

A Comparative Study

Mental Toughness in Male and Female Athletes

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ABSTRACT

The aim of present study was to examine the possible difference in the psychological skills of male and female senior national athletes. The sample consisted of 60 senior national Athletes (30 male and 30 female). They were tested by using psychological performance inventory. Analysis showed that female athletes differed significantly with male athletes, with regard to negative energy. No significant differences were found between male and female athletes with regard to other psychological variables viz., self-confidence, attention control, imagery, motivation, positive energy and attitude control. Based on the results, the mental toughness in above mentioned variables was analyzed.

INTRODUCTION

Mental toughness is an unshakable perseverance and conviction towards some goal, despite pressure or adversity. Mentally tough athletes are conceptualized as being able to function effectively in stressful situations. It plays an important role in athletic performance. Sports specialists agree that athletic performance is influenced not only by physical skills but even by psychological ones. An essential part of research in sport psychology is the assessment of athlete's psychological skills.

Gender is an important interpersonal factor

in competitive sport. Female athletes, compared with male athletes, reported higher cognitive anxiety (Martens & Russel, 1990 & 1998) and lower self-confidence (Krane & Martens 1994, 1990). Also, males used more problem-focused coping strategies, while females used more emotion focused coping. Anshel & Antonini Philippe 1998 & 2005) and Gill (2002) stated that male athletes were more win oriented and focused more on interpersonal comparison, while female scored higher on goal orientation and focused more on personal goals. In addition to it, female athletes, in endurance activities, use more

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dissociative cognitive strategies while male endurance athletes tend to be more associate. Antonini (2005) and Vealey (1998) found that self- confidence levels were not statistically different for male and female elite athletes.

Lee Crust and Hard Keegan (2010) tested the relationship between mental toughness and attitudes towards risk taking in undergraduate student athletes and found that male reported significantly higher overall mental toughness, confidence in abilities, and attitudes towards psychological risk than women.

In a study on gender effects on coping strategies in late adolescents, Kimberly and Renk (2003) found that females used emotion-focused coping strategies more than males. Other research shows that females tend to use behavior coping (e.g. taking direct and positive actions to deal with problems) more actively than males (Fielden & Davidson 2001). It has been shown that psychological aspects of gender, such as gender roles, influence the ways female and male cope with stress (Gianakos, 2000 & 2002) and he found that female were more likely than male to use direct action coping to deal with stress by working longer and harder. (Marsh), Males rated themselves higher on physical self-concept than females (March, 1998). Examining gender-based variations in mental toughness, therefore, may offer important insights for developing programmes that address the needs

of male female athletes. Simon, C. Middleton et al (2004) found that females consistently report themselves lower than males on characteristics of mental toughness.

METHODOLOGY

The sample for the present study was drawn from the Sports Authority India, Netaji Subhsh Southern Centre, Bangalore. In all, 60 senior athletes, 30 female senior athletes and 30 male senior athletes, who were preparing for CWG 2010 were selected. The English version of psychological performance inventory (James E.Loehr, Ed.D, 1982) was administered to the sample, to assess the psychological skills viz., self confidence, attention control, negative energy, visual & imagery control, motivation level, positive energy and attitude control. The 60 athletes were divided into 10 groups and test was administered to each group. The protocols were analyzed gender-wise. Simple 't' tests were used to test the mean differences. Results on the psychological skills were compiled.

RESULTS & DISCUSSION

The outcome variable, in the present study, was mental toughness. It was assessed through psychological performance inventory. Mental toughness is the major concern for athletes. To realize the mental toughness between male and female athletes, the responses given in the statements with regard to mental toughness were analyzed.

Table-1 : Mental toughness in Self-Confidence, Negative Energy, Attentional Control, and Visualization skills.

S.No.	Psychological variables	Gender	N	Mean	S.D	T Value
1.	Self confidence	Male	30	24.80	3.33	1.67@
		Female	30	23.73	2.98	
2.	Negative energy	Male	30	20.06	3.93	-2.92**
		Female	30	22.30	2.81	
3.	Attention	Male	30	20.86	4.10	1.18@
		Female	30	21.63	3.27	
4.	Visualization	Male	30	24.86	2.73	1.73@
		Female	30	23.73	3.00	

@ Not Significant : ** p<0.01

Firstly, the mean scores in self-confidence, negative energy, attention control and visualization were examined (Table 1). Higher score on the above skills indicate good in mental toughness. The results (Table 1) reveal that male and female athletes differed significantly ($t=2.92^{**}$) with regard to negative energy. No significant differences were found in self-confidence, attentional control, and visualization skills. It only indicates that female athletes can control such negative emotions as fear, anger,

frustration, envy, resentment, rage and temper better than male athletes. Mean differences between male and female show that male athletes (mean=24.80) reported slightly higher self-confidence than female athletes (Mean=23.98). Male athletes (Mean=24.86) have better visualization skills than female athletes (Mean=23.73); but not statically significant. In attention control, female athletes (Mean=21.63) have slightly better attention than male athletes (Mean= 20.86); but not statistically significant.

Table-2 : Mental Toughness in Motivation, Positive Energy and Attitude Control.

S.No.	Sub Groups	Gender	N	Mean	S.D	T Value
1.	Motivation	Male	30	25.60	2.66	1.88@
		Female	30	24.30	2.64	
2.	Positive energy	Male	30	24.66	3.63	0.53@
		Female	30	24.23	2.56	
3.	Attitude control	Male	30	24.33	3.27	-0.84@
		Female	30	24.93	2.55	

@ Not Significant : ** p<0.01

The results (Table 2) indicate that no significant differences were found between male and female athletes with regard to motivation, positive energy, and attitude control. But, mean differences show that male athletes have slightly higher motivation (Mean= 25.60) and positive energy (Mean=24.66) than female athletes (Means= 24.30&24.23). Female athletes have slightly better positive attitude (Mean=24.93) than male athletes (Mean=24.33).

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