

ANALYSIS OF SPORTS PRE-COMPETITIVE ANXIETY IN UNIVERSITY LEVEL MALE AND FEMALE ATHLETES

Farooq Hussain¹,Salimullah Khan¹,Riasat Ali¹

Abstract

The aim of the study is to investigate difference in levels of pre-competition anxiety in athletes of both sexes. The components of pre competitive anxiety was assessed by using the instrument (Urdu version) of competitive state anxiety inventory -2 (CSAI-2) Martens, Vealeyand 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 (games), Volley ball, Basket Ball, Hand Ball and individual sports (games), Table Tennis (single), Badminton (single) & athletics with age 16-27 years. The CSAI-2 was administered one hour before the competition. Results were analyzed using student t-test.

These findings showed no significant difference in cognitive anxiety and self-confidences however, significant difference was observed in somatic anxiety level among male and female subjects.

Keywords: Anxiety, athletes, gender, pre-competitive, somatic, cognitive.

¹*Departmnet of Physical Education & Sports,*

Abdul Wali Khan University, Mardan, Pakistan

Introduction

Fear plays an important role in human nature. According to Halfdanardottir(2016)when a person faces a threat the body reacts to it with a physical and psychological response that helps the person to fight the threat or flee from it, often referred to as the fight or flight response. Normally the fear disappears as soon as the threat is over. However, fear can turn into anxiety if the fear is unrealistic, excessive, and persists long after the threat has gone (Nolen-Hoeksema, 2014). Anxiety is one of the emotions with an unpleasant state of feeling clearly distinguished from other emotional states (Lazarus, 2002). Study of anxiety is traceable to the philosophical and theological views of some European philosophers and theologians but it was Freud who seriously attempted to explain its meanings. Anxiety to (Freud,1926) is like pain to the body. He uses the term in the context of psychic pain. According to him anxiety is an unpleasant state or condition.

Keeping in view the available literature anxiety may be termed as an unpleasant emotional state or reaction that is characterized by feelings of apprehension, intensity, preoccupation, and disturbance, and is often associated with biological changes in the body.

The development of one's personality is never smooth and regular. It may follow an irregular way as the individual moves from infancy to adulthood, sometimes moving rapidly ahead and at other times being static in its development or even moving backward. The source of this irregularity in development lies partly within the individual and partly inthe conditions to which he is

exposed. Whenever an individual copes with the problems, there arises conflicting situations of which the anxiety is the product. The anxiety in mild degree may be serviceable to the individual but in more severe degree is destructive. It is both a spur to action and a hindrance to effective performance.

Generally speaking anxiety is a state of apprehension, uneasiness and stress, as some sort of emotional tension. According to Spielberger (in Mesagno, 2006) defined anxiety as “an emotional state or reaction characterized by the presence of recognizable unpleasant feelings of intensity, preoccupation, disturbance, and apprehension and a simultaneous pronounced activation of the autonomic nervous system”. 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.

According to Vincent Parnabas (2015) anxiety as a negative emotional state, can affect athletes performance-both of male and female athletes-by displaying cognitive and physiological symptoms. Cognitive anxiety is characterized by negative expectations and concerns, and worries about performance, inability to concentrate, disrupted attention, possible consequences of failure. These feelings have a tendency to be debilitating of performance in both male and female athletes. Whereas, somatic anxiety component

is the physiological effects, consists of an individual's perceptions, which are characterized by indications such as sweaty palms, tense muscle, shortness of breath, increased heart rate, butterflies in the stomach, and shakiness.

Anxiety is usually divided into two components; somatic and cognitive anxiety (Smith, Smoll, & Schutz, 1990). The physical response refers to the somatic part of anxiety and the psychological response refers to cognitive anxiety. Somatic anxiety is the perception of a person's physiological change in the body e.g. sweat, tremble, and increased heart rate, blood pressure, breathing, and muscle tension. Cognitive anxiety is the psychological expression of anxiety and can be emotions/thoughts/feelings of terror, fear, worries, negative thoughts, frustration, and restlessness (Hálfdanardóttir, 2016). It is also necessary to make a distinction between momentary states and more permanent traits of anxiety.

