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# Eating Habits and Obesity among Nursing Students of Riyadh Elm University

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**Abstract**

**Background:** Obesity is a major public health problem globally and is increasingly prevalent in Saudi society due to rapid changes in food consumption and lifestyle patterns. It is a leading cause of mortality and increases the risk of developing numerous physical and mental diseases.

**Aim:** This study aimed to identify patterns of eating habits and the prevalence of overweight and obesity among undergraduate nursing students.

**Methods:** A quantitative, cross-sectional design was utilized. The study targeted male and female nursing students from the third and fourth years at Riyadh Elm University. Data were collected via an online questionnaire assessing socio-demographic characteristics, dietary habits, and anthropometric measurements, specifically Body Mass Index (BMI). Statistical analysis was conducted using SPSS version 20.0, employing Pearson's chi-square test with a significance level set at $p = 0.05$.

**Results:** The analyzed sample comprised 215 participants, consisting of 54.9% females and 45.1% males. The BMI distribution revealed that 34.4% of participants had a normal weight, 27.0% were overweight, 20.0% were obese, and 18.6% were underweight. The study found significant relationships between obesity and several lifestyle factors, including: Taking meals regularly ($p$=0.023). Eating breakfast ($p$=0.011). Eating green, red, or yellow-colored vegetables ($p$=0.004). Eating fruits ($p$=0.008). Eating fried food ($p$=0.005). Exercising regularly ($p$=0.00). Drinking sweetened sugar beverages ($p$=0.001). Conversely, no significant relationships were found regarding the frequency of taking snacks from regular meals ($p$=0.839) or eating with friends and family ($p$=0.631).

**Conclusion:** There is a strong and significant relationship between specific dietary habits, physical activity levels, and the prevalence of obesity among nursing students. Based on these results, it is recommended to provide detailed nutrition education programs within nursing curricula, offer healthy eating workshops, and actively encourage physical activity through accessible campus facilities.

**Keywords:** Eating Habits**,** Obesity, Nursing Students, Body Mass Index (BMI), Overweight

## Introduction

Obesity is a major public health problem in various communities in the world. Its prevalence is increasing in many developing countries and in both adults and children. It is considered to be the fifth cause of mortality worldwide. Overall, central obesity as a risk factor for many diseases including type 2 diabetes, cardiovascular diseases (CVD), depression digestive disorders and cancer. Therefore, obesity is one of the most serious health problems of the 21st century and it is believed to be a nutritional disorder (Jahangeer *et al*., 2010) [3].

Where it caused the death of 3.4 million and obese person spend approximately 30% on medical care compared with a normal person. Obesity is a result of the interaction between genetic factors with environmental factors. Such as high caloric dietary intake, low physical activity (Gregory & Donald, 2016) [2]. However, the primary cause of obesity is imbalance between energy intake and energy expenditure.

Obesity increases the risk of developing many physical and mental diseases. The spread of such diseases can be observed in metabolic syndrome, which represents a combination of disorders that include: diabetes (type 2), high blood pressure, high blood cholesterol, and high triglyceride levels. In addition, cancer and non-alcoholic fatty liver diseases increase the possibility of exposure to infections and blood clotting. Excess body fat also changes the body's response to insulin (insulin resistance) (Marei, *et al*., 2020) [5].

Chronic diseases related to nutrition have become the main causes of death in most Arab countries, and obesity is one of the most important of these diseases, due largely to the rapid change in food consumption and lifestyle patterns. There is no doubt that the food pattern previously provided has changed in Saudi society. The economic abundance witnessed by the Kingdom during the past two decades has led to major changes in the social situation and what it included in terms of changes in the family's nutritional habits and consumption patterns. The tendency of women to work has led to a significant increase in reliance on ready-made foods and fast food, with the multiplicity of food resources and purchasing power, and also reliance on domestic workers. Many Saudis have relied on a life of comfort and luxury, as a result of the high standard of living, amenities, not doing daily housework, and relying on servants for every small and big thing, as well as sitting for hours in front of the TV, eating snacks and fried foods, and not allocating a specific time for exercise, which has contributed greatly to the spread of chronic diseases in society, especially obesity. Obesity can be considered a large storehouse for a wide range of diseases and some pathological disorders. It has been found that obesity increases the risk of early death, especially when accompanied by diabetes, high blood pressure, or high blood cholesterol (Eldeeb, 2019) [6].

