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ANXIETY AS A PSYCHOLOGICAL PARAMETER AMONG UNIVERSITY PLAYERS

Dr. Jayakumar. K.*

ABSTRACT

Sporting field at present acknowledges and appreciates sportspersons who can consistently display superior performance, who is focused to be at his/her best and come out successful. Today, there is very little difference in the players' physique, talent, and ability. When the heat of competition is turned up high, the individual performer or team that falls apart most often does so because of mental factors. The purpose of the study was to compare and analyse the psychological variable anxiety to the performance of intervarsity basketball and volleyball players. The subjects selected for the study were 384 university players in basketball and volleyball who participated in the All India intervarsity tournaments. Competitive State Anxiety Inventory-2 (CSAI - 2) constructed by Rainer Martens et al. was administered to assess anxiety. The performances of the players were evaluated through subjective rating by experts during the match as well as using video analysis. Statistical techniques such as Descriptive Statistics, Pearson's Product Moment Correlation, t-ratio, One-Way ANOVA and Scheffe's post-hoc test were employed. Cognitive anxiety and somatic anxiety showed negative relationship while self-confidence showed positive relationship to the performance in basketball and volleyball players of both genders. Comparative analysis revealed that anxiety is higher in basketball players than volleyball players whereas cognitive and somatic anxiety levels are high for female than male players.

Keywords: - Cognitive Anxiety, Somatic Anxiety, Self Confidence, Performance

Introduction

'Play to win and not to lose' should be the slogan of today's sportsperson. Playing to win comes out of inspiration, whereas playing not to lose comes out of desperation. Most performance problems of athletes occur not only due to the results of poor conditioning, inadequate coaching, and lack of physical skills or technical ability but also of mental factors like nervousness, intimidation, poor concentration, lack of confidence, etc. Psychological factors are frequently the crucial conditions or causes, which transform strength into weakness and vice versa. The practical sports psychology programme is a holistic approach for peak performance. It includes deep relaxation and visualization, techniques for

concentration, positive attitude, nutrition, stress management and meditation.

Psychological training should help the athletes to summarize and adopt a set of working formulas for self-encouraging, self-consoling, self-assessing, self-restricting, self-motivating and self-mobilizing. Winning or leading can be regarded as temporary, but to win consistently needs the maintenance of cool, clear and a stable frame of mind. Studies on anxiety are very crucial for the performance of today's athletes and the present paper seeks an analysis and comparison of this psychological component with performance.

Anxiety is one of the most prevalent topics in sports and exercise psychology. In order to

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Facilitate peak performances by athletes, sports psychologists have considered the three different aspects of anxiety such as cognitive anxiety, somatic anxiety and self-confidence. Cognitive anxiety pertains to the individual's negative concerns about performance regardless of the individual's skill level (Krane, Joyce and Rafeld, 1994).

Spielberger (1971) defined state anxiety as an immediate emotional state that is characterized by apprehension, fear and tension accompanied by physiological arousal. State anxiety is a temporary, ever changing emotional state. But trait anxiety, a feature of personality and an acquired behavioural outlook, is a predisposition to perceive certain environmental situations as threatening and to respond to these situations. Within the context of sports, those individuals who are low trait anxious and experience high state anxiety would find it difficult to attain a peak performance, but those individuals who are high trait anxious and experience low state anxiety will find it difficult to perform well. (Hardy et al.1996).

The anxiety-performance relationship is a prominent research issue and a practical concern for sports participants. Probing of the anxiety-performance relationship reveals that the ability to control anxiety is the key in separating better and poorer performers. Anxiety can be correlated with the release of adrenalin in the body and is something which can either detract or enhance the performance level. The effects of anxiety on athletic performance vary not only based on individual but also on the type of sport, gender and level of experience.

The present study was undertaken with the objective of comparing the anxiety to the performance of intervarsity basketball and volleyball players.

Hypothesis

- There will be significant relationship between the anxiety variables, such as cognitive anxiety, somatic anxiety, and self-confidence, to performance among

intervarsity basketball players and volleyball players of both sexes.

- There will be significant differences between anxiety variables of basketball players and volleyball players.
- There will be significant differences between anxiety variables of male (basketball players and volleyball players) and female (basketball players and volleyball players).
- There will be significant difference in anxiety variables among the four subgroups namely men basketball players, women basketball players, men volleyball players and women volleyball players.

II. Methodology

1. Selection of subjects

- 384 University level players of 37 universities from all over India (192 basketball Players (96 Male and 96 Female) and 192 Volleyball Players (96 Male and 96 Female)
- Age group: 18 – 25 years

2. Selection of Variable & Tool Employed

- Cognitive Anxiety, Somatic Anxiety and Self-confidence
- Competitive State Anxiety Inventory-2 (CSAI-2) invented by Rainer Martens et al.

3. Collection of Data

Data were collected from the participants of All India Inter University Basketball (Men & Women) and Volleyball (Men & Women) tournaments.

4. Statistical Techniques

- i) Descriptive Statistics
- ii) Pearson's Product Moment Correlation
- iii) t-ratio
- iv) One-Way Analysis of Variance and Scheffe's post-hoc test

The statistical analyses were done on the collected data and the results obtained are depicted in the following tables (Table 1 to 12).

