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**Dr. Manoj Sahu**  
Assistant Professor, LNIPE,  
Gwalior, Madhya Pradesh, India

## Analysis of mental toughness between international swimmers and para swimmers of India

**Dr. Manoj Sahu**

### Abstract

The current work aims to examine normal swimmers and physically challenge swimmers' perception of mental toughness and how this perception is related with their mental abilities i.e Reboundability, Handel pressure, Concentration, confidence and Motivation level. Mental toughness level among the physical challenge and normal swimmers has considered as a fundamental variable. Participants were 15 Para swimmers and 15 normal swimmers that having a record of participation in international swimming championship. Mental toughness as measured with an adaptation of mental toughness scale (Dr. Alan Goldberg 2004), formed by five-factor: Rebound ability, Handel pressure, Concentration, confidence level and motivation. Independent 't' test showed that there are significant differences between physically normal and physically challenged swimmers regarding of our mental toughness variables. Revealing greater mean score in Rebound ability, Handel pressure, and Concentration and motivation level in Para swimmers than the swimmers but no statistically significant difference was discovered between the swimmers and Para swimmers on the Mental Toughness Confidence Factor. The result shows that physically challenge swimmers are more mentally stronger than the physically normal swimmers. Therefore it may be because the physically challenged swimmers in India live with the social problems and they make themselves mentally strong to face the same before entering into the sports life, but the normal athletes start facing such problems when they enter into competitive sports. These may be the reason that physically challenged swimmers shows better mental toughness than the normal swimmers. Finally, further research is required to set a constant behavior in line for both categories.

**Keywords:** Para international swimmers, international swimmers, mental toughness

### Introduction

Mental toughness is a measure of an individual's spirit and self-assurance that can help predict success in sports, school, and the business. It arose as a wide notion in the context of sports training, as a combination of characteristics that enable a person to improve as an athlete and to cope with challenging training and competing conditions without losing confidence. Coaches, sport psychologists, sports pundits, and corporate executives have all used the word in recent decades.

"Mental toughness" is a term that is commonly used to describe a set of good characteristics that aids a person's ability to deal with adversity. Mental toughness is a word that coaches and sports pundits freely use to describe the mental state of players who endure despite adversity (Moran 2012).

Although there are several mental aspects that influence an athlete's performance, mental toughness is one of the most critical. Some experts estimate that mental toughness accounts for at least 50% of an athlete's mental performance (Loehr, 1986).

Elite athletes' sporting success is dependent on their ability to combine psychological and physical qualities (Gucciardi *et al.* 2008) [13]. The impact of psychological elements on athletic performance has recently gained popularity, to the point where Sport greatness cannot be guaranteed, according to players, coaches, and administrators.

Only sheer physical ability is acceptable. High-level athletes/elite athletes benefit from psychological qualities that help them to mobilize their energies to attain the best possible results (Ratib, 2004). Mental toughness is the ability to persevere in the face of adversity.

A psychological advantage, whether innate or learned, that allows athletes to deal better than their peers.

**Corresponding Author:**  
**Dr. Manoj Sahu**  
Assistant Professor, LNIPE,  
Gwalior, Madhya Pradesh, India

Opponents with the numerous demands that sport makes on a player (competition, training, and lifestyle).The athletes are more consistent and better at staying strong-minded than their opponents.

Assured, and paying attention. There are three components to mental toughness: dependability, stability, and control. The ability of self-esteem and self-confidence, especially in stressful situations and exposure to difficulties such as sports events, is referred to as the reliability factor. Stability element refers to an athlete's courage and ability, as well as his or her drive and exposure to the necessities of training and competition, as well as his or her readiness to accept responsibility for training and competition goal setting. The nature of the control factor also refers to the individual's capacity to regulate conditions (Jones *et al.*, 2002) [6]. The mental and emotional components frequently overwhelm and extend beyond the simply physical and biological components.

Performance's technical aspects the value of mental talents may be shown in the highly regarded characteristics of mental toughness. Although mental toughness may be described in a variety of ways, although toughness may be interpreted in a variety of ways, it is frequently used to define the ability to deal and has to do with an athlete's ability to bounce back after a setback, his or her mental focus, and his or her ability to adapt.

According to Tutko's definition, "Mentally Tough" athletes can withstand severe treatment; they can absorb harsh criticism without being injured; they are not disturbed when they lose, play poorly, or are spoken harshly; and they are not overly reliant on their coach's support (Tutko, 1969).

### Procedure and Methodology

A sample of 15 international para swimmers and 15 international normal swimmers (total=30 participants) from all India were used in the current study. Allen Goldberg's prepared Mental Toughness Questionnaire was used to collect data. The questionnaire included 60 statements on dealing with pressure (20 questions), focus (17 questions), mental rebounding (14 questions), and having a winning mentality (9 questions). Each statement has two alternative answers: true or false. The questionnaire of mental toughness was administered with due permission from coaches and subject were ensured that the responses given by them on the questionnaire would be strictly confidential. The independent t-test was used at the 0.05 level of significance.

### Result and Discussion

The result of the two sample t –test which were acquired in order to discover the difference of para swimmers and swimmers on the component of mental toughness have presented below.

