

# Investigating Knowledge, Attitude and Practices of Under Graduate Students Regarding Obesity, in Peshawar, Pakistan

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## ABSTRACT

**Background:** Throughout all countries, obesity and overweight are the most significant health issues, and they are becoming more and more common. Numerous studies have demonstrated the link of obesity with a wide variety of illnesses, including hyperlipidemia, type 2 diabetes, coronary heart disease, hypertension and breast cancer. In 1300 pupils, this study sought to know about the knowledge, attitude and practices (KAP) of obesity.

**Methods:** In order to conduct a cross-sectional study, measurements of waist circumference, height, hip circumference and weight were taken. FFQ, or 24-hour dietary survey, was completed. In order to evaluate obesity and overweight, BMI were utilized. Data was examined using SPSS 19's statistical tool.

**Results:** The average age of students was 21.5 +/- 2.2, with 850 (65.38%) of all pupils being female. According to BMI, 429 pupils (33%) and 52 pupils (04%) are overweight and obese respectively. Among these overweight and obese students 228 and 42 (53% & 81%) were female respectively.

**Conclusions:** Overweight and obesity rates were substantially higher in female students than in male. The intermediate to high frequency of overweight and obesity among students at Pakistani Institute highlights the significance of over eating, lack of physical activities and substantially little knowledge about dieting and balance diet.

**Keywords:** Obesity, body mass index, Pakistan

## INTRODUCTION

Obesity and overweight are becoming more prevalent globally, across both emerging and industrialized nations (1). Due to their fast urbanization, increased intake of elevated calories foods, acceptance of a much more unhealthy lifestyles, the obesity rate has increased in emerging countries over a period of 20 years (1, 2). According to several research, 1st year college students tend to gain a lot of weight, which is accompanied by a continuous rise in their weight (3). There is a high frequency of obesity and overweight among college students in emerging economies, according to studies: Egypt: 25.3 percent - 59.4 percent, Africa (Nigeria: is 10 percent (3); South Africa: is in between 10.8 percent to 24 percent (4); China: in between 2.9 percent to 14.3 percent (5); Asia (Bangladesh: in between 20.8 percent (6); Thailand: is 31 percent (7), Malaysia: in between 20 percent to 30.1 percent (8), Pakistan: in between 13 percent to 52.6 percent (9); and Iran is at 12.4 percent, Kuwait is at 42 percent, India: 11 percent and Turkey is between 10 percent and 47.4 percent (10). Even though there have been previous studies on overweight/obesity in kids in certain underdeveloped nations, in which research used the methods to gather information from 22 nations (poor, lower middle, upper-class, and advanced countries) across several continents (Asia, Africa, South America and The Caribbean). This enables accurate parallels between nations. This study sought to determine the knowledge, attitude and practices of obesity among students of Pakistan and their associated risk factors.

## METHODS

A total of 1,300 responses were collected by 1,300 students (850 females and 450 male), who were chosen at random, ranged in age from 16 years to 24 years. The research was done in accordance with the guidelines of the Helsinki Declaration. All respondents received their consent to the study's request for personal data. The application of a designed survey to gather demographic data and evaluate the knowledge and perception of obesity. The demographic survey asked on food, weight, height, sleep, income and grade in addition to gender. The analysis

programmed was used to process the data that were obtained from the survey. Statistically data was analyzed by IBM SPSS version 25.

## RESULTS

The study involved 1,300 subjects. Among all the participants 850 (65.38%) were female whilst 450 (34.62%) were male. The KAP response rate for college students' obesity was discovered. Following the Significant chi - square test, it was determined that perhaps the survey's gender distribution revealed that this proportion was significant statistically regarding obesity (P 0.05). About 850 respondents (65.38 percent) of the total 1,300 participants thought overweight was a sickness (Table 1). 441 (33.9 percent) respondents admitted to overeating, 468 (36 percent) students said they had a typical body structure, and 572 (44 percent) of participants desired weight loss to maintain their fitness (Table 2). Approximately 624 (48 percent) of the individuals reported eating frequently during college but inconsistently throughout the holidays. The number of students who eat breakfast regularly was 189 (63 percent). Having three times meals in a day, about 858 (66 percent) of the participants as well as have tea in the noon and snacking midnight occasionally. Approximately 1215 (93 percent) of the individuals said that they did not practice smoking. Out of the total the one half of the individuals claimed of drinking tea off and on during months, about 1014 (78 percent) of the individuals claimed of not having a habit of having green tea. 741 (57 percent) of the individuals claimed of not drinking soda during the previous 30 days, and about 390 (30 percent) of the individuals claimed of eating sweet desserts every week (Table 3). Many of the respondents 988 (76%) don't have a visit to any food restaurants during the past few months. Around 546 (42 percent) reported that their monthly food expenses were between PKR 15000 and 20000 (Table 4). A little over 572 (44 percent) of the people said they frequently made meal choices regarding on health. Furthermore, roughly 494 (38 percent) of the total of respondents said that if they were feeling down, they might consume a large lunch. Sixty five (5 percent) of the total of the individuals refused to eat despite being very hungry, in reality, the

