

## **A Comparative Study of Mental Toughness among Swimmers and Para Swimmers**

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### **Abstract**

The purpose of the study was to analyse and compare the level of mental toughness among swimmers and para swimmers. 20 swimmers and 20 para swimmers were randomly selected from the Delhi NCR. The age of the subjects ranged between 20 to 27yrs. The variable selected for the study are reboundability, handle pressure, concentration, confidence, motivation respectively. The data was collected on the selective variable by using mental toughness questionnaire of Allen Goldberg (2004). Further the data was analysed to find out the significance difference of the group dependent t-test statical frequency were used to analysis the significance difference and the level of significance difference was set as 0.05 for test the hypothesis. The result revels that there was no significant difference among the group on the level of mental toughness.

**KEYWORDS-** Mental Toughness, swimmers, para swimmers, reboundability, handle pressure, concentration, confidence and motivation

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### **INTRODUCTION**

Today, brain science is to a great extent characterized as "the investigation of conduct and mental procedures". Philosophical enthusiasm for the brain and conduct goes back to the antiquated human advancements of Egypt, Greece, China and India. Mental toughness is the capability, when a person is under pressure communicate with himself or herself to reduce the pressure. We all have to face such situation when we all hesitate and such situation negatively affect the performance. This is the first sign that mental toughness is being inspire. To improve the current level of mental toughness anyone can train themselves. Visualization, relaxation, energization, self-talk and goal setting are the most common techniques (Hodge, 1994).

Mental sturdiness is the thing that isolates the whiz from the simply great. It isolates the artists that play little gathering gigs from the stone stars. Somebody without mental durability can have all the normal gifts or capacity and not make it to the extent somebody with mental strength with normal capacity. The capacity to bargain viably with stressors, weight and test independent of the predominant circumstances and environment (Clough 2004). Swimming is regarded as the best exercise for each psychological and physical development of an individual, according to physical

educators. Swimming is an individual or team sport it is a basic sport just like athletics and gymnastics.

Earlier swimming was not considered as a sports but a lifesaving activity. In ancient time, Roman warriors used to get the training of swimming. In 1538 the first book on swimming was written by professor Nicholas of Germany. 2<sup>nd</sup> April 1844 was the day when first competitive race of swimming took place between two North American Red Indian called Tobacco flying gull and Brest stroke swimming Englishman, Harold Keworthy at London. Para swimming started several involvements in the 1940's and 1950's. During this time four international sports bodies, divided by means of medical disability eventually combined to form the modern day para-Olympic movement. Canada became first in targeted national sports organisation on 1993.

The purpose of the study is to analyse and compare the level of mental toughness among swimmers and Para swimmers and to explore which category has maximum strength in overall mental toughness.

## **PROCEDURE AND METHODOLOGY**

### **SELECTION OF SUBJECTS**

The randomization Total 40 sample 20 national swimmers and 20 physically challenged national swimmers were selected as a subject from Delhi NCR and the age group will be ranked from 20-27years.

### **SELECTION OF TESTS WITH JUSTIFICATIONS**

A questionnaire for mental toughness developed by Allen Goldberg (2004) was used to obtain data for the level of mental toughness of swimmers and para swimmers. The questionnaire was highly reliable and valid. The test comprised of 30 questions which were answered by the subjects in an alternative response scale (true/false) type. Two points were awarded for answering each item positively, whereas no point was awarded for answering negatively.

### **CRITERION MEASURES**

Data was collected for the following variables through mental toughness questionnaire (MTQ) of Allen Goldberg (2004).

1. Reboundability
2. Handle pressure
3. Concentration
4. Confidence
5. Motivation

### **ADMINISTRATION OF TEST AND COLLECTION OF DATA**

The copies of the questionnaire were personally distributed to the all the subjects with the request that they shall give correct and accurate answer. The subjects were properly guided and assisted whenever they faced any difficulty. Proper instruction regarding the objectives of study and procedure for filling in the questionnaire was given. The subjects were motivated by the researcher to give the reliable information. The researcher personally contacted with the subjects and collected all the data. An assurance was given to keep all the received information confidential. The entire respondents were assured of copy of summary of the results.

## STATISTICAL TECHNIQUE

In this study, T-test was applied to analyse the data and graphical representation was shown. The level of significance fixed at 0.05.

