

# Perceptions and Attitudes of health care students towards obesity in Prince Sattam Bin Abdulaziz University, Al Kharj, Saudi Arabia

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## ABSTRACT

**Background:** More fat gets accumulated in the body leading to Obesity. It is different from being overweight, which means weighing too much. It occurs when a person consumes excess calories than the body can utilize over a period of time. Factors that might affect body weight include genetic makeup, overeating, eating high-fat foods, and not being physically active. **Aims:** To assess the Perceptions and Attitude of students towards obesity in Prince Sattam Bin Abdulaziz University. **Materials and methods:** One hundred and fifty-three students from College of Medicine, Dental college and College of Pharmacy were asked to complete a self-administered questionnaire. An ethical clearance was obtained prior to the study. Questions were focused on two areas: (i) Perceptions, and (ii) Attitudes about obesity. Data analyses was carried out using SPSS version 18. **Results:** Nearly half of pharmacy students considered themselves as obese (45%) as compared to dental and medical who reported a figure of 26% and 23% respectively. Eating was the main cause of obesity by students from Pharmacy (59%), Dental (45%) & Medical (32%) respectively. **Conclusion:** Awareness about obesity must be created among the health students. So that they can in turn educate community towards ill effects of obesity & its effect on quality of life of the people.

**KEYWORDS:** Obesity, Health Care, Questionnaire, High Density Lipoproteins (HDL)

## INTRODUCTION

Obesity is a medical condition in which excess body fat has accumulated to the extent that it may have a negative effect on health.<sup>1</sup> People are considered obese when their body mass index (BMI) [person's weight by the square of the person's height] is over 30 kg/m<sup>2</sup>, if it is in the range of 25–30 kg/m<sup>2</sup> they are said to be as overweight.<sup>2</sup> Multiple etiology is held responsible for obesity like dietary factors, genetic constitution, hereditary factors, lifestyle etc. Obesity can't be held accountable only for overeating, but it also depends on daily physical workout, type of diet, carbohydrate consumption as well as on eating habits and frequency. It's evident that sugar-sweetened beverages induce less satiety compared to the solid forms of carbohydrate. Hence, increase consumption of sugar-sweetened soft drink are associated with weight gain.<sup>3</sup> According to a new data analysis from 188 countries, 30% of the world's population (2.1 billion people) are either obese or overweight. Forbes' 2007 index of fattest countries ranked Saudi Arabia 29<sup>th</sup> in the world.<sup>4</sup> The Social progress imperative (SPI) ranked the country second in less than a decade. Considering all the stats, the researchers double this rate to 70%. (www.therichest.com). Hence, with seven out of 10 Saudis suffering from obesity and 37% of Saudi women facing overweight problems, Obesity is a major cause of concern in the Kingdom. Healthcare professionals are responsible for preventing and identifying weight issues and for providing

advice to the patients.<sup>5,6</sup> At individual level, it is essential to have awareness of factors which causes obesity. Proper knowledge of health care students was assessed to know their outlook towards obesity. This is an important point since these students are future healthcare providers who will guide society towards the aim of acquiring good health. Through this study knowledge of health care, students towards obesity will be determined by a questionnaire all of which will contribute to existing scientific literature on the subject.

## MATERIALS AND METHODS

The present study used a modified version of the self-administered questionnaire developed by North Carolina recovery support services (Northcarolinarecovery.com, 203). To assess the perceptions and attitudes of students, i.e., Pharmacy, Dental and Medical students towards obesity. The questionnaire was peer-reviewed. The questionnaire consisted of 21 items, with two sections: (i) Perceptions and (ii) Attitudes. Participants responses were recorded as YES or NO. Pre-informed consent was taken from all the participants. All those who were willing to participate in the study were selected to fill the questionnaire. All the participants were enrolled as full-time scholars in respective institutions. All participants completed the questionnaire during a single meeting using ball pen.

