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Cardiovascular endurance of volleyball and cricket of Anantnag district

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Abstract

Physical fitness has immense value in games and sports. This study was intended to explore the cardiovascular endurance of Volleyball and Cricket of Kashmir Division. 200 volleyball and 200 cricket players were selected from South Kashmir districts of union territory of Jammu and Kashmir. The age groups of the subjects were ranged 15-19 years. Whole data was selected by using Convenient Sampling Technique (CST). For determining the cardiovascular endurance of the players "Harvard Step Test" for was used. The data was subjected to statistical treatment by using inferential statistics. The results revealed that three exists no significant differences between volleyball and cricket players on their level of cardiovascular endurance.

Keywords: cardiovascular, under nineteen volleyball players, under nineteen football players

Introduction

Physical fitness is the fundamental concern in all spheres of life. However, it has gained more importance in games and sports. The research findings show that a high level of technical perfection alone has nothing to do with the success in competitive sports. Most of the game demands a greater amount of speed, strength, endurance, cardiovascular endurance, co-ordination and maximum fitness of the Organism. Modern scientific methods of training players or team place greater responsibility on the coaches and physical educators. They are also responsible for the selection of team taking into consideration the physical and physiological qualities essential for the game. The performance of football and volleyball depends upon many characteristics. The skill and physical condition play major role, but the physiological factors and games experience cannot be over-looked. In India, men football and volleyball is in infancy stage. It has to go long way to catch the world standard and in order to catch the world standard; there should be proper planning and implementation of the programme. And the implemented programme should be evaluated from time to time so that the best result can be attained. To move in the above direction there should be continuous research on the players.

Location of research gap: Indeed, large number of research studies has been conducted on physical fitness. There results has been revealed in contrary approach. Some studies report that impact of locality is significant and some studies argued insignificant like Zaman, S. M. (1995) [38], Wuest and Charles A. Bucher (1987) [37], Wright, J. (1996) [36], Trudeau, F., And Shephard, R. J. (2008) [35], Jain, A. K. (2010), Sahil, A. D. (2005), Carlson, J. J., Dejong, G. K., Robison, J. I., & Heusner, W.W. (1994) [8], Tomik, R. (2008) [34], Trudeau, F., and Shephard, R. J. (2008) [35], Henning, B., Stark, T. (2001) [18] and Rahil, A. G. (2013) [27]. Accordingly, the investigator feels it pertinent to explore the level of physical fitness of the female respondents in relation to their type of school. The detailed statement of the problem is as under:

Research problem: The statement of the research problem is as under:

"Cardiovascular endurance of volleyball and cricket of Anantnag District"

Objectives of the study: The objectives of the present study are as under:

- 1) To explore the level cardiovascular endurance of under nineteen volleyball and cricket players.

Hypothesis: Following hypothesis has been framed for the present study:

- 1) There exists no significant difference on cardiovascular of under nineteen volleyball and cricket players.

Operational definition: The operational definitions of terms and variables are as under:

- 1) **Cricket players:** Cricket players in the presents study refers those players who are playing crick game since last four years. Besides, all the players were selected under nineteen.
- 2) **Volleyball players:** Volleyball players in the presents study refers those players who are playing Volleyball game since last four years. Besides, all the players were selected under nineteen.

Delimitations of the study: The budget, time and other constraints were prevailing in the entire research process. The present study will be confined to the following aspects:

- A) The present study will be delimited four Districts viz. Anantnag District of South Kashmir of Union Territory of Jammu and Kashmir.

Methodology: The intention behind the present study was to explore the cardiovascular endurance of the respondent. The investigator found it suitable to go through descriptive survey method. Accordingly, present study was carried with the help of descriptive method. The parameters involved in methodology and procedure are as under:

- **Sample:** The sample for the present study consists of 400 respondents with due representation of type of school. The age groups of the subjects were ranged 14-19 years. Whole data was selected by using Convenient Sampling Technique (CST). The below mentioned table indicates

the precise explanation of sample:

Table 1: Showing the selection of sample with dichotomy representation

Category	CP	VP
Sample	200	200
Total = 400		

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- CP = Cricket Players.
- VP = Volley ball players.
- **Instrument used:** All the three components were assessed separately the detailed analyses of these instruments is reported as under:
- **Measuring criteria:** For determining the cardiovascular endurance, The “Harvard Step Test” for cardiovascular endurance.