## RESULTS

The obtained data was uploaded into a computer for analysis using the software called SPSS. Five measures reboundability, handle pressure, concentration, confidence and motivation namely Mental Toughness were under study. The scores of these measures were measured in interval scale. In such a situation students ‘t-test’ was applied to compare the means of these measures among swimmers and para swimmers. Descriptive statistics of swimmers and para swimmers have been presented in table 1, 2, 3, 4 and 5.

	MEAN	SD	MEAN DIFFERENCE	T
<b>SWIMMERS(S)</b>	0.441	1.225	0.16	0.0017
<b>PARA SWIMMERS(PS)</b>	0.275	0.745		

*Table 1 Comparison of mean difference of reboundability among swimmers and para swimmers*

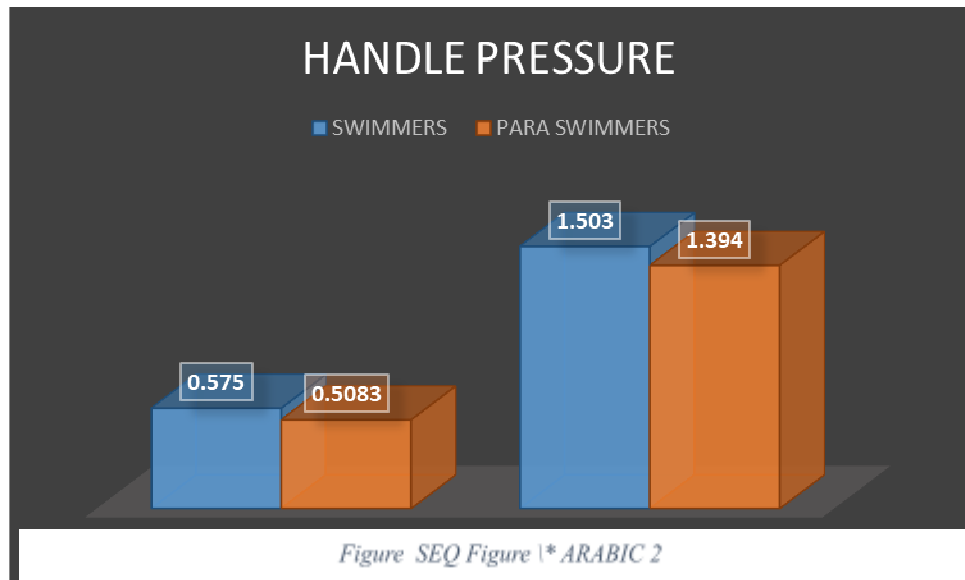
Table 1 reveals that mean, standard deviation swimmers(S) 0.441,  $\pm 1.225$  and para swimmers (PS) 0.275,  $\pm 0.745$ , mean difference 0.16 and “t” 0.0017 for Swimmers and para swimmers of Reboundability. Reveals that the value of calculated “t” i.e. 0.0017 for swimmers and para swimmers of rebound ability was not significant at 0.05 level. The value of “t” was found to be lesser than the tabulated value of 0.304 with 38 degree of freedom.



	MEAN	SD	MEAN DIFFERENCE	T
<b>SWIMMERS(S)</b>	0.575	1.503	0.067	0.194
<b>PARA SWIMMERS(PS)</b>	0.5083	1.394		

Table 2 Comparison of mean difference of handle pressure among swimmers and para swimmers

