

Mental Toughness among Squash Players at Different Age Groups

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Abstract

The aim of the study was to find out the differences in Mental Toughness among Squash Players at different age groups. To achieve this aim, 120 Squash player were selected from Haryana state of different age groups. Those selected squash players represent Haryana at different age groups. These different age groups are U-13, U-17, and U-19. To find the Mental Toughness among Squash players at different age groups we have used "Mental Toughness Questionnaire" a standardized sports psychological inventory designed by Dr. Goldberg. The collected data was analysed using simple analysis of variance (ANOVA).

KEYWORDS: Mental Toughness, Questionnaire, Standardized, Inventory.

INTRODUCTION

Mental toughness is probably one of the most used but least understood terms used by the global

squash community. It is also, arguably, one of the most important psychological attributes in achieving performance excellence in any sport, and especially squash. Sport psychology research that addressed both definitional and development issues related to mental toughness.

Mental toughness is a contested term, in that many people use the term liberally to refer to any set of positive attributes that helps a person to cope with difficult situations. Coaches and sport commentators freely use the term mental toughness to describe the mental state of athletes who persevere through difficult sport circumstances to succeed. Only within the past ten years has scientific research attempted a formal definition of mental toughness as a psychological construct.

Mental toughness is "Having the natural or developed psychological edge that enables you to: generally, cope better than your opponents with the many demands (competition, training, lifestyle) that sport places on a performer; specifically, be more consistent and better than your opponents in remaining determined, focused, confident, and in control under pressure." (Jones, Hanton, & Connaughton, 2002).

Most of the time sportsmen are accused of not having mental toughness which is indispensable for high level performance. Thus, mental toughness becomes one of the most important aspects to be developed. Therefore, it has become the need of the hour to assess the degree of mental toughness in order to take necessary steps to improve the performance.

Successful athletes are supposed to be not only physically tough but mentally tough as well. The reason for this originates out of the realization that top sports are a ruthless, cold, and hard business, where there is no place for the tender spirited. Tutko's (1974) characterization of such trait indicates that the "Mentally Tough" athlete can take rough handling; is not easily upset about losing, playing badly, or being spoken to

harshly; can accept strong criticism without being hurt; and does not need too much encouragement from his coach.

Coaches and athletes often recognize that success in sport cannot be accomplished without the necessary mental skills. Most coaches conservatively estimate that the mental aspects of sport constitute at least 50% of an athlete's performance (Loehr, 1982). Moreover, at the higher levels of competition, the importance of mental skills is notably salient due to the comparable physical skills of athletes and an increase in the frequency of stressful situations elite athletes experience. For example, one can only imagine the potential stress and anxiety U.S. Olympic gymnast Paul Hamm endured as he began his quest for the individual all-around title in the recent 2004 summer Olympics. Even the most physically talented gymnast would need considerable mental strength to perform in this situation.

In today's sporting world, it is rare to see athletes simply competing in a sporting event for pure pleasure, relaxation and innocent recreation. Rare too is the phrase "it does not matter whether we win or lose" – a mantra which is considered increasingly old fashioned. The world in which we live today is seemingly more obsessed with success and with the desire and drive to win. Perhaps it is the thought of being the best, the thought of being the most powerful or the most intelligent that is captivating and encompasses our drive for success.

Throughout the history of the research conducted on Mental Toughness various researchers, theorists and authors have presented their definitions and findings on the construct. If one has to look through the preceding years we would see a variety of differing definitions, opinions, views and beliefs about the construct and what it entails. Before being able to understand the development of Mental Toughness and the intricacies of the Mental Toughness development process, it is crucial to understand how theorists and authors of the past have described and portrayed the concept of Mental Toughness.

Upon reviewing the literature on mental skills, mental toughness consistently emerged as one of the most important psychological characteristics of sport. The literature clearly shows that mental toughness is imperative for peak performance in sports. Gould, Hodge, Peterson, and Petlichkoff (1987), Gould, Eklund, and Jackson (1993a), Williams (1998), and Gould, Dieffenbach, and Moffett (2002), all state that mental toughness is an important psychological characteristic of sport performance. Unfortunately, many acknowledge the importance of mental toughness, but few fully understand it. "While athletes and coaches often talk about mental toughness, seldom has it been precisely defined" (Gould et al., 2002). Coaches and athletes use this term daily without a clear understanding of its components or what it means to be mentally tough. "The term mental toughness is probably one of the most used, but least understood terms used in applied sport psychology" (Jones, Hanton, & Connaughton, 2002).

METHODOLOGY

Selection of Subjects

Selection of tool

The selection of proper tools was of importance for the study since the aim was to assess the psychological variables among different age groups of participation in man squash players. It was decided to use questionnaire, the investigator obtained the reflection of psychological variables towards physical education. The validity of responses received greatly depends upon the integrity of the respondents and hence absolute could not be expected however, the anonymous responses ensure the greater validity of the responses. So, to achieve this purpose, "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).

Reliability of Data

To test the subject's reliability, the investigator selected 20 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.

Administration of the Questionnaire:

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 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.

Psychological inventory

The standard psychology inventory 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. In which 15 items were keyed "True" and rest of 15 were "False". The statement which was keyed "True" were 1,2, 4, 5, 8, 9,10, 12,13, 14, 15, 16, 18, 20, 23, 24 and 28 and the statement which were keyed "False" were 3, 6, 7, 11, 17, 19, 21, 22, 25, 26, 27, 29 and 30. These 30 questions divided into five sections, so each section contain 6 questions. These sections are Rebound ability, pressure, concentration ability, confidence and motivation.

