

Relationship of Mental Skills and Anxiety between Successful and Unsuccessful team of men Cricket at Delhi Intercollegiate level

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Abstract- In the field of competitive sport, training of athletes is incomplete without psychological training of the competition. Psychological readiness plays a decisive role as to determine whether or not an athlete or not an athlete in competition and in training responds to their optimum potentials, keeping in mind the research scholar selected to Study the Relationship between mental skills and level of Anxiety between the Successful and Unsuccessful team of men Cricket at Delhi Inter College. 16 players of the college team who represented in Delhi inter college and got the 1st, 2nd position and the last two positions were taken as the subjects of the study i.e. $16 \times 4 = 64$. The teams who got the 1st and 2nd position in Cricket Delhi inter college were considered as the successful team and the last two teams were considered as the unsuccessful one. The variables selected for the study were Mental Skills and Anxiety. The 2 questionnaire selected for the purpose of the study were Mental Skill questionnaire by Russell Associates and Sports Competitive Anxiety test (SCAT), which were administered to the top two teams and the bottom two teams. The data was collected on the basis of the manual. The statistical techniques employed were descriptive statistics, Independent 't' test and Pearson product moment correlation. The results revealed that mental skill score for successful team has a mean value of 73.25 and standard deviation of 14.62 whereas mental skill score for unsuccessful team has a mean value of 59.74 and standard deviation of 17.60. Anxiety for successful team has a mean value of 19.59 and standard deviation of 3.72, whereas anxiety for unsuccessful team has a mean value of 16.12 and standard deviation of 3.59. Also there was a significant relationship between Anxiety and Mental Skills of successful teams with correlation values of 0.392 and significant of 0.027, whereas a negative correlation was found in the unsuccessful teams with correlation value of 0.390 and significance value of 0.027. And finally, a significant difference was found between mental skill level of successful and unsuccessful teams with obtained 't' value of 3.317 against the required value of 2.04 and also within the anxiety level of successful players and the unsuccessful players a significant difference was found between mean value of the selected group. Where the obtained 't' value was found to be 3.794 against the required value of 2.04 required to be significant, It was concluded that a significant relationship was found on mental skill and anxiety scores within the successful teams of men Cricket team at Delhi inter college, negative correlation between unsuccessful teams and a significant difference was found between the anxiety and mental skills of successful and unsuccessful teams, the significant relationship shows that

optimum level of anxiety with attained mental skills contribute to the successfulness of the cricket team, and the significant differences in the anxiety levels and mental skills shows that successful and unsuccessful teams differ in their level of anxiety and the mental skills.

I. INTRODUCTION

Psychological skills have always played an important role in athletic performance. A great deal of research has focused on identifying relevant psychological skills and establishing the effectiveness of psychological interventions in order to serve the athlete effectively (Locke & Latham, 1990; Locke, Shaw, Saari & Latham, 1981; Mahoney, Gabriel & Perkins, 1987; Vealey & Walter, 1993) Some typical services provided by sport psychologists are imagery training, arousal management, attentional focus relaxation training, motivational strategies, and competitive pressure management. In a meta-analysis, Greenspan and Feltz (1989) reviewed 20 published studies that tested the effectiveness of various psychological interventions to improve performance in competitive sport settings. It was concluded that educationally based psychological interventions are effective in improving the performance of collegiate and adult athletes in competitive situations. Moreover, in a study involving professional athletes, Smith and Christensen (1995) found that psychological skills were prospectively related to baseball performance even after accounting for physical factors. In other studies, psychological skills were shown to be related to other outcome variables which indirectly effect performance, such as injury (Smith, Smoll, & Ptacek, 1990) and learning how to apply skills such as goal setting, imagery training, self talk, muscle relaxation, and attentional control (Williams, 1993). The consensus of data from the reviewed literature indicates that psychological skills are related to athletic performance and that psychological skills can be taught.