Statistical technique employed: The collected data was put to suitable statistical treatment by using Mean, SD and ‘t’ value. The detailed procedure of statistical treatment is analysed as under:

Table 2: Showing significance of difference between mean scores of Volleyball and cricket players on cardiovascular endurance component of physical fitness. (N=200 each)

Category	Cricket Players		Volleyball Players		‘t’ value
	Mean	SD	Mean	SD	
Cardiovascular Endurance	48.12	4.10	47.99	3.90	0.03**

Index

- CP= Cricket Players.
- VP= Volley ball players.
- **= Insignificant at 0.05 level of confidence.

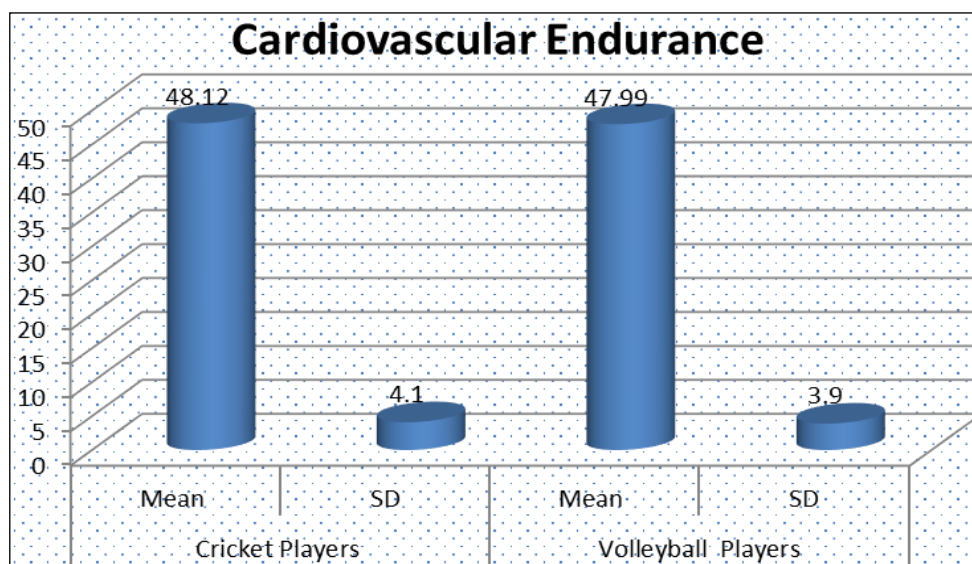


Fig 1: Showing significance of graphical representation of Volleyball and cricket players on cardiovascular endurance component of physical fitness

Interpretation and discussion of the results: The statistical results reported in above mentioned table are interpreted and discussed as under:

Discussion

The perusal of the table 2 (Please refer Fig. 1) gives information about the mean comparison of volleyball and

cricket players on their cardiovascular endurance. The results reveal that the mean score incase of volleyball players was reported 48.12. However, the mean score of cricket players was found 47.9. When the both groups were analysed statistically, the calculate ‘t’ value came out to be 0.03, which is insignificant at 0.01 level of confidence. Thus, from the above results it can be inferred that there exists no significant

difference volleyball and cricket payers on their cardiovascular endurance. Identical level of cardiovascular endurance was reported among both the groups of students. Thus, the research can infer that the locality seems insignificant impact on the level of cardiovascular endurance of the respondents.

Hypothesis: There exists no significant difference between under nineteen cricket and volleyball payers on their level of cardiovascular endurance.

.....Status: (Accepted)

Indeed, the previously established hypothesis has been accepted. There exist no significant difference volleyball and cricket payers on their cardiovascular endurance. The results are supported by host of the researchers like; Zaman, S. M. (1995) ^[38], Wuest and Charles A. Bucher (1987) ^[37], Wright, J. (1996) ^[36], Trudeau, F., And Shephard, R. J. (2008) ^[35], Jain, A. K. (2010), Sahil, A. D. (2005), Carlson, J. J., Dejong, G. K., Robison, J. I., & Heusner, W.W. (1994) ^[8], Tomik, R. (2008) ^[34], Trudeau, F., and Shephard, R. J. (2008) ^[35], Henning, B., Stark, T. (2001) ^[18] and Rahil, A. G. (2013) ^[27].

Conclusions of the study

The study was intended to explore the level of cardiovascular endurance of volleyball and cricket players. In connection to same, it was found that there exists no significant difference between volleyball and cricket players on their level of cardiovascular endurance. Identical level of cardiovascular endurance was reported between both the groups of students. Thus, the research can infer that the type of game played by respondents seems insignificant impact on the level of cardiovascular endurance

Conflict of interests: Keeping the results of the present study under consideration, no any conflict of interest has been declared.

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