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## The comparative study mental toughness among basketball players playing at different levels

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### Abstract

The purpose of the study was to see the difference between inter university Basketball players, Youth national and senior national Basketball players of selected mental toughness variables. 50 students on the basis of purposive sampling technique of age  $23 \pm 5$  years were selected as a subject, those who had been undergoing training. Psychological questionnaires of mental toughness (Mental toughness- MTQ 48) was provided to the subjects of the study and under the supervision of researcher data was collected. To see the difference between inter university Basketball players, Youth national and senior national Basketball players of selected mental toughness variables, the ANOVA was employed and found significant correlation in the self-confidence at 0.05 level of significance. Attention control and visual/imagery control were found to have insignificant difference among selected groups at 0.05 level of significance.

**Keywords:** Self-confidence, negative energy control, attention control, visual / imagery control

### Introduction

Physical activities and workouts are the most essential part of our life, which help every individual in their proper and accurate growth for survival. Through it human being can easily identify his or her hidden talent and nurture it. The children perform a lot of actions such as throwing, running, catching, kicking, jumping, and striking etc. The activities are known as fundamental or universal skills.

As we all know that with the passage of time the whole thing changes and undergoes transformation. Our present century is the most quickly of varying century of all time. This rapid change in everything created weird demands on everyone and on our present system of education. Now a day's education must be like that it should trounce every aspects of one's over all development for the all-round development of the persons as well as for their betterment in their future life. Education now a days must not only include the body and acquaintance, however also to build up questioning brains that will facilitate them to figure out and acknowledge what is to be approach tomorrow.

Mental toughness refers to a collection of psychological characteristic which are central to optimal performance. Athletes, coaches, and sport psychologists have consistently implicated mental toughness as one of the most important psychological characteristics related to success in sports. Over the last few decades, numerous studies have been conducted to examine the role of mental toughness in sporting success. However, its conceptualization and measurement are without consensus. The purpose of this study is to systematically review some of the emerging definitions and conceptualizations, and examine how mental toughness could be nurtured. This review considers both qualitative and quantitative approaches to the study of mental toughness with the specific focus on the models and the development of the measurement of this construct. Although these discussions center on the general aspects of mental toughness, we believe many of the issues have relevance to scholars and practitioners who are interested in the measurement of psychological variables as they pertain to sport, exercise, and other performance or achievement contexts.

The first thing that we need to do is define what mental toughness is. After that, we can figure out what needs to be done to accomplish it. Here are a couple of great definitions of what mental toughness is.

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“Mental toughness is not being affected by anything but what’s going on in the game or competition no matter what coaches, other players, or refs are doing. It’s being able to block out what’s not important”

– Jenny Brenden  
(Penn State University)

## Procedure

### Selection of subjects

The purpose of the study was to assess the Mental Toughness and Psychological Well Being among Male Basketball Players. The researcher has also made an effort to compare the selected psychological variables i.e. the Mental Toughness and Psychological Well Being between different levels of players in Basketball.

For the purpose of study a total of 120 Basketball players, whose age ranged between 18 to 60 years were selected from the participants of national level, University level and veteran basketball competitions. Out of 120 total participants there were 40 Basketballs representing each level of tournament i.e. 40 national level, University level and veteran basketball players each.

### Selection of variables

After revealing the literature the research scholar has selected following psychological trades.

#### 1 Mental toughness

It measures the seven components of mental toughness studied under concept of mental toughness, but two measures Self Confidence, Negative energy control and Attention Control were taken in to consideration.

#### This questionnaire measures various aspects of mental toughness such as

Factor 1: Self Confidence

Factor 2: Negative energy control

#### Criterion Measures

For evaluation of these psychological trades following criterion measures were used 1 Mental toughness - MTQ 48.

#### Administration of questionnaire and collection of the data

The dates of tournaments were noted carefully by the researcher and the blueprint of total schedule of data collection was prepared by the researcher. Researcher contacted the organizing authority and permission was taken for collecting data. The researcher along with research assistants contacted the coaches and managers for getting access to the players without disturbing the competitive schedule of players. Once the permission was granted and convenient dates for meeting and data collection was finalized, the researcher conducted meeting with the teams and cohering staff in order to familiarize them with the importance, nature and process of the study. The research scholar explained the instructions written on the questionnaire in confirmed that all the participants understood the instructions fully. It was done in order to ensure that the participants filled the questionnaire honestly and do not interpret any question wrong due to lack of clarity. The participants were also assured about the confidentiality of the answers. Before filling the questionnaire the participants also filled enquiries regarding the related information such as name, age, level of play, occupation of parent. The participants filled the questions in a comfortable and relaxed environment.

