



## Analysis of mental toughness among category: S6 and S10 Para Swimmers

Vijender Rathi<sup>1</sup>, Dr. Poonam Singh<sup>2</sup>

<sup>1</sup> Ph.D. Scholar, Amity University, Noida, Uttar Pradesh, India

<sup>2</sup> Assistant Professor, Amity University, Noida, Uttar Pradesh, India

### Abstract

The purpose of the present study is to compare the mental toughness between national level S6 and S10 para swimmers. The study was conducted by selected 20- S6 category para swimmers and 20- S10 category para swimmers. Their age ranging from 18 to 25 years. Questionnaires were used as a tool to find out the mental toughness. Dr. Alan Goldberg's questionnaire. It was hypothesized that there would be a significant difference between the national level S6 and S10 para swimmers in mental toughness. The "t" test is employed to compare the degree of mental toughness between national level S6 and S10 para swimmers. The level of significance for testing the hypothesis is set at 0.05 level of confidence. The analysis of data reveals that there is no significant difference found between S6 and S10 para swimmers in mental toughness.

**Keywords:** mental toughness, S6 and S10 Para swimmer category

### Introduction

Sport psychology is a science in which the doctrines of psychology are concerned in a sport or exercise setting. These principles are often applied to enhance performance. However, the true sport psychologist is interested in much more than performance enhancement and sees sport as a vehicle for human enrichment. Sport psychology is an exciting subject dedicated to the enhancement of both athletic performance and the social-psychological aspects of human enrichment (Cox, 2007).

The Psychological factors involved in athletic performance have been of interest to athletes, coaches Sport psychology and sports scientists. Empirical studies have largely focused on individual psychological factors and their influence on performance, which include confidence, motivation visualization, and psychosomatic skills. Similarly, some studies indicated that use of mental skills such as goal settings, imagery, relaxation and self-talk are important areas in the field of sport psychology. They also asserted that goal setting as attaining a specific standard of proficiency on a task, usually within a specified time limit can increase performance during competition. Moreover, imagery as using all the senses to recreate or create an experience in the mind helps athletes to perform better and increase self-confidence (Rattanakes, 2009).

The development of sports psychology became a global movement only after the Rome Olympics in 1960. The coaches and physical educationists started realizing the importance of mental processes. Beyond the level of psychological conditioning a few researchers realized that the virgin realm of the mind, which is the source of energy, had to be explored for the benefit of athletes. Without this neither excellence nor perfection in competitive sports could be ensured.

Sport Psychology play a significant role in spirited sports. The

significant of sport psychology is more emphasized when it can be stated that by studying an athlete's behavior with in sporting environment, we can explain, forecast and change behavior. Moreover, some researchers revealed that mental preparation is the most helpful way to get better sport performance is necessitate studying the effect variables such as gender, skillfulness level and age groups more. Therefore, acknowledgment and improvement of mental skills consequently makes competitors, coaches' officials and researchers paying attention in sport psychology (Roux, 2001).

Psychology and mental factors have been one of the significant causes for breakdown and victory of a sport panel or athlete. The marvelous sound effects of these issue on breakdown and accomplishment are very noticeable, so the athlete all only one of its kind physical fitness issue and technological capabilities, is not up to make available even a tiny of his potential. Practitioners occasionally have complexity build up valuable mental preparation curriculum for person athletes and groups. In spite of that, they also consider that mental preparation such as goal settings, imagery, relaxation, and self-talk had helped them before, during and after contest and practice to enhance performance liveliness management, nervous tension executive, attention, self-confidence and inspiration (Burton, 2008).

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Within a short age of time, sports psychology has made its in

sports arena. An athlete is unfinished without psychological preparation. Where individual physical and natural limitations discontinue the responsibility of sports psychology originate in. Sport and exercise psychology is the study of the effect of psychological and emotional factors on sport and exercise performance, and the effect of sport and exercise involvement on psychological and emotional factors. Athletic performance is influenced by Psychological and emotional factors that can be fine tuned and learned. Conversely, involve in sport and exercise activities can have a positive effect upon an individual's psychological and emotional makeup (Cox, 2007).

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**Hypothesis**

*It is hypothesized that there would be a significant difference in mental toughness and among national level S6 and S10 para swimmers.*

**Purpose of study**

The main purpose of the study is to compare the mental toughness of the *national level S6 and S10 para swimmers*.

**Methodology**

The study attempts to compare the mental toughness between national level S6 and S10. Mental toughness test was conducted on selected 30 each national level S6 and S10, who were represented at nationals. The age group of the subjects is ranged between 18 to 25 years. These samples were tested with the help of Dr. Alan Goldberg's mental toughness questionnaire to find out Psychological variable. The collected data were tabulated for the purpose of analysis. The ungroup "t" test is used for testing the hypothesis for significance of mean difference in the mental toughness scores of national level S6 and S10 compared by using the statistical formula. All the statistical calculations were carried out with the help of SPSS windows package.

