



**Original Article**

**Publication History:**

**Received 20/5/2020**

**Accepted 18/6/2020**

**Published 27/8/2020**



**DOI:**

10.5281/zenodo.4015174

**Corresponding Author:**

Dr. Sajjad Mustafa  
Rural Health Centre  
Dullanwala Kharian Gujrat  
sajjad658666@gmail.com

**Cite this article as:**

Rasheed F, Anjum Z,  
Mustafa S. Prevalence of  
obesity among medical and  
dental students. Int. J.  
Med. Dent. Allied Health  
Sci. 2020;2(8). 277-82

© Copyright 2020

This is an open access article  
distributed under the terms of the  
Creative Commons Attribution  
License CC-BY 4.0., which  
permits unrestricted use,  
distribution, and reproduction in  
any medium, provided the  
original author and source are  
credited.



**PREVALENCE OF OBESITY AMONG  
MEDICAL AND DENTAL STUDENTS**

**AUTHORS:**

1. DR. FAIZAN RAHSEED, DHQ NANKANA HOSPITAL
2. DR. ZOHAIB ANJUM, RURAL HEALTH CENTRE  
DULLANWALA KHARIAN GUJRAT
3. DR. SAJJAD MUSTAFA, RURAL HEALTH CENTRE  
DULLANWALA KHARIAN GUJRAT

**ABSTRACT:**

Obesity is a complex disease involving an excessive amount of body fat. Obesity isn't just a cosmetic concern. It is a medical problem that increases your risk of other diseases and health problems, such as heart disease, diabetes, high blood pressure and certain cancers. This survey study was conducted among different medical and dental college students. The basic personal information and details about weight, height and dietary habits were collected on a predefined proforma. A total of 70 medical and dental students participated in the study. There were 45 males and 25 females. The mean age was  $21.34 \pm 2.17$  years. The mean BMI of all the students was  $22.54 \pm 1.56$  kg/m<sup>2</sup>. The mean BMI of male students was  $23.89 \pm 2.16$  kg/m<sup>2</sup> and mean BMI of female students was  $20.12 \pm 1.84$  kg/m<sup>2</sup>.

**Keywords: Obesity, BMI, Medical Students,  
Dental Students**



**INTRODUCTION:**

Obesity is a complex disease involving an excessive amount of body fat. Obesity isn't just a cosmetic concern. It is a medical problem that increases your risk of other diseases and health problems, such as heart disease, diabetes, high blood pressure and certain cancers. Obesity is diagnosed when your body mass index (BMI) is 30 or higher. To determine your body mass index, divide your weight in kilograms by your height in meters squared i.e. BMI below 18.5 is labelled as underweight, 18.5-24.9 as normal, 25.0-29.9 as overweight and 30.0 and higher as obesity. Worldwide obesity has nearly tripled since 1975. In 2016, more than 1.9 billion adults, 18 years and older, were overweight. Of these over 650 million were obese. 39% of adults aged 18 years and over were overweight in 2016, and 13% were obese. Most of the world's population live in countries where overweight and obesity kills more people than underweight. 38 million children under the age of 5 were overweight or obese in 2019. Over 340 million children and adolescents aged 5-19 were overweight or obese in 2016.

Obesity has individual, socioeconomic, and environmental causes, including diet, physical activity, automation, urbanization, genetic susceptibility, medications, mental disorders, economic policies, endocrine disorders, and exposure to endocrine-disrupting chemicals. While a majority of obese individuals at any given time are attempting to lose weight and often successful, research shows that maintaining that weight loss over the long term proves to be rare. The reasons for weight cycling are not fully understood but may include decreased energy expenditure combined with increased biological urge to eat during and after caloric restriction. More studies are needed to determine if weight cycling and dieting contribute to inflammation and disease risk in obese individuals. Obesity prevention requires a complex approach, including interventions at community, family, and individual levels. Changes to diet and exercising are the main treatments recommended by health



