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Evaluation of Various Factors Associated with Morbidity Among the Students of Different Universities of District Shaheed Benazirabad

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Bahadur Ali [*] Imran Ahmed [†] Attiq ur Rehman [‡]

Corresponding Author: Bahadur Ali (Assistant Professor, Institute of Physiotherapy and Rehabilitation Sciences, Peoples University of Medical and Health Sciences for Women, Shaheed Benazirabad. Sindh, Pakistan.
Email: bahadurmamgi@gmail.com

Abstract: This cross-sectional study aimed to assess the prevalence of obesity, physical inactivity, and dietary habits among 300 university students in Shaheed Benazirabad, with half from the medical field. Data collected via a specific questionnaire and analyzed using SPSS version 25 revealed that 55.33% of medical students and 62% of non-medical students were inactive, while 34.66% of medical students and 28% of non-medical students were minimally inactive. Obesity rates were 8% among medical students and 4.66% among non-medical students, with 18.66% of medical students and 11.33% of non-medical students classified as overweight. The study concluded that university students in Shaheed Benazirabad exhibit a high prevalence of overweight/obesity and a sedentary lifestyle, particularly among females. Recommendations include promoting physical activity and healthier dietary habits among university students to address these concerns.

Key Words: Obesity, Physical Activity, Dietary Habits, Medical Students, Non-medical Students

Introduction

Obesity was considered a global epidemic condition by the World Health Organization (WHO) in 1997, and it was considered a disease by the American Medical Association in 2013. Obesity is defined as the accumulation of excessive fat that disturbs health. The body mass index, or BMI, can be calculated as a percentage of the weight in kilograms and height in meters square. Globally the ratio of frequency of obesity is increasing among adults and children. According to (1) by the end of 2030, the frequency of obesity and overweight will be increased by 2.16 billion. The major factors for obesity included faulty diet, genetic predisposition, and physical activity and behavioural factors. Lack of exercise is

[*] Assistant Professor, Institute of Physiotherapy and Rehabilitation Sciences, Peoples University of Medical and Health Sciences for Women, Shaheed Benazirabad. Sindh, Pakistan. Email: bahadurmamgi@gmail.com *(Corresponding Author)*
[†] Assistant Professor, Institute of Physiotherapy and Rehabilitation Sciences, Peoples University of Medical and Health Sciences for Women, Shaheed Benazirabad, Sindh, Pakistan.
[‡] Assistant Professor, Institute of Physiotherapy and Rehabilitation Sciences, Peoples University of Medical and Health Sciences for Women, Shaheed Benazirabad, Sindh, Pakistan.

considered as 4th leading cause of global mortality and the development of communicable diseases such as diabetes mellitus, and heart attack. An estimated 3.2 million people die globally due to physical inactivity. Overweight and obesity may be induced due to a lack of physical activities. Coronary artery disease, elevated cholesterol levels, and high blood pressure are linked and stroke is a serious condition that can lead to obesity. A number of people died from non-communicable diseases and this burden can be reduced by adaptation of physical activeness. The elevated incidence of lack of exercise among undergraduates was primarily studied in nations with high incomes. High workload and less free time may lead to low physical activity levels among students according to evidence. (2) Around the world one out of five adults is physically inactive. (3) Many health implications present in the transition of young people from school to university. (4) In the US literature critical period for university students is weight gain. (5) According to the author at this time food choices and practices respectively increased. The health and well-being of university students are influenced by various factors, including lifestyle habits, physical activity levels, and dietary practices. Understanding these factors is crucial for developing interventions to improve students' health and reduce morbidity rates. The purpose of this study was to determine the incidence of being overweight, lack of physical activity, as well as eating habits between medical and non-medical learners in Shaheed Benazirabad. Morbidity rates among university students are of particular concern due to their potential impact on academic performance and long-term health outcomes. Previous research has shown sedentary lifestyle and impoverished dietary habits contribute to the growth of persistent illnesses such as diabetes overweight and cardiovascular diseases. By assessing these factors among students in Shaheed Benazirabad, this study seeks to provide valuable insights into the health status of this population and inform future interventions aimed at promoting healthier lifestyles. Understanding the factors associated with morbidity among university students can help develop targeted strategies to improve their health and well-being. (6) Secondary school to university students have met to adapt to a new environment during their transition period. (7) In many European countries surveys on eating behaviours have been conducted in young people and adolescents. The effect of health behaviours and subsequent weight status, when students fail to adapt adequately, could have negative consequences regarding health. The important factors influencing students' weight are eating behaviour next to physical activity and sedentary behaviours. (8) The students according to US universities were not eating the recommended amount of fruit and vegetables and were consuming increasing amounts of high-fat food. Health behaviour may not only occur during the years of university students. But it may remain throughout adulthood as well according to (9) According to US literature, many intrinsic (like your food tastes) and external (such as health consciousness, guilt) drives, self-control, and patience, as well as time administration have influencing the eating behaviour in university students. The health and well-being of university students are of paramount importance, as they not only affect academic performance but also have long-term implications for overall health. Studies have shown that university students often face challenges in maintaining healthy lifestyle habits, including physical activity and dietary choices, which can impact their morbidity rates.

