A STUDY OF PRE GAME SELF CONFIDENCE AND STATE ANXIETY WITH REFERENCE TO SPORTS PERFORMANCE IN VOLLEYBALL PLAYERS

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Abstract :

The purpose of the study was three fold. Firstly, the study investigated nature of relations between anxiety and self confidence, secondly the varying level of state anxiety of a team which progressed through tournament and finally investigated into differing level of anxiety between winner and loser of matches in a tournament. 48 male volleyball players who represented four colleges of Karnatak University, in the inter-zonal volleyball tournament took part in the study. 'Sports Competitive State Anxiety Inventory-II' was administered to the participants 20 minutes prior to the match. The inventory provided score on state cognitive anxiety, state somatic anxiety and self confidence. Five teams from five zones were expected to participate in KUD inter zonal tournament but a team from Bijapur zone did not participate in tournament. Winners and runners of previous year were give bye from first round. Therefore, in first round i.e., pre quarter finals, only two teams participated. In the semifinal again only two teams participated and in finals two teams participated. According to the protocols of the fixtures team from Dharwad zone played three matches and previous year winning team of Uttar Kannada zone directly advanced to finals. Round wise data was subjected to analysis of variance and correlation. The results indicated that significant but negative correlation between the self confidence scores and self anxiety scores. Significant differences were found in the somatic anxiety, cognitive anxiety, self confidence and total anxiety score at different rounds. The results and the implications are discussed.

KEY WORDS : *Pre Game, Self Confidence, Volleyball Players*

INTRODUCTION:

We all know that sports are highly specialized activity and today it has become highly competitive. It has become one of the most widely practiced human activities. Sports are also psycho-social activities, which have a very important role in shaping modern society. The world of games and sports has crossed many milestones. Scientific theories applied to human performance have been playing an increasingly important role in training of athletes to attain excellence in sports and games. Sports performance is the result and expression of the total personality of the sportsman.

Psychological makeup of the sportsman takes a leading role on top level performance in any competition. Psychological factors determine the competitive behavior, mental processes and preparation before competition. Sports psychology deals with increasing performance by managing emotions and minimizing the psychological factors that deteriorate performance.

Some of the most important psychological skills that are taught to athletes are goal setting, relaxation, visualization, self-talk, awareness and control, concentration using rituals, and attribution. It has been recognized for many years that psychological factors, in particular anxiety, play a crucial role in competition (Lizuka, C.A et al., 2005).

Anxiety is a psychological state having somatic, emotional, cognitive and behavioral components. The root meaning of the anxiety is "to trouble" in either the absence or presence of psychological stress. It can create feelings of fear, worry and uneasiness. It is also defined as a disturbed state of the body, emotional reactivity, nervousness, unpleasant state of the body and mind. Physical effects of anxiety may include heart palpitation, muscle weakness, tension, fatigue, chest pain, shortness of breath, stomach-aches and headaches. The body prepares to deal with threat by increasing blood pressure and heart rate, sweating, blood flow to the major muscle groups. Visual manifestations of anxiety may include pale skin, sweating and trembling.

Anxiety is divided into two types, 'State and Trait anxiety'. Trait anxiety is personality trait. It is influenced by heredity and nothing much can be done to change the trait anxiety. State anxiety on the other hand can be controlled and altered. It changes according to the situation. State anxiety is further subdivided into two sub components such as, 'Cognitive and Somatic Anxiety'. Cognitive anxiety is characterized by negative thoughts, inability to concentrate and disturbed attention. Somatic anxiety is one's perception of psychological arousal such as rapid heart rate, tensed muscles and butterflies in stomach. Somatic anxiety differs from psychological arousal in that arousal is measured through actual physiological indices (such as increased blood pressure, increased pulse rate etc), while somatic anxiety reflects one's perception of their psychological arousal. It is important to distinguish cognitive anxiety from somatic anxiety. Anxiety has been proposed to differentially related to athletic performance and has different antecedents. Cognitive anxiety is expected to negatively affect athletic performance while somatic anxiety will have a curvilinear relationship with performance.

Thus, state anxiety is one of the most commonly measured parameter in sports psychology. Anxiety can be considered as the emotional impact or cognitive dimension of arousal. Anxiety has been viewed as feeling of nervousness and tension associated with activation or arousal of the organism. Anticipatory or imaginative process causes it. Competitive sport can make even the world's most successful athlete feel nervous. Many factors such as expectations, perfectionism, fear of failure, lack of confidence, induce feelings of anxiety in athletes (Moran, 2004). The level of one's participation, his preparedness or ones experience and ones perception of the competency (abilities & skill levels) of the opponents determines ones state anxiety levels.

