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## A study of the body mass index of college level students

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### Abstract

Health is an important aspect of longevity and a good living style. People who are not involved in physical exercise have deteriorating physical abilities, causing a serious threat to their health. The latest innovations in the field of science and technology have made the life of the people easy and free from much physical labour, but it has come at the expense of the health of the people. The purpose of the present investigation was to assess the body mass index of students of the sixth semester pursuing under graduation at The Government Arts and Science College, Uduma, during 2017-18. The subjects were randomly selected through the purposive random sampling technique and their age ranged from 17 to 21 years. BMI was calculated by taking a person's weight in kilograms and dividing by their height in metres squared ( $\text{kg}/\text{m}^2$ ). The testing procedure required a standard calibrated weighing scale and a stadiometer. The selected tests were administered to the subjects. The results demonstrated that the problem of being underweight is prominent in students of rural areas. The incidence of overweight is higher in males as compared to females.

**Keywords:** Body mass index, normal, under weight, overweight, rural area

### Introduction

Modern living trends adversely affect human health. People who are not involved in physical exercise have deteriorating physical abilities, causing serious threats to their health. The health of an individual in this society is very important. Movement and activity is the most essential thing for human being to grow, develop and maintain healthy lifestyle.

With the change in our life-style and with very less physical activity, we are leading to a phase where life style diseases has started taking its toll, and a large number of our population suffer from life-style diseases.

The modern way of life, which limits physical movements, leads to, especially in the case of people living in the city, an increase in cardiovascular diseases (myocardial heart attacks, hypertension, and the like), diseases of the intestines, an increase in body weight, an increase in the BMI, an increase in body fat and the high rate of obesity is one of the most serious health risk factors.

Negative lifestyle and physical inactivity may cause physical obligation to the health of the young ones. The modern trend and development of technology lead to significant changes in our lives and negative effect on human health. Nutrition, stress, environment, fatty food, sweets, alcohol, tobacco use and excessive stress.

Modern living conditions adversely affect human health. People who are not involved in recreational exercise have deteriorating physical abilities, causing serious consequences to their health and the quality of life in general. There are more reasons for the drastic decline of physical abilities in modern man. In modern civilization, a sedentary (sitting) way of life prevails: sitting in a car, at work, in front of the TV, or a computer. The results of studies throughout the world show that about 80% of the population is insufficiently physically active and that over 50% of the adult population is overweight in most developed countries. Hyperkinesia, obesity and mental stress together make a morbid triad - three factors that together represent the single largest cause of illness and death of a modern man.

According to the World Health Organization (WHO, 2000) [4] data, there are about 1.6 billion overweight adults with a body mass index (BMI) above  $25 \text{ kg}/\text{m}^2$ . At least 400 million of them are obese, with a BMI above  $30 \text{ kg}/\text{m}^2$ . Body fat percentage, as well as BMI, is among the factors responsible for reduced physical fitness, as confirmed by research conducted on young populations.

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Obesity reduces vascular compliance and works with the stiffness and hardness and increased resistance to blood vessels in the long term and to factors such as additional energy absorption, low used energy, low level of basal metabolism, reduce fat oxidation, and sympathetic activity. The researchers reported that obesity and decreased levels of High-density lipoprotein (HDL) and increased Low-density lipoprotein (LDL) levels and tri-glycerol are the factors related to heart disease.

Obesity has reached epidemic proportions globally. Out of about 7 billion global population, more than 1 billion adults are overweight and at least 300 million of them are clinically obese. Obesity is also increasing rapidly in developing countries undergoing major nutrition and lifestyle transition, due to rapid urbanization and mechanization causing a reduction in the energy expenditure along with an increase in energy intake because of increased purchasing power and availability of high fat, energy-dense fast foods and intriguingly, it often co-exists with under-nutrition.

Regular physical activities should be an integral part of the active lifestyle of human life. Programs including such activities are more effectively being applied in the prevention and elimination of health problems, especially those that are the result of decreased movement, inadequate nutrition, and

excessive nervous tension. An active lifestyle increases energy, vitality, helps change bad habits, improves health, and strengthens one's energy and desire for life.

### Objective of the study

The purpose of the present investigation was to assess the Body mass index of final year students of The Government Arts and Science College, Uduma.

### Methodology

The subjects were randomly selected through a purposive random sampling technique and their age ranged from 17 to 21 years. BMI was calculated by taking a person's weight and dividing by their height squared. Testing required a standard calibrated weighing scale and a stadiometer. The selected tests were administered to the subjects.

### Findings

The selected tests were administered to the subjects and were made known and the subjects were informed to assemble in a classroom. The investigator himself explained the objectives of the study briefly. Written consent was taken from each subject in order to ascertain their voluntary willingness to participate in the experiment.

**Table 1:** Body Mass Index report of Students from rural area

	Incidences	Male	Female	
		Percentage	Incidences	Percentage
Under weight	15	36.58	24	44.44
Normal	20	48.78	26	48.14
Over weight	06	14.64	4	7.42
Obese	0	0	0	0
Total	41		54	

On the basis of the results given in table 1, it is clear that 36.58% of the students are underweight and 14.64 % of the students are overweight in the male category. Further, it is found that 44.44 % of the students are underweight and 7.42 % of the students are overweight in the female category.

### Discussion

It is alarming to find that the underweight problem is more prominent than the overweight problem in both the male and female students in rural areas. The problem of being overweight was prominent in the male students than female students, and it can be said that the problem of weight management is a prominent issue in students studying in rural area. Awareness about healthy weight management has to be stressed. Huge number of underweight students in female section is an area of concern which calls for immediate action.

### Conclusion

On the basis of the results and within the limitations of the study it was concluded that the students from rural area are having underweight problems in both male and female section. As compared to females, males have higher reported incidences of overweight students.

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