



Relationship of Cognitive State Anxiety with Intercollegiate Sprinters Performance

Dr. Ajit Singh Charag, Associate Professor
Swami Shukdevanand (PG) College, Shahjahanpur, U.P. (India)
E-mail - ajitcharag@gmail.com

Abstract

The purpose of the study was to determine the relationship of cognitive competition state anxiety with intercollegiate sprinters performance. To achieve the purpose 30 participants of final sprint events of MJP Rohilkhand University Intercollegiate athletic meet, held at Bareilly, Uttar Pradesh, 2018 were selected. The age of the subjects ranged between 18 to 25 years. Questionnaire by Rainer Marten (CSAI-2) was used to collect data about level of pre-competition anxiety. The CSAI-2 was scored by computing total score ranging from a low of 9 to a high of 36. The collected data was analysed by using Pearson's Product Moment Correlation. The result of the study shown that cognitive anxiety ($r=0.267$) was insignificantly related with the performance at 0.05 level of significance, since obtain value of co-efficient correlation is lesser than the tabulated value ($r=0.361$). It is concluded that cognitive anxiety is not having positive relationship with the performance of sprinters perceived abilities may be because of psychological maturity of an athlete.

Keywords: - Anxiety, Cognitive, Competition, Performance and CSAI-2.

Introduction:-

Modern competitive sports of today demands more emphasis on the training of psychological aspects of sports. The high level performance seen in competitive sports is nothing but a perfect optimum harmonious relationship between one's psychological preparedness and technical preparation. Cognitive process can affect the athlete's skill performance regardless of whether they are the beginner, intermediate or advanced state of learning. These processes are imagery, memory, attention, anticipation and perception of skill. These are more related to the athlete's perceived ability. It is believed that superior athletic performance has been fitted from knowledge about the psychology and bio-mechanics of human motor activity. However many coaches and psychologist throughout the world believe that the



future records will be broken primarily because of increased attention to psychological parameters of human personality.

Speed plays a vital role in all games and sports but plays a very dominant role for sprinters to give performance. He must possess acceleration speed, speed of movement and reaction time. Even though these four components, of speed affect the performance of sprinters yet the contribution made by reaction time to enhance speed performance is still not very certain. There is no doubt regarding the contribution of acceleration speed, sprinting speed & speed of movement to bring about better performance on the part of sprinters. Therefore to attain optimum performance in activities where the speed is the main factor, acceleration speed, sprinting speed, speed of movement and reaction time should be woven together.

Performance in sports is no longer dependent on physiological well being of the athlete. It is well established by now that there are numerous psychological factors which effect & improve sports performance like, individual differences among the athletes, personality, intelligence, attitude, motivating, aggression, mental imagery, group dynamics etc. All these factors may affect the sports performance in both, positive and negative way.

The effect of anxiety on performance dependence directly on the type of task considered. In most cases a heightened arousal state has been found to facilitate simple performance. On the other hand as anxiety reaches a certain level a breakdown of psychological and physiological integrative mechanism is often seen to occur resulting in less efficient performance in more complex tasks. Anxiety has a temporal relationship to performance. In general, anxiety level increases prior to dangerous situation until they become relatively high just before it is encountered. During performance anxiety is often lessened. Since, the individual must concentrate on his own action rather than on his internalized fear.

Jones, Swain and Cole conducted study on university athletes and found that in case of cognitive anxiety males shown no changes across time though females shown a progressive increase as the competition is near. Males and females showed the same patterning in somatic anxiety with increase occurring on the day of competition. Self-confidence scores revealed a reduction in self-confidence neared in both gender but there was greater decrease in females then males.



Procedure:-

Selection of subject: Thirty participants of final sprint events of MJP Rohilkhand University Intercollegiate athletic meet which was held at Bareilly, Uttar Pradesh, 2018. The age of the subjects ranged between 18 to 25 years.

Selection of Questionnaire and Procedure: The Competitive State Anxiety Inventory-2 by Rainer Marten was selected for the study because it is a sports specific anxiety test. Further it assesses competitive anxiety on the basis of three dimensions i.e. cognitive anxiety, somatic anxiety and self confidence.

Purpose: To find out the level of Pre- competition anxiety.

Procedure: The CSAI-2 was scored by computing a total score, ranging from a low of 9 to a high of 36. Higher the score, greater the cognitive anxiety. The cognitive state sub- scale was scored for totalling the responses of the following 9 items- 1, 4, 7, 10, 13, 16, 19, 22 and 25. Scoring for items is reversed in calculating the score for cognitive anxiety.

Directions: A number of direction preceded before the questionnaire was to be filled – in by the respondents and are as given below:

1. Read each statement and then circle the appropriate number to the right now at this moment.
2. There is no right wrong answer.
3. Do not spend too much time on any one statement, but choose answer, which describes your feelings right now.

Scoring: The responses of each statement of score as follows-

S. No.	Response	Scoring
1.	Not at all	4 points
2.	Somewhat	3 points
3.	Moderately	2 points
4.	Very much so	1 point



Administration of Questionnaire: The test was administered on the subjects before one hour of the competition. The subjects were assembled in a group; clear instructions were given that all the items in the Questionnaire must be attempted.

Sprinters performance: Total time clocked by the finalist of sprinting events was considered as the score of sprinters performance.

Statistical Procedure: To determine the relationship between cognitive competitive state anxiety and the performance of male sprinters of intercollegiate athletic meet participants, the Pearson's Product Moment Correlation was employed. The level of confidence was set at 0.05 level.

Findings:-

RELATIONSHIP OF COGNITIVE ANXIETY TO INTERCOLLEGIATE SPRINTER'S PERFORMANCE

Variable Correlated	Co-efficient correlation
Cognitive anxiety and Sprinter's performance	0.267*

*Significant at 0.05 level

$r_{0.05, df(28)} = 0.361$

The results obtained from the analysis of data in table reveal that the attribution variable i.e. cognitive anxiety ($r = 0.267$) was insignificantly related with the performance at 0.05 level of significance, since the obtained value of co-efficient correlation is lesser than the Tabulated value ($r = 0.361$).

Discussion of Finding: Cognitive anxiety has shown no significant impact on the performance of intercollegiate sprinters and perceived abilities may be because of psychological maturity of an athlete.

Conclusion: Cognitive anxiety was not having impact on performance.



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