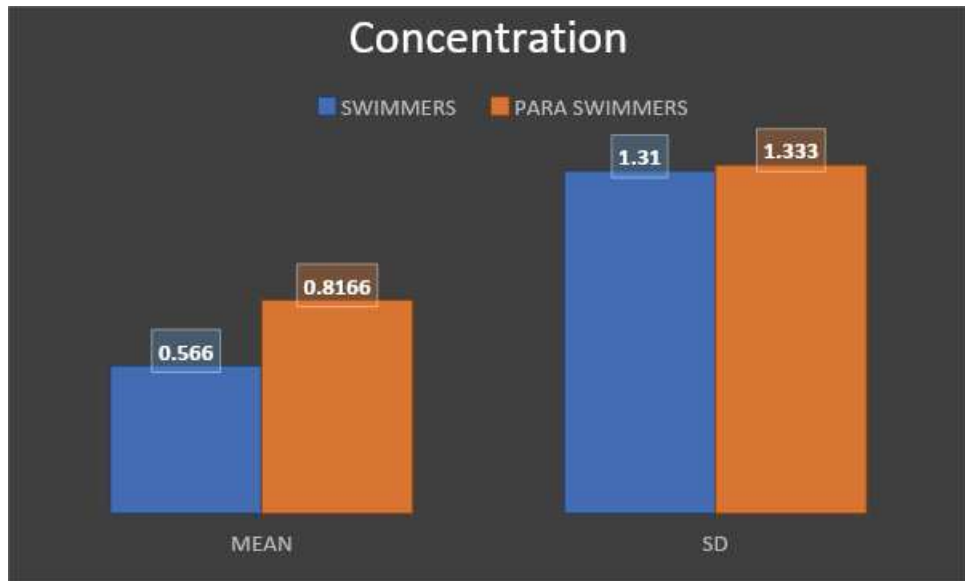
Table2 reveals that the mean swimmers(S) 0.575,  $\pm$ 1.503 standard deviation para swimmers (PS)0.5083,  $\pm$ 1.394 , mean difference 0.067and “t” 0.194 for swimmers and para swimmers of Handel Pressure. Depict that the value of calculated “t” i.e. 0.194 for swimmers and para swimmer of handle pressure was not significant at 0.05 level. The value of “t” was found lesser than the tabulated value of 0.304 with 38 degree of freedom.



	MEAN	SD	MEAN DIFFERENCE	T
<b>SWIMMERS(S)</b>	0.596	1.145	-0.112	0.0217
<b>PARA SWIMMERS (PS)</b>	0.7083	0.966		

Table 3 Comparison of mean difference of concentration among swimmers and para swimmers.

Table 3 reveals that the mean, standard deviation of swimmers (S) 0.596,  $\pm$ 1.145 and para swimmers (PS) 0.7083,  $\pm$ 0.966, mean difference -0.112 and “t” for swimmers and para swimmers of concentration. Reveals that the value of calculated “t” i.e. 0.0217 for swimmers and para swimmers of concentration was not significant at 0.05 level. The value of “t” was found to be lesser than the tabulated value of 0.304 with 38 degrees of freedom.



	MEAN	SD	MEAN DIFFERENCE	T
<b>SWIMMERS (S)</b>	0.566	1.31	-0.25	0.014
<b>PARA SWIMMERS(PS)</b>	0.8166	1.333		

Table 4 Comparison of mean difference of confidence among swimmers and para swimmers

Table 4 reveals that the mean, standard deviation, of swimmers(S) is 0.566,  $\pm 1.31$  and para swimmers (PS) are 0.8166,  $\pm 1.333$  mean difference -0.25 and “t” 0.014 for swimmers and para swimmers of confidence. Reveals that the value of calculated “t” i.e. 0.014 for swimmers and para swimmers of confidence was not significant at 0.05 levels. The value of “t” was found to be lesser than the tabulated value of 0.304 with 38 degrees of freedom.