Trait anxiety reflects the personality of the individual. People with high trait anxiety show signs of stress and anxiety in many situations, and they are more likely than people with low trait anxiety to notice information related to threats. State anxiety is the individual's perception of the changes in cognitive and somatic anxiety in a specific situation (Spielberger, 1966, 1972). People with high trait anxiety usually have high state anxiety.

Review of Literature

Anxiety is an unpleasant emotion that has the potential to influence subsequent performance very negatively (Woodman & Hardy,

2001). The relationship between anxiety and performance has been carefully examined. Williams & Jenkins (1986) supported the relationship that is found between self-reported state anxiety and performance. They suggest that high anxiety levels lead to poor athletic performance. Better performance has been attributed to either lower levels of cognitive & somatic anxiety or higher levels of confidence (Martens, Burton, Vealey, Bump & Smith, 1990). Contradicting these findings Parfitt, Hardy and Pates (1995) indicated that only somatic anxiety was related to performance. Other research has shown that there is an inverted -U relationship with somatic anxiety (Burton, 1988 as cited in Caruso et al, 1990). The inverted-U hypothesis states that an athlete will perform best when anxiety is moderate. Performance tends to deteriorate when anxiety is either too low or too high (Burton 1988; Weinberg & Genuchi, 1980 as cited in Caruso et al., 1990).

Researches indicate that different factors are involved in pre competition anxiety. Male players display more instrumental aggressive acts than female players and referees penalized women more than men (Cabano, 2006). One of the most important factors contributing towards variation among performance of players is gender differences.

In order to improve sportsmen performance and to reduce level of stress among them, different behavioral techniques has been used which proved that progressive relaxation techniques (PRT) improve sports performance in a group of female recreational golfers (Ortiz,

2006). The purpose of the relaxation techniques is to allow the athletes to decrease anxiety prior to competition.

Anxiety is one of the most frequently variables in sports Psychology (Jones, 1995; Hardy et al., 1996). Competitive state anxiety usually follows a pattern of subjective feelings of tension and inadequacy, combined with heightened arousal of autonomic nervous system (Hackford&Schwenkmezger, 1989). The intensity and duration of the anxious state alternates according to; the amount of stressful stimuli the athlete encounters, and the period of subjective threat created by the stimuli (Hackford&Schwenkmezger, 1989). Anxiety is usually conceptualized as multidimensional construct comprising cognitive & somatic components (Martens et al., 1990).

The first attempt to confirm the existence of Somatic and cognitive components as separate elements of state of anxiety was by Liebert& Morris (1967).

There has been a large amount of research concerning multidimensional aspect of anxiety (Jones, Swain, &Cale, 1991; Martens et al., 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 & Schwartz, 1976 as cited in Krane, 1994)

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 & McElroy (1990) confirmed that state anxiety is multidimensional and revealed that its psychological and physiological components change over time. Somatic anxiety tends to increase rapidly as the start of the event approaches, while cognitive anxiety increases more gradually. Self-confidence tends to decrease in females on the day a competitive event is to occur (Jones & Cale 1989). As an event approaches, negative thoughts and feelings associated with competition increases (Jones & Swain, 1992). This accounts for the increase in cognitive anxiety. A number of researchers have also drawn attention to the likelihood that cognitive & somatic anxieties are not entirely the independent sub-components. They have been treated as correlated to some extent, with each other (Petlichkoff & Gould, 1985; Jones, Cale & Kerwin, 1985; Krane 1990).

Research Objectives

To analyze sports pre-competitive anxiety level in male and female University athletes.

Hypothesis

University level Female athletes have high sports pre competitive anxiety (SPCA) levels than Male athletes.

Research Methodology

The study was descriptive in nature and survey method was followed for data collection.

Delimitations

This study was limited to selected Universities of Khyber Pakhtunkhwa. The ages of the athletes were between 16-27 years.

Sample

In this study sample comprises 720 athletes (Male athletes = 360, Female athletes = 360).

