International Journal of Physiology, Nutrition and Physical Education



ISSN: 2456-0057 IJPNPE 2019; 4(1): 2518-2519 © 2019 IJPNPE www.journalofsports.com Received: 03-11-2018 Accepted: 19-12-2018

Suresh Kumar Sant Baba Bhag Singh University Jalandhar, Punjab, India Comparative study of physical fitness variables between the private and government school boys

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Abstract

The purpose of study was to compare physical fitness between the private and government school boys. Total 120 boys, 60 boys each from private and government school were selected from of Jammu and Kashmir and their age ranged from 10-14 years. All the subjects were informed about aim and methodology of the study and they volunteered to participate in this study. The subjects were tested on speed by 30 meter dash, agility by illinois agility test, reaction time by ruler drop test, balance by stork stand test, explosive strength by standing broad Jump, and flexibility by sit and reach test. T-test was used to find the difference between both groups. To test the hypothesis, the level of significance was set at 0.05.

Keywords: Physical fitness, private schools, government schools

Introduction

Physical activity is an essential component of a healthy lifestyle. In combination with healthy eating, it can help prevent a range of chronic diseases, including heart disease, cancer, and stroke, the three leading causes of death. Risk factors for these diseases can begin early in life and be mitigated early in life by adopting regular physical activity habits. Physical activity helps control weight, builds lean muscle, reduces fat, and contributes to a healthy functioning cardiovascular system, hormonal regulatory system, and immune system; promotes strong bone, muscle and joint development; and decreases the risk of obesity. Research has also found that physical activity is related to improvements in mental health, helping to relieve symptoms of depression and anxiety and increase self-esteem. In addition, some studies show that physical activity is correlated with improved academic achievement. Kumar, A. K. V. (2019). Kumar and Singh (2012)^[1] compared the boys of Government and Non-Government school of Chandigarh on the physical fitness parameters. They used AAHPER (1976) Youth Physical Fitness Test on 4000 male students aged 13-16 years from various Government and Non-Government schools. Mean differences were calculated using t-test. They found significant differences between the boys of government and Non-Government. They concluded that Non-Government school boys were better on the physical fitness parameters as compared to their counterparts. Loyd (1991) ^[2] tested 400 Negro and white boys by administering the AAHPER Youth Fitness Test on. The researcher found that Negro boys scored significantly better than white boys on the variable gross body co-ordination (soft ball throw). and muscular explosiveness (standing broad jump). Norman (1997), tested 100 rural and 100 urban boys by administering the AAHPER Youth Fitness Test. The study found that urban boys were significantly more physically fit than the rural boys. Elnasher (1992)^[3], carried out a study on 399 boys and 311 girls aged 9 to 18 years and evaluated applying the 6 items of AAHPERD Youth Fitness Test. Only pull-ups in boys and flexed arm hang in girls in the early age group were more than American Standard. While comparing boys and girls, it was found that boys were significantly superior. Monyeki et al., (2005)^[4] found that body composition was significantly associated to physical fitness in undernourished children, but not always in the predicted direction. They further suggested that BMI is not supposed to be taken as a measure of obesity or overweight in this population, rather it should be used as an indicator of muscle mass.

Corresponding Author: Suresh Kumar Sant Baba Bhag Singh University Jalandhar, Punjab, India Mookherjee (2018) ^[5] investigated physical fitness of adolescents of 13 to 17 years with rural and urban background also boys of same age group with less physical activity.

The study suggested that regular physical activity undoubtedly adds significantly to the improvement of physical fitness level. Rural active subjects showed superior levels physical fitness than the urban boys. The study highlighted the importance of fresh food, pure and unpolluted air and realistic regular physical hardships as the factors in stimulating physical fitness.

Methodology

Table 1: Show the motor fitness and components

S. No	Motor Fitness Components	Test		
1.	Speed	30 meter dash		
2.	Agility	Illinois Agility Test		
3.	Reaction time	Ruler drop test		
4.	Balance	Stork stand test		
5.	Explosive Power	Standing Broad Jump		
6.	Flexibility	Sit and reach test		

Results

 Table 2: Comparisons of selected physical fitness variables between boys of private and government students (11-14 years)

Variable	Private (n=207)		Government (n=177)		T-
variable	Mean	S.D	Mean	S.D	value
Speed	7.92	.32	7.13	.22	2.62
Agility	21.95	2.10	20.02	2.06	2.26
Reaction time	0.19	.04	0.19	.03	0.51
Explosive power	1.62	.30	1.60	.27	0.69
Balance	16.78	5.82	18.77	5.68	3.52
Flexibility	29.36	5.02	32.88	4.60	2.24

Table 2 depicts the mean, standard deviation, t-values and pvalues of selected physical fitness variables of private and government school boys. With respect to the variable speed, mean and standard deviation of private and government school boys were 7.92±3.71 and 7.13±4.51 respectively. Results of t-test (t=2.62). The mean and standard deviation of the agility of private and government school boys is 21.95 ± 2.10 and 20.02 ± 2.06 respectively, 't' value is 2.26. The result reveals a statistically significant difference in agility between private and government school boys. The mean and standard deviation of the reaction time of private and government school boys is 0.19 ±.04 and 0.19±.03 respectively, 't' value is 0.51. The result reveals no statistically significant difference in reaction time between private and government school boys. The mean and standard deviation of the explosive strength of private and government school boys is $1.62 \pm .30$ and $1.60 \pm .27$ respectively, 't' value is 0.69. The result reveals no statistically significant difference in explosive strength between private and government school boys. The mean and standard deviation of the balance of private and government school boys is 16.78 ± 5.82 and 18.77 ± 5.68 respectively, 't' value is 3.52. The result reveals a statistically significant difference in balance between private and government school boys. The mean and standard deviation of the flexibility of private and government school boys is 29.36 ±5.02 and 32.88±4.60 respectively,' t' value is 2.24. The result reveals a statistically significant difference in flexibility between private and government school boys.

Discussion and Conclusion

The purpose of the study was to ascertain to differences in physical fitness of school going students in private and government schools. In speed, Agility, balance and flexibility government students found better than private students, whereas, no difference was found in reaction time and explosive power. These differences are due to the fact that the students belonging to government school performs various extra activities walk to school, market, various type of play, regular physical activity whereas the lifestyle of private students are more comfortable, better transportation and lack of physical activity.

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