

Pre-Competitive Anxiety Linked With Gender Difference in Collegiate Athletes of Khyber Pak

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ABSTRACT

This study aimed to investigate difference in levels of pre-competition anxiety in athletes of both sexes, in team & Individual Sports, The components of pre competitive anxiety was assessed by using the instrument of competitive state anxiety inventory -2 (CSAI-2) Martens, Vealey & Burton, (1990) was a set of questionnaire consisting of 27 items equally divided into 3-sub scales of cognitive anxiety, somatic anxiety & self-confidence. The subjects (N=720), included male (360) & female (360) athletes of team sports, Volley ball, Basket Ball, Hand Ball and individual sports, Table Tennis (single), Badminton (single) & Athletics between the ages of 16-27 years. The CSAI-2 administered one hour before the competition. The results were analyzed by t-test.

The finding showed there was no significant difference in cognitive anxiety & self-confidences and significant difference in somatic anxiety level among male and female collegiate athletes. While the three sub-scale (cognitive anxiety, somatic anxiety and self-confidence) were not significant in athletes of team and individual games

1 INTRODUCTION

Generally speaking anxiety is a state of apprehension, uneasiness and stress, as some sort of emotional tension. Freud (1926) stated that anxiety stems from unconscious conflict that serves as a signal that unconscious impulses may erupt into consciousness and thus the individual fears punishment from his or her conscience for thinking about something that the superego considers bad. in the face of these dangers the person's ego unconsciously attempts to regain control by activating defensive processes that disturb the reality. Anxiety occurs when a person feels threatened or when he is unprepared to respond adequately to a situation. It may occur when there is disruption or breakdown in effective coping and problem solving. according to Spielberger (1966), any situation which interrupts or threatens the interruption of organized responses, and which does not offer alternate responses to the organism will be anxiety producing situations. According to the clinical psychologists there is always a process of information in anxiety based on attentional resources. They mentioned that individuals with high level of anxiety allocate attentional resources preferably to threatening stimuli. When threatening stimuli exist in the environment, they are more likely to detect them sooner than non-anxious subjects when threat is detected they focus more of their attentional resources on the threat than non-anxious subjects. Individuals high in anxiety experience higher level of general arousal in threatening situations than do non anxious individuals (Fridlund, et al: 1986).

Competitive state anxiety that occurs prior to a competitive situation is referred to as **pre-competitive state anxiety**. According to Endler (1978, 1983) as cited in Richard Cox (2007), there are five specific predictors that lead to an increase in anxiety in anticipation of an achievement situation. These five predictors are as follows:

1. Fear of performance failure Fear of getting defeated by a weaker opponent could pose a threat to an athlete's ego.
2. Fear of negative social evaluation Fear of being evaluated negatively by thousands of spectators could pose a threat to self-esteem.
3. Fear of physical harm Fear of being hit in the head by a 90 mph fast ball could pose a serious threat.
4. Situation ambiguity Not knowing if she is going to start a match is sometimes stressful to an athlete.

5. *Disruption of well-learned routine* Being asked to change the way he does things without practice and warning could be threatening to an athlete.

Like all other emotions, anxiety has both a trait component and a state component. The trait component is like a personality disposition, whereas the state component is a situation-specific response.

It is believed that there are both cognitive and somatic components to anxiety. **Cognitive anxiety** is the mental component of anxiety caused by such things as fear of negative social evaluation, fear of failure, and loss of self-esteem. **Somatic anxiety** is the physical component of anxiety and reflects the *perception* of such physiological responses as increased heart rate, respiration, and muscular tension. Both state and trait anxiety are believed to have cognitive and somatic components. In the sport psychology literature, the notion that anxiety has both cognitive and somatic components is referred to as **multidimensional anxiety theory** (Martens et al., 1990).

Anxiety in different forms permeates the lives of many, whether they are emotionally balanced or maladjusted and for the college-going players who take part in sports competitive activities, they are to be expected to experience anxiety before or during competitions. Hence pre-competitive sports anxiety is an area of major interest to the Trainers, coaches, athletes and sports persons.

In my work as physical Education lecturer, many of the college-level athletes approached me for help and advice because they are unable to cope with the pressure of competition and experiencing high anxiety symptoms before or during competition.

The above observations are also common phenomenon among female athletes. Throughout the Pakistan thousands of college-level athletes of both sexes participate in sports activities.

For many athletes these competitive activities can be filled with anxiety i.e. Fear of failure, Societal fear and worry of not up to the expectations of coach, seniors, spectators and family members.

The effects of anxiety level on sports performance is a major concern for coaches and athletes of both sexes, taking part in various games. Therefore, anxiety is the most important field of study in sports psychology. A clear understanding of how athletes of both sexes differ with regard to anxiety would provide coaches and athletes valuable information to help to improve the performance.

The role of anxiety in sports has been a subject of great debate for decades. Numerous studies have been conducted abroad in this regard, but in Pakistan no such study has been available so far. Keeping in view the social, cultural, religious, economic, environmental, geographical and political aspects of Pakistan which were different from that of the other parts of the world. The researcher considered that there was an urgent need of arousing awareness of sport pre-competitive anxiety and its impact on sports performance of athletes (players) in Pakistan. This study gives awareness to athletes and coaches of both sexes about sports pre-competitive anxiety levels and its impact on sport performance. In Pakistan and especially in Khyber Pakhtunkhwa, usually male coaches were appointed/hired for training/coaching of female athletes, at college level. So the results of this study would also be helpful for those coaches, working in colleges and performing duties of coaching of athletes of both sexes.

