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## Analysis of Mental Toughness and Mental Health of Tae-Kwon-Do and Judo Players

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### Abstract

The purpose of the study was to find out the differences in mental toughness and mental health between Tae-Kwon-Do and Judo players. The subjects were taken from different privately owned Martial Arts academy located in Meerut (U.P.). The subjects in this study were 40 (10 boys and 10 girls in each group) of age ranged from 18 to 25 years selected randomly through purposive sampling. To analyze mental toughness of the subjects mental toughness questionnaire (Dr. Alan Goldberg, 2004) and mental health inventory (Dr. Jagdish & Dr. Srivastava 1988) was used. The statistical technique employed for this study was mean, standard deviation and independent 't' test. The level of significance was tested at 0.05 levels. As per the statistical analysis significant difference was not found in mental toughness and mental health between Tae-Kwon-Do and Judo players. Therefore, the hypotheses that there will not be significant difference in mental toughness and mental health between Tae-Kwon-Do and Judo players has been accepted.

**Keywords:** Mental toughness and mental health

### 1. Introduction

Mental toughness is a collection of attributes that allow a person to persevere through difficult circumstances (such as difficult training or difficult competitive situations in games) and emerge without losing confidence. Mental toughness is "Having the natural or developed psychological edge that enables you to: generally, cope better than your opponents with the many demands (competition, training, lifestyle) that sport places on a performer; specifically, be more consistent and better than your opponents in remaining determined, focused, confident, and in control under pressure." (Jones, Hanton, & Connaughton, 2002, p. 209) [1]. Six elements of mental toughness have been mentioned here:

- Flexibility
- Responsiveness
- Strength
- Courage and ethics
- Resiliency
- Sportsmanship

Mental toughness has been equated with better understood constructs from psychology such as resilience and hardiness. The term resilience is often incorrectly used interchangeably with mental toughness. However, many sports psychologists define resilience as a positive adaptive process of coping with stress and adversity, as opposed to a collection of psychological attributes or personality traits. Hardiness has been suggested as a similar construct to mental toughness. Hardiness has typically been constructed as a personality trait, which is generally seen as stable throughout the lifetime. This differs from the conceptions of mental toughness offered by Gucciardi *et al.* Research is starting to reveal that your mental toughness plays a more important role than anything else for achieving your goals in life.

The positive dimension of mental health is stressed in WHO's definition of health as contained in its constitution: "Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity."

Mental health is defined as a state of well-being in which every individual realizes his or her own potential, can cope with the normal stresses of life, can work productively and fruitfully,

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and is able to make a contribution to her or his community. Some facts about the mental health are as follows:

- Mental and substance use disorders are the leading cause of disability worldwide.
- About 800000 people commit suicide every year.
- Mental disorders are important risk factors for other diseases, as well as unintentional and intentional injury.
- Stigma and discrimination against patients and families prevent people from seeking mental health care.
- Human rights violations of people with mental and psychosocial disability are routinely reported in most countries.
- Globally, there is huge inequity in the distribution of skilled human resources for mental health.
- War and disasters have a large impact on mental health and psychosocial well-being.
- Around 20% of the world's children and adolescents have mental disorders or problems.

Persons with mental disorders are also at times subject to violence. Although public perceptions of such people are often of violent individuals who are a danger to others, the reality is that they are more often the victims than the perpetrators. Sometimes, however, there may be an apparent conflict between the individual's right to autonomy and society's obligation to prevent harm to all persons. This situation could arise when persons with a mental disorder pose a risk to themselves and to others due to impairment of their decision-making capacity and to behavioral disturbances associated with the mental disorders.

Research and common sense tell us that top competitive athletes succeed because of their physical talents and their dedication to training. However, they also succeed because of their dexterity in dealing with the psychological pressures of a sport.

