

A Comparative Study on Anxiety Level among Karnataka and Tamilnadu State University Men Volleyball Players

Sandeep¹, Dr. Keshavamurthy T²

¹Research Scholar, Department of Physical Education, Mangalore University, Mangalore, Karnataka, India

²Professor, Department of Physical Education, Mangalore University, Mangalore, Karnataka, India

Abstract: *In order to determine the complete analysis of a player's performance, it is essential to know the role of psychological element in addition to the physical aspect. Investigation in this area is being carried out extensively for the purpose of decoding the key factors affecting the performance of a player during the course of the play. Anxiety plays a crucial role in the field of physical education. The purpose of this study is to investigate the anxiety levels among the Karnataka and Tamilnadu State University men volleyball players to understand its impact on the outcome of the game. For the given study, a total of 384 men volleyball players with age ranging from 18 – 24 of both Karnataka and Tamilnadu states who have participated in the South-zone Inter-university men volleyball tournament held at SRM Institution of science and technology, Tamilnadu were taken into consideration. Data for the assessment was procured by means of standardised questionnaire (SCAT Rainer Marten, 1990). The questionnaire was given to the players before the match to assess the match anxiety levels. The team with a smaller number of National level players and short duration of practice per day showed higher level of anxiety. However, no statistically significant different was observed between the anxiety of Karnataka and Tamilnadu teams.*

Keywords: Anxiety, South-zone, Volleyball, Karnataka, Tamilnadu

1. Introduction

Over the past years, various studies have shown the influence of anxiety on sport performance. Along with the emotional and motivational factors, coaches and athletes have expressed that anxiety mediates the outcome of an athlete's game (1). As per sports psychology, anxiety can be defined as a negative emotional state which is characterised by nervousness triggered as a result of activation or stimulation of the body. As an acquired behavioural predisposition, it greatly affects the behavioural aspect of an individual (2). The research depicting the link between sports performance and anxiety was predominated in the past by two major theories: (a) Drive theory, which states that the reaction to a particular circumstance is induced due to stress. Based on the level of mastery of skill, the performance would display a positive or negative deflection. (b) Inverted-U hypothesis, according to which increased arousal assisted performance, although up to a particular point after which it diminishes. The explanation for this typical curvilinear association is given by the activation and attention theory proposed by Easterbrook, 1959 (3). Apart from the above-mentioned theories, multidimensional anxiety theory (Martens et al., 1990), catastrophe models (Hardy, 1990, 1996a), reversal theory (Apter, 1982; Kerr, 1990) and zones of optimal functioning models (Hanin, 1980, 1986) also propose ideas which suggest a relationship between sport performance and anxiety (4). In general, anxiety can be of two types, namely, state anxiety and trait anxiety. The former encompasses feeling of tension, agitation, and increase in physiological arousal as a result of immediate response to a particular situation. It can be sub-grouped as somatic and cognitive anxiety. Closely related to the physical aspect, somatic anxiety is usually portrayed with symptoms such as shortness of breath, heart palpitation,

nausea, chest pain, stomach aches or headaches. Cognitive anxiety, on the other hand, cognitive anxiety gives input on the emotional strain regarding future activities. In contrast, trait anxiety represents the anxiety experienced in a long term as a consequence of stressful environmental conditions (5).

Effects and impact of anxiety on competitive sports Anxiety is so common in sportsperson as to call it their companion. Though anxiety of a minimal level is quite common, anxiety of an acute degree is detrimental to their performance. Sports psychologists call these states of anxiety precompetitive state anxiety. It can have various effects on different aspects which influences overall performance. When it comes to psychological effects, disruption of attention and concerns regarding the exhibition of full potential during the ones' game has been duly noted.

There have been studies which depict the effects of anxiety on the soundness of mind which in turn alters the performance. Since a direct impact is seen on the sympathetic nervous system, it leaves a player in a position where he is unable to execute his mental functions effectively thereby affecting his physical abilities. For instance, an anxious player is prone to have tremors which is usually out of his control. In addition to this, muscle tension can also be observed which results in a lot of pain. Also, due to hyperventilation, a feeling of grasping for air is a common response to anxiety (6).

Owing to the enormous contribution that anxiety plays in sports performance, this study aims at investigating the anxiety levels of men volleyball players of Karnataka and Tamilnadu states, respectively. A comparison between the anxiety levels of both the states may shed light on its

detrimental effects and thereby creating an awareness to tackle its consequences in order to enhance player performance.

2. Statement of Purpose

As presence of anxiety shows a strong association in player performance, the purpose of this study is to comprehend the pre-anxiety level of volleyball players and to recognize its contribution on the outcome of the game.

Delimitations

- The study was delimited to the standardized questionnaires of the Anxiety level for the administration of the subjects.
- The study was delimited to Men volleyball players who represented for the respective university in the South Zone Inter-University volleyball tournament in the year 2018.
- The study was constrained to the South Zone Inter-University Men volleyball players of Karnataka state and Tamilnadu state.

Limitations

- The response obtained from the subjects through the standardized questionnaire was treated as correct and genuine.
- The player's performance background was not considered in this study.
- The player's education, family background and food habits were not considered.
- Knowledge of understanding the questionnaire by the subject. The response given by the subject was considered as final data.