Instrument

Personal information questionnaires (PIQ) contained information regarding the student athlete- name, gender, age, class, game, number of years playing the game, number 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).

For present study, the original questionnaire was translated into Urdu, using a typical back translation technique involving two English professors, two Urdu professors and a sports psychologist (Coach). First all items were translated into Urdu by Urdu professors and then English professors translated it back into English. Lastly all inconsistencies with the original form were debated and then translation was finalized.

Procedure

The PIQ and CSAI-2 were distributed to both male and female athletes almost one hour before the game (match). Before completing the inventory, Martens statement was announced loudly, “how are you feeling right now”? The CSAI-2 had shown sufficient

validity and reliability through different research studies and samples (Edward & Hardy, 1996).

Data Analysis

The data was transferred to spread sheet of Microsoft Excel and was run through SPSS (Version 17). Overall impact was tested by t-test for measuring the pre-competitive state anxiety in both male and female athletes.

Table 1.1: Independent Sample t-test of cognitive component of Pre – Competitive anxiety between Male & Female athletes (N= 720)

Sub Variable Pre- Competitive Anxiety	Gender	Number s	Mean	Standard Deviation	Degree of Freedom	t- Value	P- Valu e
Cognitive Anxiety	Female Athletes	360	19.8	5.1	359	1.63	0.1
	Male Athletes	360	19.2	4.2	359		

Table 1.1 depicts that means of cognitive component of anxiety in Female athletes is greater than Male 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 and the level of significance was set at 0.05. Therefore, finding revealed that there was no significant difference existed between male & female

University athletes on sub variable of Pre-competitive Anxiety-
Cognitive Anxiety.

Graphic presentation of table 1.1 is as under.

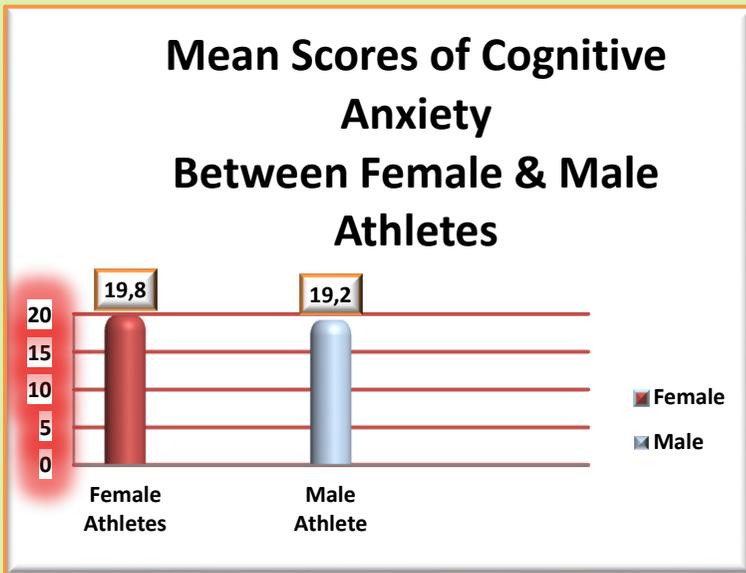


Figure1.1: Mean scores of cognitive anxiety between male and female athletes

Above figure is showing Mean Scores of Cognitive Anxiety between Female Athletes & Male Athletes. Cognitive component of anxiety in Female Athletes is greater than Male athletes i.e. $19.8 > 19.2$.

Table 1.2: Independent Sample t-test of Somatic Anxiety between Male & Female University Athletes (N= 720).

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		

Table 1.2 shows that means of Somatic Anxiety in Male & Female University athletes are 18.2 & 19.9 respectively. While Standard Deviation in case of male is 4.7 & in female is 4.4. The t-Value is 4.97 and 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 somatic component of pre-competitive anxiety in Male & Female University Athletes.

Graphic presentation of table 1.2 is as under.

