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**Dr. Neeta N Kashyap**  
Associate Professor, L.A.D. and  
Smt. R.P. College for Women,  
Nagpur, Maharashtra, India

## A comparative study of mental toughness between medal winner and non-medal winner male varsity Sportsperson: With reference to indigenous sports of India

**Dr. Neeta N Kashyap**

### Abstract

The aim of the present study was to compare mental toughness of medal winner and non-medal winner's university sportsperson from indigenous sports of India. To conduct the study 40 medal winner male interuniversity sportsperson (Average 22.18 years) and 40 non-medal winner male interuniversity students (Average age 24.21 years) were selected as sample. In the present study khokho and wrestling were considered as indigenous sport. To assess mental toughness of selected varsity male sportspersons from indigenous sport, Mental Toughness Questionnaire prepared by Tiwari (2007) was used. Results reveal that medal winner male varsity sportspersons were mentally more tough and strong as compared to non-medal winner male varsity students with both group represent indigenous sport. The results add further knowledge regarding the role of mental toughness for better performance in indigenous sports of India.

**Keywords:** Mental toughness, indigenous sport

### Introduction

In sporting parlance, mental toughness roughly represent mental state of a sportsperson. It is related to some positive psychological characteristics that help a sportsperson to optimize their abilities. In sports psychology mental toughness is considered as a very intricate and complex variable. Kobasa (1979) <sup>[5]</sup> while defining mental toughness included three C's i.e. commitment, control and challenge. According to this definition a committed sportspersons knows what he is doing and have enough control over their mind and body to assess the factors that influence performance. The last terms of this definition is challenge which means that sportsperson try to defy negative circumstance and try to overcome it by effective coping Methods. Smith and Smoll (1989) <sup>[9]</sup> defined in terms of their coping ability to deal with intense physical, physiological and psychological demands of modern day sport. According to Smith and Smoll, a mentally tough sportsperson effectively deal with stress so that his performance is not affected by stressful conditions. Fourie and Potgieter (2001) <sup>[1]</sup> considered motivation level, coping skills, confidence maintenance, cognitive skill, discipline and goal directedness, competitiveness, possession of prerequisite physical and mental requirements, team unity, preparation skills, psychological hardiness and ethics while defining mental toughness. Due to ever increasing positive notion about the role of mental toughness in sports performance, number of scientific studies were conducted in the past. Levy *et al.* (2012) <sup>[7]</sup> reported that talented athletes possesses superior higher order cognition and mental toughness as compared to not so talented athletes. Newland *et al.* (2013) <sup>[8]</sup> conducted a study on basketball players and reported that mental toughness is associated with playing ability of male players but not so among female basketball players. Ghosh (2014) <sup>[2]</sup> in a study reported a significant positive association between performance and mental toughness of yoga players. Despite extensive research it is still not clear that whether the framework of mental toughness can be applied to performance related aspect of indigenous sports in India. Hence this study investigated the mental toughness among varsity sportsperson participating in indigenous sports of India in relation to their winning status.

**Corresponding Author:**  
**Dr. Neeta N Kashyap**  
Associate Professor, L.A.D. and  
Smt. R.P. College for Women,  
Nagpur, Maharashtra, India

**Aims and Objective**

The objective of the present study was to compare mental toughness and its sub-factors between medal winner and non-medal winner varsity sportsperson from indigenous sports events.

**Hypothesis**

It was hypothesized that mental toughness of varsity male sportsperson from indigenous sports can be predicted by their medal winning ability.

**Methodology**

The following methodological steps were taken in order to conduct the present study.

**Sample**

To conduct the study 40 medal winner male interuniversity sportsperson (Average 22.18 years) and 40 non-medal winner male interuniversity students (Average age 24.21 years) were selected as sample. In the present study khokho and wrestling were considered as indigenous sport. Purposive sampling was used as method for selection of varsity male sportsperson.