3. Methodology

The following study aims at determining the influence of pre-competitive anxiety levels of the players of Karnataka and Tamilnadu on their performance during the game. In order to achieve the purpose, 16 teams each from Karnataka and Tamilnadu state were taken into consideration. All the 384 players were within the age limit of 18 to 24 years. The

subjects were selected from the South-zone Inter-university men volleyball tournament held at SRM Institution of science and technology, Tamilnadu.

Collection of Data

For the assessment of anxiety, sixteen teams from both the states consisting of a total of 192 players each was taken into account for the study. The instrument used for the collection of data in the given study was Sports Competition Anxiety Test (SCAT Rainer Martens, 1990), a standardized questionnaire exclusively designed in order to acquire the required information pertaining to anxiety scores data. The questionnaire were distributed among the players and were requested to fill it before the commencement of the match.

Assessment of Anxiety

The Sport Competition Anxiety Test (SCAT) comprises of 15 questions out of which ten gives a measure of symptoms associated with anxiety, the other five which are generally not scored in order to mitigate internal response-set bias. A score less than 17 shows low anxiety level, between 17 to 24 results an average anxiety level, whereas more than 24 establishes high level of anxiety.

Analysis of Data

The data collected by means of this questionnaire were subjected to appropriate statistical tools. Here, the data was subjected to determination of standard deviation and unpaired t-test. A significance level of 0.05 was taken into account.

4. Results

A lot of prominence is being given to the physical and physiological aspects of sports clearly omitting the psychological aspect. The present study involves the detailed impact of one key psychological factor, namely, anxiety. A thorough analysis by the application of t-test to the data obtained from sample survey of the players was performed. In addition to the anxiety level, two components; duration of practice and the number of players who have represented the nationals was also taken into consideration.

Table 1: Comparative statistics of the anxiety levels, practice duration and number of national level player in the Karnataka and Tamilnadu teams

Criteria	State	No. of teams	Minimum	Maximum	Mean	Std. Error	Std. Deviation	t-value	p-value	Significance
Anxiety levels	Karnataka	16	17.58	22.15	20.068	0.375	1.497	2.632	0.013	S
	Tamilnadu	16	14.11	22.38	18.458	0.484	1.934			
Practice duration/Day	Karnataka	16	1.50	4.66	3.095	0.200	0.801	-3.875	0.001	S
	Tamilnadu	16	2.41	6.00	4.248	0.220	0.880			
Number of National level Players in team	Karnataka	16	0.00	6.00	2.625	0.427	1.707	-0.676	0.504	NS
	Tamilnadu	16	0.00	6.00	3.000	0.353	1.414			

The above-mentioned table gives the statistical analysis of the anxiety level, practice duration per day and number of national level players in Karnataka and Tamil Nadu teams. The 't' test values show that p value is 0.013 which is less than 0.05, indicating that the difference in anxiety levels is statistically significant. The analysis shows the anxiety level

among Karnataka players are significantly higher than that of Tamil Nadu players. The practice duration per day with a p-value of 0.001 is significantly different among two states. Karnataka teams have significantly lower duration of practice per day when compared to Tamil Nadu teams.

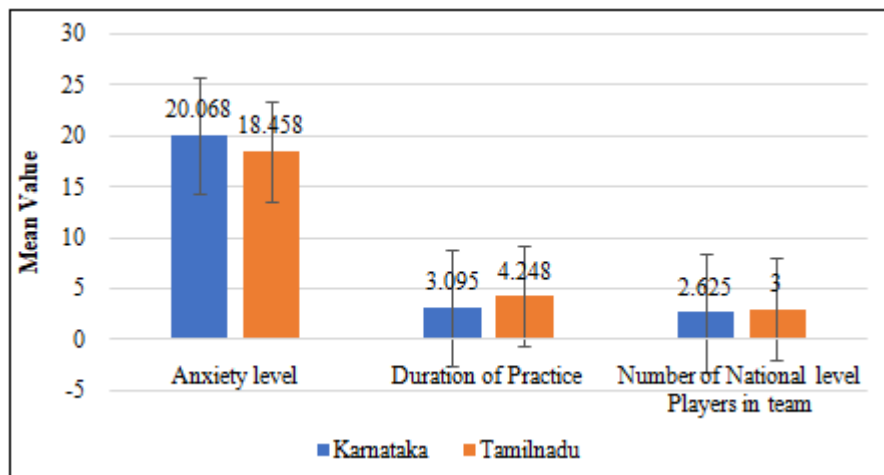


Figure 1: Comparison of average Anxiety score, Practice/Day and No of National Level Players of Karnataka and Tamilnadu teams

Graphical representation of the comparison of Karnataka and Tamil Nadu teams in all the three criteria chosen for assessing the anxiety levels of the players and any correlation to other factors is depicted in figure 1.

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5. Conclusion

The comparison of duration of practice per day and anxiety levels of the teams did show some correlation in case of both Karnataka and Tamilnadu (Figure 1). The teams with more hours of regular practice duration per day had comparatively lower anxiety. At the same time, it was also influenced by the number of national level player present in the team. The teams with a greater number of national level players as well as longer duration of practice per day had lower levels of anxiety. Teams without any national level player but with longer duration of practice showed moderate levels of anxiety. Whereas, the teams with a smaller number of national level players and short duration of practice per day showed higher levels of anxiety. However, no statistically significant difference was observed between the anxiety levels of Karnataka and Tamilnadu teams.

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