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Comparative study of body composition between male and female post graduate students of Rabindranath Tagore University

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Abstract

Body composition is composed of two factors, lean body weight and fat tissue. The main purpose of the study was to compare the body composition between males and females. It was hypothesized that, "There would be significant difference between body composition" "The researcher has taken 100 male and female subjects during health fitness week organized by Post Graduate Teaching Department of Physical Education, Rabindranath Tagore University, The researcher has obtained the data from 100 subjects for the study. 50 subjects are selected from each group male and females respectively. The data obtained from the post graduate male and female students of Rabindranath Tagore University, Bhopal regarding fat percentage and body mass index were analyzed by using 't' test.

Keywords: Body composition, males, females

Introduction

Physical Education

Physical Education of primitive People was informal and unstructured with main purpose being survival. They needed physical strength to build shelter and obtain food but in modern age its meaning is totally different for many years it was believed that performance in games and sports develop on skill performance, motor fitness components, Physiological and psychological components, now it is believed that besides all these anthropometric a measurement is needed for higher level of achievement. It has been fully recognized by sports scientists. Anthropometric measurement play great role in most of sports. It provides more scientific and objective basic for the physical education programme.

Body composition

Body composition is composed of two factors, lean body weight and fat tissue. The body fat or skin fold thickness can be measured with the help of skin fold caliper; lean body weight can be calculated from the total body weight minus the weight of body fat.

Percent Fat

The portion of the body weight in which fats are present is considered the fat weight. The ratio of fat weight to total body weight is defined as percent fat.

Body Mass Index

The body mass index provides an indication of appropriateness of weight and height. The body mass index may be defined as the ration of body weight and the square of height in meter.

Skin fold measurements

Skin fold measurements require precise calipers that are designed to apply the same tension throughout their range of motion. The tester grasps the skin fold between thumb and index finger and attaches the jaws of the calipers about 1 centimeter from the thumb and finger the measurement is in millimeters.

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Statement of the problem

“Body Composition between Male and Female Post Graduate Students of Rabindranath Tagore University. A comparative study”

Purpose of the Study

1. The main purpose of the study was to compare the body composition between males and females.
2. To find the fat % of males and females.
3. To find the B.M.I. of males and females.

Hypothesis

It was hypothesized that, “There would be significant difference between body composition of males and females”.

Delimitation

1. The study was delimited for the post Graduate Students of the Rabindranath Tagore University Bhopal
2. The age group was 18-28 years.

3. Study was delimited to 100 subjects, 50 from each sex.
4. Study was delimited to few body composition measurements.

Equipment: Stadiometer, weighing machine, skin fold caliper.

Scoring of Data

The height is measured in centimeters, the weight in measured in kgs and the skinfold is measured in millimeters.

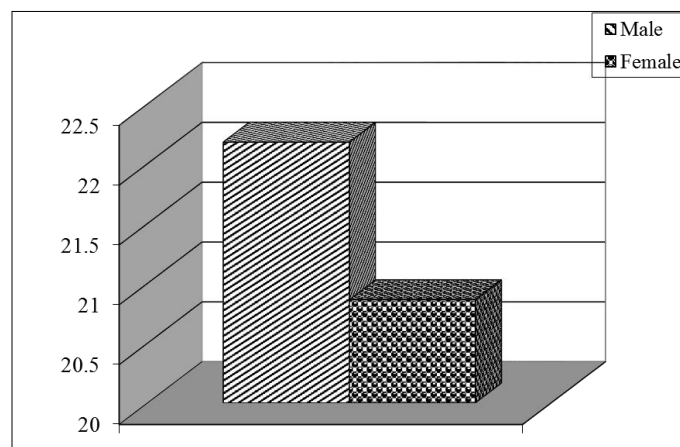
Statistical analysis and Interpretation of data

The statistical analysis of the data gathered for the comparison of Body comparison between male and female Post Graduate students of Rabindranath Tagore University the Mean, standard deviation, standard error, and mean difference of both the groups for the above mention items are calculated. These raw score were converted into standard score, this is shown in the table I and II.

Table 1: Showing difference between B.M.I. of male and female post graduate students of rabindranath tagore university, bhopal

Group	Mean	S.D.	S.E. Comb	M.D.	O.T.	T.T.	D.F.
Male	22.179	3.420	0.760	1.316	1.730	1.980	98
Female	20.864	4.149					

*insignificant at 0.05 level of confidence

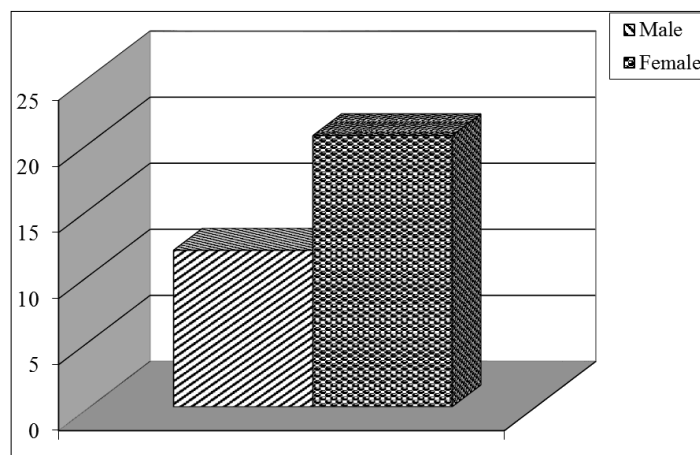


Graph 1: Showing difference between B.M.I. of male and female post graduate students of rabindranath tagore university, bhopal

Table 2: Showing comparison between fat percentage of male and female post graduate students of rabindranath tagore university, bhopal

Group	Mean	S.D.	S.E.- Comb	M.D.	O.T.	T.T.	D.F.
Male	11.854	3.593	.953	-8.676	-9.108	1.980	98
Female	20.530	5.698					

*insignificant at 0.05 level of confidence.



Graph 2: Showing difference between fat percentage of male and female post graduate students of rabindranath tagore university, bhopal

Summary of Findings

The findings in study reveals that there was no significant difference in B.M.I. of male and females' students of post Graduate departments of Rabindranath Tagore University, Bhopal the mean difference in found between male and female students. Further there was significant difference in Fat percentage of male and female post Graduate Students of Rabindranath Tagore University, Bhopal.

Conclusion

On the basis of the result drawn with the mentioned methodology the following conclusion were sougheed out.

There was a partially significant difference between body composition of male and female Post Graduate students of Rabindranath Tagore University, Bhopal.

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