## Statistical Procedure

### Analysis of Data

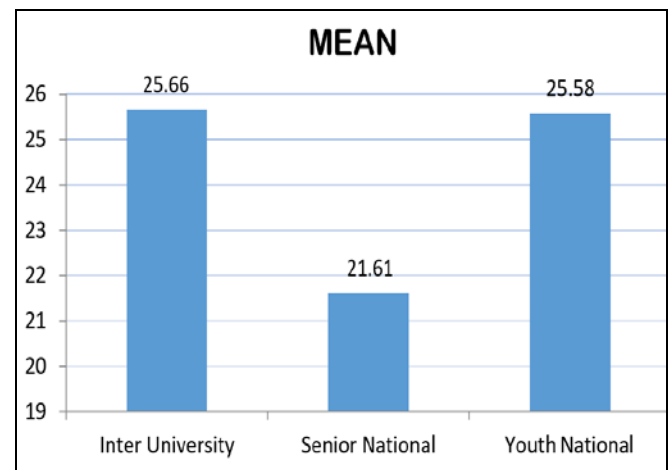
The collected scores on each selected Mental Toughness and Psychological Well Being analyzed by SPSS version 20.0. The level of significance was 0.05. The scores pertaining to each selected coordinative and psychological variables have been presented in the tables.

**Table 1:** Descriptive statistics of the scores of self-confidence at different levels of participation in basketball players

Level of Players	Mean	Standard Deviation	Standard Error
University	25.66	2.13	.35
National	21.61	3.10	.51
Veteran Players	25.58	2.33	.38

Table I shows the descriptive statistics i.e. mean, standard deviation and standard error of mean of the scores of self-confidence of Basketball players of national level, University level and veteran basketball players.

The mean  $\pm$  standard deviation of scores of self-confidences of national level, University level and veteran basketball players are  $25.66 \pm 2.13$ ,  $21.61 \pm 3.10$  and  $25.58 \pm 2.33$  respectively. The standard error of mean of national level, University level and veteran basketball players participant group are .35, .51 and .38 respectively.



**Fig 1:** Graphical representation of the mean scores of the self-confidence of players at national level, university level and veteran basketball players of participation

**Table 2:** Tests of significance of difference in mean values of scores of self confidence among national level, university level and veteran basketball players

Source	Sum of Squares	DF	Mean Square	F	Sig
Between Groups	386.796	2	193.398	29.546	.000
Within Groups	687.306	105	6.546		
Total	1074.102	107			

\*Significant at 0.05 level

In the above table the test of significance of mean differences of scores of self- confidences between the Basketball players of three selected levels of participation i.e. National Level, University Level and veteran basketball players has been illustrated. The test of significance of mean difference reveal that there is a significant difference between the self-confidence of player at different levels of participation as the p-value (.000) is less than 0.05 level of significance.

As there is a significant difference between the groups, multiple comparison is done among the groups in order to find out the differences.

**Table 3:** Pairwise comparisons for significance of difference of mean values of self-confidence between different levels of participation

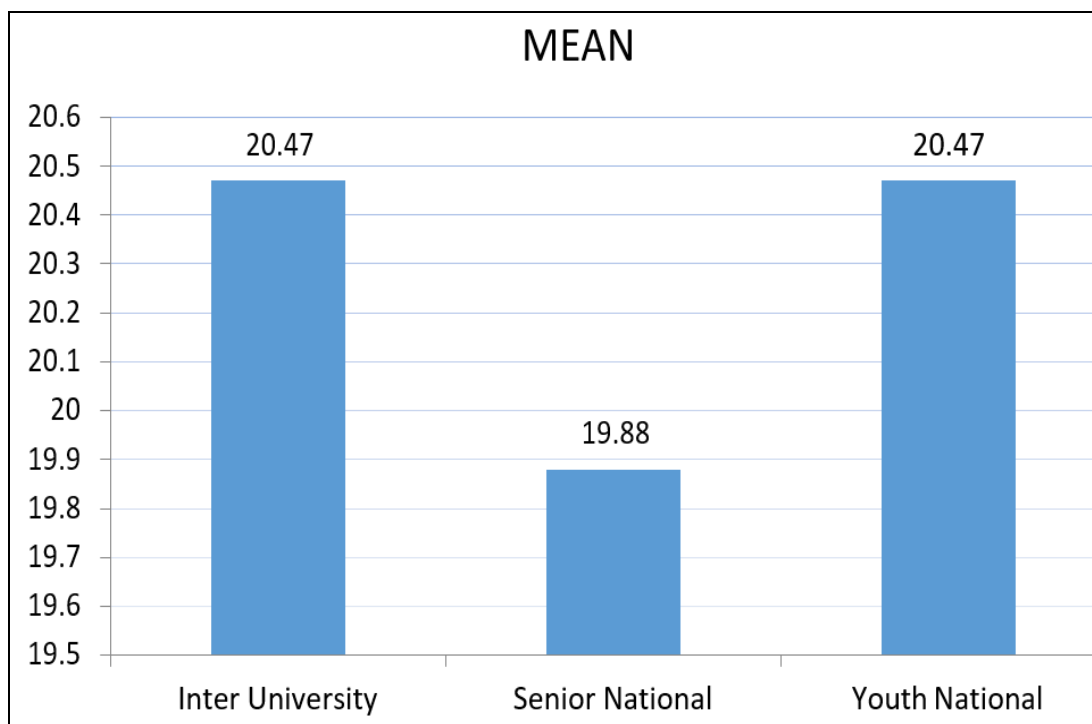
Groups	Mean Difference	P Value (Sig.)
University level-Veteran players	4.05	.000
University level-National level	.083	.890
National level-Veteran players	3.97	.000

