A Comparative Study: Sports Competition Anxiety And Resilience Among Team And Individual Sports Players

1Dr. Sonia Kapur, 2Himanshu Shekhar

Abstract: The purpose of the current study was to examine the sports competition anxiety and resilience of the team sports and individual sports male players. The study was conducted on 40 subjects (N=40; 20 team sports players and 20 individual sports players). In this study 2 team games (football and handball) and 2 individual games (archery and cycling) were taken from the campus of Guru Nanak Dev University, Amritsar. On the basis of their pre-score screening was done and those who scored high on anxiety and less on resilience were selected for the present study. The age range of the subjects were 17-24 years. Sports Competition Anxiety (SCAT) Questionnaire developed by Martin (1990) and Nicholson McBride Resilience Questionnaire (NMRQ) were administered to collect the pre and post scores of all the subjects. Whereas Determination Test Training on Vienna Test System was provided to the subjects as an intervention after taking their pre-score. Descriptive statistics (mean and standard deviation), t-test and correlation were used to analyze the data. Results indicated that significant difference was found on anxiety and resilience among team and individual male players.

Index Terms— Competition, anxiety, resilience, determination test training etc. (keywords)

1. INTRODUCTION

As we know that in the contemporary world competition become tough. Prizes were given to the players on the basis of their performance of others participating in the same event.

Anxiety in sports is such a huge issue for many athletes. The logic is that, the better you become, the higher the level of competition, the more you experience. Anxiety can have a devastating effect on the performance of an athlete (Athan & Sampson, 2013).

Anxiety before or during athletic competitions can hinder athlete’s performance. 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. But when the physical symptoms of anxiety are too great, they may seriously interfere with athlete’s ability to compete. Similarly, a certain amount of worry about how he/she perform can be helpful in competition, but severe cognitive symptoms of anxiety such as negative thought patterns and expectations of failure can bring about a self-fulfilling prophecy. If there is a substantial difference between how he/she performs during practice and how he/she does during competitions, anxiety may be affecting his/her performance. Research suggests that people with a family history of anxiety have increased risk of developing it. They have greater chance of suffering from anxiety disorder which results in constant worry (Kendler et al, 2002).

Athletes who participate in individual sports have also been found to experience more anxiety than those who play team sports. It suggests that being part of a team alleviates some of the pressure experienced by those who compete alone.

Resilience: Resilience is the capacity to bounce back from extreme occasions, or even to triumph in the face of hardship (McBride, 2007).

The Oxford English Dictionary (2013) offers two definitions, which encapsulate human, organizational, and structural properties:
1. The capacity to recover quickly from difficulties; toughness;
2. The ability of a substance or object to spring back into shape; elasticity.

Psychological resilience is one of the key components of human reaction against stress and stressful situations. Resilience is currently defined as the ability, after a crisis, to ‘bounce back’ to a pre-crisis mental and physical condition, and/or based on ‘post-traumatic growth’ theory- to accept any negative out-come of the crisis for ‘personal growth’ and the best possible ‘quality of life’. Resilience is “an ability to recover from or adjust easily to misfortune or change” (Merriam Webster). The American Psychological Association (APA) defines resilience as the process of adapting well in the face of adversity, trauma, tragedy, threats or significant sources of stress—such as family and relationship problems, serious health problems or workplace and financial stressors. The term refers to how one copes, manages emotions, and seeks support in challenging times. The APA also stresses that building resilience takes time and intentionality. In engineered systems, the major terms surveyed in this context, as athletes are proactive in exposing themselves to a competitive environment, often seek challenges as opportunities to improve performance (Sarkar & Fletcher, 2014).
Objectives of the study:
1. To compare Sports Competitive Anxiety among team and individual game players.
2. To compare Resilience among the team and individual game players.
3. To study the relationship between resilience and anxiety among team and individual game players.

2. Methodology:
The total sample size of the present study is 40 players from individual and team sports. The sample is divided into 2 groups, team games and individual games. In each game 10 male players were selected i.e. N = 10 (football), N= 10 (handball), N=10 (archery), and N= 10 (cycling).

Sport Competition Anxiety Test (SCAT) questionnaire, developed by Rainer Marten was used for measuring anxiety. Nicholson McBride Resilience Questionnaire (NMRQ) for measuring Resilience Score.

Further they were divided into experimental and control group on the basis of their pre score values on Sport Competition Anxiety Test and Nicholson McBride Resilience Questionnaire.

Determination Test (DT) Training for experimental group.

