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RESEARCH ARTICLE

COMPARISON ON BODY MASS INDEX OF ADULT FEMALE STUDENT OF JHARGRAM DISTRICT

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Abstract

Purpose of the study was to compare the Body Mass Index (BMI) between trained and non trained female student of Jharagram District. The present studies (20) female student were purposive sampling from Department of physical education of Seva Bharati Mahavidyalaya and other twenty (20) were randomly selected from other department of Seva Bharati Mahavidyalaya (SBM). Age range of selected subjects in present studies were in between 19 to 23 year. The Body Mass Index was evaluated in the present study through the measurement of height in centimeter and weight in kilogram, then weight(kg) is divided by height(m) squared. The data was analyzed by calculating a detailed descriptive statistics and to compare the mean difference between non trained and trained females on BMI, "t" test used at 0.05 level of significance. The result revealed that non trained female mean of BMI was 21.891, and trained female mean of BMI was 19.968 calculated t value 3.054 that was greater than tabulated t value. So conclusion, the trained female were lower Body Mass Index.

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INTRODUCTION

Today there is a growing emphasis on physical fitness, that means The ability to perform daily tasks vigorously and alertly, with energy left over for enjoying leisure time activities and meeting emergency demands. It is the ability to endure, to bear up basis for good health and well-being," WHO's recommendation is to perform in at least 30 minutes moderate intensity regular exercise 7 days a week for all adults. Anthropometry is the study of the measurement of the human body in terms of the dimensions of bone, muscle, and adipose (fat) tissue (Lakshmi, 2005). Anthropometry is the study of human body measurement which is used in anthropometrical classification and comparison. Anthropometry is widely recognized as one of the useful techniques to assess the growth and nutritional status of individual or population (Grover, Singh & Jain, 2009; Gorstein, Sullivan, Yip, Onis, Trowbridge & Fajans, 1994). The recent survey of WHO recommended average 3:1 individual in all over world are obese. WHO expert consultation proposed a new cut-off of 23.0 kg/m² for public health action in Asia in 2004. Overweight for BMI above 23.00 kg/m² as against the international standards for adults, an ideal BMI is in the 18.5-24.9 range. If BMI of 25-29.9 is overweight. 30-39.9 is obese.

METHODOLOGY :

In present study Trained female (N=20) were selected throw purposive sampling from the department of physical education. The department of physical education consist of B P Ed course & physical education subject as B.A, B.Sc., B.Com.

Other Non Trained female (N=20) were randomly selected from B.A, B.sc, Department, female those were not study physical education subject. The all subjects age in between 19 to 23 year.

To measure BM at fast measure standing height of the subjects of the studies.

Height measure - stadiometer apparatus is low cost & quick test for measuring height. As equipment, steel ruler and tape measure placed against a wall. The subjects standing height was the measured to the maximum distance from the floor to the highest point on the head, the subjects should be off, feet together, and heels, buttocks and upper back should also be in contact with the wall, when the measure was made.

Then measure **weight** The subjects without shorts giving both feet (bare) on the standard weighting machine and stand erect and also without any jerk. The score which had shown on the machine was recorded in Kilogram. Both height and weight were taken in the morning (7:00 – 8:00 am).

Measurement of Body Mass Index:

Following formula was used to measure BMI

$$\text{BMI} = \text{mass(kg)} / \text{height(m)}^2$$

RESULT & DISCUSSION :

The calculated data of age, height, weight of female students have been statistical analyzed and presented in tabular form.

Table - I indicate Mean and S.D of height, weight of both female student.

		NON TRAINED		TRAINED	
VARIABLE	N	Mean	S.D	Mean	S.D
Height	20	1.567	0.058	1.579	0.055
Weight	20	53.45	4.107	49.325	3.755

Table 1 it was found that mean and SD of height and weight of non trained female were 1.570, 0.059 (miter) and 53.45, 4.107(kg). Mean and SD of height and weight of trained female were 1.579, 0.055 (miter) and 49.325, 3.755 (kg).

Table –II indicate the mean and SD and t-value of BMI of both female.

		NON TRAINED		TRAINED		t-value
VARIABLE	N	Mean	S.D	Mean	S.D	3.054
BMI	20	21.891	2.253	19.848	1.968	

*Significant at 0.05

Table – II it was found that mean and SD of BMI of non trained female were 21.891, 2.253 and trained female were 19.848, 1.968. The calculated t-value of BMI between both female group is 3.054, that higher then tabulated t-value. which required value at 0.05 level of significance.

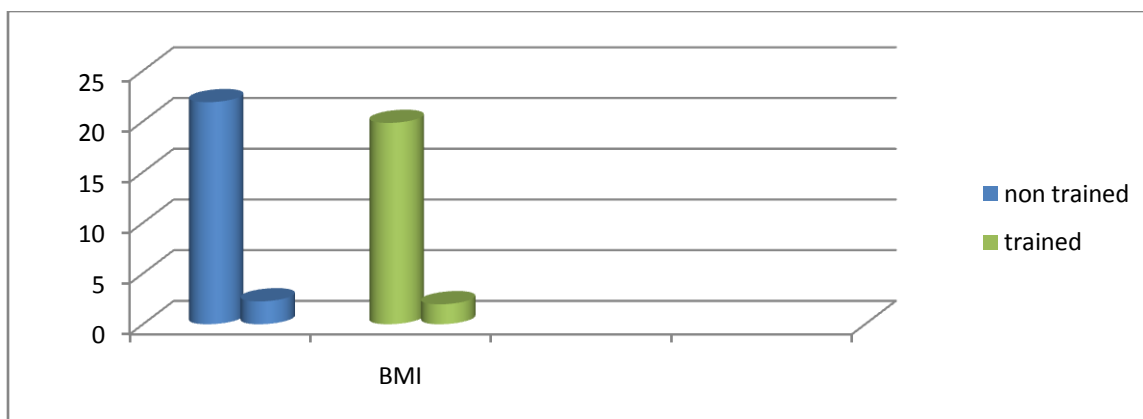


Fig. mean & SD of BMI of trained and non trained female

According to health and exercise science in order to keep healthy, a person must sweat out at least 30 minutes a days for three days a week. An healthy of fit person has an influence on the risks of morbidity and mortality, and therefore can reduce these risks. Regular physical activity prevents or limits weight gain, and gain in body mass index (BMI) (Kyle et al. 2001). The above mentions table shown that there have significant on BMI of trained female student then the non trained female. A similar type of results were obtained in the work of Ms. J Komal (2015) Research Scholar Dept. of physical education & sports in University of Madras, who conducted a Study on Body Mass Index, Agility and Flexibility Among Arts and Science Women Students . Comparative Study of Body Composition between City and Rural Area Boys in Gandhinagar M.R., Thakur, S.J.& Parmar, P.P (2012).

CONCLUSION :

On the base of t test the present study it was conclude that there is significant difference in between non trained and trained female. The trained female were low BMI then non trained.

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