



A COMPARATIVE STUDY OF MENTAL TOUGHNESS AMONG MALE FENCERS WITH REFERENCE TO THEIR SPORTS ACHIEVEMENTS

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ABSTRACT :

The present study was carried out to assess mental toughness among national male fencers on the basis of their sports achievement. 80 national male fencers (23.12 yrs) took part in this study. Out of the total selected subjects, 40 male fencers were medal winners while 40 male fencers were non-medal winners in national level tournament. Mental toughness of selected male fencers was assessed with the help of mental toughness questionnaire prepared by Tiwari (2007). Independent sample 't' test revealed that medal winner national male fencers possesses significantly more magnitude of mental toughness as compared to non-medal winner national male fencers. Results are discussed in the light of established theories of mental toughness.



KEYWORDS : Fencers, Sports accomplishment.

INTRODUCTION

In general terms certain positive characteristics that help us to cope and manage difficult circumstances are considered as mental toughness. In sports, coaches, players and sports psychologist also use the term mental toughness i.e. mental state of a player. According to Smith and Smoll (1989) mental toughness is the capacity of an athlete to effectively cope with stress so that sports performance remains consistent despite high physical and psychological demands of modern sport. Goldeberg (1998) opined that capacity to deal with failures and adversity can be termed as mental toughness. Another definition put forth by Gucciardi, Gordon, and Dimmock (2008) states that mental toughness enables athletes to cope with difficult situations and environmental stress and help athlete to perform to his/her full potential.

Jones et al. (2007) put forth a comprehensive framework of mental toughness which includes self belief or confidence in own capacity to achieve success in sports, belief that he/she has superior skill or qualities as compared to opponent, high intrinsic motivation to achieve goal, superior frustration tolerance capacity, focus, concentration and continue to perform the desired skill even during adverse environmental conditions.

Sports psychologists through scientific exploration also documented certain sub-variables that form mental toughness. They are attention control (Astle and Scerif, 2009), goal setting (Grant, 2012), mental imagery (Taylor & Wilson, 2005), competitive anxiety (Abrahamsen et al. 2008), motivation (Robert, 1992) and certain psychological factors such as other psychological variables such as self confidence, emotional intelligence, self belief, feedback, positive self talk etc.

One such sport in which mental skills are considered to be essential for sporting success is fencing. Fencing is combat sports with three disciplines namely foil, the epee and the sabre respectively. Points are won in fencing by making contact with an opponent by weapons such as foil, epee and sabree. These three weapons used differ with each other on the basis of weight. There are three forms of modern fencing and rules are different for all three forms. Majority of the competitive fencers opt for only one weapon to compete. Fencing is considered to be one of the sports which place high demand on psychological skill usage. The reason may be due to its nature. It requires speed, time periods, quickness, balance and mental agility. Fencing is the sport of armed combat involving cutting, stabbing, or slapping bludgeoning weapons directly manipulated by hand. So fencing is a physical chess in which weapon is used to win points. It is believed that success in fencing is largely dependent on mental skills of a player. Being a popular Olympic sport researchers have analysed various aspects that are related to performance of a fencers. Researchers such as Koutedakis, Y. et al. (1993), Williams and Walmsley (2000), Borysiuk et al. (2008), Williams and Waskiewica (2008), Gillet, N. (2009), Hagemann et al. (2010), Dintica and Paunescua (2014), Masrur et al. (2014) and Chen et al. (2017) explored factors such as aggression, visual perception, sport commitment and biomechanics etc. in terms of sports performance in fencing. But no study yet has been conducted in which mental toughness of national male fencers has been assessed in the light of their sports achievement. Hence the present study was planned.

OBJECTIVE :

The objective of the present study is to compare mental toughness among national male fencers on the basis of their sports achievement.

HYPOTHESIS :

It was hypothesized that medal winner male fencers will show significantly more magnitude of mental toughness as compared to non-medal winner male fencers.

METHOD AND MATERIALS :

To test the abovementioned hypothesis, following methodological steps were taken.

Sample :

80 national male fencers (23.12 yrs) took part in this study. Out of the total selected subjects, 40 male fencers were medal winners while 40 male fencers were non-medal winners in national level tournament. The selection criterion for the present study was participation in national level fencing tournament. Purposive sampling was used for identification of subjects.

Tools :

Mental toughness of selected male fencers was assessed with the help of mental toughness questionnaire prepared by Tiwari (2007). It consists of 48 items. This questionnaire is made up of sub variables such as self confidence, motivation, attention control, goal setting, visual and imagery control and attitude control. This questionnaire is highly reliable and valid measure to assess mental toughness.

Procedure :

After identifying subjects as per inclusion criteria of the study written consent of all the participants were taken about the voluntary consent to take part in this research. Mental toughness questionnaire prepared by Tiwari (2007) was administered to each subject in a peaceful environment. After scoring independent sample 't' test was used to compare mental toughness and its sub-variables between two study groups. Results are presented in table 1.