proportion of pupils who infrequently consume fruits and vegetables.

Table 1: Shows the knowledge of the participants regarding obesity

| Variables                              | Questions.               | Number (%) |
|--|--------------------------|------------|
| Perception About Obesity as a Disease? | Yes                      | 871, 67%   |
|  | No                       | 429, 33%   |
| What is the Definition of Obesity?     | By Scientific Calculator | 286, 22%   |
|  | Self-perception          | 780, 60%   |
|  | Other evaluations.       | 234, 18%   |
| How is BMI described according to WHO? | Have solid knowledge     | 156, 12%   |
|  | A bit known              | 546, 42%   |
|  | Not know anything about  | 598, 46%   |

Table 2: Shows the attitude of the undergraduate students regarding obesity

| Question  | Details   | Number + % |
|---|---|------------|
| Picky Eating Habit?                             | Yes   | 442, (34%) |
|   | No  | 858, (66%) |
| Knowledge about your body physic?               | Much  | 260, (20%) |
|   | Rare  | 845, (65%) |
|   | None  | 195, (15%) |
| Perceptions of yours regarding your body shape? | Smart   | 91, (7%)   |
|   | Thin  | 247, (19%) |
|   | Normal  | 468, (36%) |
|   | Fatty   | 429, (33%) |
|   | Much Fatty  | 52, (4%)   |
| Your attitude regarding your weight?            | In my comfort zone, Not care at all.                                    | 143, (11%) |
|   | Maintenance of Weight is necessary                                      | 442, (34%) |
|   | A normal weight helps us ensure good health                             | 572, (44%) |
|   | For being smart, one needs to compromise on weight                      | 39, (3%)   |
|   | Because of my busy schedule, I cannot focus on my weight gain and loss. | 26, (2%)   |
|   | Obesity is a problem but losing weight is too hard.                     | 78, (6%)   |

Table 3: Shows the practices of the students regarding obesity in the previous week.

| Questions   | Details               | Number + Percentages |
|---|-----------------------|----------------------|
| The pattern of Breakfast Per Week?                              | <02Day                | 65, (5%)             |
|   | 02-03Days             | 117, (9%)            |
|   | 03-05Days             | 299, (23%)           |
|   | >05Days               | 819, (63%)           |
|   | No                    | 234, (18%)           |
| Use of sugar included stuff in the past 7 days?                 | Once                  | 403, (31%)           |
|   | 02-06Times            | 442, (34%)           |
|   | Once a day            | 143, (11%)           |
|   | Twice or more per day | 78, (6%)             |
|   | No                    | 1014, (76%)          |
| The ratio of western fast food like KFC, in the previous 7 days | 01day                 | 169, (13%)           |
|   | 02days                | 91, (7%)             |
|   | 03days                | 39, (3%)             |
|   | 04 or above days      | 13, (1%)             |
|   | No                    | 234, (18%)           |
| The ratio of dairy stuff used, in the previous 7 days           | 01day                 | 208, (16%)           |
|   | 02days                | 221, (17%)           |
|   | 03days                | 247, (19%)           |
|   | 04 or above days      | 390, (30%)           |