This study would bring awareness in the coaches that anxiety is enemy of sports performance and its control through various psychological techniques should be the part of coaching.

Coaches can through this study, find out the coping strategies for reducing the debilitating effects of pre-competitive sports anxiety. This study will open a gate for further researches in Pakistan.

Statement Of The Problem: Anxiety has a gross impact on sports performance of athletes. This study measured the pre-competitive anxiety differences at college-level athletes of both sexes in terms of individual sports and team sports.

LITERATURE REVIEW

Sports are essential element for every nation and, everyone is directly or indirectly involved in sports either by playing or by watching. People play usually for two reasons one for money and other for fun. Sports can make people come close to each other because of their fans and this likeness has been transferred from one generation to another. After tough and tiring routine student need some recreation in the evening and outdoor games are best for them. Games are not only refresh them but it's also teaches them how to discipline in life.

It has been found that sports participation is important for the development of children and young people, because sports characterize and build mental and physical health. Without sports or lack of physical activity one may not be able to cope with stressors in life. Proper sports and physical activity also provides psychological well-being and helps to strengthen self-esteem especially in children, adolescents and adults. Sports psychology is the study of psychological and mental factors that affect and are affected

by participation, performance in sports, exercise and physical activity. Research suggests that the sports environment can provide socialization opportunities and place adaptive demands that are similar to those of other important life setting (Smith & Smoll, 1991).

It is true that sports contribute to psychological wellbeing but sportsman's physical and mental condition is affected by competition anxiety, which may negatively affect their performance during competition. Competition anxiety can interfere performance because it may cause problem in coordination of movements during stressful condition. Intense anxiety situation also harm performance. If these problems left untreated it may lead to the development of acute stress disorder. There has been a large amount of research concerning multidimensional aspect of anxiety (Jones, Swain, & Cale, 1991; Martens, Burton, Vealey, Bump & Smith, 1990). Anxiety consists of two subcomponents: cognitive and somatic anxiety. Cognitive anxiety is characterized by negative concerns and worries about performances, inability to concentrate and disrupted attention (Davidson and Schwartz, 1976)

Somatic anxiety consists of an individual's perceptions of physical sensations of arousal, which are characterized by feeling, such as sweaty palms, butterflies and shakiness (Martens et al, 1990). Caruso, Dzewaltowski, Gill and Mc Elroy (1990) However, research results have been challenged the assumption that anxiety is always detrimental to athletic performance (Raglin & Hanin, 2000). Researchers got contradicting conclusions towards anxious and non-anxious subjects in competitions (Singer 1980). Anxiety has been reported as detrimental to performance in some studies such as Burton, 1998; Wiggin & Brustard, 1997 and Martens et al; 1990, Where in others such as Jones, 1995, anxiety appears facilitative to performance. A part from that the level of anxiety has been found to be significantly different at different times before competition (Ussher & Hardy 1996 in Edwards and Hardy, 1996). At the Same time, it has also been found to be not significantly different at different times before competition (Wiggins & Brustad, 1997). In short the findings of above studies are very varied. The inability to cope with the pressure in competitive sports can lead not only to decreased performance but also to physical illness and mental distress (Weinberg & Gould 1995).No research has reported that anxiety is conceptualized differently by males & females (Perry & Williams 1998). Research has demonstrated difference between the sexes in the intensity of anxiety responses (e.g. Martens et al, 1990). Research has also been done on the Gender differences concerning sate anxiety levels. Male athletes typically display lower level of anxiety and higher self-confidence than female athletes (Krane &

Williams, 1994; Wark & Wittig, 1979; Scanlan & Passer, 1977). Krane & Williams, 1994, found no gender differences for cognitive anxiety. They also demonstrated that the more experienced college player would show lower levels of cognitive and somatic anxiety then the less experienced player. However they found no difference in the levels of self-confidence. Eric Thomas, Jason P. Kring 1996, found difference in anxiety levels of both sexes which are congruent with previous research in which men scored higher on self-confidence and lower in somatic and cognitive anxiety (Martens et al; 1990, Krane and Walliams 1994). Anxiety in female will be higher both the cognitive and somatic components and lower in self-confidence than their male counter parts as indicated by several previous studies (Martens et al; 1990, Krane and Walliams, 1994; Madden and Kirby, 1995; Swell and Endmondson, 1996).

Females tend to report higher anxiety levels than males and rate this anxiety as more debilitating for performance (Jones & Cale, 1989; Jones, Swains, and Cale 1991; Krane and Williams 1994; Thatcher & Dorling 2004). Extreme level of mental and physical anxiety can have a debilitating effect on those competing in individual sports such as diving, single Tennis, Track and Field, where a great deal of pressure is focused on one athlete. It is therefore necessary that coaches, trainers and athletes understand how sports context specifically influences anxiety and confidence.

