

# ASSESSMENT OF MENTAL TOUGHNESS AMONG HIGH AND LOW ACHIEVERS INDIAN WRESTLERS: A COMPARATIVE STUDY

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## **Abstract**

*This study examined the mental toughness and its influence on performance outcomes in competition. For this study 60 Indian Male National Wrestler competing in National championships at Indira Stadium Una Himachal were selected as sample. The Sample was further divided in two groups as per performance outcomes in competition one is successful wrestlers who had won the medals (n=30) and other one is non-successful wrestlers who had not won any medals in national Championship 2009. Psychological Performance Inventory (PPI; Loehr, 1986) was administered to measures the mental toughness to the both group in this study. Analysis of the fundamental areas of mental toughness revealed that the successful wrestlers scored significantly higher on all subscale of mental toughness and significant differences were observed between two groups (successful and non-successful) in self-confidence ( $p = 0.001$ ), negative energy control ( $p = 0.019$ ). Attention Control ( $p = 0.011$ ), Visual / Imagery Control ( $p=0.266$ ), Motivational Level ( $p = 0.002$ ), Positive Energy ( $p = 0.001$ ) and Attitude Control ( $p = 0.012$ )*

**Key Words:** goal orientation, mental toughness, male wrestlers, stress and anxiety.

## **Introduction**

Sven Goran-Eriksson, England Football Manager described effectively that... "little is required to be successful in sport. It's certainly mostly a matter of psychology and in the end it's that psychological difference that decides whether you win or lose."

Wrestling as a classical two-person sport is probably the oldest sport in the world. It can be traced back to the early history of mankind. In ancient times, humans were dependent on the strength of their own bodies, in confronting both natural forces and other humans. There were only primitive weapons, as far as any existed. Wrestling was thus of primary importance in survival. In ancient Greece, wrestling experienced a Golden Age lasting centuries. Rules and descriptions of techniques were introduced. Wrestling as a sport has been part of the Olympic program since 708 B.C.

Wrestling is one of those that's definitely an individual sport and at the same time, a part of the larger "team" concept. Some sports are tougher than others; some require physical strength and the ability to run fast. Others require the ability to jump long and high while repossessing acute hand-eye coordination. The athleticism derived from wrestling will be beneficial in almost any sport. Participation in wrestling provides: Greater coordination, more endurance, increased strength, Better flexibility, improved balance, increased speed & quickness and better reaction time. As far as the ultimate physical, mental and emotional challenge goes, no sport on earth rivals amateur wrestling.

Wrestlers are constantly under severe levels of stress and anxiety to perform well. They fight for every inch and often put their bodies through excruciating pain to secure a win. Yet how is it done? How does one get the subconscious mind and body to work together without consulting the conscious and rational mind which surely would prevent such nonsense from continuing? As is the case with any competition, there are situations that require the utmost concentration in face of difficult circumstances.

Most coaches and athletes acknowledge that anything between forty and ninety percent of sporting success is due to mental factors (Williams, & Krane, 2001). In fact, only mental

readiness was seen as significant for Olympic success (Orlick & Partington, 1998).

According to Loehr (1982), mentally tough athletes respond in varying ways which enable them to remain feeling relaxed, calm and energized because they have learned to develop two skills; firstly, the ability to increase their flow of positive energy (i.e. using energy positively) in crisis and adversity, and secondly, to think in specific ways so that they have the right attributes regarding problems, pressure, mistakes and competition. (Jones, Hanton, & Connaughton, 2002, p.205)

A factor often associated with successful performance in competition is mental toughness. Mental toughness can be considered as a mental skill factor. Some research findings has identified mental skills as a psychological construct that distinguishes between more and less successful performance across a number of sports; for example, golf (Thomas and Over, 1994), and equestrian, (Meyers et al., 1998). Mental toughness and its importance in competitive sports have been documented in literature (see Goldberg, 1998; Hodge, 1994; Tunney, 1987; Williams, 1988). Loehr (1982; 1986) suggested that fifty percent of success in competitions could be attributed to mental toughness in athletes. On similar lines, Gould et al. (1987) indicated that coaches felt the importance of being mentally tough in achieving success in sports. Norris (1999) also emphasized the importance of mental toughness in the making of a champion athlete. Gould et al. (2002) studied the psychological characteristics of Olympic champions, and identified mental toughness as a significant contributor to sports performance enhancement.