Purpose of the present investigation, therefore, was to seek answers to the following questions.
1) Do anxiety and self confidence of players have any correlation

2) Do level of state anxiety of team which progressed through varies at different levels
3) Do level of Anxiety between winner and loser of matches will differ

Volleyball is one of the popular games in the world. Volleyball, like any other sport, is an emotional activity and a cognitive one, in which players have to make decisions or to execute a skill using the knowledge that one already possesses but "are colored by feelings and perceptions of competition".   In the present study researcher tried to investigate the varying level of state anxiety of a team which progresses through a tournament and enquire into differing levels of anxiety between winners and losers in a tournament.

METHOD

For the purpose of the study 48 players of Karnatak University inter collegiate Men volleyball players from 4 different colleges volunteered for the study. The age limit of the subjects was in the range of 18-28 years. In order to accomplish the purpose of the study "The competitive state anxiety inventory -2" (CSAI-2 , Martens, Vealeyand, Burton,1990) was administered to the participants 20 minutes prior to their respective matches.   The inventory provided score on state cognitive anxiety, state somatic anxiety and self confidence. Five teams from five zones were expected to participate in KUD inter zonal tournament but a team from Bijapur zone did not participated in tournament. Winners and runners of previous year were given bye from first round. Therefore, in first round i.e., pre quarter finals, only two teams participated. In the semifinal again only two teams participated and in finals two teams participated. According to the protocols of the fixtures team from Dharwad zone played three matches and previous year winning team of Uttar Kannada zone directly advanced to finals. Dharwad zone played three matches so before every match questionnaire was administered so from Dharwad zone we got 36 data points, from Gadag zone 12 data points, from Belagavi zone 12 data points and from Uttatar Kannada zone 12 data points were collected. Total data points were 72.

RESULTS

Presented in table 1 are means and standard deviations of self confidence, cognitive anxiety, somatic anxiety and state anxiety (i.e. sum of cognitive anxiety and somatic anxiety scores). It may be observed that variability of anxiety scores are much higher than self- confidence, indicating that self confidence is more stable than state anxiety, which naturally varies according to situation

Table 1: Mean and standard deviation of state anxiety score, self confidence score, cognitive anxiety score, Somatic anxiety score of total group (n=72)

	Mean	Standard Deviation
Self confidence score	31.85	2.81
Cognitive anxiety score	16.38	5.48
Somatic anxiety score	16.38	4.56
State anxiety score	32.75	9.52

Presented in table-2 the correlation matrix of State anxiety score and Self confidence score. It can be observed that self confidence is significantly but negatively correlated with anxiety scores i.e. somatic anxiety, cognitive anxiety and state anxiety as anticipated. The significant negative correlation suggests that as the self-confidence increases the anxiety levels reduce.

Table 2: Matrix of co-efficient of co-relation among State anxiety scores and Self confidence scores

	State anxiety score	Cognitive anxiety score	Somatic anxiety score
Self-Confidence score	-.41**	-.37**	-.41**

P<1 (2tailed)

Presented in table-3 are the scores of self confidence, somatic anxiety, cognitive anxiety and state anxiety along with sd of the players representing different teams in the tournament at different levels of performance, i.e. at quarter finals, semi finals and at finals of the tournament. It may be observed in the table that mean self confidence scores of winning teams in quarter final and final rounds were high, while the anxiety scores were low. However prior to the semi final round, the losers had slightly higher mean self-confidence scores and lower mean anxiety scores than the winners. Whether this difference is significantly remains to be seen. Another observation to be made in this table is that runners up of the present tournament i.e. the Dharwad zone which played three matches gradually, lost its self confidence and increased it anxiety levels. This phenomenon is presented graphically in the figure-1.

Table 3: Self –confidence, Cognitive anxiety, Somatic anxiety and State anxiety score of various teams at different level of performance.

Name of the zone	Variables	Quarter final		Semi Final		Final	
		Looser	Winner	Looser	Winner	Looser	Winner
Gadag Zone	Self confidence	31.33±2.35					
	Cognitive anxiety	19.17±4.09					
	Somatic anxiety	19.83±4.15					
	State anxiety	39.00±7.65					
Belagavi Zone	Self confidence			31.50±2.02			
	Cognitive anxiety			13.50±4.06			
	Somatic anxiety			15.50±3.00			
	State anxiety			29.00±5.74			
Dharwad Zone	Self confidence		35.25±1.14		30.00±2.49	29.92±2.43	
	Cognitive anxiety		10.75±1.54		18.75±5.83	18.75±5.83	
	Somatic anxiety		12.17±2.48		17.17±4.84	17.33±4.85	
	State anxiety		22.92±3.55		35.91±10.32	36.08±10.35	
Uttar Kannada Zone	Self confidence						33.08±2.35
	Cognitive anxiety						17.33±4.96
	Somatic anxiety						16.25±4.47
	State anxiety						33.58±8.92

