

ANALYSIS OF SELECTED PSYCHOLOGICAL VARIABLES AMONGSCHOOL LEVEL SPRINTERS AND JUMPERS IN KERALA

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Abstract:

The objectives of the study were to find out the difference of psychological variables like anxiety and aggression among Kerala school level sprinters and jumpers. For the present investigation twenty Kerala school level sprinters and jumpers, from different schools in Kerala state was selected as subjects randomly. The sample consists of 20 boys belonging to the age group of 14-16 years studying in various schools of Kerala. Spielbergers trait anxiety questionnaire and Standardized smith's questionnaire for sporting aggression is used to scale the psychological variables of the players. The data pertaining to the difference of psychological variables in Kerala school level sprinters and jumpers used ANOVA. Testing of hypothesis level of significance was set at .05 levels. It was processed through Statistical Package for Social Sciences (SPSS version-21). Mean was used for analysis of data. Mean score of each item was calculated and the conclusion was drawn on the basis of the calculated Mean. The results of the study showed that there was significant difference in the anxiety and aggression level among Kerala state level sprinters and jumpers.

KEYWORDS:

Anxiety, Aggression, Jumpers, Sprinters.

INTRODUCTION

Today, sports and exercise psychologists have begun to research and provide information in the ways that psychological well-being and vigorous physical activity are related. This idea of psychophysiology, monitoring brain activity during exercise has aided in this research. Also, sport psychologists are beginning to consider exercise to be a therapeutic addition to healthy mental adjustment. Psychology is the science of behaviour and experience. Behaviour includes all manifestation of life. As a pure science, psychology is concerned primarily with systematic study of behaviour and their verification through experimentation. Psychology is the science that studies behaviour and the physiology and mental processes that underlie it and the profession that applies the accumulated knowledge of this science to practical problems.

Sports psychological are an area in which attempts are to be applied on psychological factors. To principles and performance are associated with human behavior in the whole field of sports. Among psychological variables anxiety and aggression were considered for this study.

Anxiety variety of physiological reactions such as increased heart rate, rapid shallow breathing, sweating, muscle tension and drying of the mouth are associated with anxiety. A variety of type – labels have been given to anxiety such as trait anxiety, state anxiety, manifest anxiety chronic anxiety, specific anxiety etc. Spielberger (1966) was the first anxiety theorist to distinguish between states and trait anxiety. (Kamlesh, 1988).

Aggression is behaviour and actions that usually seek to inflict psychological and physical harm, either on another person or on his possessions or dear ones. Aggression has directional components. Some aggression is directed inward and in its extreme form many culminate in self-destructive behaviours

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including suicide. (Cratty, 1989)

Sprinters

Those who all perform the events like 100mts and 200mts they all known to be sprinters.

Jumpers

Those who all perform the events like long jump, high jump and triple jump they all known to be jumpers.

Objective of the Study

The study will help to know the difference of psychological variables like anxiety and aggression among Kerala school level sprinters and jumpers.

Statement of the Problem

The purpose of the study is to find out the comparative analysis of selected psychological variables among Kerala school level sprinters and jumpers.

Hypothesis

It was hypothesized that there may be significant difference in anxiety among school level sprinters and jumpers.

It was hypothesized that there may be significant difference in aggression among school level sprinters and jumpers.

Significance of the Study

This study will help to find out the level of anxiety and aggression among Kerala school level sprinters and jumpers.

The findings will enlighten the possible favourable outcomes of both Kerala school level sprinters and jumpers.

Anxiety

Anxiety is a state of emotional and physical disturbance included in a person by real or imagined threat. In psychology the term refers to disturbance caused by threats that are only apparent to the individual and cause him to behave in a way that is not relevant to the true situations. (Robin s. vealey 1978)

Aggression

The aggression comes from the Latin root *aggredi* (to attack) and *gradi* (to go toward). Literally, then the word means to walk toward or approach to "move against" or "to move with intender" to hurt or "to harm". The major problem when studying aggression in sport is in finding an acceptable universal definition most psychologists describes aggression in terms of behaviour. (Silva and Weinberg, 1984)

METHODS AND MATERIALS

Selection of Subjects

For the present investigation twenty Kerala school level sprinters and jumpers, from different schools in Kerala state was selected as subjects randomly. The sample consists of 20 boys belonging to the age group of 14-16 years studying in various schools of Kerala.

Orientation of Subjects

Before administering the psychological questionnaire, the investigator has briefly explained to the subjects the purpose of the study and the method of filling the questionnaire. The subjects were motivated to give relevant personal data and respond to the psychological questionnaire correctly.

Collection of Data

The psychological variables such as anxiety and aggression were measured by using standardized questionnaires. These questionnaires were specifically intended for administration before sports competitions.

Administration of Questionnaire

After selecting the schools, the investigator has met the managers, coaches and athletes of the respective schools and requested their cooperation for the smooth administration of the psychological questionnaire. The managers and coaches were kind enough to cooperate and extended their wholehearted

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support in collecting the data. The investigator administered the questionnaire to the chosen state level athletes one day prior to their competition.