Scoring:

For each item score was “1”. The maximum score might be 30 and score might be zero. Score obtained by each subject on each statement was added up which represented one’s total score on Mental toughness. A score of 26-30 indicates strength in overall mental toughness. Scores of 23-25 indicates average to moderate skill in mental toughness. Scores of 22 or below mean that you need to start putting more time into the mental training area.

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 120 squash players of different age groups i.e U-13, U-17, U-19 years and 40 squash players from each group were selected. The questionnaires were administered by the investigator personally and collected data.

Overall, research and theory on measuring Mental Toughness suggests that there is still no fully sound measure of the concept and that further work is required in this regard. It is highly recommended, therefore, that further research be done to rectify the absence of a universally accepted, reliable and valid measure of the multifaceted concept of Mental Toughness. Lacking a suitable measure of Mental Toughness does propose possible hindrances for this research endeavour as concerns surround the manner by which one can evaluate the level of Mental Toughness achieved as a result of the Mental Toughness development programme. This provides rationale for the inclusion of the review of the historical development of Mental Toughness. The characteristics presented in this review will be used as reference points to assist in identifying the extent to which recipients of this psychological intervention have developed their Mental Toughness.

Currently there is much concern and debate over whether these mental skills or psychological characteristics are teachable (trainable). There is no conclusive empirical research that shows that psychological characteristics are inherited. This study allowed each individual coach to decide to what degree the psychological characteristics of mental toughness are teachable or learned through practice.

DATA ANALYSIS AND INTERPATATION

Table I: Mean table for mental toughness of squash players of three different age groups

<i>S. No.</i>	<i>Age Group</i>	<i>Mean</i>
<i>1.</i>	<i>U-13</i>	<i>20.21</i>
<i>2.</i>	<i>U-17</i>	<i>22.41</i>
<i>3.</i>	<i>U-19</i>	<i>23</i>

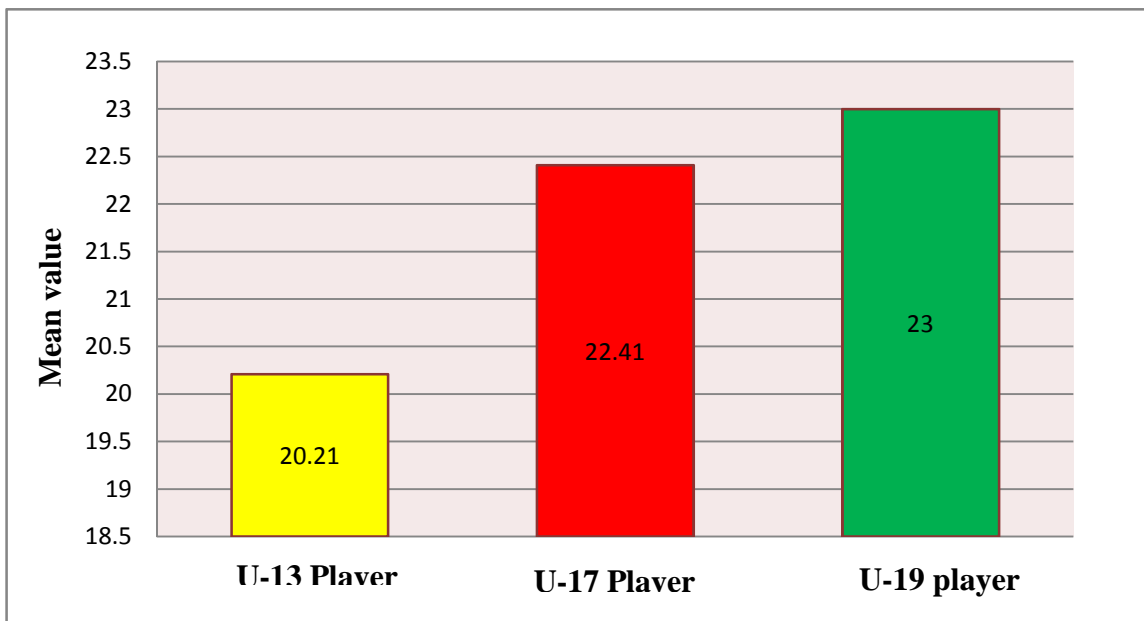


Figure 1 shows mean value difference at different age group

Table 1 and figure shows that mean mental for toughness of U-19 squash players are greater than U-13 and U-17.

Table II: ANNOVA table for mental toughness of squash players of three different age groups

Source of variance	Sum of Squares SS	Degree of freedom df	Mean Square MS	F-ratio
Between	270.20	2	270.20/2 = 185.1	185.1/17.20 = 7.85*
Within	2012.60	117	2012.60/117 = 17.20	
Total Groups	2282.80	119		

*Significant at 0.05 levels

Table $F_{0.05}(2, 117) = 3.10$

Obtained F value = 7.85

Table II shows that the value of F-ratio is 7.85* which is greater than the tabulated value 3.10. So there was significant difference regarding mental toughness among players. Therefore Null hypothesis is rejected.

CONCLUSION

Through statistical analysis it was concluded that there was significant different in mental toughness between squash players at different age levels. Comparing the difference of means it was found that the mean of U-19 players are higher as compared to U-13 and U-17 players. Hence it proved that the U-19 squash players are mentally tough when compared to U-13 and U-17 Squash players.

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