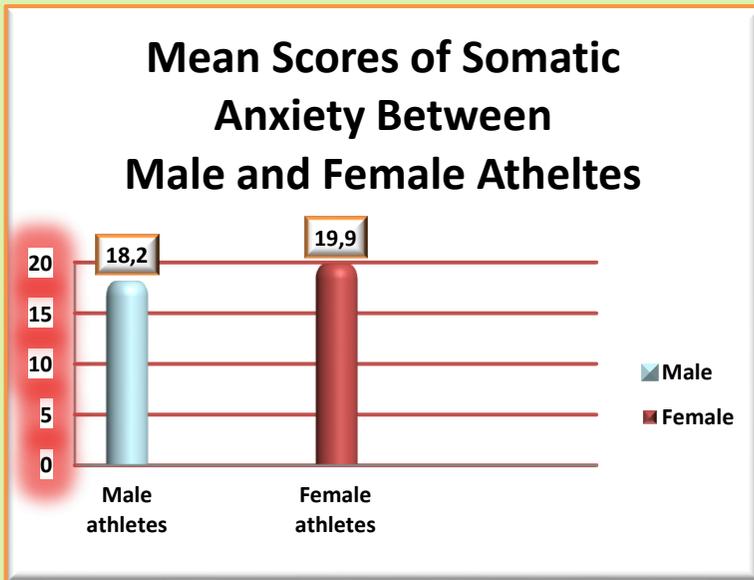


Figure 1.2: Mean scores of somatic anxiety between male and female athletes

Above figure reveals that Female Athletes rating on the Somatic Anxiety on CSAI-2 is higher than University Male athletes of KhyberPaktunkhwa.

Table No: 1.3: Independent Sample t- test of self-confidence between Male & Female Inter Collegiate athletes (N=720).

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	359		

Table 1.3 reflect that mean value of Male athlete is 28.0 and of Female University athletes is 28.6. Similarly Standard Deviation is 6.6 & 5.2 respectively. The t-value as computed is 1.40 and P- Value is 0.15 which is more than set significance level (0.05). Hence the difference between self confidence levels of Male and Female University athletes is not significant.

Graphic presentation of table 1.3 is as under.

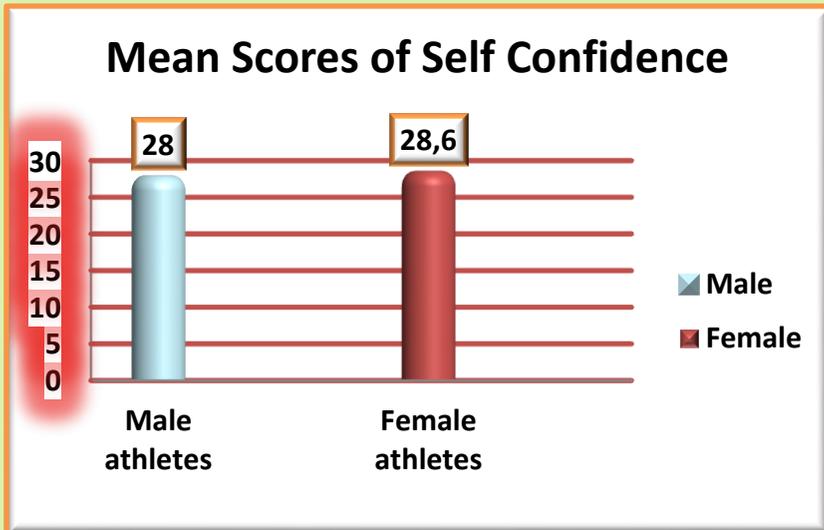


Figure 1.3: Mean scores of Self Confidence between male and female athletes

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 and 28.6 respectively.

Graphic presentation of table 1.1, 1.2 and 1.3 is as under.

