



ANALYSIS OF MENTAL TOUGHNESS AMONG SUB - ELITE FIELD HOCKEY PLAYERS

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ABSTRACTS

Preparation is the key to success in sports at all levels, which is why professional athletes spend a lot of time and money to ensure adequate knowledge, quality of practice and physical education skills. However, among the elite, the difference between those who work well and those who work well is mainly their level of preparation and the ability to use their skills in High status. An important part of this mental preparation is developing the ability to cope with the mental stress that comes with participating in elite sports. In this solution, individual differences in how people respond to stress mean that each person can respond to stressful situations in their own way. This is because individuals can use various coping and coping strategies to cope with stress/anxiety (Holahan & Moos, 1994; Moos & Shaefer, 1993). Subjects were divided into four groups based on their performance at the 2011 South Division Intercollegiate Hockey Tournament in Tirunelveli. The total number of subjects is 72 and there are 18 subjects in each group. From this qualitative research, seven aspects of psychology were developed. These factors include: self-confidence, negative energy, emotional control, perception and thinking, motivation, positive energy and behavior control. ANOVA statistics were used to analyze the differences between groups. This article provides some information about the empowerment field - definition and theory. Rigorous scientific studies in this area of research allow us to better understand mental health. With an understanding of psychology, it is now possible to conduct research on life-long measurement, development and education. To truly understand how

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resilience emerges in people's lives, future research will best examine the interactions between individual traits (eg., seven factors identified here), social support, and the nature of stress or depression.

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INTRODUCTION

Comprehensive preparation is the key to success at any level of sports participation, hence the amount of time and money invested by professional players to ensure sufficient adequate technical knowledge, well-rehearsed match strategies and highly trained physiological capacities. At elite level, however, the difference between good and great players is often their level of psychological preparation and how well they can apply their skills in high-pressure situations.

An important part of this psychological preparation is the development of the ability to cope with the psychological stress that accompanies elite sports participation. In this coping process there is individual variability in people's responses to stress, which means that each individual will probably deal with the stressful situation in his own way. This is due to the fact that there are a number of adaptive resources and coping strategies which individuals could utilize in dealing with high stress/pressure (Holahan & Moos, 1994 ; Moos & Shaefer, 1993).

THEORETICAL FRAMEWORK

The question arises whether a specific selection of psychological skills exists that would facilitate exceptional sports performance when developed optimally. One factor that should be taken into account is that the type of sport that athletes compete in will determine the specific psychological skills that they will need in their quest for better performance (Martens, 1987).

METHOD

The subjects were divided in to four groups according to their performance in south zone Hockey inter- university held at Tirunelveli 2011. Total number of subjects was 72 and in each group consists of 18 subjects. After contacting coaches and athletes and getting their approval, PPI questionnaire which was administered. Seven mental toughness characteristics

evolved through this qualitative research. These factors include: Self Confidence, Negative Energy, Attention Control, Visual & Imagery Control, Motivational Level, Positive Energy, and Attitude Control. The subjects were explained about the benefits of the test taken by the researcher, as the subjects were mostly from University of Tamil Nadu the questionnaire was translated in to Tamil version to get correct data and for better response from the subjects. ANOVA statistical was used to analysis the difference between the groups.

RESULTS

TABLE – I

ANALYSIS OF VARIANCE OF POST TEST SCORES ON SELECTED VARIABLES AMONGSUB ELITE FIELD HOCKEY PLAYERS

Sl.No	Variables	Source of Variance	Sum of Squares	df	Mean Squares	F-Value
1	I	BG	329.48	3	109.82	8.97*
		WG	832.38	68	12.24	
2	II	BG	568.55	3	189.51	11.82*
		WG	1089.88	68	16.02	
3	III	BG	125.37	3	41.79	3.93*
		WG	721.94	68	10.61	
4	IV	BG	88.59	3	29.53	2.20
		WG	909.27	68	13.37	
5	V	BG	314.37	3	104.79	8.21*
		WG	867.61	68	12.75	
6	VI	BG	134.00	3	44.66	5.35*
		WG	567.77	68	8.35	
7	VII	BG	302.81	3	100.94	6.15*
		WG	1116.05	68	16.41	

Table F, df (3, 68) (0.05) = 2.73

In above table, the results of analysis of covariance on I (8.97), II (11.82), III (3.93), V (8.21), VI (5.35) and VII (6.15) were greater than the table value of 2.73 indicating that it was significant (P<0.05) for the degrees of freedom (3,68) at 0.05 level of confidence. Since the F value was significant, the scheffe's post-hoc test was further computed to find out which pair was better among others and the results are tabulated in the table II. The result of IV (2.20) was lesser than the table value of 2.73 indicating that it was not significant.

