Prevalence and Dietary Factors Associated with Obesity Among University Female Students.

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Highlights:

- 140 young healthy females were recruited in this study
- 19 percent females were found to be over-weight or obese.
- 20 percent females were found to be underweight.
- Significant Association was found between Dietary Factors and Body Mass Index

Abstract:

There is an intensifying occurrence of obesity in third world countries about 3 times in past two decades as these states are becoming more residential, by means of raised utilization of calorie rich food and by inactive everyday life. According to a number of researches fresher students put on weight more significantly Some of variables were recognized to have been related with obesity among university students.

Objective:

To find the prevalence of obesity in university female students and dietary factors associated with obesity.

Methodology:

One hundred forty asymptomatic females were recruited from different backgrounds and with different education levels in the study. Participants were asked to fill obesity questionnaire which contained demographic data as well as dietary factors and other social factors. Body Mass Index was used to determine the obesity within in the studied sample. Informed consent forms were signed before the questionnaire and participants were made sure of their privacy.

Results:

The mean age of participants were 21.96±3.04 years, mean height 5.7± 4.203 Feet, mean weight 57.67 ± 10.74 kilograms. The results signify that almost 19 percent females were over-weight.

Conclusion:

This study concluded that nineteen percent females were over-weight or obese. There was significant association between Body Mass Index (BMI) and Dietary factors.

Key Words:

Obesity, Dietary Factors, Young Female Adults

Introduction:

Internationally there is an intensifying occurrence of obesity and being overweight in rising as well as under developed nations[1]. In rising countries obesity is becoming more common at about 3 times its pace in past two decades as these states are becoming more residential, by means of raised utilization of calorie rich food and by inactive everyday life[2]. According to a number of researches fresher students put on weight more significantly[3], which keeps on increasing in future at slow rate[4]. Some of these variables were recognized to have been related with obesity among university students. Obesity is main danger for sickness and mortality. Obesity correlated to diabetes, hypertension, hyperlipidemia, obstructive sleep apnea, and osteoarthritis [5] among rise in lifetime anticipation obesity leads to moreover decades of disablement[6] Therefore, the rise expenses of obesity and its consequences will place financial

stress on the authority and human being[7]. In mostly progressing communities, the espousal of westerly way of life, described by reduced physical health and caloric intake.is conducive to an astonishing epidemiologically transformed noticeably by the change in preceding causes of mortality from contagious to non-contagious diseases.[8,9] The acknowledgement of purpose of increased body mass index (BMI) these changes formed a high prerogative for health governments around the world[10.] Sociably, awareness of obesity has altered over time. While once it was linked with fortune and happiness for men and with fitness and reproduction abilities for women. Obesity is now conceived as fitness problem and danger for many diseases.[11] Women the poor and aged people are at high risk of obesity in whole world.[12,13] The Global Burden of Disease 2010 study found that increased BMI was the major risk for impairments adjusted life years in the Kingdom of Saudi Arabia.[14].The keep going national review on heftiness in the KSA and its related hazard factors was led in 2005 as a team with the World Wellbeing Association. From that point forward, no such studies have been directed, making it difficult to decide if the endeavors of the Saudi Service of Wellbeing (SMOH) are influencing corpulence patterns to decide current rates of heftiness and related hazard factors and incessant conditions, the SMOH, in a joint effort with the Establishment for Wellbeing Measurements and Assessment, led a huge family unit overview in 2013.[6] The predominance of weight is related with a few financial and dietary variables. Data on the predominance of corpulence and components impacting it, is fundamental for any wellbeing project to avoid and control stoutness in the network[15] overweight and stoutness have hindering wellbeing results amid adolescence and adulthood.[16] With a specific end goal to design administrations for the arrangement of care and to assess the effect of approach techniques it is critical to screen the commonness of weight.[17] Poor dietary decisions, including high utilization of soda pops, desserts, nibble , take-away foods and substantial nourishment divides have been related with a high BMI in grown-ups, youngsters and youth.[18] Specifically, consistently missing breakfast [19,20] what's more, poor wholesome quality of breakfast [21,22] have both been appeared to be related with higher BMI furthermore, overweight especially among young people furthermore, this pattern increments with age[20,23]. A positive relationship has been discovered between lack of activity (e.g.: time spent looking at television and arise in adiposeness in school-aged children Despite the fact that these investigations feature critical designs, they have not recognized unusual eating dispositions or on the other hand particular practices that may add to and sustain obesity amid the progress from adolescence to adulthood. Musaiger et al found that 20 percent of females included in study were underweight i.e. BMI <20. The frequency of overweight i.e. BMI 25-29.5 within young female students was 19 percent, whereas prevalence of obesity i.e. BMI 30+ was 9.8 percent. These statistics are more than those which were reported in Bahrain for young females of 18-20 years age[24] Musaiger et al stated in his study that students who ate lunch were more likely to be obese than those who don't have lunch at all. He found that in his study there was no considerable association found between snacks and afternoon meals. [15]

Methodology:

It was a cross-sectional study in which one hundred forty asymptomatic females were recruited through convenience sampling technique. Descriptive statistics were calculated by using spss-21. Sample size was calculated by epitool online sample size calculator. Students were from different backgrounds and with different education levels. Mean age of the participants was 21.96 ± 3.046 years. Participants were asked to fill obesity questionnaire which contained demographic data as well as dietary factors and other social factors. Body Mass Index was used to determine the obesity. Informed consent forms were signed before the

questionnaire and participants were made sure of their privacy.