**Data analysis:** Data was analyzed using Statistical Package for the Social Sciences (Released 2009).

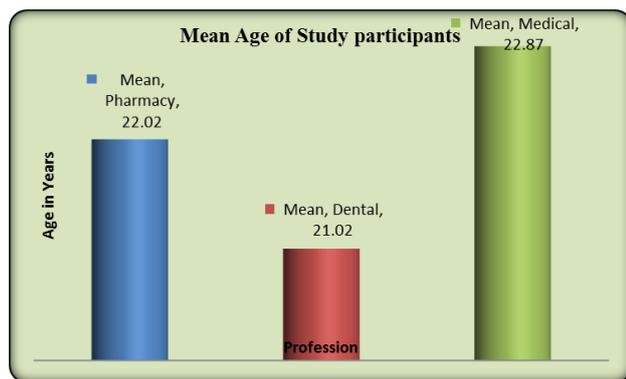
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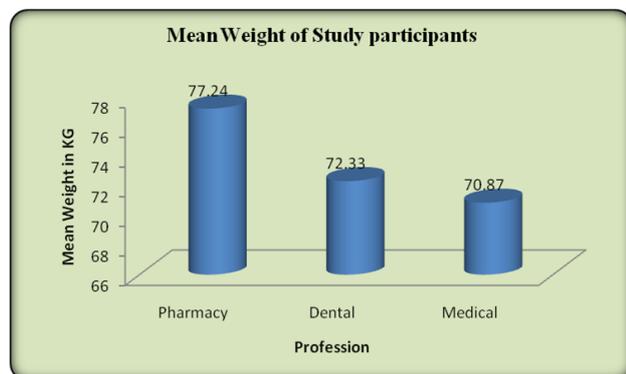
Statistics for Windows, Version 18.0. Chicago: SPSS Inc.). The frequency distribution was used to analyze each participant's characteristics. Participants responses were assessed based on the frequency and percentage of participants who agreed or disagreed.

## RESULTS

A total of 153 students (Forty-nine pharmacy, forty-two dental and sixty-two medical) participated in this study. The response rate of participants was 100%. All the participants were males, with a mean age of 22.02 years (Pharmacy), 21.02 (Dental) and 22.87 (Medical) respectively (Graph 1). The mean weight of study participants are shown in Graph 2. The responses of



Graph 1



Graph 2

participants to attitude and perception based questions is shown in Table 1. When participants were asked about whether they take more than 4 meals in a day. Very few agreed on same 22%, 26% and 10% of pharmacy, dental and medical students respectively. Nearly half of pharmacy students considered themselves as obese (45%) as compared to dental and medical who reported a figure of 26% and 23% respectively. Majority of pharmacy (59%) students considered eating as their main cause of obesity where as 45% and 32% of dental and medical students accounted for same. Carbohydrates in the form of rice and potato were major consumption in all the three student's groups. (69%, 82%, Pharmacy) (64%, 43%, Dental) and (57%, 53%, Medical). Interestingly majority of the students had a perception that obesity is caused by restricted physical activity rather than excess eating 71%

(Pharmacy), 76% (Dental) and 73% (Medical) students. All the students on a large majority considered them as normal eater (74%, 69%, 73%) Pharmacy, Dental and Medical respectively. In all the three groups, most of the students have gone through weight loss programmes and were benefitted by it as well (57% Pharmacy, 62% Dental, 55% Medical). Few students reported that at one or the other stage they were told by the physician that they are obese (33% Pharmacy, 21% Dental, 18% Medical). Students also agreed that group exercise is an effective way of burning calories (Pharmacy 61%, Dental 59%, Medical 62%). Soft drink consumption was major cause for obesity in all the three student groups. (51% Pharmacy, 68% Dental, 60% Medical). Most of the student believed that supportive counseling could help in preventing obesity (65-70%).

