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Assessment of obesity between different professional students of Bhopal

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Abstract
The purpose of the study was to find out the significant difference of MBI variable between MBA and Medical students. The researcher collected the data on total 200 professional students 100 in each profession as subjects between the age group of 22-24 years. After the collection of related data, it was processed and analyzed with descriptive statistics and unpaired t-test was employed. The level of significance was set at 0.05 percent. The results of the BMI variable shows that there are significant differences between MBA and Medical students.

Keywords: BMI, stadiometer, scale, etc

Introduction
Obesity is most commonly caused by a combination of excessive food energy intake, lack of physical activity, and genetic susceptibility, although a few cases are caused primarily by genes, endocrine disorders, medications or psychiatric illness. Evidence to support the view that some obese people eat little yet gain weight due to a slow metabolism is limited; on average obese people have a greater energy expenditure than their thin counterparts due to the energy required to maintain an increased body mass. At an individual level, a combination of excessive food energy intake and a lack of physical activity are thought to explain most cases of obesity

Body mass index (BMI), a measurement which compares weight and height, defines people as overweight (pre-obese) if their BMI is between 25 and 30 kg/m2, and obese when it is greater than 30 kg/m2. BMI is calculated by dividing weight in kilograms by height squared (in meters) Waist-Hip Ratio has been shown to be a better & simpler indicator of both intra-abdominal fat & coronary artery disease, than BMI. Waist-hip ratio is computed as abdominal girth (in centimeters) divided by hip girth (in centimeters), where waist girth represents the smallest girth around the abdomen (natural waist) & hip girth reflects the largest girth measured around the buttocks. The relationship between excess weight and diseases has been recognized over time. Obesity has been particularly recognized as a major independent risk factor for cardiovascular diseases. This is because increased body fat is accompanied by profound changes in the physiological and metabolic functions of the body, which are directly dependent on the degree of excess weight and on its distribution around the body. A number of clinical measurements for obesity have been used to determine susceptibility to cardiovascular diseases.

Material and Methods
The subjects for the present study were selected male students of two different professions i.e. medical and MBA students of Bhopal collages. Total 200 students were selected 100 from each profession and age ranging b/w 22 to 24 years.

Selection of Variable
Following Anthropometric variables were selected for the study:

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BMI
Administrations of the tests
Body mass index (BMI)
It is a key index for relating a person's body weight to their height. It is the ratio of a person's weight in kilograms (kg) divided by their height in meters (m) squared.
B.M.I. = Weight (in Kg) / Height^2 (in mtr)

Height Measurement
Equipment required: Stadiometer.
Procedure: The subject is asked to stand erect, barefooted on a plane horizontal surface on the stadiometer, with his heels completely touching the surface. He is requested to stretch the body upward as much as possible without his heels leaving the ground. The head and face is checked for its being in F.H plane (Frankfurt Horizontal plane). To get it easily, the subject is asked to see towards an object in front of him approximately at a height of his eyes, then the investigator adjust the tracheon and infra- orbital points in a horizontal line. The crossbar of the stadiometer is adjusted so that its lower edge touches the highest point of the subject's head.

Reliability: Height measurement can vary throughout the day, usually being higher in the morning, so to ensure reliability height should be measured at the same time of day.

Scoring: The measurement was recorded in centimeters.

Advantages: low costs, quick test to perform

Weight Measurement
Purpose: Measuring body mass can be valuable for monitoring body fat or muscle mass changes, or for monitoring hydration level.

Equipment required: Scales, which should be calibrated for accuracy using weights authenticated by a government department of weights and measures.

Procedure: The person stands with minimal movement with hands by their side. Shoes and excess clothing should be removed.

Scoring: Weight was measured in Kilograms.

Statistical Technique
In this study t-test was employed. The level of Significance was chosen at 0.05.

Table 1: Descriptive Statistics related to BMI among selected professional students

Group	N	Mean	Standard Deviation	t- value
MBA student	100	25.0443	2.64043	3.1329*
Engineering student	100	23.9379	2.34559	

't'$_{0.05}$ (198)= 1.9720

Table (1) statistically shows that the Mean and standard deviation of both MBA students 25.0443 and 2.64043 where in case of Medical students mean 23.9379and SD is 2.34559 respectively. The results of the BMI variable shows that there are significant differences between MBA and Medical students.

Discussion
The result of the study shows that there is significant difference between BMI of MBA students and Medical students.

Conclusion
It was observed that there is significant difference between BMI variable of physical students and engineering students.

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