In the following figer-1 Self confidence score and state anxiety score of Dharwad zone players which progresses through quarter finals, Semi-finals and Finals are presented below.
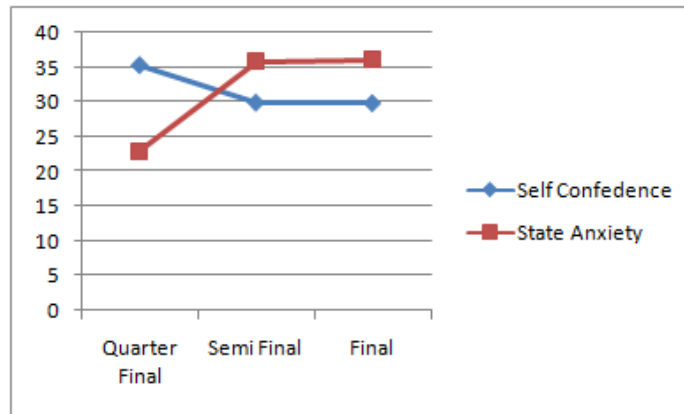
Figure1: Self confidence score and state anxiety score of Dharwad zone players which progresses through different rounds

Presented in table 4 is the summary of ANOVA between three levels of participation, viz. quarter, semi final and final rounds of the tournament. It may be observed that significant differences in Cognitive Anxiety, Somatic Anxiety, Self confidence and State Anxiety at various levels of the tournament.

Table 4. Summary of Analysis of Variance of Cognitive Anxiety, Somatic Anxiety, Self Confidence and Total Anxiety between various rounds of the tournament.

	Source	SS	df	MS	F
Cognitive Anxiety	Between Groups	718.79	5	143.76	6.73*
	Within Groups	1410.08	66	21.37	
	Total	2128.88	71		
Somatic Anxiety	Between Groups	383.96	5	76.79	4.64*
	Within Groups	1092.92	66	16.56	
	Total	1476.88	71		
Self Confidence	Between Groups	247.57	5	49.51	10.42*
	Within Groups	313.75	66	4.75	
	Total	561.32	71		
Total Anxiety	Between Groups	2059.83	5	411.97	6.22*
	Within Groups	4371.67	66	66.24	
	Total	6431.50	71		

An examination of post-hoc analysis of Self confidence revealed that in quarter final round the looser demonstrated significantly lower self confidence than winners, similarly the final round loser's also showed significantly lower self confidence than the winners. However in the semi-final round there was no significant difference in level of confidence between the looser and winner. We can observe it from figure-2
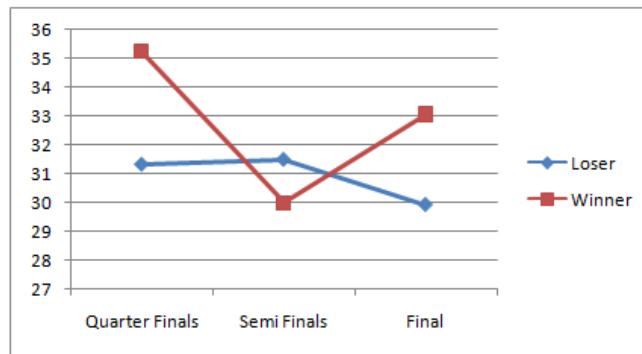
Figure 2: Loser's and Winner's mean Self-confidence score at various rounds.

An examination of post-hoc analysis of cognitive anxiety revealed that at the quarter finals round the losers demonstrated significantly higher cognitive anxiety than the winners. Contrary to expectation in the semi-final round the winner was significantly more anxious cognitively than the loser. In the final round the loser showed higher anxiety than the winners but the differences was not significant. We can observe it from figure-3
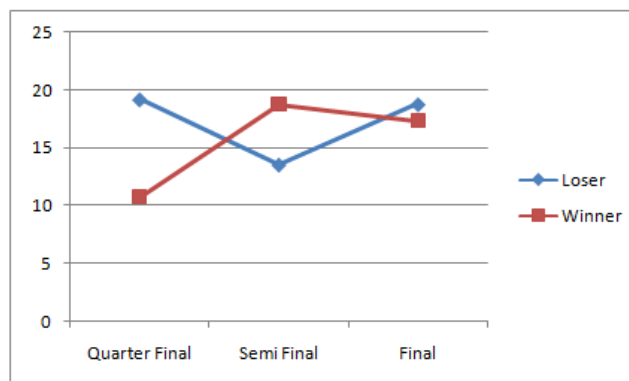