**Administration of questionnaire and collection of data**

**The Sports Mental Toughness**

Inventory was administered to each players. The directions were used by the researcher at a dictation speed to make the subjects understand about what they are exactly required to do after making sure that the subjects had clearly understand the procedure to fill up the questionnaire. They were asked to record the answer for all questions, the subjects were given enough time to answer the questionnaire. The questionnaires were taken back after it has duly completed. Though screening was made to sure that no question was left unanswered.

**Purpose**

To assess the mental toughness level among S6 and S10.

**Procedure of Administration**

To ensure maximum cooperation from the subjects, the researcher had a meeting with the S6 and S10. Where the subjects were oriented and explained regarding the purpose and procedure of questionnaire.

The mental toughness was consists of 30 items in which 1 to 6 items are keyed rebound ability, 7 to 12 items are keyed ability to handle pressure, 13-18 items are keyed concentration ability, 19-24 items are keyed level of confidence and 25-30 items are keyed motivation.

The scoring form 26-30 indicates over all mental toughness, from 23-25 indicates, average to moderate skills in mental toughness and 22 below indicates need to start putting more time into the mental training area.

**Statistical Procedure**

To compare the level of mental toughness among category S6 and S10 para swimmers student "t" test was used.

**Findings**

The result pertaining to significant differences on mental toughness among S6 and S10 para swimmers on rebound ability, handle pressure, concentration, confidence, motivation were analyzed with the help of "t" test. The analysis of data pertaining to this is presented in table I to table V.

**Table 1:** Comparison of mean difference of rebound ability among S6 and S10 para swimmers

Group	Mean	SD	Mean difference	T
S6 para swimmer	0.441	1.225	0.16	0.0016
S10 para swimmer	0.275	0.745		

Table 1 reveals that the value calculated t is 0.0017 for S6 and S10 Para swimmers on rebound ability was not significant at 0.05 levels. There no significant difference found among the S6 and S10 Para swimmers in relation to rebound ability

**Table 2:** Comparison of mean difference of handle pressure among S6 and S10 para swimmers

Group	Mean	SD	Mean difference	T
S6 para swimmer	0.575	1.503	0.067	0.194
S10 para swimmer	0.5083	1.394		

Table II reveals that the value calculated t is 0.00194 for S6 and S10 Para swimmers on handle pressure was not significant at 0.05 levels. There no significant difference found among the S6 and S10 Para swimmers

**Table 3:** Comparison of mean difference of concentration among S6 and S10 para swimmers

Group	Mean	SD	Mean difference	T
S6 para swimmer	0.592	1.145	0.111	0.0217
S10 para swimmer	0.708	0.965		

Table III reveals that the value calculated t is 0.00217 for S6 and S10 Para swimmers on concentration was not significant at 0.05 levels. There no significant difference found among the S6 and S10 Para swimmers.

**Table 4:** comparison of mean difference of confidence among S6 and S10 para swimmers

Group	Mean	SD	Mean difference	T
S6 para swimmer	0.441	1.225	0.16	0.0016
S10 para swimmer	0.275	0.745		

Table IV reveals that the value calculated t is 0.0016 for S6 and S10 Para swimmers on confidence was not significant at 0.05 levels. There no significant difference found among the S6 and S10 Para swimmers.

**Table 5:** Comparison of mean difference of motivation among S6 and S10 para swimmers

Group	Mean	SD	Mean difference	T
S6 para swimmer	0.60	1.229	0.12	0.0030
S10 para swimmer	0.71	1.432		

Table V reveals that the value calculated t is 0.0030 for S6 and S10 Para swimmers on motivation was not significant at 0.05 levels. There no significant difference found among the S6 and S10 Para swimmers

**Discussion on Findings**

The finding showed that there is no significant difference exists between the mental toughness level of S6 and S10. Unlike earlier studies conducted in this field showed that there was significant difference of mental toughness level between s6 and s10 para swimmers.

It is evident that there was no significance difference of mental toughness between s6 and s10 para swimmers. The objective of the study was to analysis and compares the mental toughness of swimmers belonging s6 and s10 category of Para swimmers and to explore which category has maximum mental strength level. 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 sound imperative to have a sport psychologist for players while and comparing.

**Discussion on Hypothesis**

Statistical analysis of that data comprised of “t” test for finding out the mental toughness level of S6 and S10 and it shows that there is no significant difference in S6 and S10. Thus hypothesis is rejected.

**Conclusion**

The purpose of the study was to compare the mental toughness level among S6 and S10 were selected as subjects for this study. The age of the subjects ranged between 20-25 years. Statistical analysis of the data comprised of “t” test for finding out the mental toughness level of S6 and S10. Itshows that there is no significant difference of mental toughness level of S6 and S10.

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