

Comparative study of Cardiovascular Endurance and Speed between Rural and Urban Volleyball Players of Gurugram district of Haryana

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Abstract

The purpose of this study was to compare which group of Male Volleyball players Rural/Urban has better physical fitness performance. 72 male Volleyball players were selected as samples from rural and urban areas of Gurugram district of Haryana. In which 36 were rural and rest 36 were urban Male Volleyball players. Two physical fitness components: Cardiovascular endurance and Speed were selected as criterion measures. The data collection tools used in study were Harvard step Test for Cardiovascular endurance and 60 meters speed test for Speed. Descriptive statistics examine the characteristics of the samples and independent 't' test was employed using IBM SPSS statistics software. The results revealed that the rural areas male Volleyball players performance was better than the urban areas Volleyball players in both physical fitness components: Cardiovascular endurance and Speed. The findings of this study proved that the results of this study are unique and shows that Urban areas Volleyball players have more physical fitness than Rural areas Volleyball players, moreover it was also discovered for future studies that the cultural, social and living environment had great impact on physical fitness of Volleyball players of Gurugram district of Haryana.

KEYWORDS: Cardiovascular Endurance, Speed, Volleyball players, Rural and Urban

Introduction

A healthy lifestyle is absolutely vital for reducing the incidence and impact of problems, for recovering, for coping with life stressors and for quality of life. There are a number of research studies which shows that lifestyle and physical fitness play a huge part in how healthy we are. As a matter of fact, what we eat and drink, how much exercise we perform. A healthy and positive lifestyle is really very important for all of us as well as sports persons. But innovation and improvement in technology have changed our lifestyle and it has also affected our physical fitness sorrowfully because of less activities.

Physical fitness is one's ability to do daily routine task enthusiastically without any fatigue. Physical fitness is essential in games and sports as well as in our routine life. Weight gaining is prevented by our daily physical activities. A person who has got a good physical fitness can perform dominant in running, climbing, jumping and weight lifting. He can lead with consistent, moderate or vigorous physical activities, exercise or sports. There are a lot of differences in the lifestyle and environment of urban and rural Volleyball players. The environment and circumstance of both places (urban and rural) are totally mismatched. The quality and quantity of their food consumption, their lifestyle, their culture of the society, health standards, economic issues etc. are

the common factors affecting the physical fitness and development of the Volleyball player.

Rural Volleyball players are more involved in physical activities from their childhood. But they are not able to improve their physical fitness due to lack of healthy lifestyle, good environment and circumstance, economic issues etc. On the other hand Urban Volleyball players have been got every kind of facilities like good coaches and physical education teachers, healthy lifestyle, parents support and good environment and circumstance since their childhood. Many research studies have been occurred on this topic. McNaughton et al. always investigated that Urban girls and boys of Tasmania city (Australia) had better aerobic fitness than the rural children. (Uppal and Sareen) found out that the cardiovascular fitness of rural areas students was better than Urban areas students. After reading above mentioned studies one thing is essential here that every society, every person are not the same as to one other due to their different circumstances like social values, cultural traits, environment and facilities. So if American, Australian and European rural children are physically fit then we can't assume that the children of Asia, Africa and especially in India are also physically fit in rural areas. There are a lot of conditions which differentiate the situation, for example, different body structure, different physical fitness level, different weather and available facilities. American, Australian and European rural children have good knowledge, good facilities and liberal culture, however conditions in India in rural areas are not same. In the case of India, most of rural area Volleyball players used to do their domestic work. But they even can't imagine the facilities as Urban Volleyball players. In most of rural schools no Physical education teacher available. On the other hand, the urban volleyball players have 2 or more physical education teacher or coach available. So it is a considerable reason to undevelopment of physical fitness of Rural volleyball players. The Urban Volleyball players have distinctive favourable environment, for example, accessibility of better equipment, good training from the specialists in the urban area those are not available in rural areas. Urban Volleyball players are greatly motivated and empowered by their mentors.

