



A Comparative Study on Resting Pulse Rate and Anxiety Profile Among Different Ball Games Players

KEYWORDS

Anxiety, Resting heart rate

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ABSTRACT *Background: Anxiety and resting heart rate are inter-related psycho-physiological variable and they have adverse effects in sports performance. Purpose: The purpose of the present study find out that the relationship of resting pulse rate and anxiety profile of the players of different ballgames of players. Methodology: Total sixty (N=60) inter-versity players such as twenty footballers (n=20), twenty volleyballers(n=20) and twenty basket ballers (n=20) were selected at randomly as the subjects of the present study. The age limit of subjects was from 18 to 25 years. Sports competitive anxiety test (SCAT) developed by Rainer Martin, 1977 which was employed for all the subjects of all three groups. Heart rate was measured by pulse palpation. The pulse rate is measured by counting the beats in a set period of time. Analysis of variance was applied to determine the significant difference of the anxiety variable and resting pulse rate. . Further Post Hoc test was applied in case of significant difference was obtained. Result: The result of the present study revealed that there was no significant difference was found between resting heart rate and anxiety profile among three ballgames players. Conclusion: There was no significant difference was found between resting heart rate and anxiety profile among different ballgames players.*

INTRODUCTION: Today's modern era of sports, psychological aspects of the player play a major role in training and giving high performance. Anxiety is always present in sports. In simple words it is a type of emotional disturbance. The level of anxiety and pulse rate may differ from individual to individual even among the players of different ball games.

Anxiety may be motivating force or it may interfere with successful athletic performance. As a positive motivating force it can be instrumental in motivating the athletes to work harder to find new and to help to set goals. As a negative motivation anxiety may interface with productive as well as constructive thinking. Athletes may attempt to handle anxiety by denying mistakes, denying their weakness and thus denying working hard. This can lead to the development of poor work habits, or athletic technique. These often lead to failure and in turn, lack of confidence and increased anxiety.

When an athlete is anxious, the heart rate increases; the blood pressure becomes elevated and the breathing becomes more rapid and oxygen consumption increases. He has feeling of fatigue or weakness etc., even he may yawn frequently, begin to tremble or engage in nervous activity (bite his nails wriggle his leg twin his hair act.) or he may sweat profusely, urinate frequently etc. The anxiety level of different people to the similar situation is entirely different.

METHODOLOGY: Total sixty (N=60) inter-versity players such as twenty footballers (n=20), twenty volleyballers (n=20) and twenty basket ballers (n=20) were selected at randomly as the subjects of the present study. The age limit of subjects was from 18 to 27 years. Sports competitive anxiety test (SCAT) developed by Rainer Martin, 1977 which was employed for all the subjects of all three groups. Heart rate was measured by pulse palpation. The pulse rate is measured by counting the beats in a set period of time. Analysis of variance was applied to determine the significant difference of the anxiety variable and resting pulse rate. Further Post Hoc test was applied in case

of significant difference was obtained.

Table-1, Statistical Significant Difference among the Ball-games Players on Anxiety and Resting Heart Rate

		Sum of Squares	df	Mean Square	F	Sig.
Anxiety	Between Groups	6.033	2	3.017	0.632	0.535
	Within Groups	271.900	57	4.770		
Resting heart rate	Between Groups	1.233	2	0.617	0.032	0.969
	Within Groups	1109.100	57	19.458		

Table-1 of statistical significant difference among the 60 ballgames player depicts that.

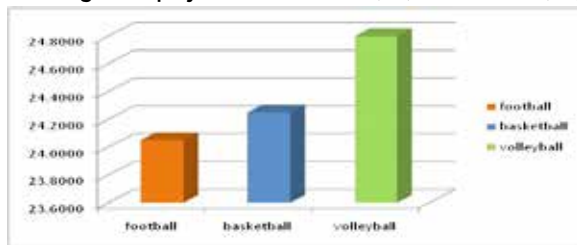
In case of anxiety variable the statistical results collating on the 60 ballgames players showed that the Sum of square between the groups is 6.03, where the degree of freedom is 2 and mean square is 3.017. The Sum of square within group the group is 271.90, where the degree of freedom is 57 and mean square is 4.770. The obtained F value for anxiety is 0.632 which is insignificant as significant value is less than ($P > 0.05$).

In case of resting heart rate variable the statistical results collating on the 60 ballgames players showed that the Sum of square between the groups is 1.23, where the degree of freedom is 2 and mean square is 0.617. The Sum of square within group the group is 1109.10, where the degree of freedom is 57 and mean square is 19.458. The obtained F value for resting heart rate is 0.032 which is insignificant as significant value is less than ($P > 0.05$).

It is further interpreted that as the F value for anxiety (0.632) and resting heart rate (0.032) were found to be less to bring statistical significant difference among the ball-

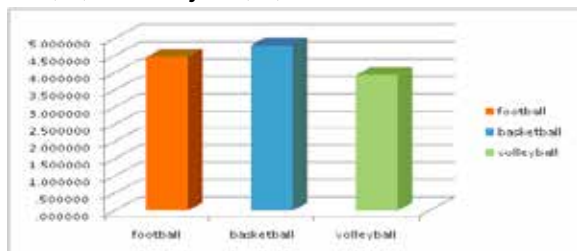
games players. Hence, the hypothesis constructed at beginning of the study that there would be *no significance difference among* the players of different ball games in relation to resting pulse rate and anxiety is retained.

Graph-1, The mean graph of anxiety variable of selected ballgames players .i.e. football (20), basketball (20)



Mean Difference of Ballgames Players on Anxiety Variable

Graph-2, The mean graph of resting heart rate variable of selected ballgames players .i.e. football (20), basketball (20) and volleyball (20).



Mean Difference of Ballgames Players on Resting Heart Rate Variable

DISCUSSION OF FINDINGS:

The study was carried out with the aim to compare the selected psycho physiological variables among the ball games players. The selected ball games were football, basketball and volleyball whereas; the variables were anxiety and resting heart rate.

The previous studied revealed that players with lower resting heart rate were able to perform well in the competition due to their control on cognitive ability. Where ever players feel highly tense or nerves his heart rate increase dynamically which is having negative effects on the performance and similar vice versa were found.

In this study collating on 60 university ball games players shows that the F value for anxiety (0.632) and resting heart rate (0.032) were found to be less to bring statistical significant difference among the ballgames players. Hence, there was no difference were among the selected ball game players.

CONCLUSION: Under the conditions of the present study the results seem to conclude that

There was no significant difference found among inter-versity footballers volleyballers and basketballers in comparing anxiety profile.

There was no significant difference found among inter-versity footballers volleyballers and basketballers in comparing resting heart rate.

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