

THE PHARMA INNOVATION - JOURNAL

Endurance runners anxiety and motivation analysis at different levels of participation

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Purpose: The study is trying to find out the difference among the National, Inter-University and State Level endurance runners in order to provide information about the potential effects of psychological variables on different level endurance runners.

Design/Methodology/Approach: The one fifty (n= 150) endurance runners participating at state/ inter-university and national level competitions of their age range 18 to 25 years were randomly selected as subjects from national and Inter-University camps of mostly North East States of India. The anxiety of the subjects measured by S. Sharma & M. Singh (1973) test and motivation by Kamlesh (1990) test were measures of National, Inter-University and State Level endurance runners. To calculate the mean difference among different level of endurance runners mean, SD, ANOVA and Post-hoc test were conducted by using SPSS 11.5.

Findings: A statistical finding of the psychological variables, inter-university and National level runners have similar level of anxiety but state level runners have more level of anxiety as compared to national and Inter-university level endurance runners. The National and Inter-university level runners possess a similar level of motivation and their level of motivation is more than that of the state level endurance runners.

Conclusion: State level runners show higher levels of anxiety but National and Inter-University level runners show similar but lower levels of anxiety. But National and Inter-University level runners show higher Motivational level whereas state level runners show lowest motivational level.

Keyword: Anxiety, Motivation, Endurance runners and different levels

Introduction

Psychology is an increasingly popular and important area of human performance concerning research into sporting and athletic performance, particularly with regard to improvement. It is now accepted that superior sporting performance is not just dependent upon physical and motor skills but on perceptual and cognitive skills as well. Thus sport psychologists are playing an increasingly important role in individual and team sports. Sport and exercise psychology has been defined

as. " scientific study of people and their behavior in sports and exercise context and the practical application of that knowledge" (Brewer 1996) ^[19]. It is well known by all who play sports that defeat often stems from the inability to manage anxiety, fear, anger and aggression (Brewer and Petrie, 1996) ^[19].

Motivation

All human behavior arises in response to some forms of internal (Physiological) or external

(Environmental) stimulation. These behaviors are purposeful or goal directed. These behaviors are the result of the arousal of certain motives. Thus motivation can be defined as the process of activating, maintaining and directing behavior towards a particular goal. The process is terminated only after the desired goal is obtained. The process of initiating action in the organism is technically called motivation. Motivation refers to a state that directs the behavior of the individual towards certain goals. Motivation is not directly observable, it is described as an inferred process and is called so by the psychologists to explain certain behaviors. When we ask "What motivates a person to do a particular thing", we usually mean why he behaves as he does. In other words, motivation as popularly used, refers to the cause or why of behavior. Since psychology is the study of human behavior, motivation is an important part of psychology. Motivation refers to a state of a person that directs behavior of the individual towards certain goals.

Achievement Motivation

One of the important needs present in all human beings to some degree is the " need for achievement" or the need to attain an increasingly higher level of performance. People in whom the need for achievement is strong seek to become difficult words and to improve their task performance. They are task oriented and prefer to work on tasks that are challenging and on which their performance can be evaluated in some way. It may be by comparing it with other people's performance in terms of some standards. Achievement motivation can be seen in many areas of human efforts for example, on the job, in school or in sport competitions.

Intrinsic motivation : In this form, motivation arises from the satisfaction due to the behavior itself, for our sake.

Extrinsic motivation : In this form, motivation arises because of external rewards or for avoidance of punishment.

Anxiety: Anxiety is a multisystem response to a perceived threat or danger. It reflects a

combination of biochemical changes in the body, the patient's personal history and memory, and the social situation. As far as we know, anxiety is a uniquely human experience. Other animals clearly know fear, but human anxiety involves an ability to use memory and imagination to move backward and forward in time, that animals do not appear to have. The anxiety that occurs in post-traumatic syndromes indicates that human memory is a much more complicated mental function than animal memory. Moreover, a large portion of human anxiety is produced by anticipation of future events. Without a sense of personal continuity over time, people would not have the "raw materials" of anxiety.

Frost (1971) has aptly stated that "Anxiety is an uneasiness and feeling or forbidding often found when a person is about to embark on a hazardous venture, it is often accompanied by strong desire to excess." Hence state of anxiety arises from faulty adaptations to the stress and strains of life and is caused by overreaction in an attempt to meet these difficulties.

State Anxiety

State anxiety refers to the ever changing mood component. It is defined more formally as an emotional state "characterized by subjective, consciously perceived feelings of apprehension and tension, accompanied by or associated with activation or arousal of the autonomic nervous system".

Trait Anxiety

Trait anxiety is a behavioral disposition to perceive as threatening circumstances that are objectively not dangerous and to then respond with disproportionate state anxiety. Highly trait anxious people usually have more state anxiety in highly competitive, evaluative situations than do people with lower trait anxiety.

The present investigator being an Inter-University/State/National level long distance runner has undertaken the study to investigate the psychological variables of endurance runners to know the effects of these variables on the entrance running performance of female students.

Selection of Subjects: For the purpose of the present study, one fifty (n= 150) endurance

runners participated at state (50)/ inter-university (50) and national (50) level competitions of their age range 18 to 25 years were randomly selected as subjects from national and Inter-University camps of mostly North East States of India.

Selection of Variables

Psychological Variables

Anxiety, Motivation

The anxiety of the subjects measured by S. Sharma & M. Singh (1973) [22] test.