Shaheed Benazirabad, like many other regions, is witnessing an increase in the prevalence of obesity and related health issues among its population. University students, in particular, represent a vulnerable group due to the significant lifestyle changes associated with higher education. Factors such as increased academic pressure, irregular schedules, and easy access to fast food can contribute to unhealthy habits among students. Recognizing the high incidence of being overweight, sedentary

behaviour levels, and food choices among undergraduates in Shaheed Benazirabad is critical for developing operational health promotion strategies. The present research aims to address the void by evaluating these variables between healthcare and non-medical learners in different universities of the district. By identifying the factors associated with morbidity in this population, we can develop targeted interventions to promote healthier lifestyles and reduce the burden of chronic diseases. According to the study of (10) Prior to higher education, pupils had a higher level of autonomy as well as accountability for food and meal preparation, and they thought more stable in their conduct. Food consumption is significantly difference between men and women. (11) Furthermore, across all four countries frequent consumption of snakes is more in men than women, and the same result supports the male university students from France that men have a higher mean number of daily snakes than women. According to (12)**,** fruit nutritional habits are better in females than males (were more likely to report eating fruits/vegetables), and women behaved 'healthier' than men in terms of fruit consumption. The study of (13) In Karachi, according to her BMI those who are pure vegetarian those who consumed lots of fruits and vegetables and those who exercised regularly BMI was significantly different. That shows the importance of a low-fat diet and physical activity in reducing obesity.

Methodology

From December 2021 to June 2022, a 6-month longitudinal investigation was conducted at three different universities of district Shaheed Benazirabad. The sample collection was performed through convenience sampling techniques from 300 participants, half of them belonged to the medical field whereas the rest were from the non-medical field. All the participants were properly guided regarding the proper filling of the questionnaire. The data was analyzed through SPSS version 25.

Results

Results were finalized after the collection of data from all participants. 150 participants were related to the medical field and belonged to the Indigenous Peoples University of Medical and Health Sciences for Women, (PUMHSW) SBA, 64 students from Quaid-e-Awam University of Engineering, Sciences, and Technology, (QUEST) Nawabshah, and 86 participants from the Shaheed Benazir Bhutto University, Shaheed Benazirabad and the demographic data was described as under.

FACTORS	NUMBER	FREQUENCY
	GENDER	
MALE	114	38%
FEMALE	186	62%
	UNIVERSITIES	
PUMHSW	150	50%
QUEST	64	21.33%
SBBU	86	28.66%
	AGE GROUP	
18-24	113	37.66%
25-31	92	30.66%
32-38	63	21%
39-45	32	10.66%
	LOCALITY	
RURAL	204	68%
URBAN	96	32%

Table 01

Distribution of study participants as per various factors

GROUP	HEPA ACTIVE	INACTIVE	MINIMALLY ACTIVE
MEDICAL	10 %	55.33 %	34.66 %
NON-MEDICAL	10 %	62 %	28 %

Table 01 provides the distribution of study participants according to various factors, including gender, universities, age group, and locality. The majority of participants were female (62%), from the P.U.M.H.S.W (50%), and from rural areas (68%).

Table 02

Activeness of Participants in both medical and non-medical fields

MENSTRUATION CYCLE GROUP	YES	NO
MEDICAL	52.63 %	47.36 %
NON-MEDICAL	97.5 %	2.5 %
PILLS		
MEDICAL	10 %	90 %
NON-MEDICAL	52.17 %	47.82 %

Table 02 shows the level of physical activity among medical and Participants who were not medical professionals. The two categories had a similar proportion of participation classified as physically active (10%) and inactive (55.33% for medical students, 62% for non-medical students), with a higher percentage of minimally active participants in the non-medical group (28% vs. 34.66% in the medical group).

Table 03

Menstruation cycle & pill habits of medical and non-medical participants

BMI GROUP	MEAN	SD
MEDICAL	22.03	4.25
NON-MEDICAL	21.11	3.88

Table 03 presents the menstruation cycle and pill habits of medical and non-medical participants. A higher percentage of non-medical participants reported having a regular menstruation cycle (97.5% vs. 52.63% for medical participants) and using pills (52.17% vs. 10% for medical participants).

