Measurement of pre-competition anxiety in women football players among universities of central zone of India

Varun Singh and Sonu Punia

Abstract

Introduction: 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.

Objective: The aim of this study is to measure pre-competition anxiety (PCA) level in inter-university women football team of central zone.

Methodology: Study design: Present study was a cross-sectional study and co-relational study. Sample size: 55. Sex: Female. Number of teams: 3.

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.

Statistics: Data were analyzed using IBM SPSS v21.0 software. Pearson coefficient of correlation test was used to measure the correlation between PCA and performance.

Results: All teams had average level of anxiety (SCAT score lies between 13 and 26). There was a moderate negative correlation between PCA and performance ($p < 0.01$).

Conclusion: The present study supports that as the PCA level decreases the performance increases amongst national level inter-university football teams.

Keywords: PCA, SCAT, gender, performance

1. Introduction

Anxiety is one of greatest problems of modern trends in scientific knowledge, cultural conflict, economic problems, industrialization, all add to the problem of man, thus increasing the anxiety level. Anxiety refers to that emotional state of mind where a fear of danger or loss of suffering is a prominent feature. It generally arises as a result of fear of something unknown which creates tension and disturbance [1, 2].

Anxiety is an emotion that is difficult to define and even more difficult to reliably detect in performance. Nervous-ness is often used synonymously with anxiety. At one time or another, almost everyone has been nervous. Nervous-ness can be experienced at various levels of anxiety tension is another term used to describe the chronic, usually low level anxiety to which all seem to be susceptible. All athletes experience anxious thoughts that so frequently occur in response to stress. These types of ideas have negative impact on athlete’s on-field performance [3, 4, 5].

The effect of anxiety on performance depends directly on the type of task considered. In most cases heightened arousal state has been found to facilitate simple performance such as fingers tapping, eyelid conditioning and verbal memory task [6, 11]. On the other hand, if anxiety reaches at its maximum level, it cause in deterioration of integrative mechanisms in between psychological and physiological factors; resulting in less efficient performance is more complex tasks. Anxiety has a temporal relationship to performance. The level of anxiety evidenced prior to performance may be different from arousal during performance. During performance anxiety is often lessened, since the individual must concentrate on his own actions rather than on his internal fears [7, 8].

Post-task anxiety may then abruptly rise as the individual seem to lower his defense and admit his fear more freely.
High anxiety sometimes results in more activity on the part of the individual but often this activity is pointless, inflexible and rigid.\[9, 10\]. The aim of this study is to measure pre-competition anxiety (PCA) level in inter-university women football team of central zone.

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

2.2 Sample size: 55 female athletes were recruited from 3 University level teams of central zone of India.

2.3 Procedure: All athletes who participated in all-India inter-university tournament held at GJU, Hisar. To achieve the aim of present study, (55) female football Players, 19 from LNIPE Gwalior, 17 from Barkatullah University, Bhopal and 18 from RTM NAGPUR were selected as subjects from different level of central zone. Age of the subjects ranged between 18-25 years. The psychological characteristics as sports anxiety were being relevant and contribute factors for performance efficiency of football. Hence, this variable was considered appropriate for purpose of the present study.

2.4 Protocol
The teams were ranked according to their performance in the tournament (LNIPE Gwalior ranked 7, Barkatullah University, Bhopal ranked 8, and RTM NAGPUR ranked 18). In this study Sports Competition Anxiety Test (SCAT [Martens, 1990]) was used to measures the trait anxiety of athletes (Marten et al. 1990). This test was used to evaluate the anxiety level of university female football players. The test includes fifteen items which involve 5 spurious items, 8 positive items and 2 negative items. The SCAT is a 15 item inventory with scores ranging from 10 (low) to 30 (high). Score sequence was 1, 2, 3, for (1) Response hardly ever (2) sometimes (3) often. The ten test items which were taken for the scoring purpose were 2, 3, 5, 6, 8, 9, 11, 12, 14, and 15 and the Spurking questions (1, 4, 7, 10 and 13) includes in the questionnaire were not scored out as suggested by Rainer Martren. Sports competition anxiety Test (SCAT) constructed for the collection of data for this study. Scores obtained for each statement was added up which represent an individual’s total score on Sports Competition Anxiety (SCAT Score). Then the SCAT score was analyzed.

3. Statistics
Data were analyzed using IBM SPSS v21.0 software. Pearson coefficient of correlation test was used to measure the correlation between PCA and performance.

4. Results
All teams had level of anxiety (SCAT score lies in between 13 to 26). There was a weak negative correlation between PCA and performance (p<0.01). Mean SCAT score 18.9 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=55; team n=3).

<table>
<thead>
<tr>
<th>S. No</th>
<th>Team Code (n)</th>
<th>Zone</th>
<th>Rank</th>
<th>SCAT Mean ±SD</th>
<th>Low Score</th>
<th>High Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Team 1 (19)</td>
<td>Central</td>
<td>7</td>
<td>19.53±2.82</td>
<td>15</td>
<td>26</td>
</tr>
<tr>
<td>2</td>
<td>Team 2 (18)</td>
<td>Central</td>
<td>8</td>
<td>17.67±3.16</td>
<td>13</td>
<td>25</td>
</tr>
<tr>
<td>3</td>
<td>Team 3 (18)</td>
<td>Central</td>
<td>16</td>
<td>19.78±1.17</td>
<td>17</td>
<td>22</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td>18.99±2.38</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

5. Discussion
Performance is most countable parameters for success in sports which may be affected by some factors like situational and personal factors. Some of the athletes may have the best performance in practice session but in the competition feel some kind of fear. Competitive anxiety is one of the factors that athletes may have before competitions or may have after competition. PCA (Pre Competitive Anxiety) affects the performance of the athletes and if it is more means the athlete is more conscious; the output of the athlete’s performance will be less (Mir Manssori, 1994)\[9\]. Some studies emphasize on the relation between anxiety and performance and conclusion of these studies shown that anxiety have a negative effect on athletes (Maesosomi, 2008; Mossavi, 2011)\[7, 8\]. Pre competition anxiety can be cause of decrease in level of performance particularly during the competition (Sanatkar, 2007)\[9\]. As a consequence of this, the level of competitive anxiety and the impact of anxiety on athlete’s performance can play significant roles in athlete’s goal. And if we know the situation then we can work in the direction to improve the knowledge of the coaches and decrease the level of anxiety of athlete which improves performance, hence benefit to athlete.

Results of our study about 55 students were in agreement with research of (Krane, 1989; Radochonski, 2011; Craft 2003)\[13, 14, 10\]. Hence it is proved that there must be significant relation between performance and pre competitive anxiety in the most of players. Kaur (2010)\[12\] had done a study on comparison of competitive anxiety in successful and unsuccessful men, who played hockey, concluded that successful athletes could manage their anxiety in an intermediate level while the unsuccessful athlete fails to do so during the competition\[12\]. Craft (2003)\[10\] concluded that there is a weak relation between anxiety, self-confidence and performance\[10\]. Varun et al. (2017)\[15\] demonstrates moderate negative correlation between PCA and performance in elite Indian university level women football players and recommend identifying the individual players with high anxiety level and train them through positive thinking and other mental techniques so that chances of their team’s success will be increased\[14, 15\]. Finally this should be mandatory to measure PCA and find some solution to resolve the problem of pre competitive anxiety. The sports authorities, coaches and supportive staff should work on reason behind anxiety and find solution to remove causing factor of Pre competitive anxiety among athletes.

6. Conclusion
The present study supports that as the PCA level decreases the performance increases amongst national level inter-university football teams. However the relationship was weak.

7. Reference
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