

## **PERFORMANCE STRATEGIES AMONG MALE SPRINTERS AND JUMPERS**

**<sup>1</sup>Ms. Seema, <sup>2</sup>Dr. Gurmeet Singh**

<sup>1</sup>Research Scholar, Department of Physical Education, P.U, Chandigarh (INDIA)

<sup>2</sup>Professor, Department of Physical Education, P.U, Chandigarh (INDIA)

### **Abstract**

*The purpose of this study was to examine the test of performance strategies among male sprinters and jumpers of Panjab University Inter College Athletic Meet. Researcher had selected fifty (N=50) male sprinters and fifty (N=50) jumpers. Age limit of the selected athletes ranges from 18 to 28 years. The random sampling technique was used to select the sample. T-test was employed to compare the performance strategies used by male sprinters and jumpers. For testing the hypothesis, the level of significance was set at 0.05. Questionnaire developed by Hardy et al, (1999) pertaining to Performance Strategies has been used for the study. The main objective of this research paper is to find out the comparison among male sprinters and jumpers in relation to performance strategies. The findings of this study indicates that sprint running can also be used effectively as a training method for improving explosive leg power and dynamic athletic performance.*

**Key words: - Performance Strategies, Sprinters, Jumpers, Athlete**

### **1. Introduction**

Athlete gets a little nervous before a big competition. However, for those who experience the severe anxiety, their athletic performance will often suffer. The relationship between athletic performance and anxiety is so strong that a whole field of sport psychology has been devoted to helping athlete's combat nerves. Athletes are using number of coping strategies to manage anxiety before it gets out of hand. Sport psychologists concern about coping strategies and their importance in sport performance, emphasized the need to identify relevant coping strategies as well as to instruct sport consultants, trainers and athletes, about how they teach, about the way it is learned and how these strategies should be applied in

practice (Smith et al., 1995). Hanton (2001) used the TOPS to examine whether the use of psychological skills was related to athletes' competitive anxiety responses. They found that athletes, who made high use of relaxation, self-talk, and imagery skills differed significantly in their competitive anxiety responses from those who made low use of these psychological skills. Those who made high use of relaxation reported lower levels of cognitive and somatic anxiety, which they interpreted as facilitative rather than debilitating. They also reported higher levels of self-confidence than those who made low use of relaxation. Those making high use of self-talk and imagery were more self-confident than those making low use of these skills. No differences in competitive anxiety responses were found for goal setting usage.

Athletes are special group of community which in addition to enhance of physical demands and also achieving required skills for study field in the form of physical exercise, the psychological aspects are also needed. Several studies have shown the importance of mental skills in performance of athletes and in fact, the mental skills of interacting with each other to determine mental status of the individual in different situations. Learning to control psychological skills would help individuals to control their mental status and control themselves in its various circumstances. So the mental control will improve level of physical activity in athletes.

One psychological inventory has attracted significant support in relation to assessing athletes' use of psychological strategies in both practice and competition. Several researchers have recommended the Test of Performance Strategies (TOPS; Thomas, Murphy, & Hardy, 1999) as an appropriate instrument for assessing use of psychological skills (Fletcher & Hanton, 2001; Gould, Dieffenbach, & Moffett, 2002; Jackson, Thomas, Marsh, & Smethurst, 2000). When examining the factorial validity of the TOPS with adolescent athletes using confirmatory factor analysis, Lane et al. (2004) found partial support for the overall measurement model for competition items, but minimal support for training items.

Crust et al (2010) in their study tested the relationship between mental toughness and athlete's use of psychological performance strategies. A sample of 67 male (M age = 22.55 years SD = 4.96) and 40 female athletes (M age = 21.08 years, SD = 2.81) acted as participants, and ranged from club/ university to national level in a variety of sports. Results of Pearson correlation and linear regression analysis revealed that self talk, emotional control

and relaxation strategies were significantly and positively ( $r= 0.26$  to  $0.37$ ,  $p < 0.01$ ) related to mental toughness in both practice and competition. Of the MTQ48 subscales, commitment was found to most frequently load against performance strategies and as such it is possible that results of this study reflect highly committed performers seeking out performance enhancement strategies. Consistent with theoretical predictions, athletes of county standard and above reported significantly higher levels of mental toughness than club/ university athletes ( $t_{105} = -2.25$ ,  $P = 0.03$ ). Cohen and Cohen (1983) the mental toughness subscales revealed this difference to be primarily due to differences in commitment. Men and women were not found to report significant differences in mental toughness ( $P > 0.05$ ). In addition, based on the gender differences, albeit few, noted in Brennan's (2001) study, it is hypothesized that some gender differences will emerge between male and female officials' use of psychological skills. Also the assumption of homogeneity of covariance was assessed with the use of Box's M test (Ntoumanis, 2001) and was found to be non-significant ( $P > .05$ ), indicating there was no violation of the assumption of homogeneity of covariance.

The present study is focuses on psychological skills included positive self-talk, emotional control, automaticity, goal setting, mental imagery, activation, relaxation, and negative thinking of male sprinters and jumpers. The TOPS was originally designed to measure the range of aforementioned psychological skills with athletes in both a competitive and practice setting.

## 2. Objective of the study

The main objective of this research paper is to find out the comparison among male sprinters and jumpers in relation to performance strategies.

