



PREVALENCE OF OVERWEIGHT AND OBESITY AMONG MBBS STUDENTS OF CHIRAYU MEDICAL COLLEGE OF BHOPAL DISTRICT, MADHYA PRADESH

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ABSTRACT **Background:** India, overweight and obesity are multiple times higher in metropolitan zones than in country regions and are more normal among women. **Objective :** The aim of this paper is determine the prevalence of overweight and obesity among MBBS students in central India. **Methods:** This is a cross-sectional study that done on 750 MBBS students of Chirayu Medical college. Body mass Index (BMI) was calculated as weight divided by height. Percentiles are used for students because body fat differs between boys and girls. **Results:** The results showed that out of 385 boys 21 (5.45%) were overweight and 15 (3.89%) were obese. Similarly out of 365 girls 44 (12%) were overweight and 34 (9.31%) were obese. Among total student 65 (8.6%) of overweight and 49 (6.53%) of obese. **Conclusion:** The present study we found that higher frequency of obesity in girls as compared to the boys. The prevention is change occurring in the lifestyle and increased physical activities

KEYWORDS : Overweight, Obesity, Prevalence, MBBS students

INTRODUCTION:

The term "Overweight" is utilized in two unique ways. In one sense it is a method of saying imprecisely that someone is heavy. The others feeling of "Overweigh" is more exact and assign a state between typical weight and obesity. The National Institute of Health (NIH) presently characterizes overweight regarding the BMI (Body Mass Index) which is an individual's load in Kilograms (Kg) separated by their stature in meters (M) squared. Since the BMI depicts the body weight comparative to height it corresponds firmly (in adults) with the complete body to fat ratio content¹.

The meanings of overweight and obesity depend on the percentile estimations of body mass index (BMI), adapted to age and sexual orientation, relating to a BMI of ≥ 25.0 and ≥ 30.0 kg/m², separately, at age 18 years, as suggested by the International Obesity Task Force². In Asian populations, the health risks which are associated with overweight and obesity occur at lower levels of BMI than in North America or Europe³. As per the National Family Health Survey-3 (NFHS-3) in India, overweight and obesity are multiple times higher in metropolitan zones than in country regions and are more normal among women⁴.

The prevalence of overweight and obesity in India is increasing faster than the world average. For instance, the prevalence of overweight increased from 8.4% to 15.5% among women between 1998 and 2015, and the prevalence of obesity increased from 2.2% to 5.1% over the same period⁵. Overweight and obesity increase the risk of morbidity due to CHD, hypertension, dyslipidemia and type 2 diabetes mellitus⁶. Different studies directed in India detailed predominance of overweight among teenagers running between 2.2% to 25.0%⁷. Overweight and obesity among children and adolescents has increased significantly in the developed economies during the last two decades and same type trends are being observed even in the developing countries, though less rapidly⁸.

In India, a huge extent of overweight adult exists together alongside the individuals who are undernourished. Best of our knowledge there was no studies on MBBS students. The present study was to determine the prevalence of overweight and obesity among MBBS students

MATERIALS AND METHODS:

The study was conducted at the department of General Medicine. This is a cross-sectional study that done on 750 MBBS students of Chirayu Medical college, this was a recognized medical college with 975 bed hospital having all modern and necessary facilities, hospital has been rated as the best private hospital in Bhopal.

The total number of student was 750 aged between 18 to 25 years has participated in this study. Out of 750, 394 were girls and 356 were boys. Data collected by all students by a questionnaires enquiring about socio-economic status and eating behaviors was completed by

each student. Body weight (kg) measure through weighing machine, height measure through sewing meter and the calculated Body mass Index (BMI) was calculated as weight divided by height. Percentiles are used for students because body fat differs between boys and girls.

Percentile range between 5th percentiles to 85th percentile was health students. 85th to less than 95th percentile were overweight and obese equal to or greater than the 95th percentile (WHO 2000). Written consent was obtained from all study subjects. The study period was between June 2018 and Feb 2019. This study was carried out, after taking approval from the institutional ethics committee.

