

RRST-Physical Education

# Mental Toughness Differentials Among Cricket Players at Different Age Groups

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Article Info	Abstract
<b>Article History</b> Received : 18-02-2011 Revised : 26-03-2011 Accepted : 01-04-2011	The purpose of the study was to find out the differences in Mental Toughness among Cricket Players of different age groups. To achieve this purpose, ninety Cricket players at the age group of 10-21 years were selected from Chennai District, who regularly practice the game and participate in various tournaments. "Mental Toughness Questionnaire" a standardized sports psychological inventory designed by Dr. Goldberg, was responded by all the subjects. The collected data was analyzed using simple analysis of variance (ANOVA). The results of the study showed that there was a significant difference in Mental Toughness among Cricket Players of different age levels at 0.05 level of confidence. It was concluded that Cricket Players of age group 18-21 years showed significantly greater mental toughness than the other two age groups. This may be due to their experience in the game.
<b>*Corresponding Author</b> Tel : +91-94441-39220 Fax : +91-44-27474844 Email: balajip@ssn.edu.in	<b>Key Words:</b> Cricket, Mental Toughness, Players, Age
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## Introduction

Sports psychology is a science in which the principles of psychology are applied in a sport or exercise setting. These principles are often applied to enhance performance and to understand how participation in sport, exercise, and physical activity affects psychological development, health, and well being in all stages of life.

"Sports psychology is the study of a person's behaviour in sport" Alderman, [1]. 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".

All sports participants fall to mistake and mental letdowns. The emotional component always overshadows the technical aspects of performance. The over shadows can be avoided only when sports participants are equally fit in both mind and body. The individual's success and failure determination lies in the individual's practice to both physical and mental skills.

Mental Toughness is the edge that enables you to be consistent, confident, focused and determined during high pressure situations in order to perform at maximum potential. An individual with mental toughness can be quite, well mannered, ethical, friendly, helpful, and affable and warm. The quality of mental toughness means that an individual has the ability to master the naturally unmanageable desire of the body and mind and bring them under a discipline to achieve and sustain demanding goals and performance under pressure Kamlesh, et al., [4].

Fourie et al., [5] investigated the components of mental toughness as reported by 131 expert coaches and 160 elite athletes from 31 sport codes. The written statements of coaches and athletes were analyzed by means of an inductive content analysis. This resulted in the identification of 12 components of mental toughness. These are: motivation level, coping skills, confidence maintenance, cognitive skill, discipline and goal-directness, competitiveness, possession of prerequisite physical and mental requirements, team unity, preparation skills, psychological hardiness, religious convictions and ethics. The coaches regarded concentration as the most important characteristic, while the athletes' regarded perseverance as most important. The coaches rated the effectiveness of coaches and sport psychologists in strengthening the characteristics of mental toughness more highly than athletes did.

Adam et al., [2] hypothesized that there would be significant differences in mental toughness among athletes of different: (a) achievement level, (b) gender, (c) age, (d) sporting experience, and (e) sport type (team vs. individual and contact vs. non-contact sports). Participants were 677 athletes and consisted of sports performers competing at international (n=60), national (n=99), state (n=198), club/university (n=289), and beginner (n=31) levels. Results revealed a significant relationship between mental toughness and gender, age, and sporting experience. However, achievement level and the type of sports an athlete participated in were not significantly associated with mental toughness.

"Mental Toughness is the capacity of an individual to deal effectively with stressors, pressures and challenges and

perform to the best of their abilities irrespective of the circumstance in which they find themselves” Ayajit Singh [3].

Cricket is the most popular game, which is played in more than 104 countries. Both physical and mental fitness play vital role in performance. The other aspect about cricket is that it is probably one of the fastest evolving sport in the world, constantly adapting itself to the ‘demands’ of a changing global audience.

The purpose of the study was to find out the differences in Mental Toughness among Cricket players of different age groups.

It was hypothesized that there would be no significant difference among different age groups of Cricket players in their mental toughness.

**Methodology**

To achieve this purpose, thirty Cricket players each at the age group of 10-13, 14-17 and 18-21 years were selected from Chennai District, who regularly practice the game and participate in various tournaments. “Mental Toughness Questionnaire” a standardized sports psychological inventory designed by Dr. Goldberg, was responded by all the subjects.

Sports Mental Toughness Questionnaire was used as a tool for collection of data. This questionnaire is a Free Online Resource by Dr. Goldberg (Sports Psychologist).

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 standard psychology tool devised by Dr. Goldberg was used to measure mental toughness. This test consists of 30 questions includes both positive and negative statements. Each statement consists of two responses: true or false. The respondent made a tick (√) on any one of the responses that fit to them best.

This inventory was scored with the help of the scoring key. A separate scoring method was followed for positive and negative statements. The score obtained for both positive and negative statements were added and it was treated as individual score. The total score constitutes the Mental Toughness score.

**Collection of data**

The data on the chosen psychological variables were collected by administering standard questionnaire. The administration of the tests and the method of collecting data were explained below.

The subject were explained about the meaning and use of particular questionnaire and known what has to be done exactly.

Data were collected from thirty Cricket players of age group 10-13 years, thirty Cricket players from the age group of 14-17 years and respectively third group consisted of thirty Cricket players of age group 18-21 years. The questionnaires were administered by the investigator personally and collected data.

**Result of the Study**

The obtained data were subjected to statistical treatment to compare the mental toughness of Cricket players of different age levels using f ratio.

Table- I showing the mean of mental toughness among players of three different age groups

S.No	GROUP	MEAN
1	10-13 years	20.2
2	14-17 years	20.37
3	18-21 years	16

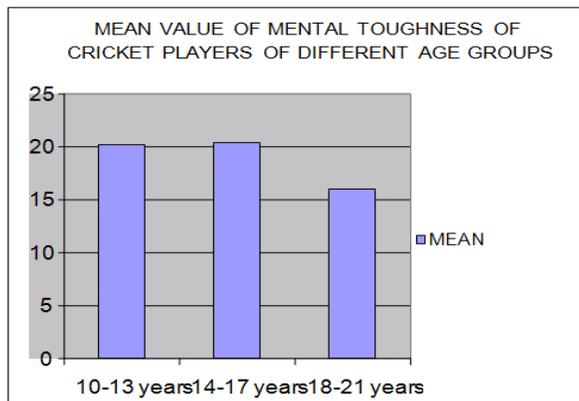


Figure 1

Table - II showing the ANOVA Table for the mental toughness of Cricket players of three different age groups

Table II: ANNOVA table for mental toughness of cricket players of three different age levels

Source of variance	df	SS	MS	F
Between	2	367.35	183.675	
Within	87	2013.77	23.15	7.93*

\*Significant at 0.05 levels  
 Tab  $F_{0.05}(2, 87) = 3.10$   
 Obtained F value = 7.93

Since the computed value of F was greater than the table value, the null hypothesis was rejected and the alternate hypothesis was accepted. It was concluded that there was significant difference in the mental toughness among different age group Cricket players.

The result presented in Table II proved that there was a significant difference between different age levels of Cricket players, in mental toughness, as the obtained 'F' value was greater than the required 'F' value to be significant at 0.05 level of confidence.

Pair wise mean comparison analysis was done by using Least Significant Difference Test.

**Conclusions**

Through statistical analysis it was concluded that there was significant different in mental toughness between 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 10-13 years and

14-17 years group, whereas mean of the 18-21 years group showed there was higher difference between than that of first and second. Hence it proved that the age groups from 18-21 years are mentally tough when compared to 10-13 years and 14-17 years of Cricket players.

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