The General Authority for Statistics reported that the prevalence of obesity among the Kingdom's adult population is 23.7%, and that this percentage is similar among men and women, while the percentage of people with ideal weight is greater among women, 39.6%, compared to men, 29.5% (Spa, 2023) [7].

This study concerns about the contradictory results about the relationship between eating habits and obesity. Therefore, the purpose of this study questions is to identify the prevalence of obesity among students and analyses the relationship between obesity and eating habits.

**Aims**

This study aimed to identify patterns of eating habits and the prevalence of overweight and obesity among undergraduate nursing students at Riyadh Elm University. Specifically, this study sought to answer the following research objective:

- To identify the demographic characteristics of the study sample.
- To determine the prevalence of obesity among nursing students.
- To assess the eating habits of undergraduate nursing students.

**Hypothesis**

There is no significant relationship between eating habits and obesity among nursing students.

**Research Methodology**

**Research Design**

This research utilized a quantitative type of research. A cross-sectional design was used to assess the prevalence of overweight and obesity among undergraduate nursing students at Riyadh Elm University.

**Study Subjects**

The subject of the study consists of 200 male and female nursing students from the third and fourth years at Riyadh Elm University in the Riyadh region of Saudi Arabia.

**Sample selection and Size**

The convenience sampling technique was used in selecting the study sample. Sample size was calculated using Slovin formula.

The formula is described as: Sample Size N/(1+Ne2), whereas N = population size surveyed, e margin of error, 240/(1+240*0.042)=240/(1+240* 0.0016), 240/(1+0.384}=240/(1.384) 173.41. So, the sample size was rounded to the near maximum 200. A number of 200 nursing students will serve as the total sample of the study. For the eligibility:

The Inclusion criteria include: (1) Any gender, (2) Nursing Students-Year 1, 2, 3 should register in ELM university, (4) nursing students age between 18-25. Exclusion criteria include: (1) Chronic diseases (DM, Endocrine diseases) and long term of oral medication affecting body weight. (2) Unwillingness to participate in the study.

**Measuring Instrument to the Variables**

Data are retrieved through an automatically administered questionnaire in Arabic/English to mask the socio-demographic characteristics and dietary habits of the students. The investigator obtains anthropometric measures.

1. Socio-demographic data: (such as land, gender, place of residence, and family income).
2. Questions on dietary habits: It includes different questions on dietary habits. The isolated students are the ones who complete a questionnaire about their dietary habits, alcohol and tobacco consumption. The accountant is adopted by a studio previously published by the standardized authors who use it among undergraduate students.
3. Anthropometric measurements: Each student administers his/her peso, height, and IMC. The body index (IMC) is used to assess the status of the students. Based on the guidelines approved by the National Institutes of Health, the peso status is classified into four categories: under-peso (IMC ≥ 18.5), normal peso (IMC between 18.5 and 24.9), superpeso (IMC between 25 and 29.9) and superpeso. (IMC ≥ 30). The normal range for body weight has been considered to be: 10 to 20% for men and 20 to 30% for women. The instrument is valid and reliable, until it is confirmed that it is reliable and accurate, it can be used later to continue collecting investigator information.

**Data Collection Procedure**

After ethical approval, a detailed explanation about the purpose of this study was discussed by the researchers to the study subjects. Since the nursing students were the respondents of the study, obtaining their willingness to participate in this study were sought by the researchers. The research questionnaires were distributed by the researchers to the study subjects via google survey link. The instruction in answering the instrument was given clearly; then, it was tallied, and analyzed by the researchers. The data collection procedure took one month.

**Ethical Consideration**

This study was conducted upon the approval of Institutional review Board (IRB) of Riyadh Elm University. All the necessary official permissions were obtained before data collection. They were assured that no harm is expected to occur in the study. Anonymity was maintained by asking the

nursing students to avoid providing their names in the research questionnaire. After a comprehensive explanation on the aims of the study, a voluntary consent was sought from the study subjects. The researchers sought permission before the conduct of this study. Data gathered were treated with confidentiality. They were also assured of the anonymity and full confidentiality of their data.