All the data were entered and analyzed by using statistical packages for social science (SPSS) software version 20

RESULTS:

Table No: 1 Distribution Of Age & Sex Of The Students

Age	Boys	Girls	Total
18	30	54	84
19	45	52	97
20	33	46	79
21	77	86	163
22	107	34	141
23	42	53	95
24	19	20	39
25	32	20	52
Total	385	365	750

The above table no: 1 show that distribution of study subjects by age and sex out of 750 students 385 were boys and 365 were girls. There are ages between 18 to 25 years. Results shows that maximum number of student belongs age group 21 years and maximum number of students age group 24 years.

TABLE NO: 2 PREVALENCE OF OBESITY BY SEX

Sex	Obese	Non obese	Total
Boys	15 (3.89%)	370 (96.1%)	385 (100%)
Girls	34 (9.31%)	331 (90.68%)	365 (100%)
Total	49 (6.53%)	701 (93.46%)	750 (100%)

It is evident from the above table -2 out of 750 students 3.89% boys were obese, 9.31% of girls were obese. The table revealed that 93.4% students were of normal weight.

Table No: 3 Prevalence Of Obesity By Age

AGE	OBESSE	NON OBESSE	TOTAL
18	12 (1.42%)	72 (85.71%)	84 (100%)
19	08 (8.24%)	89 (91.75%)	97 (100%)
20	02 (2.53%)	77 (97.46%)	79 (100%)
21	08 (4.9%)	155 (95.1%)	163 (100%)

22	0	141 (100%)	141 (100%)
23	11 (11.57%)	84 (88.42%)	95 (100%)
24	03 (7.69%)	36 (92.30%)	39 (100%)
25	05 (9.61%)	47 (90.38%)	52 (100%)
Total	49 (6.53%)	701 (93.46%)	750 (100%)

The prevalence of obesity by age observe the based on results the obesity was more among age group 18 years with 1.42% and less number of obese students seen in age group of 20 years with 2.53% respectively.

TABLE NO: 5 PREVALENCE OF OVERWEIGHT AND OBESITY BY SEX

Sex	Overweight	Obese
Boys	21 (5.45%)	15 (3.89%)
Girls	44 (12%)	34 (9.31%)
Total	65 (8.6%)	49 (6.53%)

The above table show that out of 385 boys 21 (5.45%) were overweight and 15 (3.89%) were obese. Similarly out of 365 girls 44 (12%) were overweight and 34 (9.31%) were obese. Among total student 65 (8.6%) of overweight and 49 (6.53%) of obese.

DISCUSSION:

The study was carried out in department of General Medicine at Chirayu Medical College, Bhopal. The prevalence of overweight and obesity among MBBS students in India less studies was carried out on MBBS students. In this study the prevalence of weight/obese 15% among boys and girls age between 18-25 years. Mohan et al⁹ reported a 20% prevalence of overweight/obesity among men and women who were aged 20 years and above and those who belonged to the low socio-economic group, while the middle socio economic group had a higher prevalence of overweight/obesity (35%) during the 1996-97 study.

Anuradha R., et al in their study on US women found that no significant association was noted between the prevalence of overweight and obesity and the dietary pattern¹⁰. In our study prevalence of weight/obese to be higher in girls 78 (21.3%) compared with boys 36 (9.3%). Tharkar and Viswanathan studied the impact of socioeconomic status on prevalence of overweight and obesity among children and adolescents in urban India and reported overall prevalence of overweight 15.5 % among the adolescents and both overweight (22%) and obesity (13.7%) were highest among girls from affluent families¹¹.

Firouz Amani et al reported that the food consumed by students and observed that the mean of bread and rice consumption in male students was more than other foods. Also, donuts consumption was less than other foods and Sausages, burgers and pizza consumption was low. Snack chips and snacks in moderate rate were used as junk food¹². Sharma et al conducted study in Delhi, India shows that the prevalence of overweight and obesity amounted 22 % and 64%¹³.

The probable cause for overweight and obesity might be the difference with respect lifestyle, eating habits and comparatively less physical activity of Medical student. Shiji K Jacob¹ et al study on School Going Children in Rural Areas of Ernakulam, District, Kerala State India, the percentage of overweight and obese children are growing in rural areas of Kerala. The study also showed that obesity was seen more in boys¹⁴.

CONCLUSION:

The present study we found that higher frequency of obesity in girls as compared to the boys. The prevention is change occurring in the lifestyle and increased physical activities. The prevention of overweight and obesity in MBBS students are easier than other adults.

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