The mechanisms by which psychological skills lead to performance enhancement are less well understood. Prevailing theories on psychological skills training have focused on purely psychological mechanisms. That is, the possession of psychological skills is thought to reduce cognitive anxiety and/or improve attention to task relevant cues when executing motor skills (Harris & Williams, 1993). However, accuracy and sport competence can diminish as physical fatigue sets in, particularly in sports where complex cognitive processes and decision-making are involved in physical skill execution. This is often the cause for a loss of one's potential effectiveness (Couture et al.,

1994). Therefore, it is possible that psychological skills could aid performance by reducing perceptions of fatigue and by promoting the ability to attend to relevant sport cues in spite of potentially distracting physical cues (i.e. fatigue).

Anxiety is defined as feelings of nervousness and tension caused by the environment or surrounding expectation that is related to 'arousal'. Those demands are usually so stressful and thus causing an imbalance between the demands and the athlete's ability to fulfill the expectation. (Gould, Greenleaf, & Krane, 2002)

All these years, increase in performance has been the basic need or what dreamed by all athletes to stand out in their respective sports. Athletes train hard to improve their skills and talents regardless of the time they take to do so. A few years ago, athletes only enroll themselves in a few sports in the school level as a routine. Now, athletes choose to compete in one of maybe two types of sport. In certain cases, some athletes in secondary school focus on only one particular sport.

According to Coakley (2007), there are many athletes who are registered under exclusive or elite team dedicate their whole year training and focus to increase their performance to get scholarship or make it to the professional level thus developing a hope not only among athletes but to parents and coaches. Unfortunately, high hope also increases the stress on the athletes and it shows a close relationship with high anxiety.

It is not possible that fatigue and anxiety are very much synonym with sport across the cultures in the world with the kind of stress put in our society. Although they are a lot of information on both subjects, it is only recently that they are researchers who carry out a study on the relationship between fatigue and perception on anxiety. (Wiggins, Cremades, Lai, Lee, & Erdmann, 2006; Wiggins, Lai & Deiters, 2005)

Dealing with anxiety is an important task for coaches because athletes could not perform when they are under stress, having problems in their concentration, memory and the priority they should put on in their performance. Athletes could not perform at their best like they usually could because of anxiety. Consequently, their performance is affected during the competition and they seldom achieve victory. (Papanikolaou, Nikolaidis, & Keramidas, 2008)

Later, Fletcher and Hanton (2001) conducted a study to examine the relationship between athletes' psychological skills usage and interpretation of anxiety. In the previous study, Hanton and Jones (1999a) had noted that athletes who interpreted anxiety as facilitative were more likely to use psychological skills to enable them to interpret anxiety in this positive manner. Fletcher and Hanton (2001) were interested in determining what psychological skills were being used to perceive symptoms as facilitative. Additionally, the researchers wanted to determine if there was a relationship between varying levels of psychological skill usage and the intensity and direction of competitive anxiety symptoms. Fletcher and Hanton (2001) found partial support for the relationship between interpretation of precompetitive anxiety and psychological skills usage. Self-confidence, imagery, and self-talk were shown to facilitate positive interpretations of anxiety, while goal setting did not prove to be a significant factor in influencing competitive anxiety interpretation.

Based on a review of the literature in the area of competitive anxiety interpretation, two expansions to the

research line are warranted. First, it seems important to uncover the psychological skills that are most relevant for facilitative anxiety interpretation. Previous research (Fletcher & Hanton, 2001; Hale & Whitehouse, 1998; Hanton & Jones 1999a, b; Maynard, Hemmings, & Warwick-Evans, 1995) has shown that the use of mental skill techniques enhances athletes' interpretation of competitive anxiety symptoms. However, additional research is needed to better understand strategies that enable athletes to reframe their anxiety as productive and necessary. Fletcher and Hanton (2001) examined the *frequency* of use of psychological 5 skill strategies in relation to competitive anxiety interpretation. Nevertheless, additional research is needed to examine the *quality* of athletes' mental skills or the athletes' *ability* to use mental skills to interpret anxiety as facilitative. It seems important to distinguish between the degrees of mental skills, not just how often mental skill techniques are used.

