



## Gender wise study of body mass index (BMI) of adolescent

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### Abstract

The study was undertaken to investigate the difference in the Body mass index gender wise. The David Garner chart was used as a referral criteria for measuring the Body mass index. The findings showed that both male and female BMI index is low i.e. the adolescents show underweight, which indicates under health conditions. There is insignificant difference in the BMI of Male and female adolescents.

**Keywords:** Gender, Body Mass Index, Adolescents

### Introduction

The body mass index (BMI) is the metric currently in use for defining anthropometric height/weight characteristics in people and for classifying (categorizing) them into groups on health parameters. The common interpretation is that it represents an index of an individual's fatness and determining public health policies. Deposition of body fat may differ in different age groups and gender-wise differences are also likely. The present study aims to evaluate Body mass index and gender-wise differences in health parameters in healthy subjects of college going adolescents. David Garner chart of Body mass index was used measuring the BMI. BMI were compared between males and females separately as well as gender-wise comparison for each age group was also performed. BMI values less than 18.5 kg/m<sup>2</sup> are considered underweight. BMI values from 18.5 kg/m<sup>2</sup> to 24.9 kg/m<sup>2</sup> are healthy. Overweight is defined as a body mass index of 25.0 to less than 30.0 kg/m<sup>2</sup>. Obesity is defined as a BMI of 30.0 kg/m<sup>2</sup> or greater. The findings showed that 54.9% of the students are Underweight, 38.2% students are Health, whereas 5% students are Overweight and 1.9% students are Obese Khan Zeenat M (2020). The relatively poor correlation between percent of body fat mass and BMI in males has been known for many years Keys A, Fidzana F, Karvonen MJ, 1972. A particular problem with BMI as an index of obesity is that it does not differentiate between body lean mass and body fat mass; that is, a person can have a high BMI but still have a very low fat mass and vice versa.

### Rationale of the study

We are living in the developing country like India, where the health conditions of most of the people is not so much good.

The People living under poverty line and lower middle class are not in a position to provide nutritious diet to their children. Today's Youth most of the time are in passive state remaining stuck to smartphones, which in turn hampering the physical health conditions of the adolescents. This study was undertaken to study the BMI of Male and female adolescents and on the basis of this tries to understand the health condition of the Indian youth, who are the tomorrows Nation builder.

### Objectives

- 1) To study the Body mass index (BMI) of male adolescents.
- 2) To study the Body mass index of female adolescents
- 3) T compare the Body mass index of male and female adolescents

### Hypothesis

- 1) There is no significant difference in the Body mass index(BMI) of male and female adolescents

### Research design and methodology

The researcher tries to investigate the Body mass index of male and female adolescents and the difference in the BMI gender wise. For this purpose a sample of 100 adolescents (50 male and 50 female) were selected as a sample and Eating Disorder Test by David M. Garner was used for measuring BMI.

**Sampling technique:** Simple Random Sampling technique was used for Data Collection and BMI index was calculated. Sample size 100 students who are in age group of 15-18 years (500 Male + 500 Female) were selected as a sample for the study

**Equipment's:** Weight Machine, Measuring tape etc. and critical value chart of BMI given in David Garner Manual test.

**Statistical technique:** Mean, t test.

**Discussion of result**

**Table 1:** Showing the BMI of Male adolescents.

Category	N	Mean	Range	Interpretation
Male Adolescents	50	16	Less than 18.5	Underweight

**Table no.1**

**Table 2:** Showing the BMI of Female adolescents.

Category	N	Mean	Range	Interpretation
Female Adolescents	50	18.4	Between 18.6 to 24.9	Underweight

**Table no.2**

**Conclusion**

**Table 3:** There is no significant difference in the Body mass index (BMI) of male and female adolescents

S. No.	N	Mean	S.D	T value	Interpretation
1.	50 (male)	16	3.044	0.9517	Insignificant
2.	50 (female)	18.4	4.39		

The hypothesis is accepted as the t value is 0.9517, which indicates that there is no significant difference in the BMI of male and female adolescents.

**Suggestions**

- 1) Have more physical activities
- 2) Don't limit activities to four walls of room
- 3) Have nutritious diet.
- 4) Have stress free life.
- 5) Make play, cycling, swimming and Gym. daily part of routine life.
- 6) Add more fruits and vegetable in your daily meal.
- 7) Burn extra calories.
- 8) Boys should not remain stuck to mobiles, which is leading to underweight health condition among them.
- 9) Boys should do more gym and exercise in order to make body muscular and gain normal BMI.
- 10) The girls should eat nutritious food and do more exercise in order to maintain appropriate BMI.

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