International Journal of Physical Education, Sports and Health 2022; 9(2): 383-384

P-ISSN: 2394-1685
E-ISSN: 2394-1693
Impact Factor (RJIF): 5.38
IJPESH 2022; 9(2): 383-384

www.kheljournal.com
Received: 23-01-2022
Accepted: 27-02-2022

Suraya Jabeen
M.P.Ed. Student,
Department of Physical Education, Central University of Kashmir, Ganderbal,
Jammu and Kashmir, India

Corresponding Author:
Suraya Jabeen
M.P.Ed. Student,
Department of Physical Education, Central University of Kashmir, Ganderbal,
Jammu and Kashmir, India

A comparative study of body mass index of government and public school students

Suraya Jabeen

Abstract
The main purpose of the study was to compare Body Mass Index of government and public school children. The study was conducted on 100 (One Hundred) school going boys, 50 from government school and 50 from public school and age ranged from 12 to 15 years (6^{th} to 8^{th} class) were selected. For the calculation of Body Mass Index height and weight was measured in school. T-test was employed at 0.05 level of significance and significant differences of means of the both groups were found. Public school's children had greater Body Mass Index in comparison to government school children.

Keywords: Body mass index, Nutrition, nourishment, aliment

Introduction
Nutrition, nourishment, or aliment, is the supply of materials and food which are required by organisms and cells to stay alive. In science and human medicine, nutrition is the science or practice of consuming and utilizing foods. The diet of an organism is what it eats, which is largely determined by the perceived palatability of foods. By practicing a healthy diet, many of the known health issues can be avoided. The human body contains chemical compounds, such as water, carbohydrates, amino acids (in proteins), fatty acids (in lipids), and nucleic acids. These compounds in turn consist of elements such as carbon, hydrogen, oxygen, nitrogen, phosphorus, calcium, iron, zinc, magnesium, manganese, and so on. All of these chemical compounds and elements occur in various forms and combinations e.g. hormones, both in the human body and in the plant and animal organisms that humans eat. A molecule of dietary fat typically consists of several fatty acids, bonded to a glycerol. They are typically found as triglycerides. Fats may be classified as saturated or unsaturated depending on the detailed structure of the fatty acids involved. Saturated fats have all of the carbon atoms in their fatty acid chains bonded to hydrogen atoms, whereas unsaturated fats have some of these carbon atoms double-bonded, so their molecules have relatively fewer hydrogen atoms than a saturated fatty acid of the same length. There are nine kilocalories in each gram of fat.
Childhood obesity is a condition where excess body fat negatively affects a child's health or wellbeing. As methods to determine body fat directly are difficult, the diagnosis of obesity is often based on BMI. Due to the rising prevalence of obesity in children and its many adverse health effects it is being recognized as a serious public health concern.
The first problems to occur in obese children are usually emotional or psychological. Childhood obesity however can also lead to life-threatening conditions including diabetes, high blood pressure, heart disease, sleep problems, cancer, and other disorders. Some of the other disorders would include liver disease, early puberty or menarche, eating disorders such as anorexia and bulimia, skin infections, and asthma and other respiratory problems Asthma severity is not affected by obesity however.
Obese children often suffer from teasing by their peers. Some are harassed or discriminated against by their own family. Stereotypes abound and may lead to low self-esteem and depression.

Objective of the study
The objective of the study is to compare Body Mass Index of government school and public school students.

Methodology

The selections of subjects, procedure of collection of data and statistical technique have been described under bellow given headings.

Selection of participants

For the purpose of study a total of 100 (One hundred) male students, age ranged from 12 to 15 years (6^{th} to 8^{th} class) were selected from four schools (two government and two public schools) 50 students from each school

Sampling procedure

Convenience sampling technique was adapted for the selection of subject for the present study.

Statistical techniques

In order to analyze and compare Body Mass Index of Government schools and public school's students T-test was used to compare difference between the mean values of both groups.

Level of significance

The level of significance will be chosen at 0.05.

Results and Discussion of Finding

The obtained data was analyze by applying the t statistics. The results are shown in the following tables.

Table 1: Descriptive statistics of Body Mass Index of Government and Private School

	Group	N	Mean	Std. Deviation	Std. Error Mean
BMI	Govt. Schools	100	18.1340	1.71358	.17136
	Private Schools	100	20.4560	1.43385	.14339

Table 1 reveals that the descriptive statistics of the Body Mass Index of Government and Private School. As the mean and Standard deviation are 18.1340 ±1.71 and 20.4560 ± 1.43 respectively.

Table 2: t- statistics of Body Mass Index of Government and Private School

		t-test for Equality of Means				
		T	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
BMI	Equal variances assumed	-8.91	48	.000	-1.20	.23
	Equal variances not assumed	-8.91	42.02	.000	-1.20	.23

Table 2 reveals the t statistics of body mass index of government and private school, as a significant difference as found in the body mass index of government and private school, aas the t value was found 8.91 which is higher than the tabulated value and sig. vale was found 0.000 which is less than 0.05.

Discussion of Findings

Collected Body Mass Index data of student's of both groups were compared by SPSS software. Results drawn out from SPSS are given in tables. The above mentioned tables showed that there insignificant difference in Body Mass Index of government and public school's children at 0.05% level of significance. Similar study was done by Anju Pathak and showed similar results. Present study supports her study.

Conclusion

Within the limitation of the present study, conclusion was drawn that public school children possess greater Body Mass Index in comparison of Government school children. This may be due to sedentary life style, eating habits, and inactivity.

References

1. Dietz WH. Health consequences of obesity in youth: childhood predictors of adult disease. Pediatrics. 1998;101:518-525.
2. Dugdale AE, O'Hara V, May G. Changes in body size and fatness of Australian school children. Austral Paediatr J. 1983;19:14-17.
3. Epstein LH, Culler LH, Wing RR, Valski A, McCauley J. The effect of weight control on lipid changes in obese children. Am J Dis Child. 1989;143:454-457.
4. Klesges LM, Klesges RC. The assessment of children's physical activity: a comparison of methods. Med Sci Sports Exerc. 1987;19:511-517.
5. Lazarus R, Condit G, Berkley CS, Speyer FE. Effects of body fat on ventilator function in children and adolescents: cross-sectional findings from a random population sample of school-children. Pediatr Pulmonol. 1997;24:187-194.
6. Lin BH, Morrison RM. Higher fruit consumption linked with lower body mass index. Food Rev. 2003;25:28-32.
7. Rosner B, Prineas R, Loggie J, Daniels SR. Percentiles for body mass index in U.S. children 5 to 17 years of age. J Pediatr. 1998;132:211-222.
8. Geeta S. A survey on Body Mass Index among school children belonging to district in Kerala. (Year of publication not provided).
9. Torino RP, Flegal KM. Overweight children and adolescents: description, epidemiology, and demographics. Pediatrics. 1998;101:497-504.
10. Tremblay MS, Willms JD. Secular trends in the body Mass Index of Canadian Children. Can Med Assoc J. 2000;163:1429-1433.
11. Troiano RP, Flegal KM, Campbell SM, Johnson CL. Overweight prevalence and trends for children and adolescents. Arch Pediatr Adolesc Med. 1995;149:1085-1091.