Table 1 : Descriptive Analysis of Anxiety of Male and Female Basketball Players

Variables	Minimum Score		Maximum Score		Range		Mean		S D	
	M	F	M	F	M	F	M	F	M	F
Cognitive anxiety	10	10	24	25	15	16	18.38	18.64	3.33	2.84
Somatic anxiety	11	11	25	23	15	13	18.01	18.13	3.07	2.77
Self confidence	16	16	31	30	16	15	22.76	21.96	4.04	3.27

N = 96 for each category

Table 2 : Descriptive Analysis of Anxiety of Male and Female Volleyball Players

Variables	Minimum Score		Maximum Score		Range		Mean		S D	
	M	F	M	F	M	F	M	F	M	F
Cognitive anxiety	10	10	22	24	13	15	17.28	18.49	2.85	2.89
Somatic anxiety	09	10	21	22	13	13	16.80	18.13	2.57	2.58
Self confidence	16	16	31	28	16	13	22.72	20.39	3.91	2.41

N = 96 for each category

Table 3 : Relationship of Anxiety Variables to Performance of Male and Female Basketball and Volleyball Players

Variables Correlated with Performance	Basketball		Volleyball	
	Male	Female	Male	Female
Cognitive anxiety	-0.61*	-0.60*	-0.75*	-0.46*
Somatic anxiety	-0.62*	-0.50*	-0.69*	-0.46*
Self confidence	0.95*	0.89*	0.97*	0.91*

* N= 96 for each category, Significant at 0.05 level, tab $r^{(94)} = 0.25$

Table 4 : t-ratio done on Anxiety Variables between Basketball and Volleyball Players

Variables	Groups Means		DM	σ DM	t-ratio
	Basketball	Volleyball			
Cognitive anxiety	18.51	17.89	0.620	0.307	2.02*
Somatic anxiety	18.07	17.46	0.604	0.285	2.12*
Self confidence	22.36	21.55	0.807	0.364	2.22*

Significant at 0.05 level $t_{0.05}(382) = 1.97$

Table 5 : Relationship of Selected Psychological Variables to Performance of Basketball and Volleyball Players of Both Sexes

Variables Correlated with Performance	Coefficient of Correlation			
	Basketball Male	Basketball Female	Volleyball Male	Volleyball Female
Cognitive anxiety	-0.61*	-0.60*	-0.75*	-0.46*
Somatic anxiety	-0.62*	-0.50*	-0.69*	-0.46*
Self confidence	0.95*	0.89*	0.97*	0.91*

N= 96, Significant at 0.05 level, tab $r^{(94)} = 0.25$

Various studies have established negative linear relationship between cognitive-A state anxiety and performance (Rodrigo et al.1990; Cox, 1986 Bird and Horn, 1990), and a positive linear relationship between state self-confidence and performance (Hardy, 1996). Contrary to expectations, and previously observed results, somatic anxiety displayed a negative linear relationship to performance, not the curvilinear relationship as found in previous studies. Similar findings have been observed in the studies by Kirby and Liu (1999) and Martin and Hall (1997). The relationship of Somatic A-state to performance has been inconsistent (Krane, 1991), and somatic anxiety has been hypothesised to be influenced by task complexity and task duration. Moreover, Krane (1991) relates the catastrophe theory

predictions as indirect support for such findings for somatic anxiety relationship to performance.

The basketball players were found to have more cognitive anxiety and somatic anxiety as well as self-confidence than volleyball players. This might have been because basketball provides greater chances for body contact, aggressive movements with opponents on the court. This might be a significant factor which do counts much in basketball players to be more anxious than volleyball players. Another significant finding was that the basketball players are more self-confident than volleyball players. This might have been due to the fact that the former group was found to be more cohesive than the latter group, which invariably might have improved their self-confidence as the team members could significantly

contribute for better performance through teamwork. Men players showed less cognitive anxiety and somatic anxiety than women players. Self-confidence was found to be more in men players than women players.

In the case of comparisons among the different sub groups men volleyball players were found to have less cognitive anxiety and somatic anxiety differing significantly from that of basketball men, basketball women and volleyball women. While in the case of self-confidence volleyball women was found to be less confident than basketball men, basketball women and volleyball men. The second less confident were the basketball women as they differed significantly than that of basketball men and volleyball men. No significant difference was found between men basketball players and men volleyball players.

The hypothesis that there would be significant relationships between the anxiety variables, such as cognitive anxiety, somatic anxiety, and self confidence, to performance among intervarsity basketball players and volleyball players of both sexes is accepted. The hypothesis that there would be significant differences in anxiety variables, aggression and group cohesion variables among the four sub groups, namely men basketball players, women basketball players, men volleyball players and women volleyball players, is accepted in the case among some sub groups and rejected in all other cases.

III. Results:

1. Relationship of Anxiety to Performance

- i) Cognitive anxiety and somatic anxiety showed significant negative correlations to performance in basketball and volleyball players of both sexes.
- ii) Self-confidence showed significant positive relationship to performance in basketball and volleyball players of both sexes.

2. Comparison of Anxiety among Basketball and Volleyball Players

- i) Basketball players had significantly higher anxiety (cognitive anxiety, somatic anxiety and self-confidence) than volleyball players.

3. Comparison of Anxiety among Men and Women Players

- i) Women players had significantly higher cognitive anxiety and somatic anxiety than men players.

4. Comparison of anxiety among different sub samples

- i) Volleyball men players showed lower cognitive anxiety and somatic anxiety than volleyball women and basketball men players. Volleyball women players had lower self-confidence than volleyball men and basketball women players

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