From the above table it is clear that the mean difference between the University level- Veteran players is significant as the p-value (.000) is less than 0.05 level of significance. The mean difference between University level-National level Basketball players was not significant as the p-value (.890) is more than 0.05 level of significance. The multiple comparison of the groups also reveals that the mean difference between the National levels - Veteran players is significant as the p-value (.890) was less than 0.05 level of significance.

**Table 4:** Descriptive statistics of the scores of negative energy control at different levels of participation in basketball players

Level of Players	Mean	Standard Deviation	Standard Error
University	20.47	3.38	.56
National	19.88	4.00	.66
Veteran Players	20.47	3.39	.56

Table 4 shows the descriptive statistics i.e. mean, standard deviation and standard error of mean of the scores of negative energy control of Basketball players of University Level, National Level and veteran basketball players. The mean ± standard deviation of scores of negative energy control of inter-university, senior national and youth national level players are 20.47±3.88, 19.88±4.00 and 20.47±3.39 respectively. The standard error of mean of University Level, National Level and veteran basketball players participant groups are .56, .66 and .56 respectively.



**Fig 2:** Graphical representation of the mean scores of the negative energy control of players at national level, university level and veteran basketball players of participation

**Table 5:** Tests of significance of difference in mean values of scores of negative energy control among national level, university level and veteran basketball player’s basketball players.

Source	Sum of Squares	DF	Mean Square	F	Sig
Between Groups	8.167	2	4.083	.314	.731
Within Groups	1365.500	105	13.005		
Total	1373.667	107			

\* Significant at 0.05 level

In the above table the test of significance of mean differences of scores of negative energy control between the Basketball players of three selected levels of participation i.e. University Level, National Level and veteran basketball players has been illustrated. The test of significance of mean difference reveal that there is no significant difference between the negative energy controls of player at different levels of participation as the p-value (.731) is more than 0.05 level of significance.

**Discussion and Conclusion**

The results of the study revealed that there is a significant difference between the mental toughness levels and

psychological wellbeing of soccer players playing at different levels. The hypothesis for the study was tested at 0.05 level. It was found that the self-confidence of senior national had higher levels of mental toughness and as compared to the all India Inter-University players’ attention control. In psychological skill training, autonomy and environmental mastery, were found to be significantly different than each other.

It was concluded that psychological skills have a significant effect on the players in soccer. It is one of the key pre requisites for performance at higher level. The players shall be examined carefully for their psychological skills and

accordingly they shall be imparted such training. It was also found that the psychological training targeting one particular factor may lead to development of other variables, as most of the skills are correlated with each other.

1. It could be concluded that different sub variables of mental toughness vary in different pattern among players of different levels of participation.
2. The various sub variables of psychological wellbeing among the players having different levels of participation is found to be varying in different patterns.
3. Most of the sub variables of mental toughness are found to be correlated among the inter-university level players.
4. Most of the sub variables of psychological wellbeing are significantly related to each other in the players of all India Inter University players.
5. A well planned psychological skill training plan may help in development of various related domains, as many skills are highly correlated with each other.

### Recommendations

**Based on the conclusion, drawn in this study, the following recommendations have been made**

1. In future studies may be conducted including female participants also, in order to examine and compare the level of selected psychological constructs.
2. Researches may also be undertaken including other psychological variables critical for performance in order to prepare comprehensive theory base for psychological reviews.
3. Research studies may be undertaken by future researchers
4. Research studies may be undertaken which include elite players also playing at international level, and the data may help in understanding the trend of growth of the psychological skills with the advancement of the level of play.
5. Future studies may be undertaken incorporating psychological skill training sessions targeting the particular skill which is lacking in the player.
6. Researchers may undertake studies in which psychological skill training may be imparted to the of different age and level and the effects may be compared in order to identify the most suitable stage where the psychological skill training is most effective.

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