A comparative study of mental toughness among the cricket players of different age group from Delhi

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Abstract
Mental toughness is a phrase often used to describe how we observe an athlete’s behavior especially when we perceive that they overcome challenging events beyond what is normally expected in a given context. To achieve this purpose, twenty female Cricket players each at the age group of 9-12, 13-16 and 17-20 years were selected from Delhi, who regularly practice the game and participate in various tournaments. “Mental Toughness Questionnaire” designed by Dr. Goldberg, was responded by all the subjects. Sports Mental Toughness Questionnaire was used as a tool for collection of data. All the filled in questionnaires were collected from the subjects and scoring was done according to the scoring key. Usually an individual took 5 to 10 minutes in completing the test. The collected data underwent descriptive analysis followed by one way analysis of Variance. The level of significance was set at 0.05. Comparing the pair wise difference of means with critical difference it was evident that there was no difference between means of 9-12 years and 13-16 years group, whereas mean of the 17-20 years group showed there was higher difference between than that of first and second. Hence it proved that the age groups from 17-20 years are mentally tough when compared to 9-12 years and 13-16 years of female Cricket players.

Keywords: Mental toughness, cricket

Introduction
“Sports psychology is the study of a person’s behavior in sport” Alderma. It deals with increasing performance by managing emotions and minimizing the psychological effects of injury and poor performance. According to American Psychological Association, sports psychology is “the scientific study of the psychological factors that are associated with participation and performance in sport, exercise, and other types of physical activity”. The term mental toughness is used frequently by athletes, coaches, members of the press, sports commentators and sports psychologists to describe why certain athletes may have become, or are currently the best in the world in their sports. Mental toughness is a phrase often used to describe how we observe an athlete’s behavior especially when we perceive that they overcome challenging events beyond what is normally expected in a given context (Coumbe, 2011) [3].
A sound and strong mind helps an individual or athlete not to doubt on his / her performing ability rather helps to perform all physical and mental skills with perfection and accuracy, resist threatening competitive environment, and maintain ability to focus, regulate physiological arousal and manage fear of failure. Therefore, being mentally tough is a state where an individual feels most energized, most confident and most strong to face tough, adverse and intense competitive and other environmental settings with self-confidence, strong commitments accepted challenges and with full control (Nandalal, 2011) [3]. Mental Toughness inculcates positive-ness that promotes self-esteem by taming pessimism and command over negative emotions. Mental toughness act against the forces that try to break you and let you down. It is the ability or quality to flow consistently without being affected by any scene and suppress the negative thoughts and emotions to fluctuate at high / beyond that affect positive flow of skill. Mental toughness is being able to make an individual or athlete not to be affected and diverted by what is happening in surroundings; either in practice settings or in competition. That’s why regarding mental toughness (Cote, 2001) writes: 'mentally tough
athletes are able to keep their emotions in control and are calm and relaxed under pressure situations’. According to Crust (2007) [4], other important attributes that characterized mental toughness include coping effectively with pressure and adversely, recovering or rebounding from set-backs and failures, persisting or refusing to quit, being in sensitive or resilient, thriving on pressure and possession of superior mental skills (Crust, 2007) [4].

Researchers, sports psychologists, coaches and athletes have been conducting investigation on mental toughness for more than decade despite facing inherent weaknesses in its literature. But recently, Emerging research suggests that mental toughness is multi-faceted, and an important psychological construct that is related to successful sports performance. Adding to the same, Loehr (1982, 1986) summarized that athletes and coaches accept that fifty percent performance. But recently, Emerging research suggests that mental toughness is one of the most important factors contributing success (Bull, 2005) [1].

A mentally tough athlete is likely to achieve relatively consistent performances regardless of situational factors; retain a confident, positive, optimistic outlook, even when things are not going well, and not 'choke' under pressure; deal with distractions without letting them interfere with optimal focus; tolerate pain and discomfort; remain persistent when the 'going gets tough'; have the resilience to bounce back from disappointments (Connaughton, 2008) [2].

Objectives and Hypothesis

Following objectives were framed for the study:

- To assess the level of Mental toughness of cricketers of different age groups
- To compare the Mental toughness of cricketers of different age groups

Based on the objectives following hypothesis was framed for the study:

- There would be no significant difference amongst the cricketers of different age groups

Procedure and Methodology

To achieve this purpose, twenty female Cricket players each at the age group of 9-12, 13-16 and 17-20 years were selected from Delhi, who regularly practice the game and participate in various tournaments. “Mental Toughness Questionnaire” designed by Dr. Goldberg, was responded by all the subjects. Sports Mental Toughness Questionnaire was used as a tool for collection of data. To test the subject’s reliability, the investigator selected 10 subjects randomly and administered the questionnaire. The test, retest method was followed and the obtained scores were related with Pearson’s Correlation of Coefficient and the obtained correlation value was significant. Hence, the subjects and the testers were found to be reliable.

To enhance the cooperation of the subjects the researcher personally met the subjects, explained the purpose of investigation and gave a clear instruction regarding the method for answering the questions. The researcher distributed the questionnaire booklet for marking the responses. The researcher in person in a face to face relationship administered the entire questionnaire. The subjects went through the instructions, read each statement carefully and indicated their responses. All the filled in questionnaires were collected from the subjects and scoring was done according to the scoring key. Usually an individual took 5 to 10 minutes in completing the test. The collected data underwent descriptive analysis followed by one way analysis of Variance. The level of significance was set at 0.05.

Results and Discussions

Table 1: Descriptive analysis of mental toughness of female cricket players with different age groups

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Age Group</th>
<th>N</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>9-12</td>
<td>20</td>
<td>19.87</td>
<td>3.061</td>
</tr>
<tr>
<td>2</td>
<td>13-16</td>
<td>20</td>
<td>20.23</td>
<td>4.117</td>
</tr>
<tr>
<td>3</td>
<td>17-20</td>
<td>20</td>
<td>17.44</td>
<td>3.004</td>
</tr>
</tbody>
</table>

Table No. 1 clearly depicts the values of descriptive analysis, which shows that the mean and standard deviation values of mental toughness of cricketers of the age group 9-12, 13-16 and 17-20 are found to be 19.87±3.061, 20.23±4.117 and 17.44±3.004 respectively, the graphical representation has been shown in fig no. 1.

![Graphical representation of Descriptive analysis of mental toughness of female cricket players with different age groups](image)

Table 2: One way analysis of variance among mental toughness of female cricket players at different age group

<table>
<thead>
<tr>
<th>Source of Variance</th>
<th>df</th>
<th>SS</th>
<th>MS</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between</td>
<td>2</td>
<td>298.56</td>
<td>148.66</td>
<td>8.84*</td>
</tr>
<tr>
<td>Within</td>
<td>57</td>
<td>1903.66</td>
<td>33.71</td>
<td></td>
</tr>
</tbody>
</table>

Table No. 2 clearly indicates the values of One way analysis of variance among mental toughness of female cricket players at different age group, which shows that a significant difference has been found in the mental toughness of female cricket players of different age groups, as the value is found to be 8.84, which is significant at 0.05 level.

Conclusions

It was concluded that there was significant different in mental toughness between female Cricket players at different age levels. Comparing the pair wise difference of means with critical difference it was evident that there was no difference between means of 9-12 years and 13-16 years group, whereas mean of the 17-20 years group showed there was higher difference between than that of first and second. Hence it proved that the age groups from 17-20 years are mentally tough when compared to 9-12 years and 13-16 years of female Cricket players.

References