**Statistical Analysis Method**

The retrieved data were encrypted, protected by a violation and stored in a secure location. Only the primary investigator has access to the data. The collected data are first entered into a Microsoft Excel archive and transferred to SPSS for subsequent analysis. Report the median ± DE for continuous variables such as time, while for categorical variables such as gender, describe the mean frequencies and proportions. The Chi- square test was used to compare categorical variables such as gender. A significant value of $p < 0.05$ is considered. The collected data were tallied and tabularize into tables. It was checked for error and completeness. To analyze the demographic profile of the study subjects, frequency, and percentage were used.

**Statistical Design**

The data collected in an anonymous format are used and analyzed through SPSS version 20.0 to achieve statistical analysis. For continuous variables, frequencies and proportions are changed, for categorical variables, means and standard deviations are changed. The data are resumed using descriptive statistics: quantitative data such as means and standard deviations and qualitative data such as frequencies and proportions. You can explore the significance of differences statistics using the Chi-Cuadrado test. Data analysis is performed using SPSS version 20.0 (IBM Corp). Pearson's chi-square test is used. The significance level is set at $p = 0.05$ and all tests are two-sided.

**Findings**

This section provides the results of the study after data analyses which are presented in table and graphical forms. This answers to the objectives of this study.

**Table 1:** Frequency Distribution of the Demographic Characteristics of the Study Sample (N=215)

| Variable | Categories | Frequency (n) | Percentage (%) |
|---|---|---|---|
| Age | 19-24 years old | 83 | 38.6 |
| | 25-29 years old | 39 | 18.1 |
| | Above 30 years old | 93 | 43.3 |
| Gender | Male | 97 | 45.1 |
| | Female | 118 | 54.9 |
| Family Income | Less than 10,000 SAR | 73 | 34.0 |
| | 10,001 to 20,000 SAR | 78 | 36.3 |
| | More than 20,0001 SAR | 64 | 29.8 |
| Residency | Alone | 23 | 10.7 |
| | With family | 192 | 89.3 |

The table 1 shows the demographic characteristics of students who participated on this study. From the above table, it is observed that (54.9%) of the participants are females, and (45.1%) of the participants are males. In terms of age, there were (43.3 %) of the participants aged above 30 years old, (38.6 %) of the participants aged between 19 and 24 years old, and (18.1%) of the participants aged 25 to 29 years old. As family income, (36.3%) of the participants their family income is 10,001 to 20,000 SAR, (34%) of the participants their family income is Less than 10,000 SAR, and (29.8%) of the participants their family income is More than 20,0001 SAR and for the residency, there were (89.3%) of the participants residence with family, and (10.7%) of the participants residence alone.

**Table 2:** The Total Anthropometric Data of the Study Sample (N-215)

| Anthropometric Data | Mean | Standard Deviation |
|---|---|---|
| Weight | 74.151 | 21.813 |
| Height | 162.278 | 18.393 |

The table 2 shows the anthropometric data of the total study sample. Based on the results, the weight of the participants with mean (74.1512) and standard deviation (21.81393), and the height of the participants with mean (162.2786) and standard deviation (18.39399). In sum, the observed variation with respect to weight and height delineate differences in BMI among the students underscoring the importance of assessing dietary behaviors and lifestyle factors affecting the nutritional status and obesity risk. These results are essential serving as baseline in understanding the eating habits and obesity outcomes.

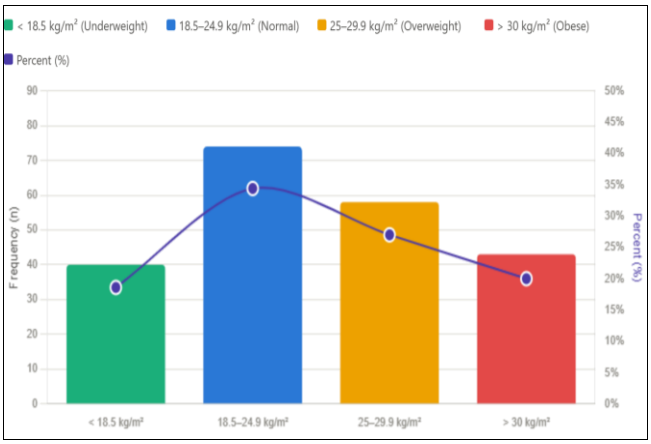


**Fig 1:** Overall, Body Mass Index of the Study Sample (N-215)

From the above graph, it can be seen that there were (34.4%) of the participants with BMI from 18.5 to 24.9 kg/m$^2$, (27%) of the participants with BMI from 25 to 29.9 kg/m$^2$, (20%) of the participants with BMI more than 30 kg/m$^2$, (18.6%) of the participants with BMI Less than 18.5 kg/m$^2$.