Therefore, in this study the researcher have considered the seven fundamental attributes of mental toughness suggested by Loehr (1986), specifically, the mental toughness attributes include (1) self-confidence (i.e. belief that one can perform well and be

successful), (2) negative energy control (i.e. to cope with negative emotions such as fear, anger, frustration and temper for achieving success), (3) attention control (i.e. stay focused and to perform well), (4) visualization and imagery control (i.e. creating positive mental images), (5) motivation level (i.e. the energy and willingness to persevere), (6) positive energy control (i.e. energized with fun, joy and satisfaction), and (7) attitude control (i.e. habits of thought and unyielding).

## **Methodology**

### **Participant**

Total 50 male wrestlers took part in this study. All participants were National level wrestlers from the Indian provinces of Haryana, Delhi, Punjab, Maharashtra, Jharkhand, U.P and Madhya Pradesh. The sample included 25 high achiever wrestlers (N=25) who had won the Gold, Silver and Bronze medals in this championship and 25 low achiever wrestlers who could not won the medals (N=25). The sample was selected by random sampling technique. Sample was taken from the venue of The National Sub junior championship 2009 Una Himachal Pradesh (India). The data was collected one day prior to the championship.

### **Instrument**

*Mental toughness: Psychological Performance Inventory (PPI; Loehr, 1986)* a 42 items self report inventory with seven subscales, designed to measure factors that reflect mental toughness in an athlete were administered to the athletes. Each subscale consisted of six items measuring the seven fundamental areas of mental toughness viz. self-confidence (e.g., "I believe in myself as a player"), negative energy control (e.g., "I can remain calm during competition when confused by problems"), attention control (e.g., "I can clear interfering emotion quickly and regain my

focus”), visualization and imagery control level (e.g., “Before competition, I picture myself performing perfectly”), positive energy control (e.g., “I can keep strong positive emotion flowing during competition”), and attitude control (e.g., “I am a positive thinker during competition”). The responses are indicated on a 5-point Likert type scale where 1=Almost always, and 5=Almost never)

**Performance measure:** Winning a medal in the National Championship was considered as successful performance outcome for the purpose of this study.

### **Data analysis**

Descriptive statistics were computed for all measures assessed, the data obtained were analyzed with the help of statistical software (SPSS 11.5 version). The mean, standard deviation along with t test has been applied to check the differences between samples mean of two groups viz. high achievers and low achievers wrestlers. The criterion for statistical significance was set at 0.01 level of confidence.

### **Results**

*Table-1*  
*Descriptive Statistics of Successful Wrestlers (n=30)*

<b>Mental Toughness</b>	<b>Mean</b>	<b>S.D</b>
<b>Self Confidence</b>	19.63	2.34
<b>Negative Energy Control</b>	19.46	1.75
<b>Attention Control</b>	18.06	2.49
<b>Visual / Imagery Control</b>	18.80	2.77
<b>Motivational Level</b>	19.63	2.55
<b>Positive Energy</b>	18.96	2.56
<b>Attitude Control</b>	19.60	2.56

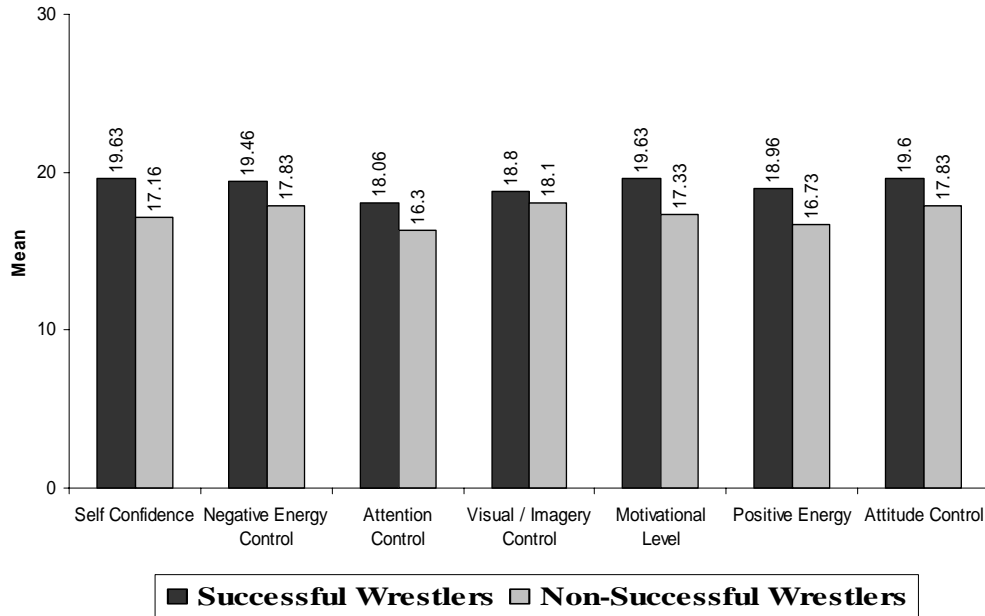
**Table-2**  
***Descriptive Statistics of Non-Successful Wrestlers (n=30)***