Martens, Vealey and Burton (1990) theorized that athletes in individual sports would report more cognitive anxiety and lower levels of self-confidence. Martens et al. Reasoned that for athletes who performed solo, ".....the threat of evaluation is maximized; that is, the diffusion of responsibility for performance errors is minimized....." (P-142). In other words, individuals would be more anxious mentally and have less confidence in their ability because they alone are responsible for their own success or failure. In contrast, somatic anxiety was not expected to be differing between individual and team sports' participants. In their study, Martens and his colleagues defined Basketball and Volleyball as team sports and Gymnastic, Swimming and Track as individual sports. Results of their study indicated that individual sports athletes reported higher levels of cognitive anxiety and lower levels of self confidence. However contrary to their predictions levels of somatic anxiety were also higher for the athletes of individual sports Wong et al. (1993).Eric Thomas, Jason P. Kring (1996) also conducted a study on anxiety and self confidence relation

to individual and team sports and their results also supported that of the previous studies of Martens and his colleagues.

RESEARCH OBJECTIVES

1. To analyze sports pre-competitive anxiety levels in male and female athletes.
2. To investigate the sports pre-competitive anxiety levels in athletes of both sexes in both team and individual sports.
3. To promote research contributing to advancement of knowledge in the field of sports psychology in Pakistan.

RESEARCH HYPOTHESIS

1. Female athletes have high sports pre competitive anxiety (SPCA) levels than male athletes.
2. Athletes of both sexes participating in individual sports have high SPCA levels than athletes participating in team sport.

Limitation of The Study: This study was limited to selected (Boys & Girls) colleges particularly Degree & Post Graduate. The age of the athletes was 16-27 years. The colleges belong to five selected Districts of Khyber Pakhtunkhwa and were actively involved in sports activities. The Districts affected from terrorism were excluded in this study because the data collection was not possible in those Districts..

Sample of The Study: Sample of the study was (N = 720). Athletes of various colleges of five Districts of Khyber Pakhtunkhwa i.e., Peshawar, Charasadda, Mardan, Swabi and Nowshera were selected randomly during male and female sports competitions of Educational Institutions.

In this study N = 720

Male athletes = 360

Female athletes = 360

Individual sports (games) male athletes = 180 (Table Tennis Single, Badminton Single and athletics)

Individual sports (games) female athletes = 180 (Table Tennis Single, Badminton Single and athletics)

Team sports (games) male athletes = 180 (volleyball, Basketball and Handball)

Team sports (games) female athletes = 180 (volleyball, Basketball and Handball)

Instruments: Personal information questionnaires (PIQ) contained information regarding the (student) athlete name, gender, age, class, game, numbers of years playing the game, numbers of tournaments/ championships participated, name and level of highest standard championship / tournament participated, doing practice/training regularly or occasionally etc, and competitive state anxiety inventory – 2 (CSAI-2) Martens *et. al.*, 1990. (CSAI –2, Martens, *et al.*, 1990) is the measure of choice for most researchers of competitive anxiety. The CSAI-2 has 27 items over all, with 09 items each of three subscales, cognitive anxiety, somatic anxiety and self-confidence. The CSAI-2 was scored by computing a separate total for each of 3 sub scales, with score raging from a low of 9 to a high of 36 for each sub scale, the higher the score, the higher the level of anxiety-state and self confidence. A high degree of internal consistency for the sub-scales has been reported in several studies with alpha coefficient ranging from 0.79 to 0.90 (Edward & Hardy, 1996)

Procedure: The PIQ and CSAI-2 were administered to the participants approximately one hour before the competition or practice. Before completing the questionnaire Martens statement was read aloud, using the response set, “how are you feeling right now”? The CSAI-2 has shown adequate reliability and validity across different studies and samples see Martens *et al.*, 1990, Edward and Hardy, 1996.

Data Analysis: The study data was analyzed carefully by using t-test. SPSS (version 11.5) was used for data analysis.

TABLE 1.1

Sub Variable of Pre-Competitive Anxiety	Gender	Numbers	Mean	Standard Deviation	Degree of Freedom	t- Value	P- Value
Somatic Anxiety	Male athletes	360	18.2	4.7	359	4.97	0.00
	Female athletes	360	19.9	4.4	359		

Independent Sample t-test of cognitive component of Pre – Competitive anxiety between Male & Female Inter collegiate athletes (N= 720)

Table 1.1 depicts that mean of cognitive component of anxiety in male athletes is greater than female athletes i.e. 19.8 > 19.2. Similarly standard deviation in first case is 5.1 while in second case is 4.2. t- value is 1.63 while P- value is 0.10 as the level of significance was set at 0.05. Therefore, finding revealed that there was no significant difference existed between male & female collegiate athletes on sub variable of Pre-competitive Anxiety (Cognitive Anxiety).

