

Comparative Study of Mental Toughness between Inter-College Level Pugilists and Grapplers

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Abstract

The purpose of the study was to compare the mental toughness between inter-college level male pugilists and grapplers. The present study was conducted on a sample of forty (N=40) male players, which includes twenty each, pugilists (N₁=20) and grapplers (N₂=20) of age ranging from 18 to 25 years, which actually participated in inter-college competitions of Guru Nanak Dev University, Amritsar, Punjab, India. All the participants were informed about the aim and methodology of the study and they volunteered to participate in this study. Data was collected by using mental toughness questionnaire developed by Goldberg (1998). The independent samples t-test was applied to assess the differences between pugilists and grapplers. The level of significance was set at 0.05. Results revealed statistically significant differences between pugilists and grapplers with regard to rebound ability (p<0.05), ability to handle pressure (p<0.05) and overall mental toughness (p<0.05) but insignificant differences were found with regard to concentration (p>0.05), confidence (p>0.05) and motivation (p>0.05).

Keywords: Mental toughness, pugilists, grapplers.

INTRODUCTION

Mental Toughness is a characteristic many believe to be important for success in sport; many coaches view mental toughness as a quality that must be considered in the recruitment of athletes as described by Weinberg, Butt, & Culp (2011). Gould et al. (1987) expressed that in fact, some view mental toughness as the most important psychological attribute in determining success. Fourie and Potgieter (2001) analyzed written responses from 131 expert coaches and 160 elite athletes. Their analysis identified twelve components of mental toughness including: motivation level, coping skills, confidence maintenance, cognitive skill, discipline and goal directedness, competitiveness, possession of prerequisite physical and mental requirements, team unity, preparation skills, psychological hardiness and ethics. Jones et al. (2002) defined mental toughness as the natural or developed psychological edge that enables you to generally cope better than your opponents with the many demands that sport places on a performer. In contrast further work was needed to finalize a working definition of mental toughness. Specifically, be more consistent and better than your opponents in remaining determined, focused, confident, and in control under pressure. Middlenton et al. (2004) interviewed athletes from a variety of sports and proposed that the mental toughness is strong determination in the face of adversity. Clough et al. (2002) used four C's to describe mental toughness as challenge, commitment, control and confidence. While variability among the definitions exists, mental toughness related with the skillful demonstration of collection of psychological skills. In early work on the issue, Loehr (1982, 1986) emphasized that athletes and coaches felt that at least fifty percent of success is due to psychological factors that reflect mental toughness. The training of sports psychology programmes is key to success as described by Kureger (1984) and Loehr (1982, 1986). Bell

(1983) and Cratty (1984) illustrated that mental aspects affect the athlete's performance in competition. Gould et al. (2002) expressed that psychological characteristics of Olympic champions identified that mental toughness as a significant contributor to sports performance enhancement. Babian (1990); Cox (2002); Kureger (1984); Loehr, 1982) are of the view that according to recent findings, the psychology of each individual player in such stiff competition played a significant role to perform at top level. Sport psychologists (researchers and practitioners), coaches, sports commentators, sports fans, and athletes acknowledge the importance of mental toughness in sporting performance as expressed by Goldberg (1998); Hodge (1994); Tunney (1987) and Williams (1988). Bull et al. (2005) have suggested that the characteristics of mental toughness in a global sense might be distinct from how it is understood in a particular sport. Similarly, it is possible that constituents of mental toughness differ in particular sports.

MATERIALS AND METHODS

Subjects: A sample of forty (N=40) male players, which includes twenty each, pugilists (N₁=20) and grapplers (N₂=20) of age ranging from 18 to 25 years, who participated in inter-college competitions of Guru Nanak Dev University, Amritsar, Punjab, India, was selected. All the participants were informed about the aim and methodology of the study and they volunteered to participate in this study. The purposive sampling technique was used to select the subjects.

Methodology: Questionnaire method was used to collect the data. Mental toughness was measured by applying mental toughness questionnaire developed by Goldberg (1998). Mental toughness questionnaire consists of 30 items that measures the mental toughness in five areas, i.e. rebound ability, ability to handle pressure, concentration, confidence and motivation. Only yes/no response options are there in this questionnaire and subjects have to tick only one. Before filling up the questionnaire necessary instructions were given and questions were explained to the subjects.

Statistical Analyses: Data was analyzed using SPSS Version 16.0 (Statistical Package for the Social Sciences, version 16.0, SPSS Inc, Chicago, IL, USA). Independent samples t-test was used to test if population means estimated by two independent samples differed significantly. The level of significance was set at 0.05.

RESULTS

Table-1. Mean Values (\pm SD), Standard Error Difference of the Mean and Test Statistic t of Mental Toughness between Pugilists and Grapplers.

VARIABLES	Pugilists (N ₁ = 20)		Grapplers (N ₂ = 20)		Mean Differ ence	SEDM	t-value	Sig.
	Mean	SD	Mean	SD				
Rebound Ability	4.15	0.67	3.50	1.19	0.65	0.30	2.12*	0.04
Ability to Handle Pressure	4.40	0.88	3.65	0.87	0.75	0.28	2.70*	0.01
Concentration	3.70	1.13	3.65	1.14	0.05	0.36	0.14	0.89
Confidence	4.15	1.04	3.80	1.06	0.35	0.33	1.06	0.30
Motivation	4.05	1.10	3.80	1.00	0.25	0.33	0.75	0.46
Mental Toughness (Total)	20.45	1.39	18.8	2.12	1.65	0.57	2.91*	0.00

*Significant at 0.05 level

Table 1 presents the mean scores of inter-college level male Pugilists and Grapplers with regard to Mental Toughness. The inter-college level Pugilists when compared to Grapplers, have exhibited statistically significant differences with regard to rebound ability ($p < 0.05$), ability to handle pressure ($p < 0.05$) and overall mental toughness ($p < 0.05$). However, insignificant differences were found with regard to concentration ($p > 0.05$), confidence ($p > 0.05$) and motivation ($p > 0.05$). While comparing the means, it revealed that inter-college level pugilists had greater Mental Toughness (Total) than their counterparts; Grapplers.

Discussion

The present study was conducted to compare the mental toughness between inter-college level male pugilists and grapplers. Results of the present study showed that pugilists have exhibited statistically significant differences with regard to rebound ability, ability to handle pressure and mental toughness (total) as compared to Grapplers. While comparing the means, inter-college level pugilists had shown greater rebound ability, ability to handle pressure and mental toughness (total) than grapplers. The findings fall in line with the study of Singh, J. et al. (2012), as they also revealed significant differences between foreigner professional footballers and Indian professional footballers on the account of rebound ability, ability to handle pressure and mental toughness (Total). Ramesh Chand Yadav (2014) also concluded that mental toughness of national female volleyball players is higher than the national female kabaddi players. Rajender Singh and Rajesh Kumar (2011) concluded that All India intervarsity soccer players significantly differed in mental toughness than their counterpart; inter-collegiate soccer players. Findings of the present study also depicts insignificant differences between pugilists and grapplers with regard to concentration, confidence and motivation. These findings are in line with the study of Singh, J. et al. (2012), as they found that Indian professional football players and Indian non-professional football players had insignificant differences on concentration, confidence and motivation.

CONCLUSIONS

It is concluded that statistically significant differences were found between Pugilists and Grapplers with regard to rebound ability, ability to handle pressure and overall mental toughness but insignificant differences were found with regard to concentration, confidence and motivation. The inter-college level Pugilists had greater rebound ability, ability to handle pressure and overall mental toughness than Grapplers, but both the groups are found almost same on concentration, confidence and motivation.

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