RESULTS

Table No. 1
Comparison of Mental Toughness among
National Male Fencers on the Basis of Sports Achievement

| Variable | Medal winner Male Fencers (N=40) | | Non medal winner Male Fencers (N=40) | | t | Level Of Significance |
|---------------------|--|-------|--|-------|------|--------------------------|
| | M | S.D. | M | S.D. | | |
| Mental Toughness | 198.90 | 24.62 | 180.32 | 44.20 | 2.32 | .05 |

Statistically significant difference was observed in mental toughness of two groups i.e. medal winner and non-medal winner national male fencers. The calculated $t=2.32$ indicate that mental toughness in medal winner national male fencers was significantly higher ($M=198.90$) as compared to mental toughness in non-medal winner national male fencers ($M=180.32$).

Previous studies by Golby & Sheared (2004), Sheard (2009), Patel et al. (2011) also showed a significant association between mental toughness and sports performance. Hence it can be said that due to superior self confidence, motivation, attention control, goal setting, visual and imagery control and attitude control in medal winner national male fencers they are able to perform better as compared to non-medal winner national male fencers because at the highest level skill and other parameters are somewhat similar.

CONCLUSION :

On the basis of results it was concluded that medal winner national male fencers are mentally tougher as compared to non-medal winner national male fencers which enables medal winner players to perform at the best during key moments with superior self confidence, motivation, attention control, goal setting, visual and imagery control and attitude control.

REFERENCES :

- Abrahamsen, F.E.; Roberts, G.C. and Pensgaard, A.M. (2008). Achievement goals and gender effects on multidimensional anxiety in national level elite sport, *Psychology of Sport and Exercise Science*, 9, pp. 449-465.
- Astle, D. E. and Scerif, G. (2009). Using Developmental Cognitive Neuroscience to Study Behavioral and Attentional Control. *Developmental Psychobiology* 51 (2): 107-118.
- Borysiuk Z., Waskiewicz Z. (2008). Information processes, stimulation and perceptual training in fencing. *Journal of Human Kinetics* 19, 63-82.
- Chen TL-W, Wong DW-C, Wang Y, Ren S, Yan F, Zhang M (2017) Biomechanics of fencing sport: A scoping review. *PLoS ONE*12(2): e0171578.
- Dintica, G. and Paunescua, M. (2014). The Aggression Profile in Performance Fencing. *Procedia - Social and Behavioral Sciences* 117, 34 - 37.
- Gillet, N.; Vallerand, R.J. and Rosnet E. (2009). Motivational clusters and performance in a real-life setting. *Motivation and Emotion*, Vol. 33, No. 1.
- Golby, S. (2004). Mental toughness and hardiness at different levels of rugby league. *Journal of Personality and individual differences*. 37: 933-944.
- Goldberg, A. S. (1998). *Sports slump busting: 10 steps to mental toughness and peak performance*. Champaign, IL: Human Kinetics.
- Grant, A.M. (2012). An integrated model of goal-focused coaching: an evidence-based framework for teaching and practice. *International Coaching Psychology Review* 7 (2): 146-165 (149).
- Gucciardi, D., Gordon, S., & Dimmock, J. (2008). Towards and understanding of mental toughness in Australian football. *Journal of Applied Sport Psychology*, 20, 261-281.

- Hagemann, N., Schorer, J., Rouwen, C.B., Lotz, S. and Strauss, B. (2010). Visual perception in fencing: Do the eye movements of fencers represent their information pickup? *Attention, Perception, & Psychophysics*, 72 (8), 2204-2214.
- Jones, G., Hanton, S. and Connaughton, D. (2007). A framework of mental toughness in the world's best performers. *The Sport Psychologist*, 21, 243-264.
- Koutedakis, Y.; Ridgeon, A.; Sharp, N.C. and Boreham, C. (1993). Seasonal variation of selected performance parameters in épée fencers. *Br J Sports Med*;27:171-174.
- Masrur, F. F., Hossini, R. N. S., Alam, S. and Ab, B. M. P. (2014). Comparison of sport commitment in successful and unsuccessful teams in the fencing premier league of Iran. *International Journal of Sport Studies*, Vol. 4, No. 3, pp.258-263.
- Patel, S., Pandey, U. and Saxena, S. (2011). *Indian Journal of Applied Research*, Vo. 1, Issue 3, pp. 201-202.
- Roberts, G.C. (1992) Motivation in sport and exercise: Conceptual Constrains and Convergence. In: G.C.Roberts (ed.), *Motivation in Sport and Exercise*. Human Kinetics Books, Champaign, IL., pp. 3-205.
- Salokun S.O. (1990) Comparison of Nigerian high school male athletes and nonathletes on self-concept. *Percept Motor Skills* 70:865-866.
- Sheard, M. (2009). A cross-national analysis of mental toughness and hardiness in elite university rugby league teams. *Perceptual and Motor Skills: Volume 109, Issue 1*, pp. 213-223.
- Smith, R. and Smoll, F. (1989). "The psychology of mental toughness: Theoretical models and training approaches to anxiety reduction in athletes," *Scientific foundations of sports medicine*, pp. 391-402.
- Williams L.R.T., Walmsley A. (2000). Response amendment in fencing: Differences between elite and novice subjects. *Perceptual and Motor Skills* 91(1), 131-142.



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