Figure. 1.1

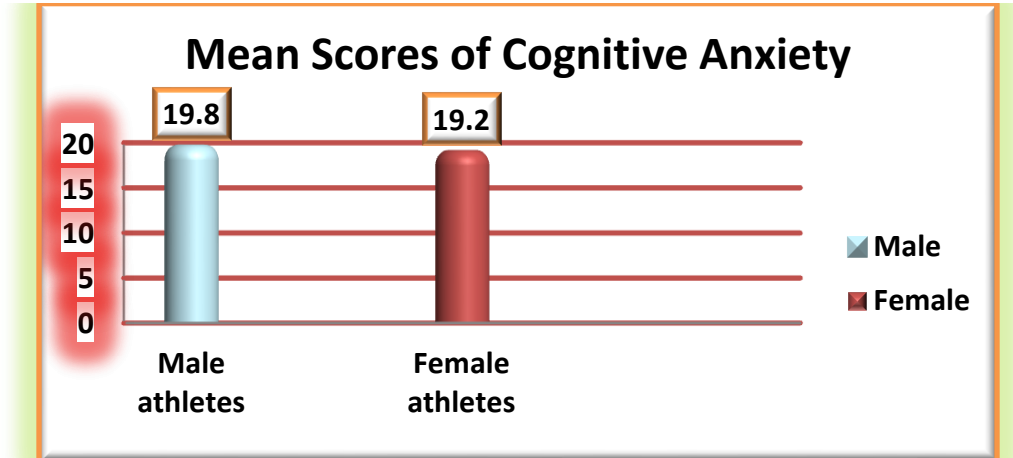


Figure 1.1 is showing Mean Scores of Cognitive Anxiety between Male Athletes & Female Athletes. Cognitive component of anxiety in male athletes is greater than female athletes i.e. 19.8 > 19.2.

Table 1.2

Sub Variable of Pre- Competitive Anxiety	Gender	Numbers	Mean	Standard Deviation	Degree of Freedom	t- Value	P- Value
Cognitive Anxiety	Male athletes	360	19.8	5.1	359	1.63	0.10
	Female athletes	360	19.2	4.2	359		

Independent Sample t-test of Somatic Anxiety between Male & Female Inter collegiate Athletes (N= 720) Table 1.2 shows that mean of Somatic Anxiety in Male & Female Inter collegiate athletes are 18.2 & 19.9 respectively. While Standard Deviation in case of male is 4.7 & in female is 4.4. t- Value is 4.97 & P- value is 0.00. The level of significance was set at 0.05. The result indicates a significant difference between the obtained scores of male & female Intercollegiate Athletes.

FIGURE. 1.2

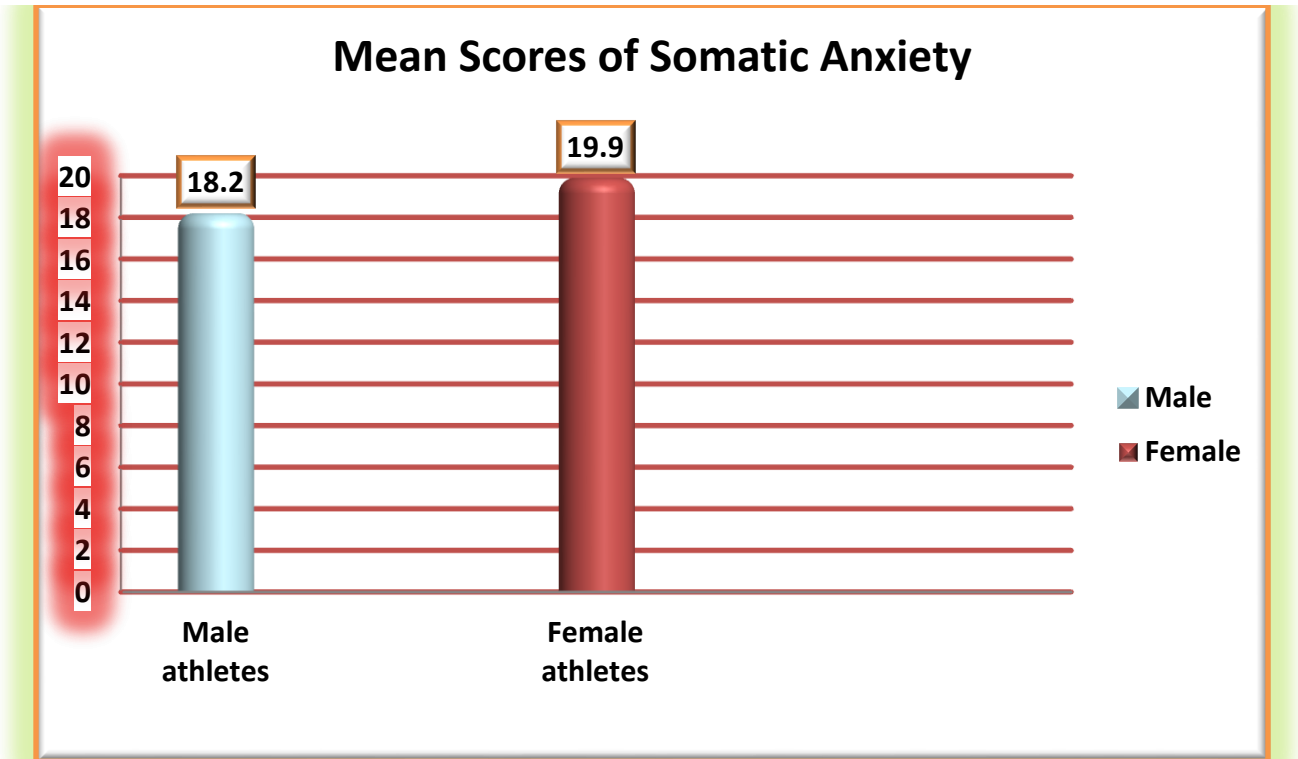


Figure 1.2 reveals that Female Athletes rating on the Somatic Anxiety of SCAI-2 is higher than Intercollegiate Male athletes of Khyber Paktunkhwa.

