



Knowledge, Attitude and Practices regarding Obesity Among Medical Students in Faisalabad, Pakistan

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ABSTRACT

Objective: To assess the knowledge attitudes and practices of medical students regarding obesity. **Study Design:** An Observational Descriptive Study. **Settings:** A pre-validated questionnaire was distributed in a public sector medical college of Faisalabad-Pakistan. **Duration:** The study was conducted in May 2017 in 4 weeks after getting approval from ethical review committee. **Methodology:** An observational descriptive study was carried out among students of first and second year of M.B.B.S. Our sample size was 208. After explaining the purpose of this study and taking consent, a pre-validated questionnaire was distributed. **Results:** Most participants responded well to questions regarding causes and ill effects of obesity and two thirds identified the correct BMI range. Attitude of students was also positive except that 20% believed that obesity is inherited and can't be reduced. Only one third students preferred going for a walk daily. **Conclusion:** Despite sound knowledge regarding obesity, students were not practicing a healthy lifestyle. There is a need to bridge the gap between their knowledge and personal habits.

Keywords: Overweight, Doctors, Health promotion, Habits, Lifestyle.

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INTRODUCTION

Obesity is characterized by excessive fat deposition in the body that can pose adverse effects on health. It may occur due to increased caloric intake or decreased physical activity.¹ Common methods for determining obesity include body mass index (BMI), waist circumference (WC) and waist-to-hip ratio (WHR) among which body mass index (BMI) is the most widely accepted. It is measured in the metric system as weight in kilograms divided by height in meters squared. In regard to presence of greater amount of fat and co morbidities at any given BMI in Asian populations, cut off value for overweight has been lowered to greater than 23 as compared to international limit of greater than 25 and for obesity, it has been lowered to greater than 25 as compared to international limit for greater 30.²

Obesity is an emerging epidemic worldwide. It was estimated in 2008, that 1.46 billion adults are overweight and 502 million are obese, where 170 million of the children around the world are obese and overweight.³ A recent study demonstrates that a quarter of the population of Pakistan would be classified as overweight or obese with the use of Indo-Asian-specific BMI cutoff values.⁴

A variety of factors, including diet, genetic predisposition, physical activity, physiological and behavioral factors are implicated as contributing factors to obesity.⁵ Obesity is associated with large number of debilitating and life threatening disorders such as type 2 diabetes, high blood pressure, stroke, cardiovascular disease, dyslipidemia and some cancers.⁶ Thus, it becomes extremely important to take necessary interventions for prevention and treatment of obesity.

Public health experts and doctors play an important role in educating patients about the hazards of obesity and providing advice and support to maintain their body weight within normal ranges. In this study it was aimed to determine the knowledge, attitudes and behavior of medical students, who would become the future physicians, regarding obesity. While studies assessing the KAP regarding obesity have been conducted among doctors and patients in Pakistan, there is no study in our knowledge that assesses the KAP among medical students in Pakistan.

METHODOLOGY

Study Design: An Observational Descriptive Study.

Settings: A pre-validated questionnaire was distributed in a public sector medical college of Faisalabad.

Duration: The study was conducted in May 2017 in 4 weeks after getting approval from ethical review committee.

Sample Technique: Questionnaires were distributed in various batches during Physiology practical labs. A brief overview regarding the purpose of study explained and consent of the participants was taken.

Sample Size: Students of 1st and 2nd years of M.B.B.S.

Inclusion Criteria: Students of 1st and 2nd year MBBS.

Exclusion Criteria: Students unwilling to fill the questionnaire were excluded.

Data Analysis Tool: SPSS 21 was used for data analysis.

RESULTS

A total of 241 questionnaires were distributed among which 208 were returned completely filled. Table 1 shows the distribution of our study population according to sociodemographic aspects.

Table 1: Sociodemographic profile of participants

Factors		Frequency (n=208)	Percentage %
Gender	Male	78	37.5
	Female	130	62.5
Residence	Hosteller	91	43.8
	Day Scholar	117	56.2
Year of M.B.B.S.	1 st year	98	47.1
	2 nd year	110	52.9

Knowledge

Among the 208 participants, 97% were familiar with the word obesity. The most commonly known method to determine obesity was measurement of BMI. 98% of the participants had knowledge about cardiovascular diseases and diabetes as potential ill effects of obesity while social and psychological problems were lesser known. In terms of factors leading to obesity, eating too much fat, insufficient physical activity, genetic factors and hormonal disorders were more commonly identified than stress, anxiety and depression and high socioeconomic status. Two third participants were able to identify the correct normal BMI range. Table 2 shows the knowledge of participants.