The motivation of the subjects was measured by the Kamlesh (1990) test of National, Inter-University and State Level endurance runners.

Statistical Technique Employed

The data were analyzed by applying mean differences among different levels of endurance runners. SD, ANOVA and Post-hoc tests were conducted with the help of Statistical Package for the Social Science (11.5) computer software.

Results and Discussion

It is evident from table 1 that the calculated value of F (35.53) was more than the table value of F (4.75) and was significant at .01 level of confidence. It implies that the three groups of endurance runners had different levels of anxiety at different levels of participation. To know the pairwise difference in means, the Least Significant Difference method was applied as presented in the following table.

Table-1 also indicates that the calculated value of F (324.15) was found more than the table value of F (4.75) at .01 level and was significant. It implies that the three groups of endurance runners had differences in their motivation level at different levels of participation. Further, to know the pairwise difference in mean scores of adjustment among three groups of endurance runners, the Least Significant Difference method was applied as presented in the table.

Table 1: Analysis of anxiety and motivation of endurance runners at different levels of participation

Name of Variables	Source of variance	Df	TSS	MSS	F-ratio
Anxiety of endurance runners	Between groups	2	436.05	18.02	35.53**
	Within groups	147	901.90	.1391	
	Total	149	1337.97		
Motivation among endurance runners	Between groups	2	3924.89	1962.44	324.15**
	Within groups	147	889.94	6.05	
	Total	149	4814.83		

** Significant at .05 level of confidence .05= 3.06

** Significance at .01 level of confidence .01 = 4.75

Table 2: Significant differences in mean of anxiety and motivation among endurance runners at different levels of participation

Name of the Variables	National	Inter Uni.	State	Mean Diff.	CD
Anxiety	17.00	17.96	-----	0.96	0.97
	17.00	-----	21.00	4.00**	
	-----	17.96	21.00	3.04**	
Motivation	30.76	30.94	-----	00.18	0.96
	30.76	-----	20.00	10.76	
	-----	30.94	20.00	10.94	

Table 2 shows that the difference in mean anxiety scores between national vs state (4.00) and inter varsity vs state (3.04) were found more than the critical difference (0.97) at .01 level of confidence but the difference in means between national vs inter varsity (0.96) was less than the critical difference (0.97) as shown in the figure-

28 also. It shows that state level endurance runners had more anxiety levels as compared to national and inter varsity level runners whereas the national and inter varsity level runners had statistically equal but minimum levels of anxiety. From the table 2, it is observed that the difference in mean motivation scores between national Vs

state (10.76) and Inter varsity Vs state (10.94) were found more than the critical difference (0.96) but the difference in means between national Vs inter varsity (0.18) was less than the critical difference (0.96) as shown also in the figure. It suggests that the national and inter varsity level endurance runners had more motivation level than the state level runners whereas the state level runners had the least motivation level among the groups of runners.

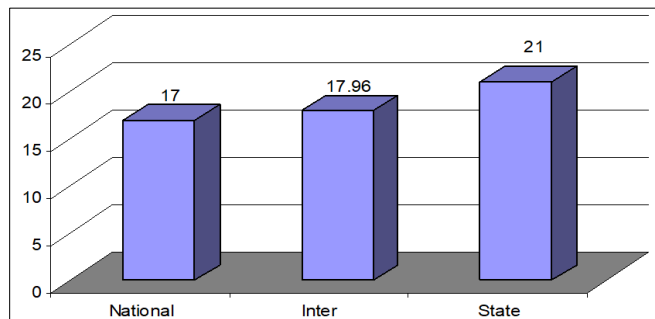


Fig 1: Significant difference in mean of anxiety among endurance runners at different levels of participation

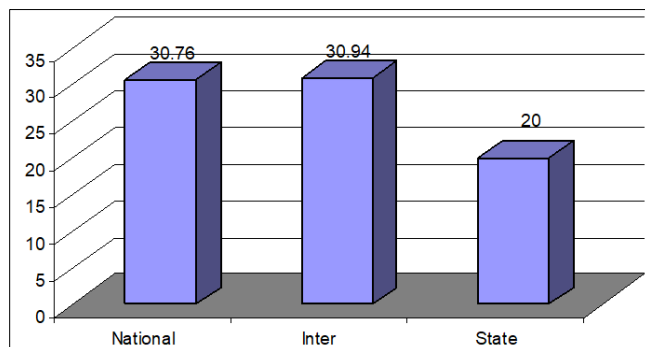


Fig 2: Significant difference in means of motivation among endurance runners at different levels of participation.

Result and Discussion

Out of the psychological variables, inter-university and National level runners have similar levels of anxiety but state level runners have more level of anxiety as compared to national and Inter-university level runners. It is because of less experience of participation at various competitions.

It is also observed that National and Inter-university level runners possess similar levels of motivation and their level of motivation is more than the state level runners. The results of the

study are inconsistent with the studies conducted by other scientist i.e. Usha Rani (2004) [23], Ramchander (2009) [24].

Conclusion

State level runners show higher levels of anxiety but National and Inter-University level runners show similar but lower levels of anxiety. National and Inter-University level runners show higher Motivational level whereas state level runners show lowest motivational level.

Suggestion

1. Congenial and suitable atmosphere may be created in schools and colleges for mass participation of female students in sports activities.
2. The study may be helpful for coaches and teachers to solve physiological and psychological problems of female players.

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