Table 4: Shows the practices of the students regarding obesity in the previous month

| Question   | Details             | Number + Percentages |
|--|---------------------|----------------------|
| Expenditure per month on food and drink                          | <10,000 pkr         | 52, (4%)             |
|  | 11-15k Pkr          | 507, (39%)           |
|  | 16-20k Pkr          | 546, (42%)           |
|  | 21-30k Pkr          | 169, (13%)           |
|  | >30k pkr            | 26, (2%)             |
| The entertainment you chose in your spare time.                  | Sleeping            | 611, (47%)           |
|  | Reading             | 520, (40%)           |
|  | Shopping            | 754, (58%)           |
|  | Surfing on internet | 533, (41%)           |
|  | Sports              | 364, (28%)           |
| Your selection of food is based on nutritional value?            | Much                | 91, (7%)             |
|  | Often               | 572, (44%)           |
|  | Sometime            | 572, (44%)           |
|  | Non                 | 65, (5%)             |
| When you are not feeling good, did you choose to eat heavy food? | Yes                 | 494, (38%)           |
|  | No                  | 806, (62%)           |

## DISCUSSION

One of the risks to better health is obesity. Compared to the average population, obese people are more open to learning about overweight. Ultimately, our study's findings showed that undergrads know little or nothing about obesity. The majority of respondents had a hazy concept of BMI, which may be partly due to a general low level of awareness about general medicine. The majority of participants were generally inexperienced with the idea of obesity, yet the majority of students understood that it was a condition. To enable college students to apply this understanding to their routines and practice, obesity education must be strengthened. The majority of students in this research had a favorable outlook on weight management. The majority of students said they would be ready to maintain their weight in ability to remain in shape. Nevertheless, their practice did not consistently reflect this mentality. Governments and educational institutions should therefore take the necessary steps to turn this mindset into positive conduct. The stress on the body is increased by erratic dieting (7). For example, fasting consistently on holidays may be detrimental to your gastrointestinal tract (9). According to a South African study's findings, inconsistent weekday skipping breakfast was linked to a higher risk of adolescent obesity and overweight (7). In addition to the typical three meals per day, those who also consume high tea or delayed snacks may be more likely to be obese. Our study's findings revealed that over two - thirds of students think twice before eating meals devoid of nutrients. Consuming sweets can raise blood sugar levels, which may lead to obesity (11). However, university students rarely eat American unhealthy food. But a comparable study in Hyderabad, Pakistan, revealed that a significant number of participants favored fried meals (10, 12). In order to keep their body's Weight at a steady range, participants in the study in Pakistan maintained a normal diet, avoided unhealthy food and sweet, fatty foods, eaten lunch six hours before night, and routinely exercised(13, 14). The behavior scores of participants for various levels of resolution were substantially correlated with understanding of preventing obesity. One interesting finding from our poll was the amount of pupils who claimed they might eat a large dinner to lift their spirits but who did not think to consider that doing so would result in weight gain (15). According to a different study, the government must promote healthy physical exercise habits to alter the family's outlook and way of life in order to avoid and treat issues like obesity in children. Contrary to what was said above, the results of this study showed that there was no significant relationship between BMI and educational attainment among college individuals with limited academic backgrounds (Significantly (  $p < 0.05$ )(16, 17). Numerous recent studies have confirmed a tenuous link between sleep duration and weight. However, there was no statistically significant link between daytime sleepiness and obesity in the original study 347 participants who slept 8 hours on weekends and 833 participants who slept less ( $P < .001$ )(18). As per a cross sectional survey performed at a general clinic in the United States that evaluated 513 people, comprising 168 obese and 194 overweight individuals, it was discovered that low education levels were significantly linked to obesity in children below the age of 30. The findings also indicate that a lack of pertinent knowledge is a health risk for young women's epidemic of obesity. Formal schooling might be significant for preserving a healthy body weight. Volunteers from Chinese national Twin Register (CNTR) included 10,448 sets of twins between the age group of 20 and 7(19, 20). The researchers' regression analysis revealed a relationship across both genders' educational focus and family status with obesity and overweight. In contrast to men, who had a greater risk of BMI, obesity and overweight, women had no relationship between educational status and BMI. First and foremost, some individuals need to kick the habit of snacking if they want to reduce the BMI score of university students. Regular eating can result in erratic eating habits, which makes it difficult for university students to keep the body healthy. Second, persons who frequently enjoy greasy meals without getting enough exercise will see a rapid rise

in their body fat level. Thirdly, some college kids need to break the habit of consuming unhealthy food and puffy food; in those other words, they need to focus on their diet's health.

## CONCLUSION

In the future, the KAP for obesity amongst college students needs to be strengthened. The majority of respondents were in favors of reducing obesity by emphasizing exercise and diets. The results of this research, however, indicated that more work has to be done to put constructive attitudes into practice. Consequently, this issue among students needs to receive more consideration from government agencies and educational institutions.

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