

Comparative Analysis of Anxiety Among Sprinters, Jumpers, Throwers And Long Distance Runners of Elite University Athletes of Kerala State



Physical Education

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ANEESH RAJAPPAN

Scholar of Doctoral of Philosophy, Department of Physical Education and Health Sciences, Alagappa University, Karaikudi, Tamilnadu, India.

Dr. V. A. MANICKAM,

Assistant Professor, Department of Physical Education and Health Sciences, Alagappa University, Karaikudi,-630 004, Tamilnadu, India.

ABSTRACT

The purpose of the present study was to compare the Anxiety among University sprinters, jumpers, throwers and Long distance runner of Kerala state. To achieve this purpose, one hundred and twenty (N=120) male athletes who had participated in the Inter-University athletic meet during the year 2014-15 were selected randomly from each category of sprinters, jumpers, throwers and Long distance runner thus a total of 120 athletes from all the University in Kerala State. The athletes' age ranged between 18 and 24 years. The study was restricted to Psychological Variable such as Anxiety. Anxiety of the players was assessed by using the SCAT Questionnaire. The experimental design for the study was static group comparison design. One-way Analysis of variance (ANOVA) was used to find out the difference among the University sprinters, jumpers, throwers and long distance runners on the selected variables. As the obtained F-ratio was significant, the Scheffe's test was used as a post-hoc test to find out the significant difference between each cell. There was a significant difference among sprinters, jumpers, throwers and long distance runner on the selected psychological variable such as Anxiety. Further the results showed in anxiety sprinters have higher anxiety when compared to jumpers, throwers and long distance runners.

INTRODUCTION

Human beings have consistently tried to run faster, jump higher, and exhibit greater strength, endurance and skill. We are naturally competitive and ambitious for excellence in athletic performances. As a result of practical experience, observation and scientific experimentation, old method of conditioning, though fascinating and rich in tradition, have been discarded and replaced by new methods based on insight and understanding. For centuries, this evaluation towards better methods of conditioning was slow, but in the recent years the dramatic changes that have taken place have brought about some outstanding results in performance (*Boucher and Malina, 1993*).

A sport in the present world has become extremely competitive. It is not the mere participation or practice that brings out victory to an individual. Therefore, sports life is affected by various factors, like Physiology, Biomechanics, Sports Training, Sports Medicine, Sociology and Psychology etcetera. Coaches, trainers, physical education personnel and doctors are doing their best to improve the performance of the players of their country. Athletes/players of all countries are also trying hard to bring laurels/medals for their countries in International competitions (*Ghuman and Dhillon, 2000*).

Psychology is defined as "the Science of Behaviour and Cognitive Process". In other words 'Psychologists' are concerned with obtaining scientific information on everything we think, and that we do. They examine observable behaviour, cognitive process, physiological events, social and cultural influences and largely hidden unconscious process. *Gamer (2008)* adds that Psychologists look at the complex interactions between all these different factors in order to understand behaviour.

METHODOLOGY

The study was conducted on one hundred and twenty (N=120) male athletes who had participated in the Inter-University athletic meet during the year 2014-15 were selected randomly from each category of sprinters, jumpers, throwers and Long distance runner thus a total of 120 athletes from all the University in Kerala State. The athletes' age ranged between 18 and 24 years. Anxiety was selected as dependent variable and it was measure through SCAT Questionnaire. The experimental design for the study was static group comparison design. One-way Analysis of variance (ANOVA) was used to find out the difference among the University sprinters, jumpers, throwers and long distance

runners on the selected variables. As the obtained F-ratio was significant, the Scheffe's test was used as a post-hoc test to find out the significant difference between each cell. In all the cases, 0.05 level of significance was used to test the hypotheses.

ANALYSIS OF THE DATA

The Analysis of Variance for the data obtained on Anxiety of sprinters, jumpers, throwers, long distance runners, were analyzed and the results are presented in table -I.

