

A COMPARATIVE STUDY OF BODY COMPOSITION AND BMI BETWEEN MALE AND FEMALE STUDENTS

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ABSTRACT

The purpose of the Study was to compare Body Composition and BMI between Male and Female Students. For the purpose of this study, 100 (male=50 and female = 50) students regularly participating in sports or physical activity programmes were randomly selected. The students were selected from Noida College of Physical Education, Noida (U.P.). To determine the BMI and body composition of students, the height, weight, skin-folds (Triceps, Suprailiac, and Thigh) for female and Chest, Abdomen, and Thigh skin folds for male) were taken with the help of Skin-fold Caliper. The height is measured in centimeters, weight in measured in kilogram and the skin-fold is measured in millimeters. To compare the BMI and body composition of male and female students mean, standard deviation and t- test were calculated at 0.05 level of significance. The results of the study revealed that the significant difference was not found between male and female students in their BMI. But the significant difference was exhibited between male and female students in their composition.

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INTRODUCTION

Today, there is a growing emphasis on looking good, feeling good and living longer, increasingly, scientific evidenced tell us that one of the keys to achieving these ideals is fitness and exercises. Getting moving is a challenge because today physical activity is less a part of our daily lives. There were fewer jobs that require physical exertion. We have become a mechanically mobile society. Relying on machines rather than muscles to get around, in addition, we have become a nation of observers with more people (including children) spending their leisure time pursuing just that leisure. Consequently, statistics show that obesity and overweight, the problems that come with high blood pressure, diabetes, cardiac arrest, etc. are on the rise. But statistics also show that preventive medicine pays off, so one should not wait unit his/her doctor gives an ultimatum. Everyone must take the initiative to get active now.

The purpose of the Study was to compare Body Composition and BMI between Male and Female Students.

METHODOLOGY

Selection of Subject:

For the purpose of this study 50 male and 50 female students regularly participating in sports or physical activity programmes were randomly selected. The students were selected from Noida College of Physical Education, Noida, U.P.

Administration of Test and Collection of Data:

To determine the BMI and body composition of students following measurements have been taken: height, weight, skin folds for female (Triceps, Suprailiac, and Thigh), skin folds for male (Chest, Abdomen, and Thigh).

The height was measured in centimeters, the weight in measured in kilogram and the skin-fold measured in millimeters.

FINDINGS

To compare the BMI and body composition of male and female students means, standard deviations and t -test were calculated at 0.05 level of significance.

TABLE 1
SIGNIFICANCE OF DIFFERENCE BETWEEN MEAN SCORES OF BODY
MASS INDEX OF MALE AND FEMALE STUDENTS

Sex	Mean	MD	σ DM	t-ratio
Male	21.04	.90	.517	1.74
Female	20.14			

Insignificant at .05 level

Table-1 reveals that there was no significant difference between male and female students in their BMI, as the obtained t- value of 1.74 was less than the required value of $t'_{0.05} (98) = 1.98$.

TABLE 2
SIGNIFICANCE OF DIFFERENCE BETWEEN MEAN SCORES OF BODY
COMPOSITION (FAT PERCENTAGE) OF MALE AND
FEMALE STUDENTS

Sex	Mean	MD	σ DM	t-ratio
Male	10.64	8.10	1.13	7.17*
Female	18.74			

Significant at .05 level, $t_{0.05} (98) = 7.16$

Table 2 clearly shows that the statistically significant difference existed between male and female students in their fat percentage, as the obtained t- value of 7.17 was greater than the required value of $t'_{0.05} (98) = 1.98$.

REFERENCES

- Anzai et. al.**, “A Comparative Study Of Body Composition Of Urban And Rural Japanese Boys 12 To 14 Years Old”, (Unpublished Doctoral Dissertation_University Of Tokyo), 1981.
- Azad Mshtaq**, “Comparative Study Of Selected Anthropometric Measurement, Body Composition And Cardiovascular Efficiency Of Volley Ball Players”, (Unpublished Master Thesis, Amravati University, Amravati), 1997.
- Baldwin S. B.**, “An Evaluation Of The Physical Fitness Effect Of High School Aerobic Dance Curriculum”, (Unpublished Master’s Thesis, Slippery Rock University), 1991.

- Barrow Horld M. And Rosemary Me. Gee,** A Practical Approach To Measurement In Physical Education, (London: Greadstriain Llenry Kempton, 1979).
- Bottaro Marques Marilin,** “Cross-Validation Of Body Composition Equations For Brazilian Women Using Dual Energy X-Ray Anthropometry”, The Journal Of Sports Medicine And Physical Fitness. Vol. 27, No. 03, June, 1999.
- Bucher C. A.,** Foundation Of Physical Education, (St. Louis : The C. V. Mosby Co. 1960).
- Cameron K. A.,** “Effects Of An Aerobic Movement Programmer On Fitness, Body Composition, And Body Esteem On Over Weight Children” Completed Research In Health Physical Education Recreation And Dance, Vol. 31, No. 02, August, 1989.
- Cassel A. M.,** “A Comparison Of Motor Abilities And Physical Characteristics Of Collegiate Soccer Play By Position Of Play”, Dissertation Abstract International, Vol. 29, No.01,February 1979.
- Clarke David H. and Paul,** “The Effect Of Swimming Training On Muscular Performance And Body Composition In Children”, Research Quarterly, Vol. 36, No. 05, May, 1979.