2.1 Administration of the Test
Based on expert opinion and by personal understanding the Sports Competition Anxiety Test (SCAT) by Martens et al., 1990 for measuring anxiety and Nicholson McBride Resilience Questionnaire (NMRQ) for measuring Resilience Score were used. Before administering the test, the procedure of the questionnaire and the purpose of the test were briefly explained to all the subjects for better understanding and to increase the motivation level. SCAT had fifteen items out which five were spurious questions which was added to the questionnaire to diminish response bias towards actual test items these five questions were not scored. The subjects were instructed to respond to each item according to how he generally felt at the time of competition. Every player had three possible responses i.e. (a) Rarely (b) Sometimes (c) Often

The ten test items which were taken for scoring purpose were 2,3,5,6,8,9,11,12,14,15, the remaining items which was not scored out were, 1,4,7,10,13.

Nicholson McBride Resilience Questionnaire (NMRQ) had twelve items.

For each question, score were between 1 and 5, where 1 = strongly disagree and 5 = strongly agree.

2.2 Scoring of SCAT and NMRQ
Sports Competition Anxiety Test (SCAT) by Martens et al. 1990 consists of total 15 statements. 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. Similarly, Nicholson McBride Resilience Questionnaire (NMRQ) consist of total 12 statements. Scores obtained for each statement was added up which represent an individual’s total score on Nicholson McBride Resilience Questionnaire (NMRQ Score).

2.3 Statistical Analysis
Descriptive Statistic (Mean and Standard Deviation), t-test and correlation were applied to compare the Sports Competition Anxiety and Nicholson McBride Resilience among team and individual sports players.

3. Result
The results pertaining to the study are present with the help of following Tables:

<table>
<thead>
<tr>
<th>GROUP</th>
<th>N</th>
<th>MEAN 1</th>
<th>S.D. 1</th>
<th>MEAN 2</th>
<th>S.D. 2</th>
<th>T</th>
<th>RESULT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Team</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Individual</td>
<td>10</td>
<td>20</td>
<td>20</td>
<td>20</td>
<td>20</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table no 3.1: Shows the Experimental group T test values of Sports Competition Anxiety Test (SCAT) score for Individual games and Team games.
Table 3.2: Shows the Experimental group T test values of Nicholson McBride Resilience Questionnaire (NMRQ) score for Individual games and Team games.

<table>
<thead>
<tr>
<th>NMRQ SCORE</th>
<th>Paired T test</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>PRE</td>
</tr>
<tr>
<td>Group</td>
<td>N</td>
</tr>
<tr>
<td>Individual Games</td>
<td>10</td>
</tr>
<tr>
<td>Team Games</td>
<td>10</td>
</tr>
</tbody>
</table>

Unpaired T test

<table>
<thead>
<tr>
<th>Df</th>
<th>T</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>V</td>
<td>2.94*</td>
<td>Significant</td>
</tr>
<tr>
<td>Df</td>
<td>18</td>
<td>2.768*</td>
</tr>
</tbody>
</table>

*Significant at 0.05 Level of Confidence.

Within pair Paired T test

- NMRQ score for Individual games in which mean value of Pre data is 42.5 and that of Post data is 44.5. The result showed a significant difference with t = 3.254 (significance level at 0.05).
- NMRQ score for Individual games in which mean value of Pre data is 44.2 and that of Post data is 46.5. The result showed a significant difference with t = 3.977 (significance level at 0.05).

Within group Paired T test

- SCAT score for Individual games in which mean value of Pre data is 21 and that of Post data is 19.7. The result showed a significant difference with t = 6.091 (significance level at 0.05).
- SCAT score for Team games in which mean value of Pre data is 19.8 and that of Post data is 18.4. The result showed a significant difference with t = 4.583 (significance level at 0.05).

Within group Unpaired T test

- SCAT score for Individual games in which mean value of Pre data is 21 and that of Team games Pre data is 19.8. The result showed a significant difference with t = 3.343 (significance level at 0.05).
- SCAT score for Individual games in which mean value of Post data is 19.7 and that of Team games Post data is 18.4. The result showed a significant difference with t = 3.239 (significance level at 0.05).

*significant at .05 level of significance

Fig 3.1: Mean and S.D. difference between the pre test and post test of experimental group individual and team game players on anxiety.

Table no 3.2: Shows the Experimental group T test values of Nicholson McBride Resilience Questionnaire (NMRQ) score for Individual games and Team games.
- NMRQ score for Team games in which mean value of Pre data is 44.2 and that of Post data is 46.5. The result showed a significant difference with \( t=3.977 \) (significance level at 0.05).

