

ANALYTICAL STUDY OF THE RELATIONSHIP BETWEEN MENTAL TOUGHNESS AND JUDO PERFORMANCE

Das N.¹, Sanotra G.^{2*}


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¹ Nisha Rani Das, Master Degree Student , Department of Physical Education Pedagogy , Lakshmbai National Institute of Physical Education, Gwalior, Madhya Pradesh, India.

^{2*} Gaurav Sanotra, Professor, Department of Physical Education Pedagogy, Lakshmbai National Institute of Physical Education, Gwalior, Madhya Pradesh, India.

The present study analyses the relationship between mental toughness and performance in judo. 30 Male subjects, aging between 17 - 30 years were selected to assess their mental toughness by using Alan Heary mental toughness questionnaire and judo performance by administering the Sterkowicz Judo Fitness Test. Subjects with high level of mental toughness displayed high level of judo performance and vice versa. Furthermore, other researches in the same field is required to better understand the influence of mental toughness on judo performance.

Keywords: Mental Toughness, Judo, Players and Performance

Corresponding Author	How to Cite this Article	To Browse
Gaurav Sanotra, Professor, Department of Physical Education Pedagogy, Lakshmbai National Institute of Physical Education, Gwalior, Madhya Pradesh, India. Email: nisharanidas99@gmail.com	Nisha Rani Das, Gaurav Sanotra, ANALYTICAL STUDY OF THE RELATIONSHIP BETWEEN MENTAL TOUGHNESS AND JUDO PERFORMANCE. IJEMS. 2023;12(03):94-97. Available From https://ijems.net/index.php/ijem/article/view/332	

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Introduction

There has been a long standing interest about whether an individual's psychological state or levels of different psychological components have any relationship with the individual's physical components. Whether the psychological components influence the physical behaviors of an individual. If we see it from sports perspective, fully understanding this relationship will unlock techniques to achieve greater heights in terms of physical performance by training the mental components. Such concepts are also evident in the work of Gould et al (2002) who stated that : sporting success was highly influenced by mental toughness as a psychological characteristic. But overall it remains unclear whether mental toughness specifically influence judo performance. The purpose of this study is to analyse whether there is an influential relationship between level of mental toughness and performance in judo, the former influencing the latter. As such the research statement of this study is : Analytical study on the relationship of mental toughness and performance in judo.

Drawing on the statement that psychological components may influence the physical performance of an athlete I hypothesized that there is a significant influence of mental toughness on performance in judo. This is coupled with the fact that as judo is a combat game mental toughness will surely have some role or the other.

The outcomes of this study would help the judokas as well as the coaches to know their strengths and weaknesses in terms of psychological attributes and work on them accordingly by developing training regimes including both physical and mental sessions.

Review of Related Literature

Gould et al. in (2002) Olympic medal winners' psychological development was examined. Research revealed that Olympic champions' sporting success was highly influenced by mental toughness as a psychological characteristic.

Golby & Sheard (2004) investigated the relationship between mental toughness and sports performance of rugby players. They found a significant and positive association between mental toughness and sports performance.

Kuan and Roy (2007) looked into the relationship between Wushu competitors' mental toughness and athletic performance. 40 Malaysian Inter University Wushu athletes took the Psychological Performance Inventory (PPI). Amongst the athletes who won medals and those who didn't, there were clear distinctions in their levels of mental toughness. We came to the conclusion that medal-winning athletes have much better mental toughness, which allows them to perform at the greatest level.

Stefanovsk et al. (2021) discovered discrepancies and significant variability in the Special Judo Fitness Test (SJFT) reliability methodologies. This is why they used SJFT to assess the accuracy and dependability of all metrics. The authors suggest utilizing the HR and SJFT index as a suitable, dependable parameter after testing the unique degree of judo fitness as well as its changes.

Eken et al. (2022) came to the conclusion that SJFT performance varied during the day and that judokas' performances were most positively impacted in the evening, particularly following RAMP procedures. Ouergui et al. (2022) discovered that SJFT performance was not influenced by the time of day.

Methodology

Subjects and background:

30 male judokas aging between 17 to 30 years were selected. All were undergraduate and postgraduate students of Lakshmibai National Institute of Physical Education but with different ethnicity belonging from different states of India.

The sample consisted subjects who have participated in various different levels of judo tournaments ranging from cadet to junior to university level and Khelo India level.

Design and materials:

A close ended questionnaire on mental toughness by Alan Heary was used coupled with the SJFT. The questionnaire was provided to them in online mode using Google forms and the test was administered by me in the judo hall of Lakshmibai National Institute of Physical Education, Gwalior under the expert supervision of Dr. Gaurav Sanotra.

Procedure:

The data collection in the questionnaire consist of 4 sub sets of mental toughnessnamely confidence, control, concentration and commitment each comprising of 6statements. And the SJFT test was administered following the guidelines. After thecollection of the data, statistical tool correlation was employed to determine thecorrelationbetween mentaltoughnessand judo performance.

Result and Discussion

The graph represents the data of the study. (Fig: graphical representation of the data)

Enclosed as Annexure 01

Orange=SJFTindex andBlue=Mental toughnessscore.

It is observed that with a rise in mental toughness score there is a rise in the SJFTindex andviceversa

After applying correlation function on the data a strong correlation of 0.83 was found.The findings of the study revealed that the judokas with high level of mental toughnesspossessed high level of judo performance and vice versa. A major reason behind thiscan be the age factor because, it was observed that as the age increased the judokasdisplayed low performance levels as compared to the younger judokas and also theirresponsesobligedthesameintheAlanHearymental toughness questionnaire.

After consulting the results it is evident that my hypothesis was correct stating thatmentaltoughnesslevelsinfluencetheperformancein judo.

Limitations and Suggestions

This study has potential limitations and possible improvements which could be made.Oneofwhichistheunderstandingandinterpreting ofthestatementsofthequestionnaireandthesubject'sattentivenesswhilefillingupthesame.Anotherlimitation concernsthevariationsinDailyroutine,age,individualdifferences,environmentalfactorsofthesubjects.Therefor etheresearchershouldtakegoodcareorthe same.

Conclusion and Recommendations

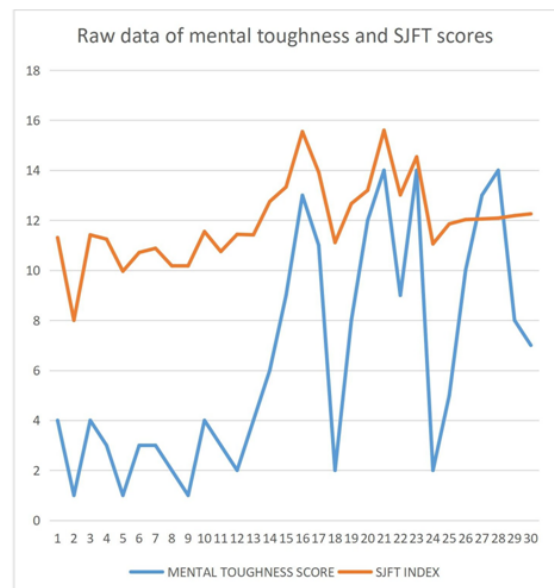
The research findings have demonstratedthat the higher the mental toughness scorethe higher was the SJFT index of the individual hence

Proving my hypothesis to be true. My recommendations for further research could be to compare the mental toughness level of judokas to non combat sports athlete.. Another recommendation would be to conduct the research on a large scale to get more accurate results.

Annexure

Annexure 01

Fig: graphical representation of the data



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