Second, there is also a need to examine the relationship between mental skills and anxiety interpretation in varying types of sports. The large majority of research that has been conducted examining the anxiety interpretation has used close skill athletes as research participants (Fletcher & Hanton, 2001; Jerome & Williams, 2000; Jones & Hanton, 1996; Jones & Swain, 1995; Jones, Swain, & Hardy, 1993; Jones et al., 1994; Hanton & Jones, 1999; Perry & Williams, 1998). We cannot assume all sport environments are similar. Hence the scholar initiated to examine the relationship of mental skills and competitive anxiety between successful and unsuccessful teams of Cricket.

II. OBJECTIVES AND HYPOTHESIS

The study was based on the following objectives:

- To assess the level of mental skills and competitive anxiety level of Successful teams of men cricket at Delhi Intercollegiate level.
- To assess the level of mental skills and competitive anxiety level of unsuccessful teams of men cricket at Delhi Intercollegiate level.
- To find out the relationship between the mental skills and competitive anxiety for successful teams of men cricket at Delhi Intercollegiate level.
- To find out the relationship between the mental skills and competitive anxiety for unsuccessful teams of men cricket at Delhi Intercollegiate level.
- To compare the mental skills between successful and unsuccessful teams of men cricket at Delhi Intercollegiate level.
- To compare the competitive anxiety between successful and unsuccessful teams of men cricket at Delhi Intercollegiate level.

Based on the objectives following hypothesis were set for the study:

- There would be a positive relationship between the mental skills and competitive anxiety for successful teams of men cricket at Delhi Intercollegiate level.

- There would be a negative relationship between the mental skills and competitive anxiety for successful teams of men cricket at Delhi Intercollegiate level.
- There would be a significant difference for the level of competitive anxiety between successful and unsuccessful teams of men cricket at Delhi Intercollegiate level.
- There would be a significant difference for the mental skills between successful and unsuccessful teams of men cricket at Delhi Intercollegiate level.

III. PROCEDURE & METHODOLOGY

16 players of the college team who represented in Delhi inter college and got the 1st, 2nd position and the last two positions were taken as the subjects of the study i.e. 16 x 4 = 64. The teams who got the 1st and 2nd position in men cricket Delhi inter college were considered as the successful team and the last two teams were considered as the unsuccessful one. The variables selected for the study were mental skills and competitive anxiety. The 2 questionnaires selected for the purpose of the study were Mental Skill questionnaire by Russell Associates and Sports Competitive Anxiety test (SCAT), which were administered to the top two teams and the bottom two teams. The data was collected on the basis of the manual. The responses in the form of draw data collected from the subjects were kept in a series according to their respective groups and all the questionnaires were numbered from one to sixty four. The collected data was analyzed by computing descriptive statistics followed by independent 't' test and Pearson's product moment correlation and the level of significance was set at 0.05 level.

IV. RESULTS AND DISCUSSIONS

The data was analyzed by employing descriptive statistics, paired 't' test for comparison and Pearson product Moment correlation for relationship, the results revealed that:

Level of Competitive Anxiety in successful and unsuccessful teams

Table No. 1

S. No.	Groups	Mean	Scale for Anxiety
1	Successful Teams	19.59	Average level of Anxiety
2	Unsuccessful Teams	16.12	Low Level of Anxiety

SCAT Rating:

- Less than 17: You have a low level of anxiety
- 17 to 24: You have an average level of anxiety
- More than 24: You have a high level of anxiety

Table no. 1 depicts the level of competitive anxiety in successful and unsuccessful teams of men cricket at Delhi intercollegiate level, which shows that the successful teams with a mean of 19.59 were found to be falling in the category of

average level of anxiety, whereas the unsuccessful teams with the mean value of 16.12 fall in the category of low level of anxiety.