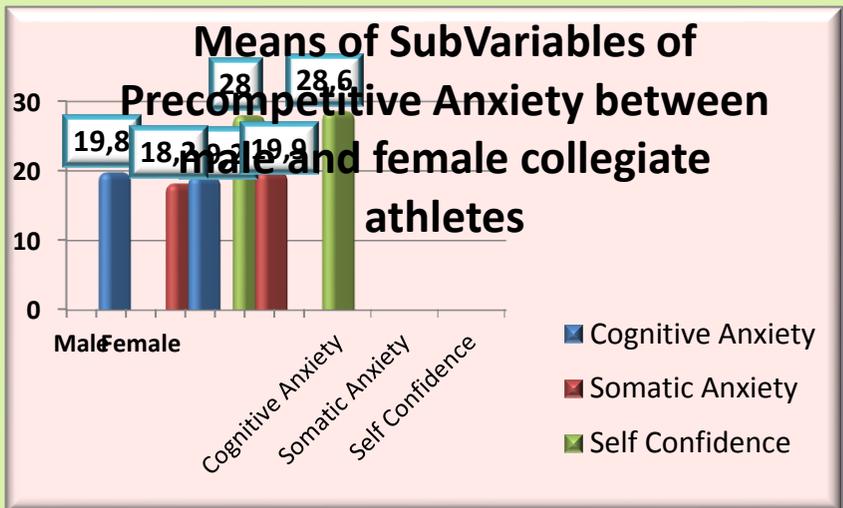


Figure: 1.4: Competitive anxiety between male and female athletes

Findings, Conclusion and Recommendations

The aim of this study was to investigate that, was there any difference in levels of pre competitive anxiety in both male and female athletes. The pre competitive anxiety was measured by CSAI-2.

Research hypothesis of the study “Female athletes have higher 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 have shown low self-confidence level than the female athletes.

The result of the study shows that although there was no significant difference found in the cognitive component of the pre-competitive anxiety and self-confidence among male and female University athletes but mean of cognitive component of pre-competitive anxiety of female University athletes was higher than their male counterparts. The self confidence level of male athletes was lower 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 Swain, Austin, James and Graham (1992), Hammer, Miester and Burton (2004), Remella and Deluca (2003) and Amponge(2001). Marten,et. al. (1990), krane& Williams (1994), Jason P.kring(1996), Swell andEdmondson(1996), Perry and Williams (1998), Maddinand Kirby(1995).

References

Burton, D. (1988). Do anxious swimmers swim slower? Reexamining the elusive anxiety-performance relationship.*Journal of sports and exercise psychology, 10*, 45-61.

Caruso, C.M., Dzewaltowski, D.A., Gill, D.L., & MC Elroy, M.A. (1990).Psychological and Physiological changes in competitive state anxiety during non-competition and competitive success and failure.*Journal of sports and exercise Psychology, 12*, 06-20.

- Davidson, R. J. & Schwartz, G.E (1976).The psychobiology of relaxation and related states: A multi-process theory. In D.I. motofsky (Ed.), *Behavior control and modification of psychological activity*. Englewood cliffs, NJ: Prentice hall.
- Freud, S. (1926). *Inhibition symptoms and anxiety*. London: Hogarth Press.
- Hackford, D. &Schwenikmezger, P. (1989).Measuring anxiety in sports: Perspectives and problems. In D.Hackford and C. D. Speilberger (Ed.), *Anxiety in sports: An international perspective* (pp.55-74) Washington, D.C.: Hamisphere.
- Hardy, L., Jones, J. G., & Gould, D. (1996).*Understanding physiological preparation for sports: Theory and practice of elite performers*. Chichester; Wiley.
- Hálfdanardóttir, B. F. (2016). *Anxiety and Depression Symptoms in Athletes and Their Attitudes Towards These Problems*. University of Iceland, Iceland.
- Jones, G., & Swain, A. (1992).Relationship between sports achievements, orientation and competitive state anxiety.*Sports Psychologist*, 6, 42-54.
- Jones, J.G., &Cale, A. (1989).Pre-competitive temporal patterning of anxiety in self confidence in males and females. *Journal of sports behavior*, 12,183-195.

Jones, J.G., Cale, A. & Kerwin, D.G. (1985). Multidimensional competitive state anxiety and psychomotor performance. *Australian journal of science and medicine*, 20, 3-7.