A Comparative Study of competitive state anxiety among team sport and individual sport players at Delhi University

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Abstract- **Dealing with competitive state anxiety is a main task for coaches because players and sport teams could not perform when they are under stress. The researcher in the present study aimed towards comparing the Cognitive anxiety, somatic anxiety and self confidence between the female team game and individual game players. The statistical population used in this study contained team sports (Kho-Kho, basketball and Kabaddi) and individual sports (taekwondo, athletics and Judo) in Daulat ram college at University of Delhi. Samples were female players who had competed in the intercollegiate competition. The total number of subjects was 120 female players (60 Team Sports & 60 Individual Sports). The age of the subjects ranged between 17-21 years, state Competitive Anxiety Inventory (CSAI-2) for individual and team game players were administered to the subjects within 30 minutes prior to the start of the competition, each questionnaire took approximately 5 minutes to complete. The collected data was analyzed by computing descriptive statistics followed by one way analysis of variance, a significant difference for the cognitive and somatic anxiety as the values are found to be 5.872 and 4.982 respectively, which are significant at 0.05 level, whereas no**

significant difference is found for the self confidence.

Key words: **competitive state anxiety, Somatic anxiety, cognitive anxiety, self confidence, team and individual sports.**

I. Introduction

Competitive anxiety is one of the most thoroughly examined topics in sport psychology literature. This is mainly due to the perceived detrimental effects anxiety has on performance, creating the negative view most individuals hold of this concept. Anxiety is defined as feelings of nervousness and tension caused by the environment or surrounding expectation that is related to 'arousal'. These demands are usually stressful, indicating to the athletes a perception of imbalance between the demand given and their abilities to fulfill the demand (Gould, 2002).Dealing with competitive state anxiety is a main task for coaches because players and sport teams could not perform when they are under stress. Players could not perform at their best like they usually could because of anxiety. Consequently, their performance is affected during the competition and they seldom achieve victory (Patsiaouras, A. 2008).

State anxiety is generally regarded as an unpleasant emotional reaction related to stressful situations, in which the arousal component is one inherent element (Woodman 2001). An important distinction between arousal and anxiety is that anxiety involves interpretation of the situation as threatening, whereas arousal is unrelated to any such

interpretations (Hammermeister, 2001). Moreover, anxiety has been suggested as a better predictor of the performance outcome than arousal when the tasks are of a more complex nature and contain a higher cognitive load (Arent, 2003).

Multidimensional theory were developed by Martens and colleagues (1990a).The multidimensional theory proposed that anxiety three subscales cognitive anxiety, somatic anxiety and self-confidence. Cognitive anxiety is defined as "the mental component of anxiety and is caused by negative expectations about success or by negative self-evaluation" (Martens et al., 1990a, p. 6). Second element of anxiety is somatic anxiety, that defined by Martens et al. (1990a), "refers to the physiological and affective elements of the anxiety experience that develop directly from autonomic arousal" (p. 6). Martens et al. (1990b) have suggested that somatic anxiety should affect performance in a curvilinear fashion, with both lower and higher levels of somatic anxiety being detrimental to performance. "It is likely to reach its peak at the onset of competition and dissipate once the contest begins" (p. 124). Therefore, somatic anxiety, due to its time course, is thought to have less of an influence on performance than does cognitive anxiety (Martens et al., 1990b).

A third element of competitive state anxiety discussed by Martens et al. (1990b) is self-confidence. This encompasses the athlete's global perceptions of confidence. Although not originally proposed as a subcomponent of anxiety, Martens et al. have since included self-confidence in their study of the anxiety/performance relationship. They have proposed a positive linear relationship between self-confidence and performance.

The findings of various research works regarding competitive state anxiety in athletes have had contradictory results. Pigozzi (2008) showed the skill level of athletes is an important factor for control of competitive state anxiety. The research conducted by Soltani and et al (2013) confirmed that elite athletes have lower levels of competitive state anxiety than non-elite athletes. The study of Joel *et al*. (2009) and Cristina (2004) showed that the kind of sport, nature of sport (individual sport or team sport) and gender of athletes are affecting factors on their performance.

Howard ZhenhaoZeng (2003) compared the levels of cognitive State anxiety, Somatic state anxiety, and competitive trait anxiety for varsity athletes between team sports and individual sports. Results showed that Competitive State Anxiety scores for team sports was significantly higher than that of individual sport athletes. Mohsenpour (2003) studied state anxiety among male athletes of individual and team sports and concluded that there was no significant difference between somatic factor of group and individual examinable items but athletes of major group obtained lower cognitive grades than individual athletes (Mohsenpour, 2003).

According to Hanton ,Abriyon and Malaliyo anxiety levels before and during competition are not clear due to conflicting findings, various athletes have reported different levels of anxiety from much to low (Hanton,2000 & Mellalieu,2006). Behzadi (2012) & AdemCivan(2010) reported significant difference in levels of competitive state anxiety among team sports and individual sports athletes. On contrast Passand (1997); Perry and Williams (1998) have not reported significant difference in high, moderate or low level of anxiety. It seems that the levels of competitive state anxiety in team and individual sport athletes is not clear. With respect to the fact that every sport field has its own special nature, and also the results of most of the researches done are not in accordance with each other, therefore lack of a comprehensive theory in this field made the author to take action and

compare competitive state anxiety among team sport and individual sport athletes.

II. Objectives and Hypothesis

Keeping in mind the purpose of the study following objectives were framed:

- To assess the competitive anxiety of female team game and individual game players.
- To compare the Cognitive anxiety between the female team game and individual game players.
- To compare the somatic anxiety between the female team game and individual game players.
- To compare the self confidence between the female team game and individual game players.