<b>Mental Toughness</b>	<b>Mean</b>	<b>S.D</b>
<b>Self Confidence</b>	17.16	3.09
<b>Negative Energy Control</b>	17.83	3.25
<b>Attention Control</b>	16.30	2.70
<b>Visual / Imagery Control</b>	18.10	1.98
<b>Motivational Level</b>	17.33	2.83
<b>Positive Energy</b>	16.73	2.57
<b>Attitude Control</b>	17.83	2.73

**Table-3**  
***Comparison of Mental Toughness Successful and Non-Successful Wrestlers (n=60)***

<b><i>Mental Toughness</i></b>	<b><i>t</i></b>	<b><i>df</i></b>	<b><i>Sig. (2-tailed)</i></b>	<b><i>Mean Difference</i></b>
Self Confidence	3.48	58	.001	2.46
Negative Energy Control	2.41	58	.019	1.63
Attention Control	2.63	58	.011	1.76
Visual / Imagery Control	1.12	58	.266	.70
Motivational Level	3.30	58	.002	2.30
Positive Energy	3.36	58	.001	2.23
Attitude Control	2.58	58	.012	1.76

**Fig.1 Comparison of Mental Toughness Successful and Non-Successful Wrestlers (n=60)**



Analysis of the fundamental areas of mental toughness revealed that the successful wrestlers scored significantly higher on all subscale of mental toughness and significant differences were observed between two groups (successful and non-successful) in self-confidence ( $p = 0.001$ ), negative energy control ( $p = 0.019$ ), Attention Control ( $p = 0.011$ ), Visual / Imagery Control ( $p=0.266$ ), Motivational Level ( $p = 0.002$ ), Positive Energy ( $p = 0.001$ ) and Attitude Control ( $p = 0.012$ ) the finding of our research is also supported by Kuan, G., Roy, J. (2004) who also observed significant differences between athletes (medalist and non medalist) in self-confidence ( $p=0.001$ ) and negative energy control ( $p=0.042$ ). Medalist's scored significantly higher on self-confidence and negative energy control than the non-medalists (self confidence and negative energy control).

The another study carried by Bortoli and Robazza (1997) and Stephaniel L and Stolz has clearly shown that in the motor and sport domain, the confidence which subject places on his own capacities is one of the most important factors affecting performance also found that there is a significant increase in the performance of individuals with higher self-confidence The results of this experiment clearly showed that affecting some one's confidence will affect their performance. In our case also successful wrestlers were reported more self confidence than non successful wrestlers' t' 3.48 is significant at 0.01 level of significance.

The finding of our study is also supported by the Golby and Sheard (2003) who studied mental toughness at different levels of rugby league and reported that the athletes scored significantly higher on two of the seven mental toughness subscales (negative energy control and attention control).

### **Conclusion**

At high level sport competitions it is difficult to beat the opposition by raw physical talent and game skill alone but sport performance is depend upon mental preparation and psychological strength so mental preparation must be done along with physical preparation for upcoming competition. The mental training may include setting up short- term goals, building confidence and control the negative thoughts. Present study is focusing on the implication and importance of psychological training by understanding affects of wrestler's mind on their sports performance may beneficial for achieving maximum potential in sports.

### **Implication**

Sports psychology is the key to sports excellence. Therefore, through the implementation of the psychology performance inventory, which highlights the mental toughness of players and



the information obtained, would be specific to the psychological demands of wrestlers to achieve success in wrestling. A greater understanding of psychological needs and demands of wrestlers would offer coaches, physical educationist, and Sports trainer the opportunity to provide better support and advice to individual wrestlers. Therefore this study is useful to enhance the wrestlers overall performance.

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