EFFECT OF PHYSICAL ACTIVITY ON SELECTED ANTHROPOMETRC VARIABLES OF SCHOOL STUDENTS

Gaganpreet Sharma Dr. Satish Sharma

ABSTRACT

This research was conducted to study the effect of planned physical activity curriculum on elementary school students. To achieve the objective of the study, thirty six school students from the Guru Nanak Model Senior Secondary School, Doraha, District Ludhiana of Punjab in India were selected as subjects. Stratified randomtechnique was used to select the samples from different schools. Samples/subjects were selected from the class ranging from I^{st} to VI^{th} standard. Students were given the treatment of selected exercises for two weeks (six day a week) which lasted for forty minutes. To find out the significant difference between selected samples, statistical analysis was performed using SPSS version 16.0. All descriptive data pertaining to selected variables height and weight was reported as mean, standard deviation and t-score. The level of the significance was set at 0.5. level. Results of the study reveal that no significant difference was found between pre-test data and post-test data of height and weight of elementary school students.

Keywords: school, students, physical activity, height and body weight.

Introduction

Physical activity can be defined as any movement of the body that requires energy expenditure. This includes any motion you do through the day excluding sitting still or lying down. For example, walking to class, taking the stairs, mowing the lawn, and even cleaning your house can be considered physical activity. Exercise is a type of physical activity but not every physical activity is exercise. Exercise is a planned, structured, and repetitive activity for the purpose of improving or maintains physical fitness.

Physical inactivity has become a serious problem in the India. More than half of Indian adults do not join the physical activity.

The good exercises and physical activities help to the student to make a bright future in their life. They make them mentally alert and physically strong. Further, good <u>health</u> is one of the most important benefits of physical activity and sports. Students learn how to handle their difficult situations in better way. By displaying their feats before many spectators, they can overcome their nervousness. Physical activities are good diversions and give them energy to learn their lessons well. It gives the necessary break from the everyday monotonous life. Physical activity, games and sports help building a sense of <u>cooperation</u> and team-spirit in an individual. Children should actively participate in the sports to avoid of being tired and laziness. This is because physical activities improve their blood circulation and their physical well-being. Sports and games make the student confident and help them to choose their profession in future life.

At present in the schools, teachers and management are thinking that physical education is less important than education. This is very wrong because physical education is most important in present sanario. In the present era we all known that there are global warming is a dangerous for us. So we cannot neglect the importance of physical education and physically activities. Students learn so much from the educational institutions as well as from the social institutions. In the right that educational activities are very important but if we are not physically fit we cannot understand and learn our educational activities. So physical education is must in schooling education and in the higher education curriculums. Many schools in the Punjab region thinks about the physical education and physical activity that it is a boring and burden subject and no one serious about this. In many school gives approximately one or two period in a week to the students. But in my opinion one period is must for every class in each day, because it's help to students to take off their burden in playing manner.

In the ancient time when there subject of physical education was started in the schools that physical education was only for health, but now it's become a major part of our educational system. Physical education becomes a compulsory subject of the education. It is not only for our physical growth but also for mental development, emotional development and moral development. When the student takes part in sports and physical activities they become a useful member of our society. The personality of a sportsman is different from others. That is why the subject of physical education should become a necessary part of our schools curriculum. When a physical education department makes a curriculum for a particular class that should think in their mind age level, mental level and physical level of the students. In this curriculum teacher must teach to the student the basic skills and rules of the particular sports or other physical activity. In the school when a physical education teacher taught there students in the class room or in the playground he must keep in their mind the age level of the students and gives no over burden to them. If he thinks this types he win the confidence of students and the students also encourage towards sports and physical activities The facilities and other opportunities make the students so confident and self-dependent. When we make the curriculum for primary schools, middle schools, high schools and senior secondary schools must keep in our mind the interest of the students.

Method and Procedure

For the purpose of the study thirty six students of Isto VIth standard

Guru Nanak Model Senior Secondary School, Doraha, Ludhiana district of Punjab, India, were selected as subjects of the study by stratified random sampling technique. Pre-test data was collected then after two weeks Physical Activity curriculum was imparted followed by the post-test data collection of height and weight. The test was conducted by using standardized tools. The



height was measured by the **Figure I**: - Measuring the Sanding Height conduct of standing height measurement was done in centimetres and body weight was measurement in Kilogram. Statistical analysis was performed using SPSS version 16.0. All descriptive data pertaining to selected variables speed and agility was reported as mean, standard deviation and t-test score.

Standing Height

Equipment: - Anthropometric Rod.