Table 1.3

Sub Variable of Pre-Competitive Anxiety	Gender	Numbers	Mean	Standard Deviation	Degree of Freedom	t- Value	P- Value
Self Confidence	Male athletes	360	28.0	6.6	359	1.40	0.15
	Female athletes	360	28.6	5.2			

Independent Sample t- test of self confidence between Male & Female Inter Collegiate athletes (N=720).Level of significance is set at 0.05. Mean of Male athletes is 28.0 & Mean of Female Inter Collegiate athletes is 28.6. Where $28 < 28.6$. Similarly Standard Deviation is 6.6 & 5.2 where $6.6 > 5.2$. P- Value > 0.05 . Hence self confidence levels of Male & Female Inter Collegiate athletes are not significant.

FIGURE. 1.3

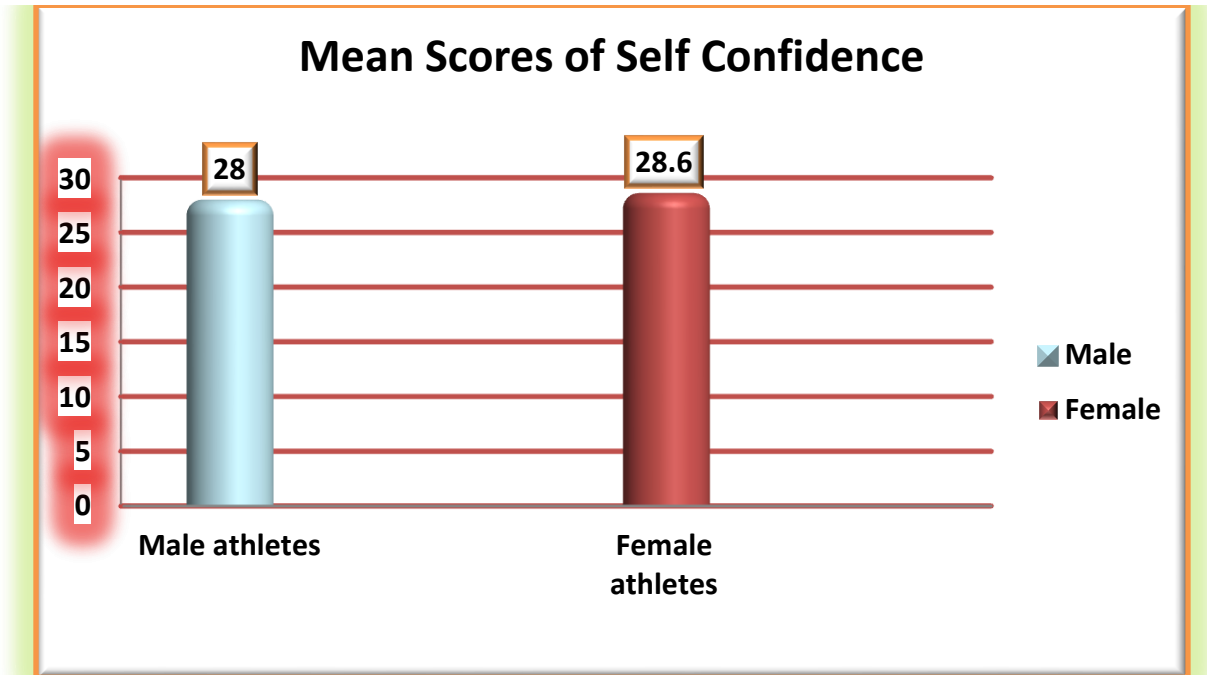


Figure 1.3 is presenting mean Scores of Self Confidence between Male Athletes & Female Athletes. Self Confidence level in Male athletes is lower than Female athletes i.e. $28 < 28.6$.
Fig .1