Based on the objectives following hypothesis were framed:

- There would be no significant difference in the cognitive anxiety of female team game and individual game players.
- There would be no significant difference in the somatic anxiety of female team game and individual game players.
- There would be no significant difference in the self confidence of female team game and individual game players.

III. Procedure and Methodology

The statistical population used in this study contained team sports (Kho-Kho, basketball and Kabaddi) and individual sports (taekwondo, athletics and Judo) in Daulat ram college at University of Delhi. Samples were female players who had competed in the intercollegiate competition. The total number of subjects was 120 female players (60 Team Sports & 60 Individual Sports). The age of the subjects ranged between 17-21 years, state Competitive Anxiety Inventory (CSAI-2) for individual and team game players were administered to the subjects within 30 minutes prior to the start of the competition, each questionnaire took approximately 5 minutes to complete. The collected data was analyzed by computing descriptive statistics followed by one way analysis of variance.

IV. Results and Discussions

Table 1

Levene's Homogeneity Test

Variables	Groups	Levene Statistic	Sig.
Cognitive Anxiety	Team game and Individual game Players	0.491	0.430
Somatic Anxiety	Team game and Individual game Players	0.276	0.759
State Self Confidence	Team game and Individual game Players	0.456	0.343

Table No. 1 clearly depicts the amount of Levene Statistic of cognitive anxiety, somatic anxiety and self-confidence, which are found to be 0.491, 0.276 and 0.456 respectively. The obtained p-value is 0.430, 0.759 and 0.343 respectively (P>0.05). Therefore team sports and individual sport female players are homogenous in terms of the selected variables.

Table 2

Descriptive Analysis of the Selected Variables for female Team and Individual game players

Variable	Group	N	Mean	Standard Deviation
Cognitive Anxiety	Individual game players	60	16.98	4.01
	Team game players	60	15.08	3.88
Somatic Anxiety	Individual game players	60	15.74	4.02
	Team game players	60	14.22	3.21
Self Confidence	Individual game players	60	26.13	3.98
	Team game players	60	25.89	3.33

Table No. 2 clearly depicts the values for descriptive analysis of the selected variables, which shows that the mean and standard deviation values for cognitive anxiety, somatic anxiety and self confidence for individual game players is found to 16.98±4.01, 15.74±4.02 and 26.13±3.98 respectively, whereas that for team game players is found to be 15.08±3.88, 14.22±3.21 and 25.89±3.33 respectively. The graphical representation has been shown in fig no. 1.
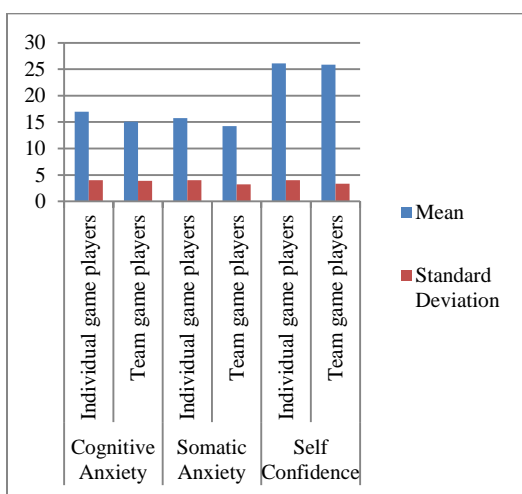

Fig 1: Descriptive Analysis of the Selected Variables for female Team and Individual game players

Table 3

One way analysis of variance of cognitive anxiety, somatic anxiety and self confidence between team and individual game players

Variable	Group	F	Sig.
Cognitive Anxiety	Individual game players	5.872[*]	0.012
	Team game players		
Somatic Anxiety	Individual game players	4.982[*]	0.023
	Team game players		
Self Confidence	Individual game players	1.98	0.231
	Team game players		

Table No. 3 clearly depicts the values for one way analysis of variance for the selected variables between the team and individual game players, which shows that there is a significant difference for the cognitive and somatic anxiety as the values are found to be 5.872 and 4.982 respectively, which are significant at 0.05 level, whereas no significant difference is found for the self confidence as the variance value obtained is 1.98.

V. Discussions

A significant difference in cognitive anxiety between female individual game players and team game players, it may be due to the fact that fear of failure is a stronger predictor of cognitive anxiety for individual sport players than for team sport athletes given the potential accountability for failure placed on individual sport athletes. Athletes who participate in individual sports have also been found to experience more anxiety than those who play team sports (**Flowers, 2002).** For athletes in high-contact sports the possibility of getting hurt can also be a source of anxiety. It seems that in individual sports, the athletes are more engaged in their own skills and abilities, while in team sports they are affected by their team members and their performance will

depend on the performance of the group. The role assigned to the athlete in team sports may not correspond to their inner role.

A significant difference in somatic anxiety between team sport players and individual sport players, it seems that athletes who participate in individual sports have been found to experience more anxiety than those who play team sports. Common sense suggests that being part of a team alleviates some of the pressure experienced by those who compete alone **(Arlin and Guide, 2010)**.This finding is consistent with predictions that competitive situations elicit both cognitive and somatic anxiety.

Also Martin and Hall research demonstrated that Skaters experienced grater somatic and cognitive anxiety prior to an individual competitive event than prior to a team competition. Maybe this is because of a diffusion of responsibility that occurs in the team framework but not in an individual framework **(Shamshad, A., 2005).**

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