TABLE – II SCHEFFE'S POST-HOC TEST

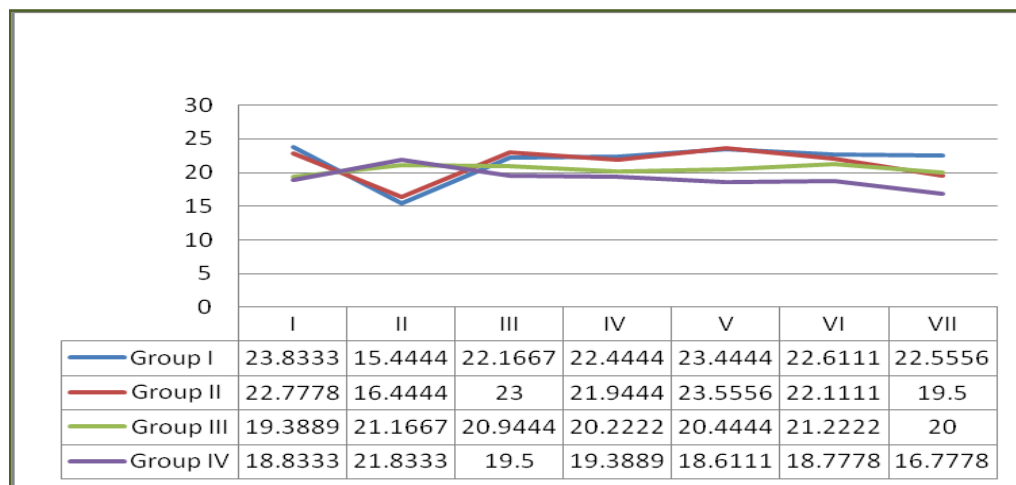
Sl.No	Variables	Mean Differences	CI

		A & B	A & C	A & D	B & C	B & D	C & D	
1	I	1.06	4.45	5.00*	3.39	3.94	0.55	4.71
2	II	1.00	5.72*	6.39*	4.72	5.39*	0.67	5.39
3	III	0.84	1.22	2.66	2.06	3.50*	1.44	3.39
4	V	0.11	3.00	4.83*	3.11	4.94*	1.83	4.81
5	VI	0.00	0.89	3.34*	0.89	3.34*	2.45	3.19
6	VII	3.05	2.55*	5.78*	0.50	2.73	3.23	5.46

From the table II it can be seen that the mean differences of body weight between forwards & halfbacks, forwards & fullbacks and halfbacks & fullbacks (6.10, 12.40 & 6.30), iso-inertial strength of dominant arm between forwards & halfbacks and forwards & fullbacks (5.35 & 5.05), iso-inertial strength of non dominant arm between forwards & halfbacks (5.80) and hitting speed between forwards & halfbacks and halfbacks and fullbacks (8.85 & 9.95) respectively, greater than the confidential interval value (6.25, 4.93, 5.79 & 3.76) respectively, which was significant at 0.05 level of confidence. The mean differences of iso-inertial strength of dominant arm between halfbacks & fullbacks (2.30), iso- inertial strength of non dominant arm between forwards & fullbacks and halfbacks & fullbacks (3.10, 2.70) and hitting speed between forwards & fullbacks (1.10) respectively, lesser than the confidential interval value which was insignificant at 0.05 level of confidence. From that it can be clearly noticed that there was a significant mean difference on body weight between forwards & fullbacks (12.40) having the maximum values followed by halfbacks & fullbacks (6.30) and then forwards & halfbacks (6.10), iso-inertial strength of dominant arm between forwards & halfbacks (5.35) having the maximum values

followed by forwards & fullbacks (5.05), iso-inertial strength of non dominant arm between forwards & halfbacks (5.80) having the maximum values and in hitting speed between halfbacks and fullbacks (9.95) having the maximum values followed by forwards & halfbacks (8.85) respectively.

FIGURE –I



DISCUSSION

This paper provides what has been desperately lacking in the area of mental toughness - definition and conceptualization. The scientific rigour employed by this study to ensure that our understanding of mental toughness is sound. With an understanding of mental toughness firmly in hand, investigations of measurement, development across a lifespan, and training methods are now viable. To truly understand how mental toughness unfolds in people's lives, future research would do well to investigate the *interaction* between personal characteristics (i.e., the seven mental toughness factor identified here), social support and the nature of the pressure or adversity.

REFERENCES

Booras, M.C. (2001). The relationship of mental skills to performance on a tennis accuracy task under fatigued and non-fatigued conditions. Unpublished master's dissertation, West Virginia University, West Virginia, USA.

Feltz, D.L. & Landers, D.M. (1983). The effects of mental practice on motor skill learning and performance: a meta-analysis. *Journal of Sport Psychology*, 5, 25-27.

Greenspan, M.J. & Feltz, D.L. (1989). Psychological interventions with athletes in competitive situations. *The Sport Psychologist*, 3, 2 19-236.

- Holahan, C.J. & Moos, R.H. (1994). Life stressors and mental health: advances in conceptualizing stress resistance. In W.R. Avison & I.H. Gotlib (Eds.). *Stress and mental health: Contemporary issues and prospects for the future* (213-238). New York: Plenum.
- Jones, G., Hanton, S., & Connaughton, D. (2002). What is this thing called mental toughness? An investigation of elite sport performers. *Journal of Applied Sport Psychology*, 14, 205-218.
- Martens, R. (1987). *Coaches guide to sport psychology*. Champaign, IL: Human Kinetics Publishers, Inc.
- Moos R.H. & Shaefer, J.A. (1993). Coping resources and processes: Current concepts and measures. In L. Goldberger & S. Breznitz (Eds.). *Handbook of stress: Theoretical and clinical aspects* (2nd ed., 234-257). New York: Free Press.
- Nideffer, R.M., Bond, J., Cei, A. & Manlini, U. (2001). Building a Psychological Profile of Olympic Medallists and World Champions. Retrieved 18 July 2002 from the World Wide Web: <http://www.enhanced-performance.com/nideffer>.