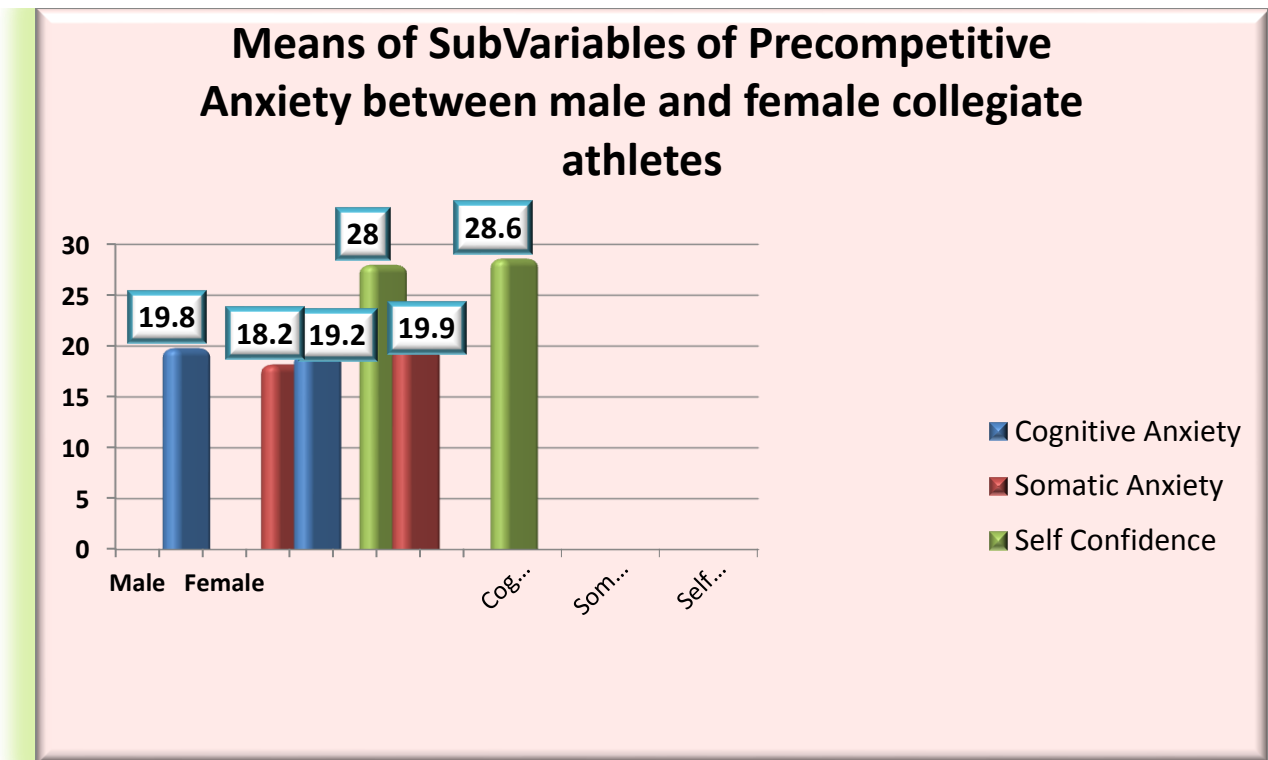


Table 2.1

Sub Variable of Pre-Competitive Anxiety	Games	Numbers	Mean	Standard Deviation	Degree of Freedom	t-Value	P-Value
Cognitive Anxiety	Team	360	19.6	4.6	359	0.57	0.566
	Individual	360	19.4	4.8	359		

Independent Sample t- test of cognitive anxiety between athletes of team games & individual games (N=720).

The above table shows that means of Cognitive Anxiety of athletes in team & individual games are 19.6 & 19.4 respectively where $19.6 > 19.4$ & Standard Deviations are 4.6 & 4.8. Level of significant was set at 0.05. P-Value > 0.05 . Hence Cognitive Anxiety levels of athletes in team & individual games are not significant.

FIGURE. 2.1

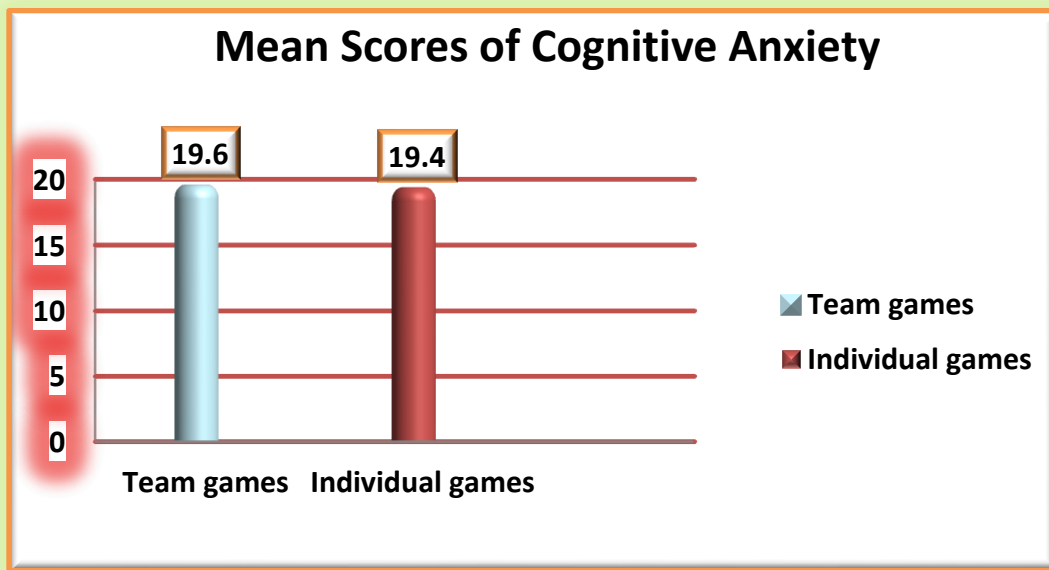


Figure 2.1 shows that Cognitive Anxiety level of athletes in team games is higher than athletes of individual games.

Table 2.2 Independent Sample t- test of Somatic Anxiety between athletes of team games & individual games (N=720)

Sub Variable of Pre-Competitive Anxiety	Games	Numbers	Mean	Standard Deviation	Degree of Freedom	t-Value	P-Value
Somatic Anxiety	Team	360	18.7	4.2	359	-1.39	0.16
	Individual	360	19.3	5.0	359		

Table 2.2 indicates that mean of athletes of team games is less than mean of athletes of individual games i.e., $18.7 < 19.3$. Standard Deviations are 4.2 & 5.0 respectively. Calculated t-Value is -1.39 while P-Value is 0.16 as P-Value > 0.05 . therefore, the result is non significant

