A COMPREHENSIVE STUDY OF MENTAL TOUGHNESS OF OPEN AND CLOSED SKILL ATHLETES

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ABSTRACT

Thus the aim of this study was to determine the role of mental toughness of open and closed skill athletes. To obtain data, the investigators had selected Two hundred and nine (N=209) male inter-college level athletes of 20 to 25 years of age group were selected to act as subjects. They were further divided into two groups which includes n=130 open skill athletes and n=79 closed skill athletes of various games and sports. The purposive sampling technique was used to attain the objectives of the study. All the subjects, after having been informed about the objective and protocol of the study, gave their consent and volunteered to participate in this study. To determine the significant differences between open and closed skill athletes, unpaired t-test was employed for data analyses. For testing the hypotheses, the level of significance was set at 0.05. It is concluded from the above findings that insignificant differences were found with regard to mental toughness of open and closed skill athletes in the sub-variables; i.e. reboundability, ability to handle pressure, concentration, confidence, motivation and overall mental toughness.

Keywords: Reboundability, Ability to Handle Pressure, Concentration, Confidence, Motivation and Overall Mental Toughness.

INTRODUCTION:

In recent years, in the field of psychology, in order to improve the emotional regulation, management of emotions and emotional intelligence has been more imptortant. Further, the researchers revealed that emotional intelligence is a useful and efficacy construct for use in applied situations such as during the performance (Meyer & Flectcher, 2007; Lane et al., 2009). Emotions are parts of the human personality which affect individual performance and can associate with success and failure in sport settings (Hanin, 2000).

Presently, researchers in the sports' field are looking into this concept of mental toughness and various ways it can be taught. Sports psychologists, along with coaches and athletes, continue to search for answers to these questions. Coaches and athletes have been searching for mental skills that will enhance their competitive edge over the competition. A review of literature pointed to mental toughness as being one of the more important determinants of peak athletic performance.

Often associated with peak sports performance is the psychological construct of mental toughness. Indeed, in a study of the psychological characteristics of Olympic champions, Gould, Dieffenbach, and Moffett (2002) identified mental toughness as the mental skill factor most frequently cited as a significant contributor to sports performance enhancement.

Many articles have been written and theories created about the attributes that go into mental toughness; however, most of these are based on personal experience. Quality research on this critical key to success is lacking and a true definition is hard to find. The absence of mental toughness is often highlighted as a top reason why athletes and teams do not reach their full potential and the highest possible level of success. Athletes frequently struggle with the mental aspect of sport and many coaches question how to teach and enhance this skill. Strength or toughness was another characteristic of a mentally tough performer. The ability to work through pain and other adversity and exhibit a tough exterior seemed to play an important part in the participants' views of the ideal mentally tough performer.

SELECTION OF SUBJECTS:

For this purpose, Two hundred and nine (N=209) male inter-college level athletes of 20 to 25 years of age group were selected to act as subjects. They were further divided into two groups which includes n=130 open skill athletes and n=79 closed skill athletes of various games and sports. The purposive sampling technique was used to attain the objectives of the study. All the subjects, after having been informed about the objective and protocol of the study, gave their consent and volunteered to participate in this study.

Details of selected open and closed skill athletes

Sr. No	A-Open Skill	Sample	B-Closed Skill	Sample
1	Volleyball	42	Archery	39
2	Handball	45	Gymnastic	12
3	Basketball	43	Shooting	28
		130		**79**

SELECTION OF VARIABLES:

A feasibility analysis as to which of the variables could be taken up for the investigation, keeping in view the availability of tools, adequacy to the subjects and the legitimate time that could be devoted for tests and to keep the entire study unitary and integrated was made in consultation with experts. With the above criteria's in mind, the psychological variable namely mental toughness were taken up for the present study:

MENTAL TOUGHNESS-

- Reboundability
- Ability to handle pressure
- Concentration
- Confidence
- Motivation

SELECTION OF TOOLS-

Sr.no	Tools	Authors	Year
1.	Mental Toughness	Goldberg	1998

STATISTICAL TECHNIQUE EMPLOYED-

To determine the significant differences between open and closed skill athletes, unpaired t-test was employed for data analyses. For testing the hypotheses, the level of significance was set at 0.05.