In short, mental toughness and mental health are tremendously important for any athlete aiming to be the best in a sport. In combative sports like Tae-Kwon-Do and Judo mental toughness and mental health become relevantly more important and play a vital role by inculcating courage and endeavor in the players which is manifested in the form of excellent skills and mass demonstration.

Therefore the researcher has planned to undergo an analysis of mental toughness and mental health of Tae-Kwon-Do and Judo players.

**Objectives of the Study**

- To analyze mental toughness of Tae-Kwon-Do and Judo players.
- To analyze mental health of Tae-Kwon-Do and Judo players.

**Hypothesis**

In the present study, It was hypothesized that there would not be significant difference between mental toughness and mental health of Tae-Kwon-Do and Judo players.

**Materials and Methods**

Participants (n=40, 10 males of Tae-Kwon-Do and Judo (each) and 10 girls of Tae-Kwon-Do and Judo (each) age ranged from 18 to 25 years belong different Martial Arts academies of Meerut (U.P). To analyze mental toughness and mental health of Tae-Kwon-Do and Judo players between the groups independent't' test was applied at the significance level of 0.05.To measure mental toughness of the players mental toughness questionnaire of Dr. Alan Goldberg, 2004 and mental health inventory of Dr. Jagdish & Dr. Srivastava, 1988 was used. After delivering necessary and sufficient instructions, the questionnaires were filled up by the martial arts players under the supervision of the researcher.

**Data Analysis**

Statistical Analysis: For data analysis responses were expressed as mean and standard deviation. Independent't' test was performed for comparison between two groups, p<0.05 was considered statistically significant. Data analysis was performed using SPSS 17.0 software under windows.

**Results**

To analyze mental toughness and mental health of different groups mean, standard deviation and independent't' test were computed. The findings are presented below. On mental toughness and mental health, the means and standard deviations of the two groups along with the significance of difference by way of independent't' test has been presented in Table1.

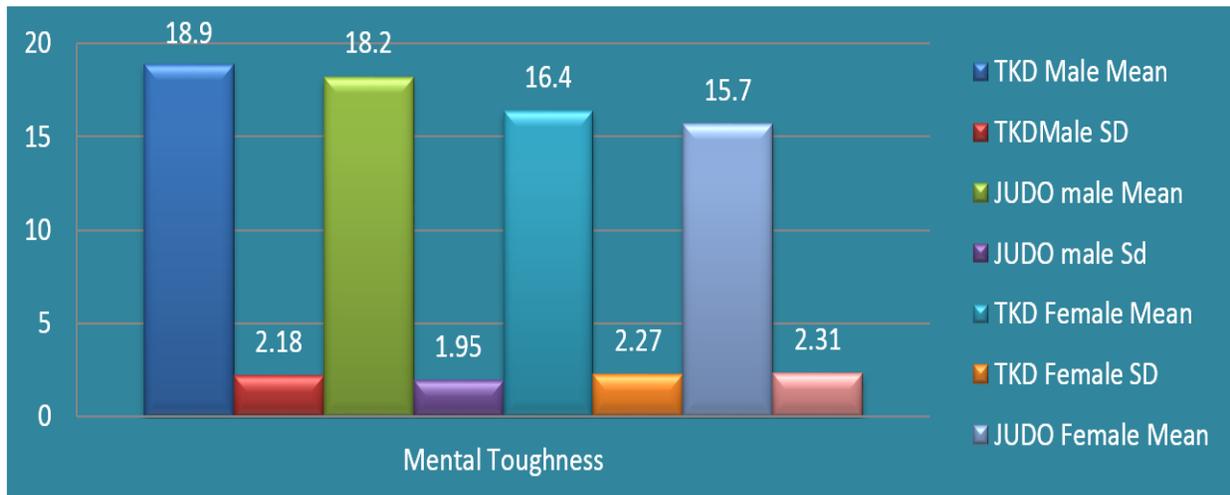
**Table 1:** Mean and Standard Deviation of Mental Toughness and Mental Health of Male and Female Tae-Kwon-Do and Judo Players