Methodology

The research was descriptive comparative method. Thirty six male Volleyball players from Rural area and rest thirty six male Volleyball players from Urban area of Gurugram district of Haryana were selected as samples. Subject selection for this study was carried out by using systematic random sampling. The Urban area Volleyball players' average age mean is 21.17, minimum age is 18 and the maximum age is 26. The Rural area Volleyball players' average age mean is 21.17, minimum age is 18 and maximum age is 26. The Urban Volleyball Players' average weight mean is 54.56, minimum weight is 34 and maximum weight is 77. Rural Volleyball players average weight mean 54.92, minimum weight is 38 and maximum weight is 90. The criterion measures adopted for this study were Cardiovascular Endurance and Speed. The data collection tools used in this study were Harvard Step Test for Cardiovascular Endurance and 60 Meters Speed Test for Speed. Data of Motor Fitness Components between Urban Volleyball players and Rural Volleyball players was compared by using independent 't' test. The level of significance was kept at 0.05 level of significant test the hypothesis. SPSS 22 was used to execute the statistical functions.

Results

The results of statistical data are given below in tables:

Table no 1 : Details of variables

Sr. No	Variables	Tests
1	Cardiovascular Endurance	Harvard Step Test
2	Speed	60 Meters Speed Test

Table no 1 shows the variables and their criterion measures was used in this study.

Table no 2 : Mean and Standard Deviation of Urban and Rural Volleyball players

Tests	Groups Urban/Rural	N	Mean	Std. Deviation
Cardiovascular Endurance by Harvard Step Test	Urban	36	5.97	1.183
	Rural	36	5.75	.967
Speed (sec) by 60 Meters Speed Test	Urban	36	9.29	1.745
	Rural	36	9.52	1.846

The Table 2 show the results of both tests . The mean and Std. Deviation of Harvard Step Test of Urban and Rural Volleyball players of Gurugram district is : Urban Volleyball players Mean: 5.97 and Std. Deviation is 1.183 . And Rural Volleyball players mean is 5.75 and Std. Deviation is .967 and Std. Error of mean is 0.161. So results show that Urban Volleyball players performance is better than Rural Volleyball players in Harvard Step Test. The mean of Urban Volleyball players in 60 Meters (sec.) Speed test is 9.29 and Std. Deviation is 1.745. And Mean of Rural Volleyball players in 60 Meters (sec) Speed Test is 9.52 (sec) and Std. Deviation is 1.846 . So results show better performance of Urban Volleyball players than Rural Volleyball players in this test.

Table 3 : 't' test of Urban and Rural Volleyball players (Significant level 0.05)

Variables	Rural (N=36) Mean	Urban (N=36)	't' Values
Cardiovascular Endurance by Harvard Step Test	5.75	5.97	.769
Speed by 60 Meters (sec) Speed Test	9.52	9.29	.523

After analysis of 't' test in table no 3 the results shows that there is a significant statistical differences of Cardiovascular Endurance and Speed between Urban and Rural Volleyball players of Gurugram district. The results revealed that performance of Urban Volleyball players was better than Rural Volleyball players in both Physical fitness components: Cardiovascular Endurance ('t' value = .769) and Speed ('t' value = .523) .

Discussion

The researcher analysed the data as per the objectives set for the study . The stastical analysis of motor fitness revealed that in both the components: Cardiovascular Endurance and Speed. There was significant difference in both Physical fitness components between Urban and Rural Volleyball players of Gurugram district of Haryana. So research Hypothesis was accepted . In the present the results shows that the Urban Volleyball players were found better than Rural Volleyball players of Gurugram district in both physical fitness components .

Conclusion

The present study concluded that the physical fitness of Cardiovascular Endurance and Speed of Urban Volleyball players are comparatively better than Rural Volleyball players .It clearly shows that the living environment had too much impact on the Urban volleyball players of Gurugram district of Haryana. The Urban volleyball players are superior to Rural Volleyball players in Cardiovascular Endurance and Speed. The conflict between lifestyle, parents support, nutrition tendencies and available facilities may have assumed a remarkable job in the variance between physical fitness of Urban and Rural Volleyball players of Gurugram district of Haryana.

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