Procedure: - The children will be guided to stand erect on the centre of the scaled platform of a portable weighing machine and the weight will be recorded when the scale of the machine became stationary. To record accurate values, the subject will be asked not to make any kind of



35 **Figure II**: Measuring the Body Weight

movement while standing on machine. The zero of the scale will be checked before taking each movement.

Result, Discussion and Interpretation

Training was conducted for fourteen days / two weeks with Sunday was observed as a rest day. Analysis of the results were presented in the following table:

| Table – | - I: Compar | ison of mea | an values | between | pre-test |
|---------|-------------|-------------|-----------|------------|----------|
| and | post-test f | or standing | height of | f the stud | ents. |

| | N | Mean | SD | SEM |
|-----------|----|----------|----------|---------|
| Pre-test | 36 | 131.3333 | 10.15593 | 1.69265 |
| Post-test | 36 | 131.3333 | 10.15593 | 1.69265 |

Sig. at .05 level of confidence

Figure - III: Mean difference of standing height between pre-test and post-test.



The perusal of table I indicates the mean values of standing height between pre-test and post-test is 131.3333 and 131.3333 respectively. The t-value 0 is significant at .05 level of confidence. Thereby indicating that there is a significant difference between the level of standing height between pre-test and post-test.

| | Ν | Mean | SD | SEM |
|-----------|----|---------|---------|--------|
| Pre-test | 36 | 26.6250 | 5.87777 | .97963 |
| Post-test | 36 | 26.6250 | 5.87777 | .97963 |

Table – II: Comparison of mean values between pre-test and post-test for body weight of the students.

Sig. at .05 = 2.021* level of confidence



Figure - IV: Mean difference of standing body weight between pre-test and post-test.

The perusal of table II indicates the mean values of body weight between pre-test and post-test is 26.6250 and 26.6250 respectively. The tvalue 0 is significant at .05 level of confidence. Thereby indicating that there is a significant difference between the level of body weight between pre-test and post-test.

On the basis of the result of study, following conclusion was drawn.

There was no significant difference found in the height and body weight between pre-test and post-test data of the school students, result may be insignificant because two weeks training may not be sufficient for the significant effect on height because height is more or less depends upon heredity.

References

- 1. Adamo, K.B., Sheel. A.W., Onywera, V., Waudo, J., Boit, M. and Tremblay, M.S. (2010).Child obesity and fitness levels among Kenyan and Canadian children from urban and rural environments: A KIDS-CAN Research Alliance Study. International Journal of Pediatric Obesity, 1–8.
- Akkoyunlu, Y. and Şirin, E. (2010). Comparison of some biomotoric developments of 14 years old who exercise and those not exercise. European Journal of Educational Studies, 2(2):131-137.
- 3. Brunet, M., Chaput, J.P., and Tremblay, A. (2007). The association between low physical fitness and high body mass index or waist circumference is increasing with age in children: the 'Québec en Forme' Project. International Journal of Obesity (London), 31(4):637-643.
- 4. Dana, A., Habibi, Z., Hashemi, M. and Asghari, A. (2011). A description and comparison of anthropometrical and physical fitness characteristics in urban and rural 7-11 years old boys and girls in Golestan Province, Iran. Middle-East Journal of Scientific Research, 8(1):231-236.
- 5. Gandhi, M., Koley, S. and Sandhu, J.S. (2010). Association between anthropometric characteristics and physical strength in school going children of Amritsar. Anthropologist, 12(1):35-39.
- Hansan Margaret and Anne Bawer, "Developing the motor creativity of Elementary school Physical Education student" Dissertation Abstract Intentional 54 (August 1993):455 & 456 – A.
- 7. Kim, H.D. and Park, J.S. (2006). The effect of an exercise program on body composition and physical fitness in obese female college students. TaehanKanhoHakhoe Chi., 36(1):5-14.
- Malina, R.M., Beunen, G.P., Classens, A.L., Lefevre, J., Eynde, B.V., Renson, R., Vanreusel, B. and Simons, J. (1995).Fatness and physical fitness of girls 7 to 17 years. Obesity Research, 3(3):221-231.
- 9. Richard S Strauss, MD and Judith Knight MD. (1999) Influence of the home environment on the development of obesity in children. Pediatrics 103. (6):85.
- 10. Saha, G.C. and Haldar, S. (2012). Comparison of health related physical fitness variables and psychomotor ability between rural and urban school going children. Journal of Exercise Science and Physiotherapy, 8(2):105-108.
- 11. Ujevic, T., Sporis, G., Milanovic, Z., Pantelic, S. and Neljak, B. (2013). Differences between health-related physical fitness profiles of Croatian children in urban and rural areas. Collegium Antropologicum, 37:75-80