Level of Mental Skills in Successful and Unsuccessful teams

Table No. 2

S. No.	Groups	Mean	Scale for Mental Skills
1	Successful Teams	73.25	Display tough behaviors and constantly practice their mental skills
2	Unsuccessful Teams	59.74	Doing well but need to spend more time towards greater mental toughness.

Mental Skill Rating:

- 70 or Higher: Display tough behaviors and constantly practice their mental skills
- 60-69: Doing better than most and have a good approach to competition along with a good understanding to boost your mental capability
- 50-59: Doing well but need to spend more time towards greater mental toughness.
- Under 50: Developing your mental skills and take action.

Table no. 2 depicts the level of mental skills in successful and unsuccessful teams of men cricket at intercollegiate level, which shows that the successful with a mean value of 73.25 were found to displaying tough behaviors and constantly practicing their mental skills, whereas the unsuccessful teams with the mean value of 59.74 were found to be doing well but need to spend more time towards greater mental toughness.

Relationship of Mental Skills and Competitive Anxiety for successful and Unsuccessful team players of men cricket

Table No. 3

	Group	Correlation	Sig. (2-tailed)
Mental Skills Pearson Correlation Competitive Anxiety	Successful	0.392*	0.027
	Unsuccessful	-0.277*	0.068

Table no. 3 indicates the relationship of mental skills and competitive anxiety for successful and unsuccessful teams, which shows that a significant relationship was found in the mental skills and competitive anxiety level of successful teams of men cricket at intercollegiate level, as the correlation and significance values were found to be 0.392 and 0.027, which is significant at 0.05 level, on the other hand a negative correlation was found between the mental skills and competitive anxiety in unsuccessful teams as the correlation and significance values were found to be -0.277 and 0.068 respectively.

Comparison of Competitive Anxiety between Successful and Unsuccessful team players of men cricket

Table No. 4

Groups	N	Mean	Std. Deviation	Std. Error Mean	df	't'
Anxiety Successful	32	19.59	3.723	.658	62	3.794*
Unsuccessful	32	16.12	3.590	.635		

t (0.05)62= 2.04, *Significant at 0.05 level

Table no. 4 indicates the value of independent 't' test of Competitive anxiety between successful and unsuccessful team of men cricket at intercollegiate level, which shows that a significant difference was found between the competitive anxiety level of successful and unsuccessful teams as the value was found to be 3.794 against the tabulated value of 2.04 which was found to be significant at 0.05 level.

Comparison of Competitive Anxiety between Successful and Unsuccessful team players of men cricket

Table No.5

Groups	N	Mean	Std. Deviation	Std. Error Mean	df	't'
Mental Skill Successful	32	73.25	14.62	2.58	62	3.174*
Unsuccessful	32	59.74	17.60	3.16		

t (0.05)62= 2.04, *Significant at 0.05 level

Table no. 5 indicates the value of independent 't' test of mental skills between successful and unsuccessful team of men cricket at intercollegiate level, which shows that a significant difference was found between the mental skills of successful and unsuccessful teams as the value was found to be 3.174 against the tabulated value of 2.04 which was found to be significant at 0.05 level.

V. DISCUSSION ON HYPOTHESIS

- It was hypothesized that there would be a positive relationship between the mental skills and competitive anxiety for successful teams of men cricket at Delhi Intercollegiate level, the results depicted a positive relationship, hence the earlier stated hypothesis was accepted.
- It was hypothesized that there would be a negative relationship between the mental skills and competitive anxiety for successful teams of men cricket at Delhi Intercollegiate level, the results depicted a negative

correlation, hence the earlier stated hypothesis was accepted

- It was hypothesized that there would be a significant difference for the level of competitive anxiety between successful and unsuccessful teams of men cricket at Delhi Intercollegiate level, the results depicted a significant difference, hence the earlier stated hypothesis was accepted
- It was hypothesized that there would be a significant difference for the mental skills between successful and unsuccessful teams of men cricket at Delhi Intercollegiate level, the results depicted a significant difference, hence the earlier stated hypothesis was accepted