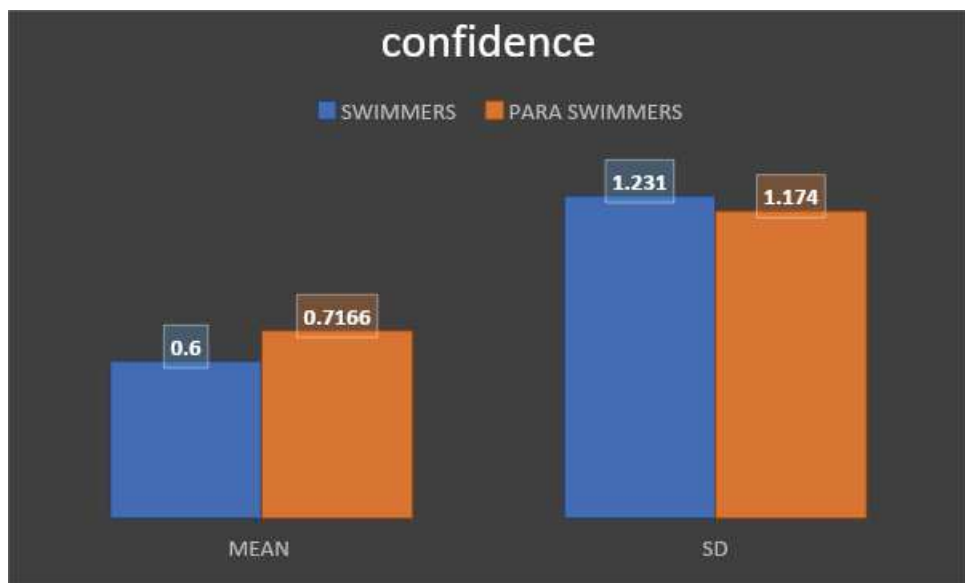
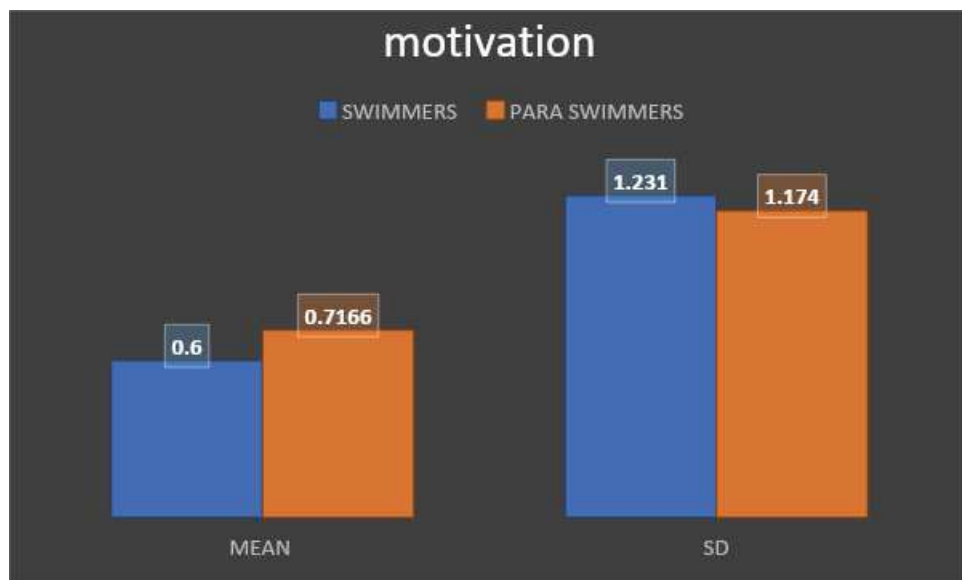


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	MEAN	SD	MEAN DIFFERENCE	T
<b>SWIMMERS(S)</b>	0.6	1.231	-0.11	0.036
<b>PARA SWIMMERS(PS)</b>	0.7166	1.174		

Table 5 Comparison of mean difference of motivation among swimmers and para swimmers.

Table 5 reveals that the mean, standard deviation, of swimmers(S) is 0.6,  $\pm 1.231$  and para swimmers (PS) is 0.7166 and  $\pm 1.174$ , mean difference -0.11 and “t” 0.036 for swimmers and para swimmers of motivation. Reveals that the value of calculated t-ratio i.e. 0.036 for swimmers and para swimmers of motivation was not significant at 0.05 level. The value of “t” was found to be lesser than the tabulated value of 0.304 with 38 degrees of freedom.



**DISCUSSION**

It is evident that there was no significance difference of mental toughness between swimmers and para swimmers. The objectives of the study was to analysis and compare the mental toughness of swimmers belonging to normal and para category and to explore which category has maximum strength in overall mental toughness. Moreover, various factors such as status, of previous achievements, level of competition, age, nature of the sport, and individual differences are involved in the desirable shaping of mental toughness. Mental toughness among swimmers and Para swimmers may have used similar strategies to overcome obstacles and achieve success. In fact, it can be argued that participation in sporting activities increases athletes’ skills and improves their social health. Furthermore, physical and tactical abilities and specialized skills are not the only guarantee for achieving success nowadays (Mayer, 1997). Additionally, psychological preparedness is one of the factors contributing to success, preparing athletes for competitions and teaching them how to react when confronted with various processes. However, participation in sports has been considered as a factor contributing to social interactions of

individuals. Considering the findings of this research and the importance of the crucial role of mental toughness, it can be expected that the performance of athletes can be enhanced through greater awareness of these components (Zareh, 2002; Samari and Tahmasbi, 2007). Nowadays, competition is no longer limited to superior techniques, but successful athletes enjoy greater psychological preparedness. It is essential that consider and schedule substantial psychological intervention programs for the group of athletes. This also sounds imperative to have a sport psychologist for players while practicing and competing. On the bases of result of the study the null hypothesis was accepted at 0.05 level of significance in mental toughness because there was no significance difference between swimmer and para swimmers on the level of mental toughness.

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