



## A COMPARISON OF COMPETITIVE STATE ANXIETY BETWEEN MALE AND FEMALE VOLLEYBALL PLAYERS

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### ABSTRACT

The purpose of study was to investigate the feeling of anxiety by male and female volleyball players before and during the competition. The Competitive State Anxiety Inventory – 2 (CSAI-2) by Martens, et al, (1990) was used to assess and compare the anxiety level of male and female volleyball players before and during competition. Forty-two (20 female and 22 male) volleyball players, between the age of 19 and 30 years, who were participating in M.P. State Volleyball Championships at Rajnandgaon, were taken as subjects for this study. Descriptive statistics and Two way factorial ANOVA (2X2: gender x stage of competition) were computed to compare gender, and anxiety level before and during competition. The results indicated that there was no statistical significant difference, at .05 level between gender and anxiety level did not change throughout the competition.

**Keywords:** Anxiety, Volleyball, State, Male, Female, Players

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## 1. INTRODUCTION

Anxiety is a natural reaction to threats in the environment and part of the fight or flight response. Sporting competitions promotes similar psychological and bodily responses because there is often a threat posed towards the ego; one's self-esteem. Essentially, when the demand of training and competition exceeds one's perceived ability, anxiety is inevitable outcome (Levitt, 1967).

The anxiety that are closely related to fear. These are threat to self-esteem as a result of failure; threat to personal harm; unpredictability or fear of the unknown; fear of disruption of daily habits; and; fear of being negatively evaluated by others (Cox, 1994).

It is thought that as the importance of the situation increases, cognitive anxiety will be influenced (Sewell & Edmondson, 1996; Alexander & Krane, 1996) whilst somatic anxiety will decrease with the onset of competition (Alexander & Krane, 1996). It is also expected that before competition, anxiety in females will be higher in both the cognitive and somatic components and lower in self-confidence than their male counterparts, as indicated by several previous studies (Martens et al., 1990; Krane & Williams, 1994; Madden & Kirby, 1995; Sewell & Edmondson, 1996).

Amu (2005) described that there was no gender difference in pre-competitive somatic anxiety among university Badminton Players, however, gender difference was found with male players experienced higher than female players in pre-competitive cognitive anxiety. Humara (1999) indicates that although anxiety has a considerable impact on performance, it is important to consider other components of an athlete's functioning as well. Bekiari et.al. (2006) described that male volleyball players rated somatic anxiety higher and were more affected by the verbal aggressiveness of their coaches than female volleyball players. Russell, Robb, & Cox(1998) revealed a significant interaction of sport by sex and a significant main effect for sport. The basketball players scored higher somatic and cognitive state anxiety than volleyball players. Any or all of these factors may have serious consequences.

The purpose of study was to investigate the feeling of anxiety by male and female volleyball players before and during the competition. as measured by the CSAI-2 (Martens, et al., 1990), It was also hypothesized that there would be no significant difference between genders in their competitive anxiety

## **2.METHODOLOGY**

### **2.1 Sample:**

Forty-two Volleyball players (20 females and 22 males) amongst the volleyball players participating in M.P. Senior State Volleyball Competition, were selected as subjects for this study. The age of subjects ranged from 19 to 30 years.

### **2.2 Instrument:**

In order to measure the state anxiety (cognitive-somatic anxiety, self-confidence) of Volleyball players Competitive State Anxiety Inventory (CSAI-2) developed by Martens et al., (1990) was used to assess state anxiety level of players before and during competition. CSAI-2 is regarded as one of the most reliable and valid tools for measuring state anxiety. The internal consistency alphas were .79, .81 and .84 for the cognitive anxiety, somatic anxiety, and self-confidence subscales respectively. The CSAI-2 consisted of 27 items, 9 for each of the 3 subscales (cognitive and somatic anxiety and self-confidence). Each item was rated on a 4-point Likert scale, producing a score range from a low of 9 to a high of 36 for each sub scale.

### **2.3 Procedure:**

Players completed the CSAI-2 10 minutes prior to the onset of warm-up and competition. The game lasted for one hour and consisted of three sets. Players were given sufficient time to complete the questionnaire; however the questionnaire was completed within 5 minutes.

The CSAI-2 was then administered for a second time to measure competitive state anxiety during the match. The second questionnaire was given after the first of the three sets and the same procedure occurred as before the match.

### 3. RESULTS

Mean, standard deviation and Two Way factorial ANOVA (2X2: gender x stage of competition) were computed to compare gender, and anxiety scores before and during competition and data pertaining to this have been presented in Table 1&3.

**TABLE 1**  
**DESCRIPTIVE STATISTICS OF COMPETITIVE ANXIETY OF MALE AND FEMALE VOLLEYBALL PLAYERS BEFORE COMPETITION**

Gender		Cognitive	Somatic	Self Confidence	Total
Male	M	15.05	12.23	27.77	53.86
	SD	2.92	1.90	4.01	5.73
Female	M	14.30	11.40	29.04	54.35
	SD	2.59	3.28	3.28	5.91

Table 1 indicates the Mman score of cognitive, somatic and self confidence anxiety of male and female volleyball players of M.P. before competition.

**TABLE 2**  
**DESCRIPTIVE STATISTICS OF COMPETITIVE ANXIETY OF MALE AND FEMALE VOLLEYBALL PLAYERS DURING COMPETITION**

Gender		Cognitive	Somatic	Self Confidence	Total
Male	M	15.10	13.77	27.72	57.09
	SD	2.61	4.80	4.07	5.93
Female	M	13.10	12.60	27.35	53.03
	SD	2.25	2.54	4.68	4.63

Table 2 indicates the mean score of cognitive, somatic and self confidence anxiety of male and female volleyball players of M.P. during competition.

**TABLE 3**  
**TWO WAY FACTORIAL ANOVA (2X2: GENDER X STAGE OF COMPETITION) VOLLEYBALL PLAYERS AND COMPETITIVE ANXIETY LEVELS**

Source of Variance	df	Sum of Squares	Mean Squares	F
Gender	1	66.182	2.059	0.389
Stag of Competition	1	24.107	0.750	0.155
Error	81	32.139		
Total	84			

F.05 (1, 81) = 4.08.

It is clearly evident from Table 3, that significant differences did not exist among male and female volleyball players in their competitive anxiety levels and competitive anxiety did not change significantly during the game i.e. before and during competition, as the obtained F-values of 0.389 and 0.115 for gender and stage of competition were less than the required F value (4.080) to be significant at .05 level.

### 4. DISCUSSION

Purpose of the study was to compare the state competition anxiety differences between genders and before and during competition. Results of the study indicated insignificant anxiety differences between gender and stage of competition i.e. before and during competition, at .05 levels.

A slight change in somatic anxiety of male and female players was observed from pre-competition to during competition. The results indicated a slight increase in somatic anxiety during competition, this is contrary to previous research, which states that somatic anxiety peaks prior to competition and then dissipates with the onset of competition (Sewell & Edmondson, 1996).

This finding could be due to the non-specificity of the questions in the CSAI-2. The cues somatic anxiety is characterized by (rapid heart rate and muscle tension) are also associated with the onset of exercise. Therefore, when subjects are asked to rate 'my heart is racing', the male subjects could not interpret this question as exercise induced rather than anxiety induced.

Insignificant changes in competitive anxiety may also be attributed to non-threatening environment because of unchallenging competitive situation due to huge difference in the playing ability of teams/players.

## 5. CONCLUSIONS

1. There was no significant difference existed among male and female volleyball players on competitive anxiety.
2. Competitive anxiety levels did not change through out the game.

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