## 3. Method and Procedure

Random sampling technique was used to select the sample of fifty ( $N=50$ ) male sprinters and fifty ( $N=50$ ) jumpers. Age limit is 18-28 years of subjects. All the subjects having been informed about the objective and protocol of the study who gave their consent and volunteered to participate in this study. Independent T- Test was employed to compare the Test of Performance Strategy among male sprinters and jumpers. For testing the hypothesis, the level of significance was set at 0.05. To carry out this study, questionnaire developed by Hardy et al (1989) pertaining to Performance Strategies has been used. The mean and standard deviation of both male sprinters and jumper's data was calculated. To

compare the performance strategies among male sprinters and jumpers, t-test was applied with the help of SPSS.

## Hypothesis

Null Hypothesis: There would be no significant difference among male Sprinters and Jumpers in relation to Performance Strategies.

Alternate Hypothesis: There would be significant difference among male Sprinters and Jumpers in relation to Performance Strategies.

## 4. Analysis of Data

In this section of the paper, analysis and interpretation of data has been discussed as follows:

**Table 1: Comparison among Male Sprinters and Jumpers in relation to Performance Strategies of Panjab University Inter College Athletic Meet**

Group	N	Mean	Std. Deviation	't' value	P value
Sprinters	50	2.06	20.46	1.48	0.141
Jumpers	50	2.00	15.27		

*Source: Primary Survey Data, P value > 0.05 level of significance*

Table 1 shows the mean, Standard Deviation, t value and p value of the male sprinters and jumpers of Panjab University Inter College Athletic Meet. The table clearly indicates that for the male sprinters, mean value is 2.06 and Standard Deviation is 20.46 whereas mean value for jumpers is 2.00 and standard deviation is 15.27. It is also evident from the above table that the p value is 0.141 in SPSS which is greater than 0.05. Therefore, the null hypothesis is accepted and the results say that there is no significant difference between male sprinters and jumpers in relation to performance strategies of Panjab University Inter College Athletic Meet.

## 5. Discussion

The purpose of this study was to examine the test of performance Strategies between male sprinters and jumpers which was analysed with the help of independent sample t-test. Thus, it can be said that there is no significance difference among male sprinters and jumpers in relation to performance strategies of Panjab University Inter College Athletic Meet. It is due to the reason that both the events have common fundamental skills which is used by the athletes to improve their performance. As we know that in the area of track and field; Sprint running is an explosive movement and is commonly used as a testing exercise in many individual and team sports. Plyometric training can also improve short sprint performance to the same extent as standard sprint training like hopping and bounding exercises. Thus, sprinters and jumpers enhance their explosive muscle power and dynamic athletic performance by using several training strategies, such as heavy resistance training, plyometric training and these training methods influence their performance strategies.

## 6. Conclusion

It is concluded from the present study that the performance strategies adopted by male sprinters and jumpers have no difference due to some common fundamental skills used in both events. The findings of this study indicates that sprint running can also be used effectively as a training method for improving explosive leg power and dynamic athletic performance. It will also help the trainers and coaches to train sprinters and jumpers together and can use several training strategic programmes on them to make them more efficient and effective performers.

## REFERENCES

1. Brennan, S. J. (2001). Coping methods of male and female NCAA Division I basketball referees under stressful game conditions (Doctoral dissertation). Retrieved from <http://digitalcommons.unl.edu/dissertations/AAI3034366>
2. Cohen, J., & Cohen, P. (1983). Applied multiple regression analysis for the behavioural sciences (2nd edn.). Hillsdale, NJ: Lawrence Erlbaum Associates.
3. Crust, L., & Azad, K. (2010). Mental Toughness and Athletes' use of Psychological Strategies. *Lincoln Repository*, University of Lincoln. Retrieved from [eprints.lincoln.ac.uk](http://eprints.lincoln.ac.uk).

# X International Conference on Multidisciplinary Research (IEI, Chandigarh) Institution of Engineers, India , Chandigarh



22<sup>nd</sup> February 2020

[www.conferenceworld.in](http://www.conferenceworld.in)

ISBN : 978-81-944855-2-0

4. Fletcher, D., & Hanton, S. (2001). The relationship between psychological skills usage and competitive anxiety responses. *Psychology of Sport and Exercise*, 2,89–101.
5. Gould D, Eklund RC, Jackson SA (1993). Coping strategies used by US. Olympic Wrestlers. *Res. Quart Exercise Sport*, 64: 83-93.
6. Jackson, S. A., Thomas, P. R., Marsh, H. W., & Smethurst, C. J. (2001). Relationships between flow, self-concept, psychological skills, and performance. *Journal of Applied Sport Psychology*, 13, 129–153.
7. Lane, A. M., Harwood, C., Terry, P. C., & Karageorghis, C. I. (2004). Confirmatory factor analysis of the Test of Performance Strategies (TOPS) among adolescent athletes. *Journal of Sports Sciences*, 22, 803–812.
8. Markovic, G., Jukic, I., Milanovic, D., & Metikos, D. (2007). Effects of Sprint and Plyometric Training on Muscle Function and Athletic Performance. *Journal of Strength and Conditioning Research* 21(2):543-9. 13,392
9. Ntoumanis, N. (2001). *A step-by-step guide to SPSS for sport and exercise studies*. New York: Routledge.
10. Smith, R., Schutz, R., Smoll, F., & Ptacek, J. (1995). Development and validation of a multidimensional measure of sport-specific psychological skills: the athletic coping skills inventory-28. *Journal of sport & Exercise Psychology*, 17, 379-398.
11. Thomas, P. R., Murphy, S. M., & Hardy, L. (1999). Test of Performance Strategies: development and preliminary validation of a comprehensive measure of athletes' psychological skills. *Journal of Sports Sciences*, 17, 697–711.