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Prevalence of pre-competition anxiety among university level female football players in south zone in India

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Abstract

Introduction: Anxiety before or during athletic competitions can hinder athlete's performance as an athlete. The coordinated movement required by athletic events becomes increasingly difficult when his/her body is in a tense state. A certain level of physical arousal is helpful and prepares us for competition. These thoughts can cause athletes to react in a manner which can negatively affect their on-field performance.

Objective: The aim of this study is to see the prevalence of pre-competition anxiety (PCA) level among university women football team of south zone.

Methodology: Study design: Present study was a cross-sectional study. Sample size: 68. Sex: Female. Number of teams: 4.

Protocol: All participants completed SCAT (Sports Competition Anxiety Test) questionnaire for measuring pre-game anxiety. The teams were ranked according to their performance in the tournament (Madras University ranked 3, Annamalai University ranked 9, Tamil Nadu, Madurai Kamaraj University ranked 4, and Thiruvalluvar University, Vellore ranked 2).

Statistics: Data were analyzed using IBM SPSS v21.0 software.

Results: All teams had average level of anxiety (SCAT score lies between 13- 24).

Conclusion: the present study supports that national level university football team players had average level of pre competition anxiety.

Keywords: PCA, prevalence, university player, game.

1. Introduction

Now a day in sports, there are some psychological factors play an important role in determining the performance level (Grange & Kerr, 2010; Schilling & Hyashi, 2001, Crespo, 2002) [1, 2, 3]. All athletes experience anxious thoughts that so frequently occur in response to stress. These thoughts can cause athletes to react in a manner which can negatively affect their on-field performance. Anxiety is defined as the tension and worries that result from some kind of stress and it is a negative emotional state characterized by discomfort and nervousness. Commonly there are two types of anxiety i. e. Trait and state. Trait anxiety is a type of anxiety that is not changed with the time but the individual get anxious thought with number of situations. Another type of anxiety is State anxiety, which is situation-specific. Level of state anxiety is one of the factors that have great impact on athletic performance prior to an athletic contest and it is defined as pre-competitive anxiety in review of literature. And because of this (PCA) athletes cannot perform at their best and it leads to decrease in their performance during the competition and they cannot success (Parfitt, G, *et al.* 1999) [4]. So it is necessary to assess the level of anxiety, measure it and provide solution to athlete by giving a positive mental thinking and skills to sort out their difficulties. If it is not treated well, the consequences will result in decrease the performance of athlete (Hardy & Fazey, 1987; Martens, *et al.* 1990; Gualberto & Wiggins, 2008) [5, 6, 7]. Singer (1980), Cratty (1979) stated that "performance improves with increasing levels" by assessed the relationship between anxiety and performance [8, 9]. This relation (anxiety and performance) became a subject area for advance research (Craft *et al.* 2003) [10]. Numerous studies showed that the high experienced player would show lower levels of anxiety than the low experienced player. Most psychologists

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believe that the highest level of competitive anxiety will deteriorate athletes' performance in sport [11, 12, 13]. According to these researchers, coaches fail to predict the accurate level of anxiety of athletes.

During the 1980s and thereafter, sport-specific trait anxiety has frequently been assessed using the Sport Competition Anxiety Test (SCAT; Martens, 1977), a one-dimensional measure that does not distinguish between or measure differences in somatic and cognitive anxiety. Smith *et al.* 1990 proved SCAT as a research instrument that measures primarily somatic anxiety. The aim of this study was to see prevalence of pre competition anxiety (PCA) among inter-university (South Zone) women football team players.

2. Methodology

2.1 Study design: Present study was a cross-sectional study.

2.2 Sample size: All players who participated (n=68) all-India inter-university tournament held at GJUST, Hisar in the months of December 2013-January 2014, were invited to join this study by explaining the purpose. Written informed consent was taken from every player who volunteered to the study.

2.3 Instrument used: Sport Competition Anxiety Test (SCAT) questionnaire developed by Rainer Martens in 1977 is used to measure pre competition anxiety [6]. All 68 players were asked to fill SCAT questionnaire in independent manner. SCAT questionnaire have 15 items, which include 5

spurious items, 8 positive items and 2 negative items. Each item had three possible responses i. e. (a) Rarely (b) Sometimes (c) Often. 10 measure (item 2, 3, 5, 6, 8, 9, 11, 12, 14, 15) symptoms associated with anxiety. The five items (1, 4, 7, 10, and 13) that are not scored are included to reduce bias. The lowest possible score is 10 on this test and the highest possible score is 30. A low score indicates low anxiety and a high score indicates high anxiety.

2.4 Protocol: The procedure and the purpose were briefly explained to all the subjects before administering the SCAT test in their native language. All participants completed SCAT form approximately 2 hours before the game start. It took approximately 5 minutes to complete the form. Since the tournament contained both league (round-robin) and knock-out stage, SCAT was administered only once during league stage. The teams were ranked according to their final position in the tournament.

2.5 Data analysis: Data was analyzed using IBM SPSS (version 21.0) software.

3. Results

All 68 players were from south zones (4 universities) of the country. All teams had moderate level of PCA (SCAT score between 13 and 25). Mean SCAT score 18.7 fell within the lower end of moderate anxiety level.

Table 1: Descriptive statistics and spearman's correlation of team SCAT score and rank based on final performance (individual n=68; team n=4)

S. No	Team Code (n)	Zone	Rank	SCAT Mean± SD	Low Score	High Score
1	Team 13(13)	South	3	18.38±1.71	16	22
2	Team 14(18)	South	9	19.67±2.17	17	24
3	Team 15(18)	South	4	19.78±2.86	14	25
4	Team 16(20)	South	2	16.10±2.88	13	25
	Grand Total (68)			18.70±3.16	13	25

4. Discussion

Purpose of this study was to see the prevalence of PCA level in elite inter-university women football teams. Results of the study indicated that players had moderate level of PCA that is supported by other research studies [15, 16]. Pre-competitive anxiety is one of the factor that are believed to have a significant effect on athletic performance is the level of state anxiety experienced prior to an athletic contest [17, 18, 19]. A slight change in somatic anxiety between different zone players was observed from pre-competition. This finding could be due to the non-specificity of the questions in the questionnaire. 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 subjects could not interpret this question as exercise induced rather than anxiety induced. However, this problem was prevented by administering the SCAT two hours before the starting of the game. This study demonstrates that PCA has negative influence on performance in university level football players. As far as football is concerned, some researchers supported that it is a sport, which includes complex and accurate motor skills, and they suggested that psychological factors play a decisive role in a competition, differentiating between successful and less successful teams [14, 15]. Female athletes generally exhibit higher anxiety than males because of the biological factors and their roles in the society. For example, the society can accept if females show fear, nervousness, and worry but not

the males [20, 21]. Several rehabilitation techniques could be used to reduce PCA. Sports physiotherapists, psychologists and coaches who are having experience in these techniques could be employed to reduce anxiety level just before the important team sports tournaments. [19, 20, 21]

5. Conclusion

Present study demonstrates moderate level of PCA found in elite Indian university level women football players.

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