Variable	Game	Gender	N	Mean	Sd	Maximum	Minimum
Mental Toughness	TKD	Male	10	18.9	2.18	22	16
		Female	10	16.4	2.27	20	14
	JUDO	Male	10	18.2	1.95	21	16
		Female	10	15.7	2.31	20	13
Mental Health	TKD	Male	10	47.5	1.95	50	45
		Female	10	44.7	2.00	47	42
	JUDO	Male	10	46.0	2.26	49	42
		Female	10	44.0	2.86	48	39

TKD= Tae-Kwon-Do

The above table- 1 indicates that the means of mental toughness of Tae-Kwon-Do and Judo male players have been reported 18.9, 18.2 and standard deviation 2.18 and 1.95

respectively. The means of mental toughness of Tae-Kwon-Do and Judo female players have been reported 16.4, 15.7 and standard deviation 2.27 and 2.31 respectively.

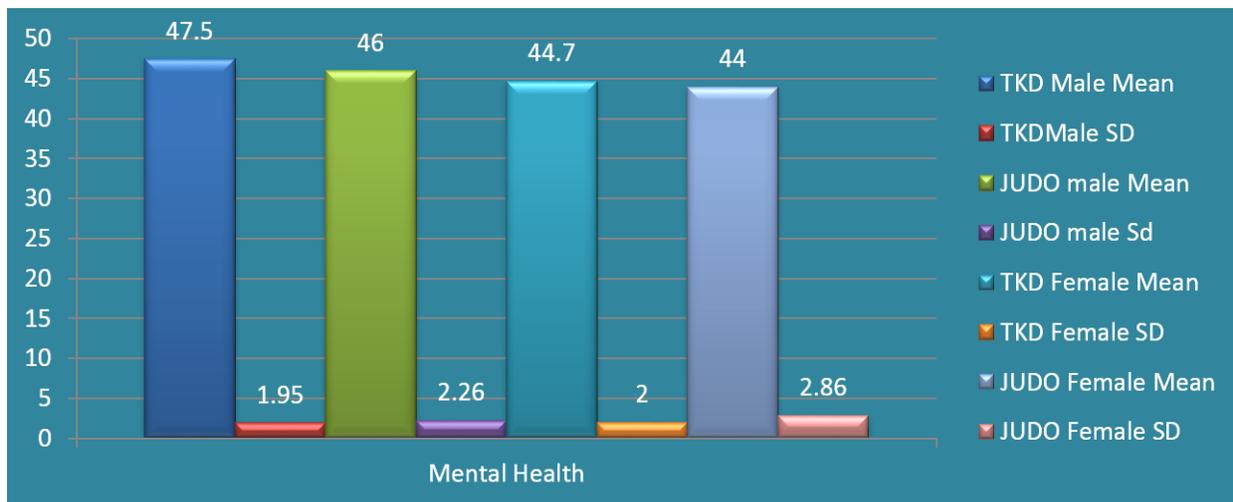


**Fig 1:** Graphical Representation of Mean and Standard Deviation of Mental Toughness in Male and Female Tae-Kwon-Do and Judo Players

Figure-1 displays mean and standard deviation of mental toughness in male and female Tae-Kwon-Do and Judo players.

Further the means of mental health of Tae-Kwon-Do and Judo male players have been reported 47.5, 46.0 and

standard deviation 1.95 and 2.26 respectively. The means of mental health of Tae-Kwon-Do and Judo female players have been reported 44.7, 44.0 and standard deviation 2.00 and 2.86 respectively.



**Fig 2:** Graphical Representation of Mean and Standard Deviation of Mental Health in Male and Female Tae-Kwon-Do and Judo Players

Figure-2 presents mean and standard deviation of mental health in male and female Tae-Kwon-Do and Judo players.

