been more interesting to study these variables in professional athletes providing an insightful comparison between professional and student athletes. Secondly, a larger sample would have provided a chance to compare the study variables across different sports. Despite these limitations, the present study still provided an effective framework for future researchers and will also be helpful in understanding the role of competitive anxiety and self-esteem on sports performance of the athletes. These findings can be helpful to design effective strategies to improve the sports performance of young athletes. As understanding the interplay between sports anxiety, self-esteem, and performance is crucial for coaches, athletes, and sports psychologists in developing effective strategies for enhancing athletic performance. By addressing underlying issues related to self-esteem and anxiety, athletes can improve their mental resilience, confidence, and overall sports performance.

Conclusion:

A strong interconnection between sports competitive anxiety, self esteem and performance of athletes was noted. These findings will be useful in developing effective programs to manage competitive anxiety of athletes to them help improve their performance.

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