FIGURE. 2.2

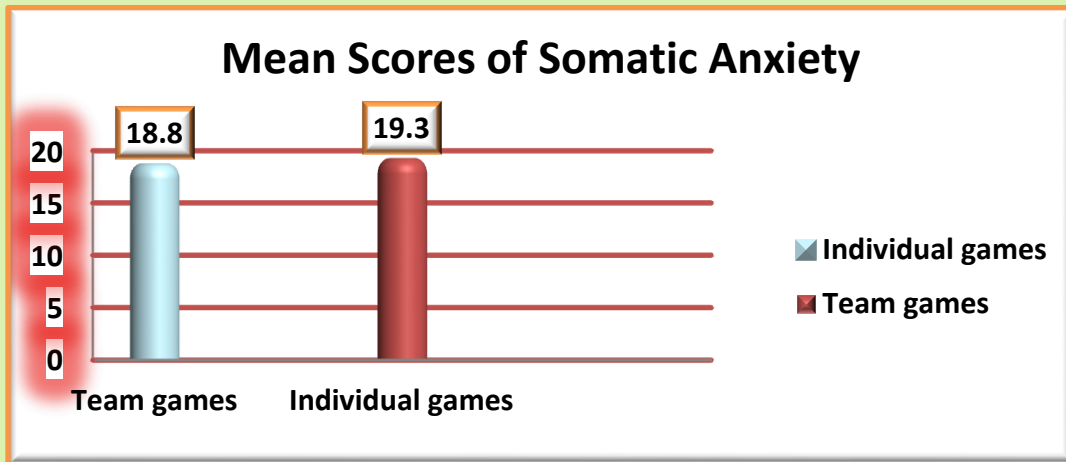


Figure 2.2 is showing that level of Somatic Anxiety of athletes in team games is less than athletes of individual games i.e. $18.8 < 19.3$.

Table 2.3 Independent Sample t- test of Self Confidence between athletes of team games & individual games (N=720).

Sub Variable of Pre- Competitive Anxiety	Games	Numbers	Mean	Standard Deviation	Degree of Freedom	t - Value	P- Value
Self Confidence	Team	360	28.5	5.5	359	1.26	0.20
	Individual	360	28	6.3	359		

Table 2.3 reveals that mean $28.5 > 28$ & P-Value > 0.05 . therefore, the result is not significant.

Figure. 2.3

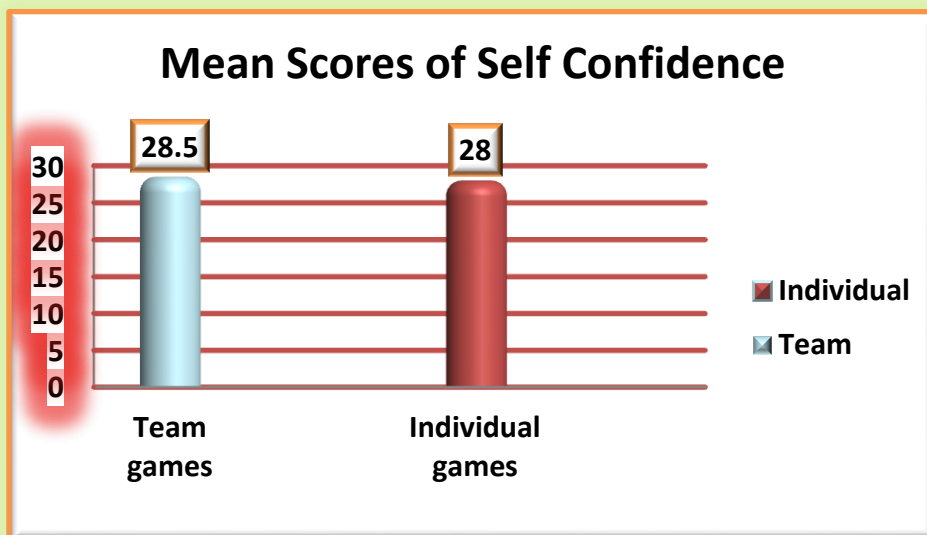
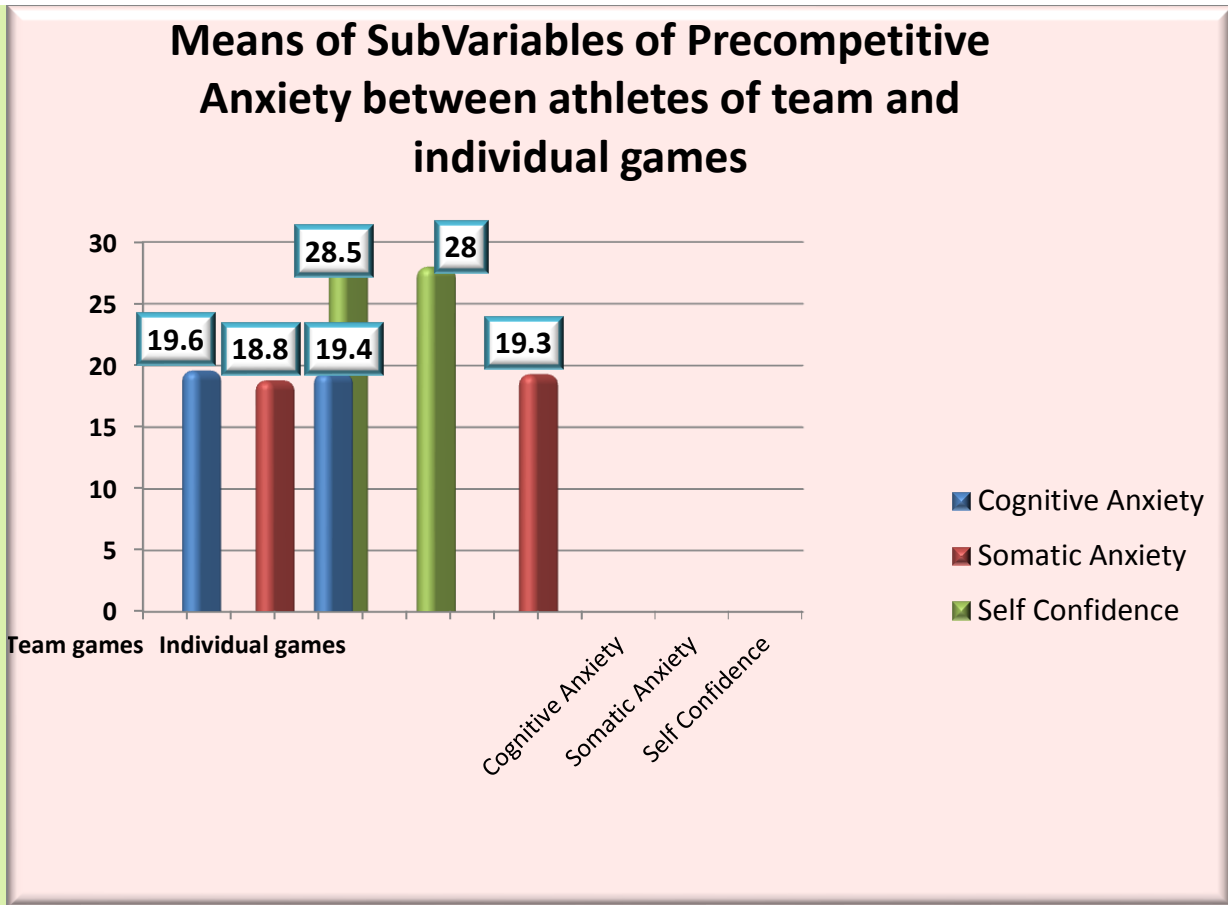