TABLE-I
ANALYSIS OF VARIANCE ON ANXIETY OF SPRINTERS, JUMPERS, THROWERS AND LONG DISTANCE RUNNERS

Mean				Sources of Variance	df	Sum of Squares	Mean Square	Obtained "F"
Sprinters	Jumpers	Throwers	Long Distance Runners					
19.51	19.19	18.82	18.19	SSB	3	38.12	12.71	3.42*
				SSW	116	431.25	3.72	

**Significant at 0.05 level.*

(Anxiety is in Points)

(The table value required for significance at 0.05 level with df 3 and 116 is 2.68)

Table-I shows that the mean values of sprinters, jumpers, throwers and long distance runners are 19.51, 19.19, 18.82 and 18.19 respectively. The obtained F-ratio value among sprinters, jumpers, throwers and long distance runners is 3.42. The obtained F-ratio value is greater than the table value of 2.68 with df 3 and 116 required for significance at 0.05 level.

Since the value of F-ratio is greater than the table value, it indicates that there is a significant difference among the means of sprinters, jumpers, throwers and long distance runners on Anxiety.

To find out which of the four paired means had a significant difference, the Scheffe's post-hoc test was applied and the results are presented in table-II.

TABLE-II
SCHEFFE'S TEST FOR THE DIFFERENCES BETWEEN THE PAIRED MEANS OF SPRINTERS, JUMPERS, THROWERS AND LONG DISTANCE RUNNERS ON ANXIETY

Adjusted Post test Means				Mean Difference	Confidence Interval
Sprinters	Jumpers	Throwers	Long Distance Runners		
19.51	19.19	--	--	0.32*	0.02
19.51	--	18.82	--	0.69*	0.02
19.51	--	--	18.19	1.32*	0.02
--	19.19	18.82	--	0.37*	0.02
--	19.19	--	18.19	1.00*	0.02
--	--	18.82	18.19	0.63*	0.02

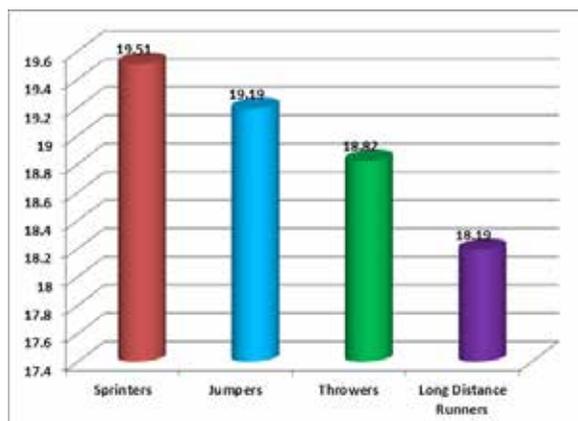
*Significant at 0.05 level.

Table- II shows that the mean difference in Anxiety between sprinters and jumpers, sprinters and throwers, sprinters and long distance runners, jumpers and throwers, jumpers and long distance runners, throwers and long distance runners are 0.32, 0.69, 1.32, 0.37, 1.00 and 0.63 respectively, which are higher than the confidence interval value of 0.02 at 0.05 level of confidence.

The result of the study indicates that there is a significant difference between sprinters and jumpers, sprinters and throwers, sprinters and long distance runners, jumpers and throwers, jumpers and long distance runners, throwers and long distance runners on Anxiety. However, the mean value of sprinters is found to be higher than jumpers, throwers and long distance runners on Anxiety.

The mean values of sprinters, jumpers and throwers on Anxiety are graphically represented in the figure -I.

FIGURE- I: MEAN VALUES OF SPRINTERS, JUMPR, HROWERS AND LONG DISTANCE RUNNERS ON ANXIETY(InPoints)



CONCLUSION

From the analysis of the data, the following conclusions were drawn.

1. There was a significant difference among sprinters, jumpers, throwers and long distance runner on the selected psychological variable such as Anxiety.
2. Further the results of the study showed sprinters have higher anxiety when compared to jumpers, throwers and long distance runners.

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