Question No	Pharmacy		Dental		Medical	
	Agree	Disagree	Agree	Disagree	Agree	Disagree
<b>PERCEPTION</b>						
Do you take more than 4 meals in a day (2 breakfast + lunch + dinner)	22.4%	77.6%	26.2%	73.8%	9.7%	90.3%
Do you see yourself as an obese person?	44.9%	55.1%	26.2%	73.8%	22.6%	77.4%
Do you believe your eating habits are the cause of your obesity condition?	59.2%	40.8%	45.2%	54.8%	32.3%	67.7%
Do you have lot of craving for potatoes /rice	69.4%	30.6%	64.3%	35.7%	56.5%	43.5%
Do you take excess carbohydrates in your diet	81.6%	18.4%	42.9%	57.1%	53.2%	46.8%
<b>ATTITUDE</b>						
Do you believe obesity is the result of restricted physical activity rather than excess eating	71.4%	28.6%	76.2%	23.8%	72.6%	27.4%
Do you see yourself as a "normal" eater	73.5%	26.5%	69.0%	31.0%	62.9%	37.1%
Have you lost and regained pounds	57.1%	42.9%	61.9%	38.1%	54.8%	45.2%
Have your social life been limited because of obesity	32.7%	67.3%	23.8%	76.2%	9.7%	90.3%
Do you believe that you can lose pounds	79.6%	20.4%	64.3%	35.7%	75.8%	24.2%
Do you believe your obesity has triggered depression	53.1%	46.9%	38.1%	61.9%	25.8%	74.2%
Does obesity affect your physical health negatively	65.3%	34.7%	50.0%	50.0%	43.5%	56.5%
Do you feel lethargy after walking for 10-15 minutes	30.6%	69.4%	33.3%	66.7%	38.7%	61.3%
Have you ever been told by a physician that you were obese	32.7%	67.3%	21.4%	78.6%	17.7%	82.3%
Do you feel comfortable "working out" in a gym	65.3%	34.7%	66.7%	33.3%	72.6%	27.4%
Do you suffer from sleep disorder/disturbance in sleep	26.5%	73.5%	26.2%	73.8%	37.1%	62.9%
Are you more likely to maintain a long-term exercise regimen when a group holds you accountable for attendance	61.2%	38.8%	69.0%	31.0%	51.6%	48.4%
Do you suffer from heavy breathing at some time of day	20.4%	79.6%	28.6%	71.4%	17.7%	82.3%
How much quantity of soft drinks you consume daily	51.0%	49.0%	66.7%	33.3%	59.7%	40.3%
Do you believe that supportive counselling can assist in sustaining your obesity healing regimen	69.4%	30.6%	64.3%	35.7%	62.9%	37.1%
Do you believe that supportive counselling is most effective when participants share the same or a similar culture/ age/ gender	83.7%	16.3%	66.7%	33.3%	69.4%	30.6%

Table 1: Details of the responses given by participants

## DISCUSSION

The main objective of this study was to evaluate the perceptions and attitudes of students i.e. Pharmacy, Dental and Medical students about obesity. Study results provide an insight about the perception and attitude of health care students towards obesity. Majority of students agreed that carbohydrate is the main cause of obesity (rice, potato). Other studies also have identified carbohydrates as the major cause of obesity.<sup>7-9</sup> In one study it is reported that replacement of saturated fat with carbohydrate was not significantly associated with a reduced risk of CHD.<sup>10</sup> Another study reported that substitution of saturated fat for carbohydrate results in increases in HDL cholesterol, but not affecting the HDL-cholesterol ratio.<sup>11</sup> This indicates that obesity increased consumption of carbohydrate not only contributes to obesity but secondarily lead to cardiovascular diseases as well. Thus, this myth is demystified now in many studies that not only lipids and fats but also consumption of a high quantity of carbohydrates is equally responsible for cardiovascular diseases. Though majority of students considered themselves not as “over eaters” but have the opinion that restricted physical activity is another factor contributing to obesity. This has been proved in previous studies as well.<sup>12,13</sup> One study reported that weight loss by daily physical activity in men without caloric restriction reduces obesity (particularly abdominal obesity) and insulin resistance. Exercise without weight reduction, reduces abdominal fat and prevents further weight gain.<sup>14</sup> It has been well documented and scientifically proven the fact that regular exercise burns calories and protects a person against the risk of obesity as well cardiovascular diseases. Another ill effect of obesity is depression. It has been shown that obesity leads to depression as well.<sup>15-18</sup> Sleep disorders have been related to obesity and it can be ascertained that psychiatric disorders second to long term obesity lead to sleep disorders.<sup>19,20</sup> In the present study fewer health care students reported of, having any such association. Generally, it is observed that obesity can be overcome with regular daily group exercise and controlled consumption of soft drinks. In the present study majority agreed with the fact that counseling and proper guidance is a must to control obesity.

## CONCLUSION

Presently obesity is global health problem leading to secondary medical diseases like cardiovascular diseases, diabetes, etc. Effort should be directed to educate healthcare students on obesity and there should be standard regimen in professional courses regarding obesity control so that students can have sufficient knowledge regarding same. So that they can utilize it once they pass out to serve the society and nation all of which should lead to welfare and a better-quality life.

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