Results:

Results of this study stated that mean age of participants was 21.96±3.046years, mean height of participants was 5.7± 4.203 Feet, mean weight of the participants was 57.67± 10.74 kilograms. The results in Table 1 signify that almost 19 percent females were over-weight or obese. It's of importance to state that 20 percent females were considered underweight. 59 percent of females were found to be normal according to standard Body Mass index scoring.

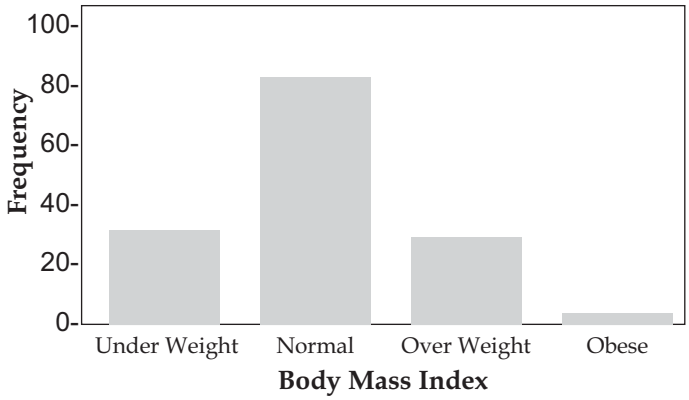

Figure 1: Graphical representation of Table 1

		How often do you skip breakfast?				Total
		Almost Never	Seldom	Usually	Almost Always	
Body Mass Index	Under Weight	7	5	4	13	29
	Normal	38	22	14	9	83
	Over Weight	21	4	0	0	25
	Obese	3	0	0	0	3
Total		69	31	18	22	140

Table 1: Illustration of how often students skip their breakfast.

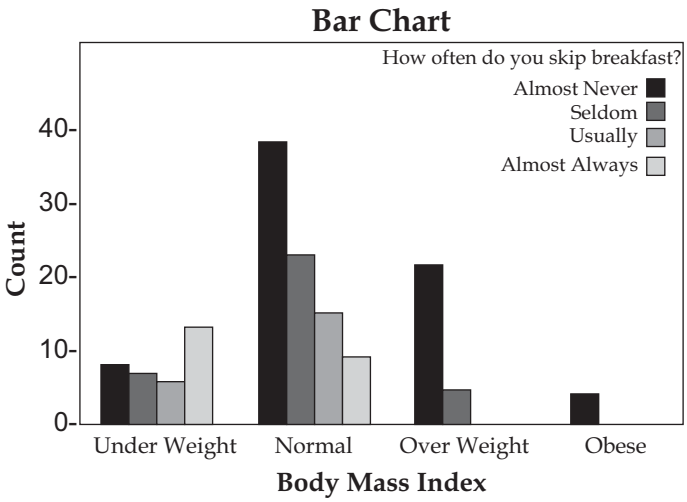

Figure 2: Body Mass Index

		How often do you take light afternoon meal or snacks?				Total
		Almost Never	Seldom	Usually	Almost Always	
Body Mass Index	Under Weight	15	10	1	3	29
	Normal	21	42	45	5	83
	Over Weight	4	2	8	11	25
	Obese	0	0	0	3	3
Total		40	54	24	22	140

Table 2 : Illustration of how often students have light afternoon meals.

Discussion:

This is the first of its kind study on obesity among young female students aged 20-30 years in Lahore. The results signify that almost 19 percent females were over-weight or obese. It's of importance to mention that about 20 percent females were found to be underweight. We can assume that both the under and over-weight are the problems of concern in this age group of females. Arabian and Gulf countries have similar results in their studies[25]. Factors behind the overweight and underweight are not well studied but numerous other studies have found that dietary status is very much influenced by social, financial, ecological factors the chances of being obese were found to be more within females who had a family history of obesity, especially if any of their parents are obese. The eating routines of university students is unusual than other school students either due to their

changed living style or change in their daily timetable. Timetable lasts from 8AM till 5PM and this highly affects the instance snacks and meals consumption. About 18 percent females felt hungry at most usual routine within the meal times and they were obviously obese or overweight. In general university students don't usually skip breakfast and according to the results of this study around 50 percent of females never skipped their breakfast. Preceding studies also state that university students are less likely to skip the breakfast () Large percentage of students who skip their breakfast may lead them to consume heavy meal at the time of lunch and this can cause increased prevalence of obesity among those who eat heavy lunch. However, such assumptions need to be further studied and researched along with factors associating like physical activity, amount of food consumed. According to this study result female students were not very conscious about their eating habits and routine, consumption of fast food and high calorie intake etcetera. We can say that there are many factors which influence obesity like ecological, financial, and dietary factors and there needs to be a multi-sector prevention plan to prevent obesity among female university students. And in the meantime, there is also need to improve the health of underweight female students by considering such programs that improve health status. The most important factor is the counselling of female students about control and prevention of both over and underweight related programs. Students need to understand the importance of healthy diet and risk factors associated with obesity and being malnourished.

Conclusion:

It is concluded from the study that almost nineteen per cent females were obese. There was significant association found between Body Mass Index (BMI) and dietary-factors

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