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A Comparative study of Mental Toughness among players of Basketball and Combat Sports

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Abstract

Mental toughness is more influenced by environment than by domains, and as a result, it may be crucial in any context that demands performance under pressure and is confronted with obstacles and problems. Due to the crucial role that mental toughness plays in sports, this essay compared the mental toughness of athletes in combat sports with basketball. For this study, a total of fifty (N=30) inter-university athletes were chosen, 15 from basketball and 15 from wrestling, with ages ranging from 18 to 23. The athletes' mental toughness was evaluated using Alan Heary's Mental Toughness Questionnaire (MTQ). It comprises of six statements for each of the four variables commitment/motivation, confidence, control under stress, and focus. Basketball players and combat sport athletes were compared in terms of their levels of sport mental toughness using an independent t-test, with 0.05 chosen as the significant threshold. For basketball players and wrestlers, the mean values of the variables were commitment/motivation 2.86 and 3.40, concentration 2.53 and 2.93, confidence 2.86 and 2.66, and control under pressure 2.60 and 2.80, respectively. Independent t-test results revealed no significant differences in other factors, however there were significant differences between basketball players and wrestlers in the commitment/motivation variable.

Keywords: Sport Psychology, Mental Toughness, Basketballer, Wrestlers.

Introduction

Sports performance is not just a function of physiology (fitness factors) and biomechanics (for instance, technique variables), but psychological aspects also play a significant influence in performance. However, every athlete has to be under a certain amount of stress in order to perform at their best. That threshold is influenced by things including heredity, coping mechanisms, and prior experiences. As with anything else in life, stress can be acute, episodic, or chronic while playing sports. In sports, whether during a friendly competition between friends or a championship game, it tends to be episodic. Acute stress actually serves as

a challenger; if it is not linked, it may develop into an episodic stressor that can interfere with play as well as impact one over the long run.

Mental toughness

A person's level of confidence and mental toughness is a metric that may be used to forecast success in the job, in school, and in sports. It emerged as a wide concept in the context of sports training, in the context of a collection of qualities that allow someone to improve as an athlete and be able to handle challenging training and competitive conditions and come out on top without losing confidence. The phrase has gained popularity in recent years among coaches, sport psychologists, sports writers, and business executives.

Mental toughness is more important for athletic achievement than any other single characteristic. In the first studies on mental toughness, 82% of wrestling trainers ranked it as an important component in their athletes' performance (Sharma, 2022)

There are several reasons why success is greatly aided by a positive outlook or mental toughness. A top athlete needs to be resilient under pressure, confident in themselves, and free of any personal issues. They must be driven to succeed and be aware that they are capable of everything they set their minds to.

Mental toughness and sport

A person's mental toughness is a term that is frequently used to refer to any collection of good traits that enable them to handle challenging circumstances. Coaches and sports analysts frequently use the phrase "mental toughness" to describe athletes who persevere under trying sporting circumstances in order to triumph. Numerous studies that link mental toughness to sports success or achievement support this. It is, however, frequently used as a blanket justification for any triumph, which is extremely problematic as an attribution. Numerous studies demonstrate the importance of the concept of mental toughness in sports performance. In terms of team and individual sports as well as the essence of the activity, basketball and wrestling are both distinct. Both games require us to confront our opponents, and there is a chance that this could result in some bodily contact, which could slow down the game. The researcher therefore planned to investigate any differences in mental toughness between these two groups. The comparison of combat athletes' mental toughness to basketball players was therefore thought to be worthwhile by the researchers.

Methodology

Selection of subjects: Purposive sampling was employed to choose the individuals for the current investigation. A total of fifty (N=30) inter-university athletes, 15 from each of the sports of wrestling and basketball, with ages ranging from 18 to 23 years old, were chosen as the study's participants.

Criterion measure: The Alan Heary Mental Toughness Questionnaire was the instrument used to gather the data. Four aspects of mental toughness, including commitment/motivation, focus, control under stress, and confidence, are measured by the questionnaire. Each variable contained six statements, and the subject had to check the one that, in his/her opinion, applied to him. If not, the statement may be left blank.

Collection of data:

The subjects were given the questionnaire and requested to fill it out after the researcher obtained permission from the relevant parties to gather the data. The researcher answered any queries that the individuals had and cleared up any confusion.

Analysis of the data:

To acquire a general notion of the distribution of the data prior to statistical analysis, descriptive statistics such the arithmetic mean (AM) and standard deviation (SD) were produced. To determine if the difference was significant, a two-sample t-test was utilised. The significance level was set at 05.

Results

Table1
Independent t-test of Commitment/Motivation

Group	N	Mean	T value	P Value
Basketball	15	2.86	2.117	0.04
Wrestling	15	3.40		

^{*}At 0.05 level of significance

The mean commitment/motivation value for the basketball and wrestling groups is 2.86 and 3.40, respectively, according to Table 1. Since the computed p value of 0.04 is less than the 0.05 level of significance, we draw the conclusion that there are substantial differences in commitment and motivation between wrestlers and basketball players.

Table2
Independent t-test of Concentration

Group	N	Mean	T value	P Value
Basketball	15	2.53	1.629	0.11
Wrestling	15	2.93	1.027	0.11

^{*}At 0.05 level of significance

The mean concentration for the basketball and wrestling groups is 2.53 and 2.93, respectively, according to Table 2. Since the computed p value of 0.11 is more than the 0.05 level of significance, we draw the conclusion that there is no discernible difference in concentration between wrestlers and basketball players.

Table 3
Independent t-test for Confidence

Group	N	Mean	T value	P Value
Basketball	15	2.86	0.702	0.489
Wrestling	15	2.66		

^{*}At 0.05 level of significance

The mean concentration for the basketball and wrestling groups, respectively, is 2.86 and 2.66, according to Table 3. We draw the conclusion that there is no significant difference in the degree of confidence between wrestlers and basketball players since the estimated p value, 0.489, is more than the 0.05 level of significance.

Table 4 **Independent t-test for Control under Pressure**

Group	N	Mean	T value	P Value
Basketball	15	2.60	0.648	0.522
Wrestling	15	2.80		

^{*}At 0.05 level of significance

The mean concentration for the basketball and wrestling groups, respectively, is 2.60 and 2.80, according to Table 4. Since the estimated p value of 0.52 is more than the threshold of 0.05 level of significance, we draw the conclusion that there is no discernible difference in control under pressure between basketball and wrestling athletes.

Discussion

Basketball and wrestling players' levels of dedication and drive differed considerably, as seen in Table 1. Tables 2, 3, and 4 demonstrate that there was no discernible difference between the basketball and wrestling sports in terms of confidence, focus, and control under pressure. According to Alan Heary's Mental Toughness Questionnaire, a total score of 0 to 4 will fall into the thriving zone, a score of 5 to 14 will fall into the surviving zone, and a score of 15 to 24 will fall into the struggling zone.

Conclusion

According to the findings, there was a significant difference between basketball and wrestling athletes' levels of dedication and drive. The ability to focus, remain confident, and maintain control under pressure differs little between basketball and wrestling athletes. Because basketball is not a sport with a lot of physical contact, and wrestling is a contact sport, there may be a significant difference in motivation and dedication. Because of the physical attributes of their opponents, wrestlers may become apprehensive, which eventually saps their drive. The majority of the athletes in both sports appear to be in the 'survival zone,' which indicates that they are not usually giving it their all. They must enhance their mental abilities through the mental skill training if they want to achieve their ultimate aims. Training in mental toughness enables athletes to overcome their mental weaknesses and perform at their peak during competition.

Conflict of Interest: Authors declare no conflicts of interest

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