Between group Unpaired T test
- NMRQ score for Individual games in which mean value of Pre data is 42.5 and that of Team games Pre data is 44.2. The result showed a significant difference with \( t=2.94 \) (significance level at 0.05).
- NMRQ score for Individual games in which mean value of Post data is 44.5 and that of Team games Post data is 46.5. The result showed a significant difference with \( t=2.768 \) (significance level at 0.05).

![Graph](image_url)

**Fig 3.2**: Mean and S.D. difference between the pre test and post test of experimental individual and team game players on resilience.

**Correlation**

Table No. 3.3: Correlation of Individual Players on Sports Competition Anxiety (SCAT) and Nicholson McBride Resilience Questionnaire (NMRQ).

<table>
<thead>
<tr>
<th></th>
<th>SCATpost</th>
<th>NMRQpost</th>
</tr>
</thead>
<tbody>
<tr>
<td>SCATpost Pearson Correlation</td>
<td>1</td>
<td>-.680**</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.001</td>
<td>1</td>
</tr>
<tr>
<td>N</td>
<td>20</td>
<td>20</td>
</tr>
<tr>
<td>NMRQpost Pearson Correlation</td>
<td>-.680**</td>
<td>1</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.001</td>
<td>.001</td>
</tr>
<tr>
<td>N</td>
<td>20</td>
<td>20</td>
</tr>
</tbody>
</table>

**. Correlation is significant at the 0.01 level (2-tailed).**

- The result showed that post SCAT score and post NMRQ score are in highly significant negative correlation with \( r= -.680** \) and \( p= 0.001 \).
The result shows that the correlation between sports competition anxiety and resilience is negative at all points which reveals that sports competition anxiety and resilience are in inverse relationship.

Table No. 3.4: Correlation of Team Players on Sports Competition Anxiety (SCAT) and Nicholson McBride Resilience Questionnaire (NMRQ).

<table>
<thead>
<tr>
<th></th>
<th>SCATpost</th>
<th>NMRQpost</th>
</tr>
</thead>
<tbody>
<tr>
<td>SCATpost</td>
<td></td>
<td>-0.413</td>
</tr>
<tr>
<td>Pearson Correlation</td>
<td>1</td>
<td>-0.413</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td></td>
<td>0.071</td>
</tr>
<tr>
<td>N</td>
<td>20</td>
<td>20</td>
</tr>
<tr>
<td>NMRQpost</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pearson Correlation</td>
<td>-0.413</td>
<td>1</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>0.071</td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>20</td>
<td>20</td>
</tr>
</tbody>
</table>

** Correlation is significant at the 0.01 level (2-tailed).

- The result showed that post SCAT score and post NMRQ score are in non-significant negative correlation with r= -0.413 and p= 0.071.

The result shows that the correlation between sports competition anxiety and resilience is negative at all points which reveals that sports competition anxiety and resilience are in inverse relationship.

**Discussion**
The present study gives insights on attentional training that helps to reduce sports competitive anxiety and improve the coping strategies among players. The result of the present study yielded the number of findings:

1) There was a significant mean difference on pre and post scores of Sports competitive anxiety and resilience of the subjects who were provided Determination Test Training among individual and team players. The anxiety level of the players was reduced because they improved in their ability of stress tolerance after getting training on Determination Test regardless of type of game.

2) The second important finding revealed that sports competitive anxiety was more among individual game players than team game players and significance mean difference was found. The result of present study was strongly supported by previous research (Khan. S, 2017). He found that individual game players had high level of sports competitive anxiety.

3) The third important finding of the present research was related to resilience. The results indicated that resilience was high among team players than individual game players. It might be because team players have collective efficacy to perform and social cohesiveness among teammates whereas it is not in case of individual game. A contradictory research was found that indicate no significant difference between team and individual game players on resilience (Sheikh, M et.al 2015)

4) The fourth important result was showing an inverse relationship between resilience and sports competitive anxiety regardless of the type of sport. It can be stated that players who are high on anxiety, they are poor in coping strategies and vice-versa. The resilience is not effected by the types of games.

**Conclusion**
The overall findings has confirmed and strongly accepted the hypothesis of the present research. The finding of the present study reveals that team game players showed low anxiety and high resilience than individual game players. The result also shows that correlation between sports competitive anxiety and resilience is negative at all points which reveals that competitive anxiety and resilience are in inverse relationship.

**References**