**Table 2:** Mean, Standard Deviation and 't' value of Mental toughness and Mental Health of Male Tae-Kwon-Do and Judo

Variable	Game	N	Mean	Sd	Se	'T'
Mental Toughness	TKD	10	18.9	2.18	.97	.72
	JUDO	10	18.2	1.95		
Mental Health	TKD	10	47.5	1.95	.99	1.51
	JUDO	10	46.0	2.26		

\*Significant at 0.05(2, 18) = 2.10

Table-2 indicates that the obtained 't' value for mental toughness and mental health of Tae-Kwon-Do and Judo male players have been reported 0.72 and 1.51 which are lower than the tabulated value 2.10. This reveals that there is no significant difference between Tae-Kwon-Do and Judo male players in mental toughness and mental health at 0.05 level of significance.

**Table 3:** Mean, Standard Deviation and 't' value of Mental Toughness and Mental Health of Female Tae-Kwon-Do and Judo Players

Variable	Game	N	Mean	Sd	Se	'T'
Mental Toughness	TKD	10	16.4	2.27	1.08	.65
	JUDO	10	15.7	2.31		
Mental Health	TKD	10	44.7	2.0	1.16	.60
	JUDO	10	44.0	2.86		

\*Significant at 0.05(2, 18) = 2.10

Table-3 indicates that the obtained 't' value for mental toughness and mental health of Tae-Kwon-Do and Judo female players have been reported 0.65 and 0.60 which are lower than the tabulated value 2.10. This reveals that there is no significant difference between Tae-Kwon-Do and Judo female players in mental toughness and mental health at 0.05 level of significance.

**Table 4:** Mean, Standard Deviation and ‘t’ value of Mental Toughness and Mental Health of Tae-Kwon-Do and Judo Players

Variable	Game	Number	Mean	Sd	Max	Min	Se	‘T’
Mental Toughness	TKD	20	17.65	2.51	22	14	.80	.87
	JUDO	20	16.45	2.43	21	13		
Mental Health	TKD	20	46.1	2.40	50	42	.83	1.32
	JUDO	20	45.0	2.71	49	39		

\*Significant at 0.05(2, 38) =2.02

Table-4 indicates that the obtained ‘t’ value for mental toughness and mental health of Tae-Kwon-Do and Judo players irrespective of the gender have been reported 0.87 and 1.32 which are lower than the tabulated value 2.02. This reveals that there is no significant difference between Tae-Kwon-Do and Judo players in mental toughness and mental health at 0.05 level of significance.

**Discussion**

The results of the study indicate that there was insignificant difference in mental toughness and mental health between Tae-Kwon-Do and Judo players. The analyzed data shows that Tae-Kwon-Do and Judo players irrespective of the gender do not differ significantly on mental toughness and mental health grounds. When we compare male Tae-Kwon-Do and Judo players or female Tae-Kwon-Do and Judo players separately, the findings remain the same. This may be attributed to the same nature of the sports. Both are different forms of martial arts and lies under contact sports or combative sports. The tools and techniques used in these sports resemble and carry same movement patterns. The players also practice symmetrical and identical training schedules and to some extent require same physical and mental fitness and efficiency. The mental processes and behavioral sameness leads in the form of similarity in technical and strategical mechanism of concerned sports.

The results of Fuller Julian R. (2011) and Woodward Thomas W. (2009) also underline the psychological characteristics including mental toughness and mental health of martial arts players. These traits resemble to some extent and lay down the symmetrical psychological platform of different streams martial arts players.

The study may be helpful in developing better understanding associated with psychological background of the martial arts players and in the formation of various training programmes that are well equipped and covers extensively the psychological aspect of combative sports.

**Conclusion**

Results of this study are consistent with previous research that has demonstrated insignificant difference in mental toughness and mental health of martial arts players. In the light of the findings and limitations of the present study, it may be concluded that Tae-Kwon-Do and Judo are alike with reference to the mental toughness and mental health.

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