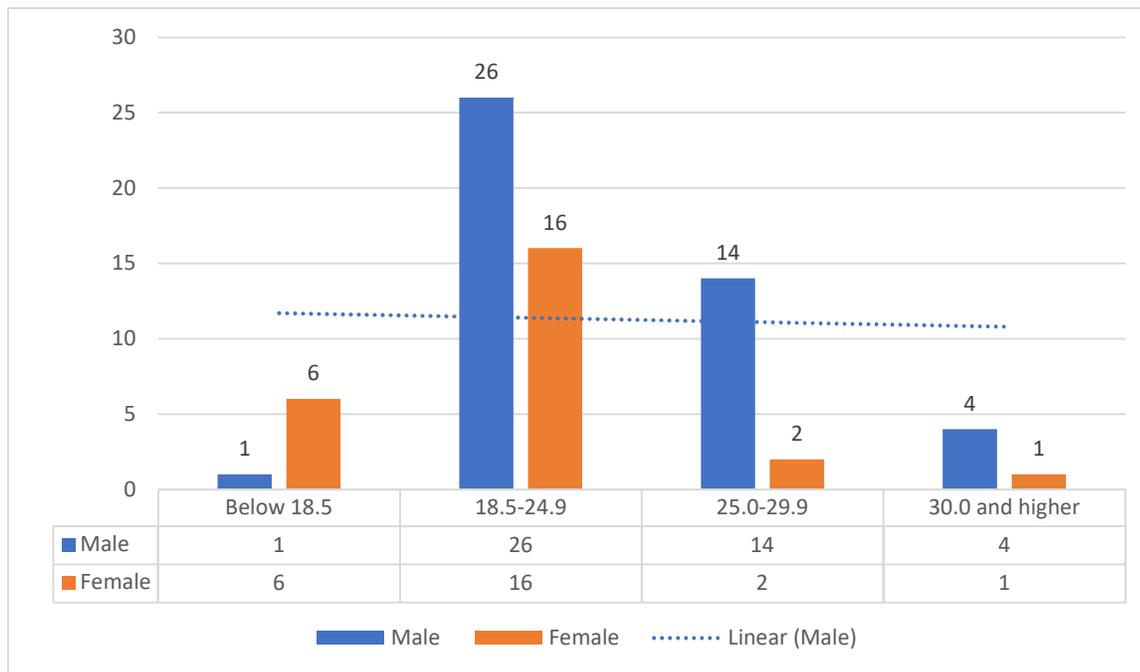
professionals. Diet quality can be improved by reducing the consumption of energy-dense foods, such as those high in fat or sugars, and by increasing the intake of dietary fiber. However, large-scale analyses have found an inverse relationship between energy density and energy cost of foods in developed nations. Low-income populations are more likely to live in neighborhoods that are considered food deserts or food swamps where nutritional groceries are less available. Medications can be used, along with a suitable diet, to reduce appetite or decrease fat absorption. If diet, exercise, and medication are not effective, a gastric balloon or surgery may be performed to reduce stomach volume or length of the intestines, leading to feeling full earlier or a reduced ability to absorb nutrients from food (1-4).

#### **MATERIAL OF METHODS:**

This survey study was conducted among different medical and dental college students. The basic personal information and details about weight, height and dietary habits were collected on a predefined proforma. All the data was analyzed with SPSS Ver. 23.0. Relevant statistical analysis was performed. The qualitative variables were presented as frequency and percentages. The quantitative variables were presented as mean and standard deviation.

#### **RESULTS:**

A total of 70 medical and dental students participated in the study. There were 45 males and 25 females. The mean age was  $21.34 \pm 2.17$  years. The mean BMI of all the students was  $22.54 \pm 1.56$  kg/m<sup>2</sup>. The mean BMI of male students was  $23.89 \pm 2.16$  kg/m<sup>2</sup> and mean BMI of female students was  $20.12 \pm 1.84$  kg/m<sup>2</sup>.