**Tools**

To assess mental toughness of selected male varsity sportspersons from indigenous sports, Mental Toughness Questionnaire prepared by Tiwari (2007) was used. This 48 items which measures overall mental toughness and sub variables i.e. self-confidence, motivation, attention control, goal setting, visual and imagery control and attitude control. The minimum score of 48 and maximum score of 240 can be obtained in this questionnaire. Higher the score, better the mental toughness is the direction of the study. This test is highly reliable and valid.

**Procedure**

40 medal winner and 40 non-medal winner male interuniversity from indigenous sports namely Kho-Kho and wrestling were selected as sample. Mental toughness questionnaire was administered to obtain the response of each subject. After scoring data was tabulated in two study groups. Independent Sample 't' test was used for data analysis. Result is shown in table no. 1 and 2 respectively,

**Result and Discussion**

**Table 1:** Comparison of Sub-variables of Mental Toughness between Medal Winner and Non Medal Winner Varsity Male Sportsperson from Indigenous Sport

Sub-variables of mental toughness	Male Sportspersons				Mean Difference	't'
	Medal Winners (N=40)		Non Medal Winners (N=40)			
	Mean	S.D.	Mean	S.D.		
Self Confidence	37.51	2.26	33.97	7.22	3.53	2.92**
Motivation	40.82	4.91	37.04	10.11	3.77	2.10*
Attention Control	35.53	9.21	34.07	9.56	1.46	0.69
Goal Setting	28.30	6.05	26.90	8.13	1.40	0.87
Visual and Imagery Control	25.87	3.88	23.85	5.54	2.01	1.87
Attitude Control	26.17	3.90	23.31	5.77	2.86	2.58*

\*\* Significant at .01 level, \* Significant at .05 level

**A perusal of statistical calculations shown in table 1 reveal the following facts**

- Self-confidence of medal winner male interuniversity sportsperson from indigenous sports was found to be significantly higher as compared to non-medal winner male interuniversity sportsperson from indigenous sports. (t=2.92, p<.01)
- Motivation in medal winner male interuniversity sportsperson from indigenous sports was found to be significantly higher as compared to non-medal winner male interuniversity sportsperson from indigenous sports. (t=2.10, p<.01)
- Attention control characteristics in medal winner and non-medal winner male interuniversity sportsperson from indigenous sports was not found to differ significantly with each other. [t=0.69, p>.05)
- Goal setting in medal winner and non-medal winner male interuniversity sportsperson from indigenous sports was not found to differ significantly with each other. [t=0.87, p>.05)
- Visual and imagery control in medal winner and non-medal winner male interuniversity sportsperson from indigenous sports was not found to differ significantly with each other. [t=1.87, p>.05)
- Attitude control characteristics in medal winner male interuniversity sportsperson from indigenous sports was found to be significantly higher as compared to non-medal winner male interuniversity sportsperson from indigenous sports. (t=2.58, p<.05)

**Table 2:** Comparison of Mental Toughness between Medal Winner and Non Medal Winner Varsity Male Sportsperson from Indigenous Sport

Groups	Mean	S.D.	Mean difference	't'
Medal Winners (N=40)	194.23	21.64	15.06	2.03*
Non Medal Winners (N=40)	179.17	41.22		

\* Significant at .05 level

Entries reported in table 2 clearly suffice that medal winner male varsity sports persons taking part in indigenous sports was mentally more strong and tougher as compared to non-medal winner male varsity sports persons taking part in indigenous sports. (t=2.03, p<.05).

Previous studies by Gould *et al.* (2002) [4], Golby & Sheared (2004) [3], Kuan and Roy (2007) [6] also revealed a strong and significant positive association between mental toughness and sports performance. Hence the results of the present study is also applicable to male varsity sportspersons taking part in indigenous sports.

**Conclusion**

On the basis of results, it was concluded that medal winner male varsity sportspersons were mentally more tough and strong as compared to non-medal winner male varsity students with both group represent indigenous sport thereby indicating the role of mental toughness in performance of varsity male sportspersons taking part in indigenous sports events.

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