



ISSN: 2456-4419

Impact Factor: (RJIF): 5.18

Yoga 2020; 5(2): 163-164

© 2021 Yoga

www.theyogicjournal.com

Received: 12-05-2020

Accepted: 18-06-2020

Mahadevi S Injangerei

Govt. First. Grade. College,
Bagalakot, Karnataka, India

A comparative study of cardiovascular endurance between government and private high school girls of Bagalakot district

Mahadevi S Injangerei

Abstract

The purpose of the study was to determine the difference of Cardiovascular Endurance between Government and Private High Schools girls of Bagalkot district. 80 (Eighty) girls from Government High School (40) and Private High School (40), age ranging from 13 to 17 years were selected as the subject. The data pertaining to the study were collected by employing the Modified Harvard Step Test and the t-rat statistical technique was employed to compare the mean value at 0.05 level of confidence. On the basis of result it was concluded that insignificant difference was observed in the Cardiovascular Endurance between both the groups. It was also observed that the Government High School going girls have better Cardiovascular Endurance than Private High School going girls.

Keywords: cardiovascular endurance; govt. high school; private high school

Introduction

To achieve high performance in all sports there required five motor qualities - Strength, Speed, Coordination, flexibility and Endurance. The Endurance is the most essential motor ability in the purpose of doing a motor task for a prolonged period of time. Endurance is highly trainable motor quality. Endurance is characterized by the maintenance of working capacity and by the degree of resistance of the organism against fatigue and against the influence of unfavourable environment condition. Endurance is depending upon the aerobic capacity of the sportsperson. Aerobic capacity is related to heart. Capacity of heart mean cardio input and output of blood from heart, which increase the VO₂ max in the working muscles. The muscle of the heart and blood vessels must be strong enough to send the required amount of oxygen and nutrition, through the blood. So, it can be said that cardiovascular fitness represents one's whole health. Physical fitness is the capability of heart, blood vessels, lungs and muscles, to function at operative efficiency. The Endurance is subdivided into Cardiovascular Endurance and Muscular Endurance. Cardiovascular Endurance is the ability of the heart to provide oxygen to muscles during physical activity for a prolonged period of time. Cardiovascular system is input and output of the blood from the heart to flow to the working muscles. During exercise, heart rate combines with stroke volume to provide an appropriate, at maximal or near maximal results of work. Body might adjust to provide the optimal combination of heart rate and stroke volume to maximize the blood flow to active muscle and increase VO₂ max. The growth and development of a child passes through various stages Endurance can develop from pre-school age to adolescence stage (13-17 years). Endurance can be improved to a high level in adolescence. The benefits of regular physical activities, in children and youth, are well documented. Cardiovascular tests have shown possible relationship, sometimes, with functional manifestations cardio respiratory endurance. The research scholars compared the cardiovascular endurance between government and private high schools female students of Bagalkot district.

Methodology

For the present study 40 (forty) female Private High Schools going girls and 40 (forty) female Government High School going girls of Bagalkot District were selected as the subjects

Corresponding Author:

Mahadevi S Injangerei

Govt. First. Grade. College,
Bagalakot, Karnataka, India

randomly. The subjects were ranged from 13 to 17 years. To collect the data Modified Harvard Step Test was used and the pulse of all the three half minute counts are recorded are added together and a fitness index is calculated by employing the FI formula. For the statistical analysis t -ratio statistical technique was employed. The level of significance was kept

at 0.05 to test the hypothesis

Result and Discussion

The result of the present study is presented in the following table.

Table 1: Comparison between the Means of Government and Private High Schools Going Girls in Cardiovascular endurance

School	Mean	Standard deviation	Mean difference	Standard error	t-ratio
Govt. high school girls	62.66	10.90	1.34	2.78	6.9@
Private high school girls	61.32	13.80			

@ Insignificant at 0.05 level of confidence Tabulated $t_{0.05(78)} = 1.9908$

The table reveals that the obtain t-ratio value of 0.69 lesser than the tabulated t-value of 1.9908; hence statistically there is no significant difference in the means of cardiovascular endurance of Government High Schools girls and Private High Schools girls.

Discussion of findings

The above mentioned table and figure shown that there is no significant mean difference in cardiovascular endurance of government high schools girls and private high schools girls of Bagalkot district. It may be attributed to the fact that both the government high schools girls and private high school girls might be involved equally in the various games and sports activities in the school or off the school. But as most of the government schools girls are from low socio-economic background family, they might have to involve in vigorous physical activities for the fulfilment of their daily needs. On the other hand most of private schools girls are from good family background so that they might have to do less physical activity. But in comparison to Govt. High School, Private High Schools have abundant facilities for games and physical education which help girls to be fit.

Conclusion

On the basis result of the study it was conclude that there is insignificant difference in the means of cardiovascular endurance of Government and Private High Schools girls.

It was also conclude that the Govt. High School girls have the better cardiovascular endurance than Private High Schools girls ($62.66 > 61.32$).

References

1. Arvind Patil V. Comparative Study of Cardiovascular Efficiency between National Cadet Corps and Physical Education Students at Undergraduate Level, Journal of Sports and Sciences 2007;30(20):45-48.
2. Uppal AK. Science of Sports Training, Friends Publication, New Delhi 2009.
3. Kansal DK. Test and Measurement in Sports and Physical Education, D.V.S. Publications, Kalkaji, New Delhi-110019, 1st Edition.
4. Getchell Bud, Physical Fitness: A way of Life (New York: John Wiley and Son) 1976.
5. Clark H, Clarke DH. Application of Measurement of physical Education, Englewood Cliffs, New Jersey: Prentice Hall, Inc 1987, 147.
6. Wilmore JH, Stanforth PR. Endurance Exercise Training has a Minimal Effect on Resting Heart Rate. The Heritage Study, Medicine and Science in Sports and Exercise 1996;28:829-835.
7. Baranowski T, Moor C. How Many Days was that Intra-individual Variability and Physical Activity Assessment? Research on Artily for Exercise and Sports 2000;7(2):74-78.