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Comparison of selected health-related physical fitness of rural and urban school students in Pune city

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Abstract

The present study is an attempt to compare the health-related physical fitness of rural and urban area school students of Pune City. The present study was conducted on N= 60 school students further divided into n=30 urban and n=30 rural school children of Pune city. The boy students were 13-15 years old and randomly selected as a sample for this study. To measure the "health-related physical fitness" namely Explosive strength, Muscular endurance, Flexibility, and Cardiovascular efficiency were measured by conducting Standing broad jump, Bend knee sit-ups test, Sit and reach test, and the step test used respectively. Independent 't' was used as a statistical tool. The mean of 30 rural boys' students was 160 ± 18.69 , 14.9 ± 3.78 , 29.53 ± 6.16 and 203.9 ± 8.12 respectively whereas; the mean of urban boys' students was 139 ± 12.23 , 19.50 ± 4.02 , 26.36 ± 7.04 and 209.10 ± 4.03 respectively. The mean difference was 21.33, -4.59, 3.16, and -5.16 respectively. The calculated 't' values were 5.24, 4.55, 1.85, and -3.04 respectively. The results of the study showed that there were statistically significant differences were observed in selected variables as well as rural students had better mean values in selected health-related physical fitness variables.

Keywords: Rural, urban, HRPF, explosive strength, muscular endurance, flexibility and cardiovascular efficiency

Introduction

Everyone can benefit from long-term health advantages from physical exercise! You may burn calories that you accumulate from eating during the day by being active, and it can be as simple as walking the dog or as strenuous as running a marathon (LeMura, L., 2008) ^[13]. Early chances for physical activity set kids on the road to excellent physical and mental health. The time to begin living a healthy lifestyle is never too late (Singh KM, 2016) ^[21].

"Health is a state of complete physical, mental, and social well-being, and is not merely the absence of disease or infirmity." the World Health Organisation. Many individuals are unaware of the value of good health, and even those who are may choose to ignore it. We need excellent health in order to carry out our jobs effectively, whether we work from home or in an office (Armstrong, N, 1996) ^[1]. Typically, when individuals discuss their health, they are referring to how their bodies are doing. However, being healthy goes beyond simply being free of bodily discomfort or disease-related symptoms. An important factor in determining one's overall level of well-being is the mind (Baranowski, T, 1993) ^[2].

Good Health starts from the very infancy. It is here that protection and care are needed so that each organ functions well, each organ develops naturally, and there are no deformities, disabilities, and diseases but often the health of children remains neglected, with the result that they grow unhealthily and that affects their education as well (Bassett, D. 2000) ^[3].

A condition of good health and well-being for an individual is physical fitness. Health-related physical fitness and skill-related physical fitness are the two categories under which physical fitness is divided (Caspersen, C, 1998) ^[6]. A person's composition (leanness or fatness), cardiorespiratory function, and abdominal strength are the three components of their health-related physical fitness that are intended to be evaluated. It has five key parts: flexibility, body composition, cardiovascular endurance, muscular strength, and muscular endurance (Kesaniemi, Y. 2001) ^[11].

Methodology

The present study was conducted on 60 students from rural (30) and urban (30) school students in Pune City. The boy students were 13-15 years old and randomly selected as a sample for this study. To measure the selected health-related physical fitness i.e., Explosive strength, Muscular endurance, Flexibility, and Cardiovascular efficiency standard test were

administered i.e., Standing broad jump, Bend knee sit ups test, Sit and reach test and the step test used respectively. Further, the independent 't-test was used as the statistical tool to find out the comparison between selected variables of rural and urban students. The level of significance was kept at 0.05 levels.

Analysis

Table 1: Means the difference between rural and urban school boy students on explosive strength, flexibility, muscular endurance, and cardiovascular endurance

Variable	Group	Mean	Mean difference	Standard deviation	t value	Sig
Explosive strength	Rural boy	160	21.33	18.69	5.24*	2.02
	Urban boy	139		12.23		
Flexibility	Rural boy	19.5	4.59	3.78	4.55*	
	Urban boy	14.9		4.02		
Muscular endurance	Rural boy	28.56	1.53	1.50	3.90	
	Urban boy	27.03		1.54		
Cardiovascular endurance	Rural boy	209.1	5.16	8.12	3.04*	
	Urban boy	203.1		4.03		

Tab 0.05 (58) = 2.02.

Table- 01 also shows that the t-value of Explosive Strength, Cardiovascular Endurance, Flexibility, Muscular Endurance, and Cardiovascular endurance for rural and urban school students was 5.24 ($p < 0.05$, 2.02), 4.55 ($p < 0.05$, 2.02), 3.90 ($p < 0.05$) and 3.04 ($p < 0.05$, 2.02) respectively. These indicate that there was a significant mean difference between rural and urban school students on selected health-related physical fitness.

Observation and Findings

The selected health-related physical fitness was explosive strength, muscular endurance, flexibility, and cardiovascular endurance (Pratt, M., Macera, 1999) [16]. At the start of the study, it was presumed that urban school children would be better in all the selected health-related physical fitness in comparison to rural school children (Cavill, N., 2001) [17].

However, after collecting data on all the selected variables and applying the standards, the school children in the geographical area are tested. The results achieved were much unexpected. It was shown that rural school students performed better than urban school students in some health-related physical conditions. Similarly, in other areas of health-related physical condition, the average indicator of urban schoolchildren was better. The reason why rural school students perform better in some health-related physical activities is that schools offer and now consider physical education programs as important in their schools. Implementing an awareness program and making exercise classes mandatory is one of the reasons why it is better to achieve health at an early age. Therefore, there are no geographic differences due to the mandatory and regulatory health-related physical fitness program for school children. Similar results were found in the studies. Johns, D *et al.*, 1999 [10]; Sallis, J., Prochaska, 1998 [18]; Sirard, J *et al.*, 2001 [22].

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