Figure 2.3 tells that Self Confidence in team games is higher than individual games i.e. $28.5 > 28$.
Fig.2



Research findings and conclusion: The aim of this study was to investigate that was there any difference in levels of pre competitive anxiety in both sexes, in team and individual sports. The pre-competitive anxiety was measured by CSAI-2. Female athletes have high sports pre competitive anxiety levels than male athletes, was found valid up to some extent because mean of cognitive component of anxiety in female athletes was greater than male athletes i.e., $19.8 > 19.2$ similarly means of somatic component of anxiety in female and male athletes were 19.9 and 18.2 where $19.9 > 18.2$. Male athletes has shown high self-confidence level in the female athletes.

The result of the study showed that although there was no significant difference found in the cognitive component of the pre-competitive anxiety and self confidence among male and female collegiate athletes but mean of cognitive component of pre-competitive anxiety of female collegiate athletes was higher than their male counterparts contrary to this the self confidence level of male athletes was higher than female athletes. In this study the somatic component of precompetitive anxiety among male and female athletes was significantly different.

The above results are supported by findings of many others researchers such as Hammer Miester, Burton (2004), Remella and Deluca (2003) and Amponge (2001), Martens at al;(1990), Krane and Williams (1994), Swell and Edmondson(1996), Perry and Williams(1998), Maddin and Kirby (1995), Eric, Thomus, Jason and P kring (1996).Athletes of both sexes participating in individual sports have high SPCA levels than athletes participating in team sports. Although result was non-significant in all three sub variables of pre-competitive anxiety of athletes of team and individuals but mean of cognitive component of pre-competitive anxiety of athletes of team and individual games were 19.4 and 19.6 respectively where $19.6 > 19.4$ i.e., mean of cognitive anxiety is higher in athletes of individual games than team games .similarly mean of somatic component of anxiety in athletes of individual games was higher than the athletes of team games i.e, $19.3 > 18.7$.

In case of self-confidence the result depicted that mean of self-confidence of athletes of team games was higher than the athletes of individual games i.e. 28.5>28. It was hypothesized that individual sports athletes would report more cognitive and somatic anxiety and lower levels of self-confidence than their team sports counterparts.

The result supported this although the result showing non-significant levels. The results were consistent with the findings of Martens et al. (1990), Wong et al. (1993) and Eric Thomas, Jason P. Kring (1996). This study fulfilled the goal that collegiate athletes show different reaction to the stressor involved in the competition when performing solo or part of larger team. In different events, this and future studies will facilitate the development of coping skills to be used by coaches, trainers and athletes at all levels of competitions.

Recommendations: The present study is the ever first try to give awareness to athletes, coaches, trainers and DPE's about the impact of pre competitive anxiety levels on sports performances particularly in KPK and Pakistan. The result of this study will be helpful for those coaches working in colleges and perform duties of coaching of athletes of both sexes in Pakistan and particularly in KPK. Coaches can through this study find out coping strategies for reducing the debilitating effects of pre competitive anxiety. In future further research with truly high standard performers is needed to enhance our understanding of effects of anxiety on sports performance. Similar studies with larger Sample and Population keeping in view, Trait anxiety, other personality traits and directional approaches of pre competitive anxiety in any sports can be carried out in depth to solve the problem.

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