Figure 3: Loser's and Winner's Cognitive Anxiety score at various rounds

An examination of post-hoc analysis of somatic anxiety revealed that at the quarter finals round the losers demonstrated significantly higher somatic anxiety than the winners. Contrary to expectation in the semi-final round the winner was slightly more anxious somatically than the loser. The difference was not significant. However in the final round, the loser showed higher anxiety than the winners but the difference was once again not significant. We can observe it from figure-4
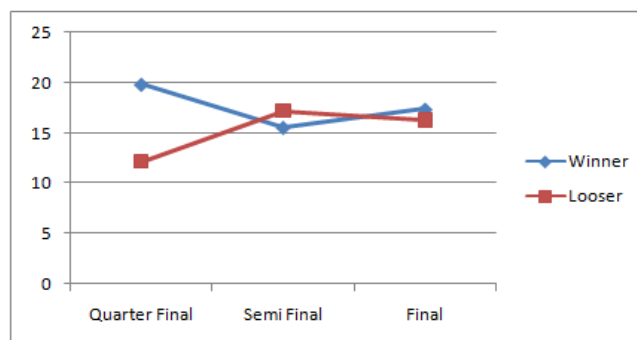

Figure 4: Loser's and Winner's Somatic Anxiety score at various rounds

An examination of post hoc analysis of state anxiety revealed that at the quarter finals round the losers demonstrated significantly higher state anxiety than the winners. Contrary to expectation in the semi-final round the winner demonstrated significantly higher state anxiety than the winners but the differences was once again not significant. We can observe it from figure-5
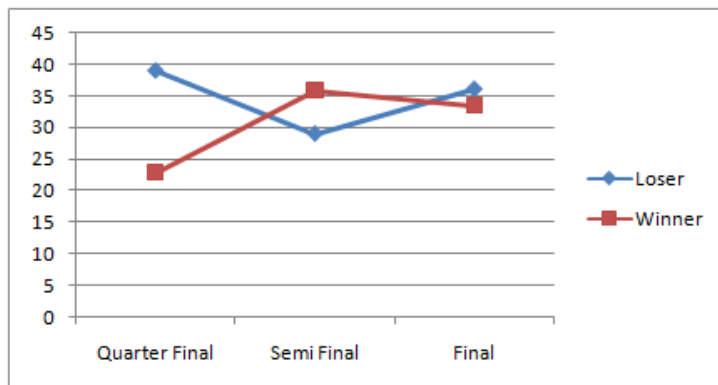

Figure5: Loser's and Winner's State Anxiety (Cognitive anxiety + Somatic anxiety) Score at various level

DISCUSSIONS

As anticipated the significant but negative coefficient of correlations between the self-confidence scores and the State anxiety scores (including the two component anxiety scores) confirmed the expected. As anxiety increases the self confidence decreases or vice- versa. This phenomenon can also be confirmed by observing the mean anxiety scores and the self confidence scores of the team, which played consecutive three matches. It appears that self confidence also the function of self perception. Prior to the quarter final and the final match, the teams which lost has demonstrated significantly lower self confidence. On the other hand prior to the semi final match the team that lost showed, though not significant, better self confidence than the winning team. This was perhaps because the team lost semi-final match was runners-up in the previous season (seeded to semi-final round) thus had better self-perception. The team members may have perceived that they could win over the un-seeded under-dogs.

The self-confidence of teams under study was reflected in their anxiety levels. It was observed that as the self-confidence decreased the anxiety levels increased especially in the case of the runners-up team, which played all three rounds of the tournament. The self confidence reduced significantly as they entered the semi-final round. The decrease in self –confidence of this team may partly be due to the fact they were encounter a seeded team their moral was not damaged. The team managed to maintain the self-confidence and keep the anxiety levels low. However the other team that was seeded being the winners of previous season demonstrated significantly better confidence and lower anxiety levels.

Nevertheless, it appears from the results of the study that a team tends to increase its anxiety as it advances to next round of a tournament and that the higher anxiety levels seems to adversely affect the performance of a team. Most often the losing teams entered a match with higher anxiety levels than the winning team.

The study revealed that the self confidence and state anxiety are in fact mutually related, but did not address the issue of casual relationship between the two. However the confidence levels also, much like the state anxiety varied with situation. i,e., it is situation dependent. Whether the self-

confidence depended on state anxiety, which in turn was influenced by the situation dependent. Whether the self-confidence depended on state anxiety, which in turn was influenced by the situation or the self-confidence influenced state anxiety was not clear and therefore needs further investigation.

RECOMMENDATIONS

In view of the state anxiety, which can be controlled, it is recommended that the coaches realize this and take necessary measures to regulate the levels of anxiety of their players during a tournament for success.

1. The coaches themselves have to maintain their psychological composure, which should reflect in their body language during the tournament.

2. The coaches should know the theory and practice of techniques of relaxation and help their players physically relax thereby reduce somatic anxiety.

3. Further research is recommended to investigate the interaction of trait anxiety and state anxiety during a tournament.

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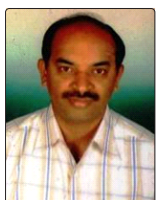
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