RESULTS:

Table-2

Significant Differences in the Mean Scores of Open and Closed Skill Athletes on the Variable Mental Toughness

Variables	Mean		SD		Mean Difference	t-value	p-value
	Open Skill Athletes	Closed Skill Athletes	Open Skill Athletes	Closed Skill Athletes			

Reboundability	3.71	3.49	1.11	1.14	0.22	1.3370	0.1827
Ability to Handle Pressure	3.75	3.67	0.98	0.89	0.08	0.6142	0.5398
Concentration	3.75	3.70	1.03	1.10	0.05	0.3810	0.7036
Confidence	4.05	3.77	1.03	1.02	0.28	1.9219	0.0560
Motivation	3.75	3.66	1.00	1.04	0.09	0.6625	0.5084
Overall Mental Toughness	19.13	18.59	1.88	2.13	0.54	1.8967	0.0593

Significant at 0.05 level, $t_{.05}$ (207)

Reboundability

Table-1 presents the results of open and closed skill athletes with regard to the variable mental toughness. The descriptive statistics shows the Mean and SD values of open skill athletes on the sub-variable reboundability as 3.71 and 1.11 respectively. However, closed skill athletes had Mean and SD values as 3.49 and 1.14 respectively. The‘t’-value 1.3370 as shown in the table above was found statistically insignificant (p>0.05).

Ability to Handle Pressure

The descriptive statistics shows the Mean and SD values of open skill athletes on the sub-variable reboundability as 3.75 and 0.98 respectively. However, closed skill athletes had Mean and SD values as 3.67 and 0.89 respectively. The‘t’-value 0.6142 as shown in the table above was found statistically insignificant (p>0.05).

Concentration

The descriptive statistics shows the Mean and SD values of open skill athletes on the sub-variable concentration as 3.75 and 1.03 respectively. However, closed skill athletes had Mean and SD values as 3.70 and 1.02 respectively. The‘t’-value 0.3810 as shown in the table above was found statistically insignificant (p>0.05).

Confidence

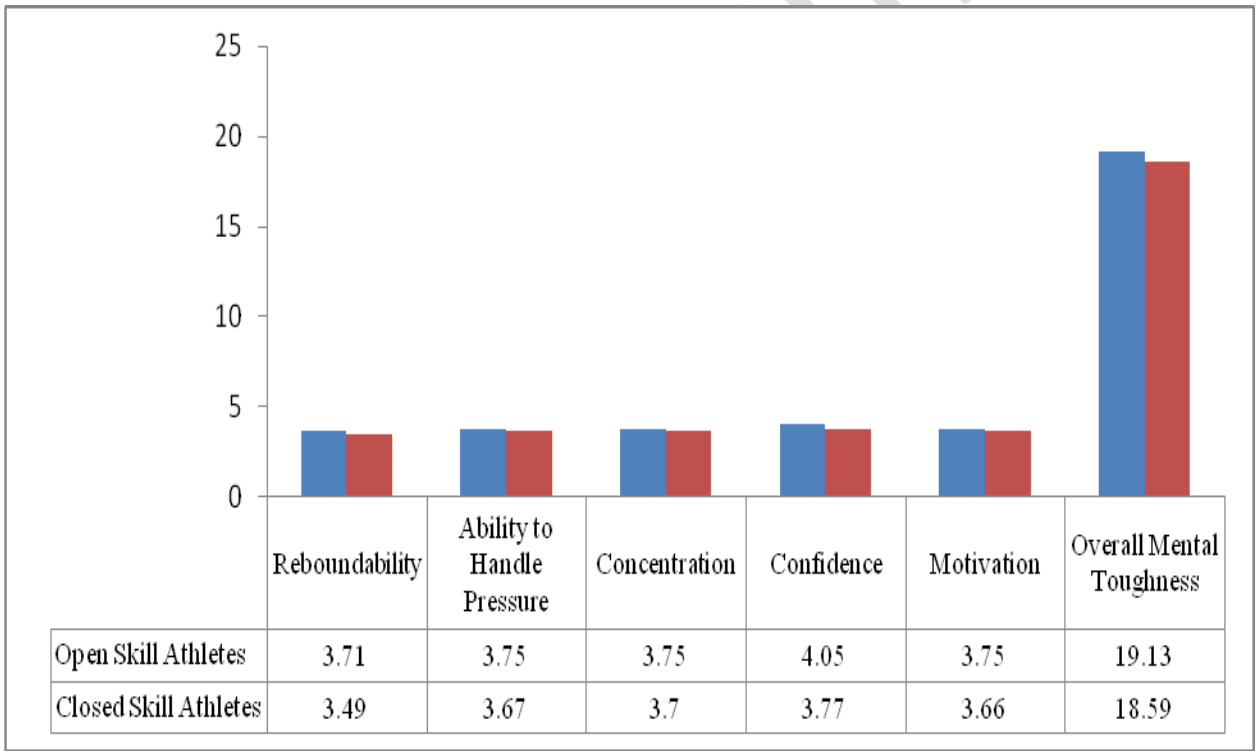
The descriptive statistics shows the Mean and SD values of open skill athletes on the sub-variable confidence as 4.05 and 1.03 respectively. However, closed skill athletes had Mean and SD values as 3.77 and 1.10 respectively. The‘t’-value 1.9219 as shown in the table above was found statistically insignificant (p>0.05).