**DISCUSSION:**

A 2016 review supported excess food as the primary factor. Dietary energy supply per capita varies markedly between different regions and countries. It has also changed significantly over time. From the early 1970s to the late 1990s the average food energy available per person per day (the amount of food bought) increased in all parts of the world except Eastern Europe. The United States had the highest availability with 3,654 calories (15,290 kJ) per person in 1996. This increased further in 2003 to 3,754 calories (15,710 kJ). During the late 1990s Europeans had 3,394 calories (14,200 kJ) per person, in the developing areas of Asia there were 2,648 calories (11,080 kJ) per person, and in sub-Saharan Africa people had 2,176 calories (9,100 kJ) per person. Total food energy consumption has been found to be related to obesity.

The widespread availability of nutritional guidelines has done little to address the problems of overeating and poor dietary choice. From 1971 to 2000,



obesity rates in the United States increased from 14.5% to 30.9%. During the same period, an increase occurred in the average amount of food energy consumed. For women, the average increase was 335 calories (1,400 kJ) per day (1,542 calories (6,450 kJ) in 1971 and 1,877 calories (7,850 kJ) in 2004), while for men the average increase was 168 calories (700 kJ) per day (2,450 calories (10,300 kJ) in 1971 and 2,618 calories (10,950 kJ) in 2004). Most of this extra food energy came from an increase in carbohydrate consumption rather than fat consumption. The primary sources of these extra carbohydrates are sweetened beverages, which now account for almost 25 percent of daily food energy in young adults in America, and potato chips. Consumption of sweetened drinks such as soft drinks, fruit drinks, iced tea, and energy and vitamin water drinks is believed to be contributing to the rising rates of obesity and to an increased risk of metabolic syndrome and type 2 diabetes. Vitamin D deficiency is related to diseases associated with obesity (5-8).

**REFERENCES:**

1. Bertias G, Mammias I, Linardakis M, Kafatos A. Overweight and obesity in relation to cardiovascular disease risk factors among medical students in Crete, Greece. *BMC public health*. 2003 Dec 1;3(1):3.
2. Gopalakrishnan S, Ganeshkumar P, Prakash MV, Amalraj V. Prevalence of overweight/obesity among the medical students, Malaysia. *The Medical Journal of Malaysia*. 2012 Aug 1;67(4):442-4.
3. Boo NY, Chia GJ, Wong LC, Chew RM, Chong W, Loo RC. The prevalence of obesity among clinical students in a Malaysian medical school. *Singapore medical journal*. 2010 Feb 1;51(2):126.
4. Gupta S, Ray TG, Saha I. Overweight, obesity and influence of stress on body weight among undergraduate medical students. *Indian journal of community medicine: official publication of Indian Association of Preventive & Social Medicine*. 2009 Jul;34(3):255.
5. Mohtasham Amiri Z, Maddah M. Prevalence of overweight and obesity among female medical students in Guilan-2003. *Iranian Journal of Endocrinology and Metabolism*. 2006 Jun 10;8(2):157-62.



6. Bordowitz R, Morland K, Reich D. The use of an electronic medical record to improve documentation and treatment of obesity. FAMILY MEDICINE-KANSAS CITY-. 2007 Apr 1;39(4):274.
7. Phelan SM, Burgess DJ, Puhl R, Dyrbye LN, Dovidio JF, Yeazel M, Ridgeway JL, Nelson D, Perry S, Przedworski JM, Burke SE. The adverse effect of weight stigma on the well-being of medical students with overweight or obesity: Findings from a national survey. Journal of general internal medicine. 2015 Sep 1;30(9):1251-8
8. Chourdakis M, Tzellos T, Papazisis G, Toulis K, Kouvelas D. Eating habits, health attitudes and obesity indices among medical students in northern Greece. Appetite. 2010 Dec 1;55(3):722-5.