The subjects selected from each school were made to assemble in a room. The investigator explained to them the purpose of the investigation and also gave very clear instructions regarding the method of answering the psychological questionnaire booklets. Meticulous care was taken to see that the subjects were seated in such a way that they would attend to the task at hand without any distraction and to complete the tests in time. The investigator was present in the classroom and helped the subjects whenever they met with some difficulty in understanding the meaning of different words used in the test. All the tests were administered by the investigator in person in a face to face situation. The instructions and the time limit prescribed in the manual of respective tests were strictly followed.

The subjects were found to be careful enough to go through the instructions and each statement carefully and indicated their response without any difficulty. All the subjects were cooperated very well for the successful collection of data. The entire filled in questionnaire were collected from the subjects and scored according to the respective scoring keys. The total scores obtained were tabulated and treated statistically.

Anxiety

Anxiety was measured by the trait anxiety questionnaire. The anxiety questionnaire was designed to measure the anxiety level prior to the competition.

It was developed by Spielberger. Spielberger's trait anxiety questionnaire was given to all subjects. Twenty items were adopted from Spielberger's trait anxiety questionnaire for this investigation. Items on this scale are weighted such that a decrease in score is indicative of a decrease in anxiety; scores can range from 20 to 80. The complete questionnaire scores as follows.

S.no	Response	Score of positive Statements	Score of negative Statements
1	Not at all	1	4
2	Some what	2	3
3	Moderately	3	2
4	Very much	4	1

Positive Statements	Negative Statements
1, 2, 5, 8, 10, 11, 15, 16, 19, 20.	3, 4, 6, 7, 9, 12, 13, 14, 17, 18.

Aggression

Standardized Smith's questionnaire for sporting aggression is used to scale the aggressiveness of the players. The test consists of four questions with five levels of responses. The level changes from strongly disagree to strongly agree.

Scoring

The inventory is scored with the help of the scoring key given below. The range of score was from 4 to 20. The higher the scores are more aggressive players. The Scoring keys are as follows.

S.no	Response	Score
1	strongly disagree	1
2	disagree	2
3	undecided	3
4	agree	4
5	strongly agree	5

Statistical Technique Employed

The data pertaining to the difference of psychological variables in Kerala school level sprinters and jumpers used ANOVA. Testing of hypothesis level of significance was set at .05 levels. It was processed through Statistical Package for Social Sciences (SPSS version-21). Mean was used for analysis of data. Mean score of each item was calculated and the conclusion was drawn on the basis of the calculated Mean.

RESULTS AND DISCUSSIONS

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Table .1 Descriptive statistics of the groups

		N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean
						Lower Bound
Anxiety	Sprinters	20	35.50	2.929	.655	34.13
	Jumpers	20	38.30	3.908	.874	36.47
	Total	40	36.90	3.692	.584	35.72
Aggression	Sprinters	20	10.40	1.188	.266	9.84
	Jumpers	20	11.60	1.957	.438	10.68
	Total	40	11.00	1.710	.270	10.45

The values of the mean, standard deviation and standard error of the mean for sprinters and jumpers are given in the table .1. The mean anxiety of the sprinters is 35.50 (2.929) and jumpers is 38.30 (3.98). The mean aggression of sprinters is 10.40(1.188) and jumpers is 11.60(1.957).

Table .2 t – table for testing the equality of variances and equality of means of two groups

		95% Confidence Interval for Mean							
		Upper Bound	Minimum	Maximum	Sum of Squares	df	Mean Square	F	Sig.
Anxiety	Sprinters	36.87	31	453.200	78.400	1	78.400	6.574	.014
	Jumpers	40.13	31	531.600	453.200	38	11.926		
	Total	38.08	31	14.400	531.600	39			
Aggression	Sprinters	10.96	8	99.600	14.400	1	14.400	5.494	.024
	Jumpers	12.52	8	114.000	99.600	38	2.621		
	Total	11.55	8	15	114.000	39			

It can be seen from the Table.2 that the value of f- statistic in case of anxiety is 6.574. This f- value is significant as the p-value is 0.014 which is less than 0.05. It can also be seen that the value of f- statistic in case of aggression is 5.494 and it is significant as the p-value is 0.024 which is less than 0.05. Thus, the null hypothesis of equality of population means of two groups is rejected.

Anxiety

The results of the study showed that there was significant difference in the anxiety level among Kerala state level sprinters and jumpers. This may be due to the fact that the competitors may have more expectations on their performance prior to the competitions and shows poor performance during competitions when compared with others performance or with his previous performance.

Aggression

The results of the study showed that there was significant difference in the aggression level among Kerala state level sprinters and jumpers. This may be due to the fact that these athletes might have come across more aggressive situation during competitions.

CONCLUSIONS

Within the limitation of the present study, the following conclusions were drawn.
 There was significant difference in the anxiety level among Kerala state level sprinters and jumpers.
 There was significant difference in the aggression level among Kerala state level sprinters and jumpers.

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