Table 2: Knowledge of students regarding obesity

	Yes (%)	No (%)
Have you ever heard the word obesity?	202 (97)	6 (3)
Have you ever heard of the following methods to determine obesity?		
BMI	148 (71)	60 (29)
Waist hip ratio	135 (65)	73 (35)
Waist Circumference	137 (66)	77 (34)
Have you ever heard of the following ill effects of obesity?		
Cardiovascular diseases	204 (98)	4 (2)
Diabetes	204 (98)	4 (2)
Social Problems	179 (86)	29 (14)
Psychological problems	181 (87)	27 (13)
Have you ever heard about the following causes of obesity?		
Eating too much fat	204 (98)	4 (2)
Hormonal disorders	183 (88)	25 (12)
Insufficient physical activity	202 (97)	6 (3)
Genetic factors	193 (93)	15 (7)
Stress, anxiety and depression	139 (67)	69 (33)
High socioeconomic status	129 (62)	79 (38)

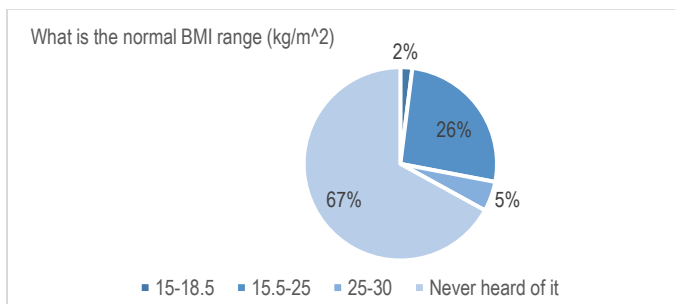


Figure 1: Response to correct BMI range

Attitudes

Table 3 shows the attitudes of students regarding obesity. Response to most statements was positive. However, 20% believed that obesity is linked to inheritance and can't be reduced.

Table 3: Attitudes of students regarding obesity

	Agree (%)	Disagree (%)
Obesity is a disease.	166 (80)	42 (20)
Normal weight is important for health.	204 (98)	4 (2)
Medical students should maintain normal weight	204 (98)	4 (2)
Small weight loss can produce important health benefits	177 (85)	31 (15)
Obese people must try to lose weight	200 (96)	8 (4)
Obesity is linked to inheritance and it can't be reduced	42 (20)	166 (80)

Practices

Table 4 shows the practices of students regarding obesity. Half the students had a habit of munching after meals. 20% did not participate in sports at all. Only one third preferred going for a walk daily.

Table 4: Practices of students regarding obesity

		Response N (%)
How frequently do you check your body weight?	Every 1-3 months	83 (40)
	Every 4-6 months	35 (17)
	Every 7-9 months	17 (8)
	Every 10-12 months	73 (35)
Frequency of eating junk food	Daily	33 (16)
	Weekly	121 (58)
	Monthly	54 (26)
Frequency of eating sweets after food	Daily	29 (14)
	Sometimes	102 (49)
	Rarely	77 (37)
Do you have the habit of munching between meals?	Yes	102 (49)
	No	106 (51)
Do you participate in sports?	Yes	40 (19)
	Sometimes	123 (59)
	No	45 (22)
How often do you prefer going for a walk?	Daily	66 (31.7)
	Twice a week	45 (21.6)
	Once a week	43 (20.7)
	Monthly	54 (26.0)

DISCUSSION

Obesity is a global epidemic and has a strong association with various co morbidities including coronary artery disease, type 2 diabetes mellitus, hypertension, several cancers and a host of other disease processes.⁷ Physician involvement plays a crucial role in multidisciplinary obesity treatment.⁸ Thus it becomes necessary to assess medical students' perceptions and attitudes towards obesity as they are the future doctors.

In this study, students were observed to have sound knowledge about causes and ill effects of obesity. These studies are in line with studies carried out in Malaysian and Indian medical students.^{9,10} However, focus should be laid on improving students' knowledge regarding parameters for determination of obesity as one third participants were unfamiliar with waist circumference and waist hip ratio and one fourth of the students had not heard of the word BMI which was quite striking.

Response in attitude section was satisfactory. Almost all students (98%) had a positive attitude towards being role models and maintaining normal weight, which was better as compared to GP's response in a similar survey done in Hungary where 88% GPs agreed with this statement.¹¹ However, it was seen that 20% still don't consider obesity as a disease, believe that it is inherited and can't be reduced which is a common myth in a Pakistani society. In our knowledge there is no other survey in Pakistan to assess the frequency of this perception. Thus, this can be regarded as a key finding of our study.

In our study, 16% students consumed junk food daily which is greater than a study done on students attending an international conference in (7.6%).¹² Frequency of eating sweets after food was slightly higher and those found in a similar study in Mumbai while the habit of munching between meals was comparable in both studies (approximately 50%).¹⁰ It has been studied that the physicians' personal physical activity habits plays a great role in determining his clinical attitude towards exercise counseling.¹³ Our study showed alarming results that 19% students participated in sports regularly and 30% went for a walk daily. This lack of physical activity is congruent with other studies in Pune and Karnataka where 47.7% and 63.5% of the students had inadequate physical activity.^{14, 15}

Despite sound knowledge in most aspects, unhealthy practices were observed. This discrepancy is also reported in other studies.^{9, 12} As mentioned in the open-ended feedback, this study helped to increase awareness in students by acting as a reminder that students don't have adequate knowledge or a healthy lifestyle as the students filled in the questionnaire.

CONCLUSION

The knowledge and attitudes of medical students regarding obesity is satisfactory but this knowledge has to be put into practice. The causes of lack of physical activity and unhealthy eating practices should be evaluated and addressed by public health authorities.

LIMITATIONS

This is an institution-based study. Only two classes of M.B.B.S. were included.

SUGGESTIONS / RECOMMENDATIONS

Medical educationists should focus on bridging the gap between knowledge and practices of medical students through lectures and by providing healthy food and sports facilities in the institution.

CONFLICT OF INTEREST / DISCLOSURE

There is no conflict of interest.

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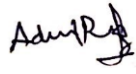
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AUTHORSHIP AND CONTRIBUTION DECLARATION

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