Table 04

BMI report of all participants

GROUP	NORMAL	OBESITY	OVERWEIGHT	UNDERWEIGHT
MEDICAL	53.33%	7.33%	18.66%	20.66%
NON-MEDICAL	58%	4.66%	11.33%	26%

Table 04 shows the average and the SD of the Body Mass Index, or BMI, for both healthcare and non-medical attendees. The group with medical care had a slightly greater mean BMI (22.03) than the non-medicine group (21.11).

Obesity of all participants

Shows the distribution of participants based on their BMI categories. The majority of participants in both groups were classified as normal weight (53.33% for medical students, 58% for non-medical students), with a small percentage classified as obese or overweight. These tables provide valuable insights into the demographic characteristics, physical activity levels, and BMI status of medical and non-medical students in Shaheed Benazirabad. Understanding these variables is critical to creating specific strategies that enhance the physical and mental well-being of university students in the surrounding area.

Discussion

In this section, the results were compared with a number of other studies conducted in different parts of the world. The prevalence of obesity between medical as well as non-medical students in this investigation is consistence with various examinations led broadly and around the world. In our investigation mean BMI in medical students was 22.03 ± 4.25 kg m-2, and in non-medical were21.11 ± 3.88which quite low in comparison to the result of a study conducted in the University of Kentucky which demonstrates the commonness of mean BMI was 31.74±4.6. (14). The BMI of members in this examination extended from being arranged as overweight to obese.

Age is another non-modifiable factor which impacts people's susceptibility to weight gain and the development of obesity. The mean age of medical students was 20.79 ± 1.75, and in non-medical students 20.13 ± 2.51 in this investigation there was no connection between obesity and the age of students, which may be because of a smaller number of members in specific age assembles prompted under-representation. The products of the vegetable utilization were around half (59.4 and 51.2%, individually) of the suggested sum. The outcomes likewise support past research that found college students' normal day-by-day admission of foods grown from the ground was well underneath proposals for both men and women. (4) Excess food utilization impacts immature weight gain and results in overweight and obese. Sugar in the type of snacks was for the most part consumed by the members in this study. The findings of a comparable examination completed by author *Hales et al., 2017* in Chicago among African-American youths were conversely with the findings in this investigation on the grounds that about 75% of the youth in Chicago contemplate consuming snacks at least three times each day. (6) The findings in this investigation clearly outline that snack utilization among young people is step by step on the expansion. *Rimm et al., 2014* The questionnaire provides information on the frequency of objective overeating, self-inflicted vomiting, laxative abuse, excessive physical activity, and restricted diets. The mean utilization of fat and oil by the respondents was low and this was conversely with the investigation led by the author on dietary assorted variety scores among undergraduate students in western Nigeria, the fat and oil utilization was high contrasted with the suggested allowance. (7) Be that as it may, intervention thinks about dietary utilization design and nutritional status of youths has appeared dietary utilization which involves between 10-15 % of fat has a positive relationship in keeping up perfect load among the young people. (9)

Physical activity involvement has been affirmed to be advantageous to human physiology since it enhances the oxygen maintenance limit of the lungs and blood flow. The World Health Association (WHO) has prescribed moderated energetic physical activity practised for kids and youths every day to lessen stationary ways of life

All inclusive, 81% of youths matured According to WHO, 11-17 year olds were insufficiently actually dynamic in 2010. Juvenile young women were less energetic than undeveloped young men, with 84% against 78% failing to meet who suggestions. Several

examinations have indicated a converse connection between the dimension of physical activity and overweight and obesity. (15) It is outstanding that physical activity assumes a defensive job against weight, controlling the capacity, and distribution furthermore, the use of calories, prompts a rise in everyday energy use and advances fat oxidation to expand bulk and decline fat mass. In general, it is notable that, Low levels of exercise, inactive routines, high carbohydrate and protein intake, low fiber consumption, and continual snacking all help to the substantial incidence of overweight and obesity. (16)

Conclusion

The objective of this investigation was to identify the causes of obesity, physical activity & dietary habits among medical and non-medical students in Shaheed Benazirabad. Various studies have demonstrated that overweight/ obesity is main fifth leading risk factor for global death and due to the result of overweight/ obese at least 2-8 million adults die each year. Lack of exercise is the fourth resulting risk factor for deaths worldwide and in the development of various non-communicable diseases causing estimated deaths worldwide. (18) The study development was described and a cross-section. The results of this study showed that, out of the 300 participants, medical students, 53.33% were classified as normal, non-medical students 58%, 7.33% as obese medical, 4.66% in non-medical students,18.66% as overweight in medical, 11.33% in non-medical students and 20.66% as underweight in medical and 26% in non-medical students. The mean BMI in medical students were 22.03 ± 4.25 kg m-2, and in non-medical students were 21.11 ± 3.88. Almost all results of obesity, physical activity and dietary habits were similar in both groups. (20)

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