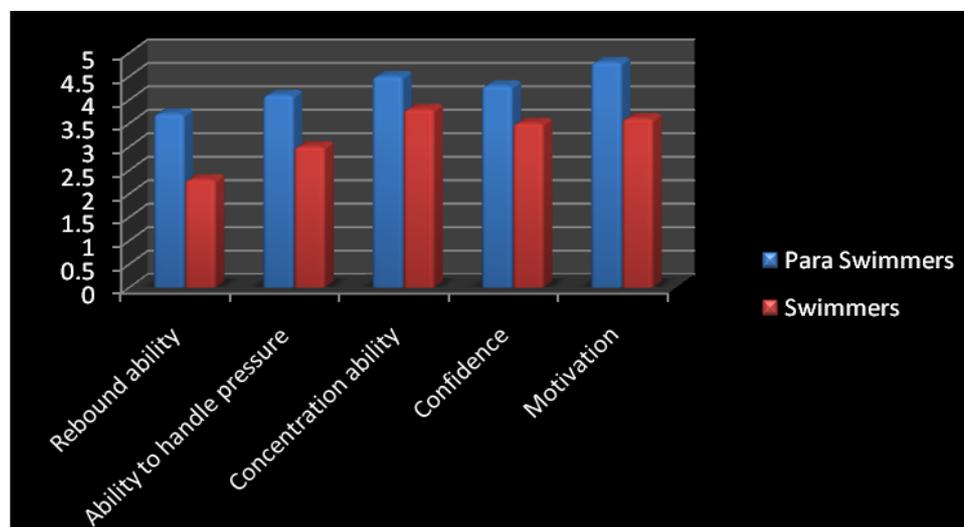
**Table 1:** Descriptive statistics on Mental Toughness Components of Para Swimmers and Swimmers

Factor	Group	N	Mean	Std. Deviation
Rebound-ability	Para swimmers	15	3.75	0.86
	swimmers	15	2.37	1.15
Ability to handle pressure	Para swimmers	15	4.13	0.81
	swimmers	15	3.06	1.65
Concentration ability	Para swimmers	15	4.50	0.89
	swimmers	15	3.88	0.80
Confidence	Para swimmers	15	4.38	1.02
	swimmers	15	3.56	1.36
Motivation	Para swimmers	15	4.81	0.65
	swimmers	15	3.56	1.21

Table 1 displays the mean and standard deviation of Para swimmers and swimmers on mental toughness sub-factors. The mean and standard deviation of Para swimmers and swimmers on Reboundability were 3.75.86, 2.37.15, respectively, as well as Ability to bear pressure 4.13 0.81, 3.06 1.65, Concentration ability 4.50 0.89, 3.88 0.80,

Confidence 4.38 1.02, 3.56 1.36, and Motivation 4.81 0.65, 3.56 1.21.

Figure 1 depicts the mean score of Para Swimmers and Swimmers on all sub-factors of mental toughness, namely rebound-ability, capacity to bear pressure, concentration ability, confidence, and motivation.



**Fig 1:** Mean of Para Swimmers and Swimmers on sub-factors of Mental Toughness

**Table 2:** Comparison of Mean on Mental Toughness between Para Swimmers and Swimmers

Factor	Mean difference	df	t	Sig.
Rebound-ability	1.38	28	3.84	0.001*
Ability to handle pressure	1.06	28	2.31	0.003*
Concentration ability	0.63	28	2.17	0.04*
Confidence	0.81	28	1.90	0.06
Motivation	1.24	28	3.63	0.001*

Significant at 0.05 level

The mean difference, t-value, and p-value are all shown in Table 2.

The scores for concentration, confidence, and motivation were 1.38, 1.06, 0.63, 0.81, and 1.24, respectively. The t-value of Rebound-ability, Pressure-handling ability, Concentration ability And Motivation was 3.84, 2.31, 2.07, and 3.63, respectively, with p values indicating significance difference. .001, .003, .004, and .001, all of which were less than .05, it is inferred that the mean value of both the groups are statistically different, although the t-value and p-value of Confidence were 1.90 and 0.06 respectively. Because the p-value for confidence was larger than 0.05, it is possible to assume that Para swimmers and Swimmers have the same level of confidence.

The findings of this study revealed that Para swimmers outperform swimmers on four aspects of mental toughness (MT), namely rebound-ability, ability to handle pressure, concentration ability, and motivation, but they are equal on the factor of confidence. These finding suggests that mental toughness may be one of the most important factors in achieving international-level of success in swimming.

They can readily collaborate with blood thirsty situations and focus better in severe competitive situations (Yadav, *et al.* 2014).

It might happen because exposure of Para swimmer with the hard and challenging life situation at initial phase of life that experience help Para swimmers to get better mental state and also develops strong coping capacity with stress, pressure, and enhances the capability at psychologically. swimmers improve there mantel toughness at the age when he/she enters into the competitive sports.

However, no statistically significant difference was discovered between the swimmers and Para swimmers on the Mental Toughness Confidence Factor. This might be because of their Determination, interest, and sincerity in competing in such events.

## Conclusion

According to the conclusions of this study, international level Para Swimmers performed than international Swimmers on four parameters.

Mental toughness (MT) is defined as the capacity to bounce back from adversity; the ability to deal with stress; and the ability to deal with adversity.

They were equivalent in terms of focus capacity and motivation, but not in terms of confidence.

Furthermore, mental toughness is a significant component in sports psychology.

Aids in the development of great athletes in sports As a result, it is necessary to emphasis this to mental toughness in swimmer's everyday training programmes in order to achieve the better performance.

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