VI. CONCLUSIONS

Following conclusions were drawn on the basis of the depicted results:

- Successful team players were found to be having a average level of competitive anxiety
- Unsuccessful team players were found to be having low level of competitive anxiety
- Successful team players were found to be displaying tough behaviors and constantly practice their mental skills
- Unsuccessful team players were found to doing well but need to spend more time towards greater mental toughness.
- A significant relationship was found between the competitive anxiety and mental skill of successful team players
- A negative correlation was found between the competitive anxiety and mental skill of unsuccessful team players
- A significant difference was found between the successful and unsuccessful team players for competitive anxiety
- A significant difference was found between the successful and unsuccessful team players for mental skills
- An average level of competitive anxiety and the attained mental skills was a reason for the successfulness of the teams
- And finally, the low level of competitive anxiety and less attention towards the mental skills training can be considered as a reason for the unsuccessfulness of the teams

REFERENCES

[1] Aufenanger S. J. (2005). Relationship between mental skill and competitive anxiety interpretation in open skill and close skill athletes. Miami University, Oxford, Ohio

[2] Behncke, L. (2006). Mental skills training for sports: A brief review. *Journal of Sport Psychology*. RMIT University, Melbourne, Australia.

[3] Coakley, J. (2007). Sports in society: Issues and controversies (9th ed.). New York: McGraw- Hill.

- [4] Durand-Bush, N., Salmela, J.H., & Green-Demers, I. (2001). The Ottawa Mental Skills Assessment Tool (OMSAT-3). *The Sport Psychologist*, 15, 1-19.
- [5] Fletcher, D., & Hanton, S. (2001). The relationship between psychological skill usage and competitive anxiety responses. *Psychology of Sport and Exercise*, 2, 89-101.
- [6] Gould, D., Greenleaf, C., & Krane, V. (2002). The relationship between arousal and athletic performance: Current status and future directions. In T.S. Horn's (Ed). *Advances in Sport Psychology*. Champaign, Illinois: Human Kinetics.
- [7] Gualberto C. J., & Wiggins M. S. (2008) Direction and intensity of trait anxiety as predictors of burnout among collegiate athletes. *Journal of Sport Psychology*. Murray State University.
- [8] Hanton, S., & Jones, G. (1999). The effects of a multimodal intervention program on performers: II. Training the butterflies to fly in formation. *The Sport Psychologist*, 13, 22-41.
- [9] Hardy, L., & Fazey, J. (1987, June). The inverted-U hypothesis: A catastrophe for sport psychology. Paper presented at the meeting of the North American Society for the Psychology of Sport and Physical Activity, Vancouver, BC.
- [10] Jones, G., & Swain, A. (1992). Intensity and direction as dimensions of competitive state anxiety and relationships with competitiveness. *Perceptual and Motor Skills*, 74, 467-472.
- [11] Jones, G., & Swain, A. (1995). Predispositions to experience debilitating and facilitative anxiety in elite and non-elite performers. *The Sport Psychology*, 9, 201-211.
- [12] Jones, G., Hanton, S., & Swain, A. (1994). Intensity and interpretation of anxiety symptoms in elite and non-elite sports performers. *Personality and Individual Differences*, 17, 657-663.
- [13] Martens, R., Burton, D., Vealey, R., Bump, L., & Smith, D. (1990). The development of the Competitive State Anxiety Inventory-2 (CSAI-2). In R. Martens, R.S., Vealey, & Burton (Ed.), *Competitive anxiety in sport* (pp. 117-190). Champaign, IL: Human Kinetics.
- [14] Patsiaouras A., Papanikolaou Z., Haritonidis K., Nikolaidis D., & Keramidas P. (2008). The use of the person-centered approach for the reduction of the state-trait anxiety in volleyball players. *Journal of Sport Psychology*, University of Thessaly.
- [15] Perry, J. D., & Williams, J. M. (1998). Relationship of intensity and direction of competitive trait anxiety to skill level and gender in tennis. *The Sport Psychologist*, 12, 169-179.

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