Motivation

The descriptive statistics shows the Mean and SD values of open skill athletes on the sub-variable motivation as 3.75 and 1.00 respectively. However, closed skill athletes had Mean and SD values as 3.66 and 1.04 respectively. The't'-value 0.6625 as shown in the table above was found statistically insignificant (p>0.05).

Overall Mental Toughness

The descriptive statistics shows the Mean and SD values of open skill athletes on the sub-variable overall mental toughness as 19.13 and 1.88 respectively. However, closed skill athletes had Mean and SD values as 18.59 and 2.13 respectively. The't'-value 1.8967 as shown in the table above was found statistically insignificant (p>0.05). The comparison of mean scores of both the groups has been presented graphically in figure-1.



	Reboundability	Ability to Handle Pressure	Concentration	Confidence	Motivation	Overall Mental Toughness
Open Skill Athletes	3.71	3.75	3.75	4.05	3.75	19.13
Closed Skill Athletes	3.49	3.67	3.7	3.77	3.66	18.59

Figure: 1

Graphical Representations in the Mean Scores of Open and Closed Skill Athletes on the Variable Mental Toughness

DISCUSSION OF FINDINGS:

It is evident from the findings of table-2 with regard to mental toughness that insignificant differences have been observed on the sub-variables; reboundability, ability to handle pressure, concentration, confidence, motivation and overall mental toughness between open and closed skill athletes. When compared the mean values of both the groups, it has been found that open skill athletes have performed significantly better on reboundability, ability to handle pressure, concentration, confidence, motivation and overall mental toughness. The outcome of the above results might be due to the motivational drive, successful completion, ability to accomplish the goals and mental toughness present in the open skill athletes who enabled them to outdo the closed skill athletes. Similar trends have been reported by Rathore et al. (2009) wherein they found that the team game players were more mentally tough as compared to individual game players on the variable mental toughness. Mohammad et al. (2009) found that Malaysian professional football players are at excellent level in mental toughness. Gould et al. (1987) indicated that coaches felt the importance of being mentally tough in achieving success in sports. Thelwell et al. (2008) identified its attributes from single sport perspective of professional soccer players closely resemble the attributes that mental toughness investigated in those individuals who have achieved the ultimate outcome in their sport. Kuan (2007) suggested that athletes with greater mental toughness were more likely to be selected into main teams to play in crucial competition.

CONCLUSIONS OF THE STUDY:

It is concluded from the above findings that insignificant differences were found with regard to mental toughness of open and closed skill athletes in the sub-variables; i.e. reboundability, ability to handle pressure, concentration, confidence, motivation and overall mental toughness.

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