**Table 3:** Dietary behavior & Eating Habits of the Participants (N-215)

| Variable | Category | Frequency (n) | Percentage (%) |
|---|---|---|---|
| Do you take your meals regularly? | Always regular | 69 | 32.1 |
| | Irregular | 146 | 67.9 |
| Do you take the breakfast? | Daily | 81 | 37.7 |
| | Three or four times per week | 57 | 26.5 |
| | Once or twice per week | 36 | 16.7 |
| | Rarely | 41 | 19.1 |
| How many times do you eat meals except snacks? | One time | 44 | 20.5 |
| | Two times | 132 | 61.4 |
| | Three times | 32 | 14.9 |
| | Four times | 7 | 3.3 |
| How often do you take snacks from regular meals? | Daily | 65 | 30.2 |
| | Three or four times per week | 49 | 22.8 |
| | Once or twice per week | 46 | 21.4 |
| | Rarely | 55 | 25.6 |
| How often do you eat green-, red- or yellow-coloured vegetables? | Daily | 36 | 16.7 |
| | Three or four times per week | 33 | 15.3 |
| | Once or twice per week | 54 | 25.1 |
| | Rarely | 92 | 42.8 |
| How often do you eat fruits? | Daily | 24 | 11.2 |
| | Three or four times per week | 36 | 16.7 |
| | Once or twice per week | 77 | 35.8 |
| | Rarely | 78 | 36.3 |
| How often do you eat fried food? | Daily | 111 | 51.6 |
| | Three or four times per week | 45 | 20.9 |
| | Once or twice per week | 38 | 17.7 |
| | Rarely | 21 | 9.8 |
| How often do you eat with friends and family? | Daily | 30 | 14.0 |
| | Three or four times per week | 52 | 24.2 |
| | Once or twice per week | 81 | 37.7 |
| | Rarely | 52 | 24.2 |
| How often do you exercise regularly | Never | 66 | 30.7 |
| | Less than 1 hour per week | 64 | 29.8 |
| | 1 to 2 hours per week | 56 | 26.0 |
| | Daily | 29 | 13.5 |
| How often do you drink sweetened sugar beverages? | Never | 36 | 16.7 |
| | On or two servings a week | 74 | 34.4 |
| | Three or six servings a week | 50 | 23.3 |
| | Every day | 55 | 25.6 |
| What type of food do you think you should eat to have balanced nutrition? | Mainly meat | 23 | 10.7 |
| | Mainly vegetables | 49 | 22.8 |
| | Meat, veg and other variety of foods | 128 | 59.5 |
| | Others | 15 | 7.0 |

The table 3 illustrates the behaviors and attitudes towards the use of herbs and medical drugs. Based on the results, it can be observed that (67.9%) of the participants take their meals irregularly, and (32.1%) of the participants Always take their meals regularly (37.7%) of the participants daily take their breakfast, (26.5%) of the participants take their breakfast Three or four times per week, (16.7%) of the participants take their breakfast Once or twice per week (61.4%) of the participants eat meals except snacks Two times, (20.5%) of the participants eat meals except snacks One time,(14.9%) of the participants eat meals except snacks Three times (30.2%) of the participants daily take snacks from regular meals, (22.8%) of the participants take snacks from regular meals Three or four times per week, (25.6%) of the participants rarely take snacks from regular meals (42.8%) of the participants rarely eat green-, red- or yellow-colored vegetables, (25.1%) of the participants eat green-, red- or yellow-colored vegetables Once or twice per week, and, (16.7%) of the participants Daily eat green-, red- or yellow-colored vegetables (36.3%) of the participants rarely eat fruits, and (35.8%) of the participants eat fruits Once or twice per week (51.6%) of the participants daily eat fried food, (20.9%) of the participants eat fried food Three or four times per week, and (17.7%) of the participants eat fried food Once or twice per week (37.7%) of the participants eat with friends and family Once or twice per week, and (24.2%) of the participants rarely eat with friends and family (30.7%) of the participants never do exercise, and (29.8%) of the participants do exercise Less than 1 hour per week (34.4%) of the participants drink sweetened sugar beverages One or two servings a week, (25.6%) of the participants drink sweetened sugar beverages every day, and (23.3%) of the participants drink sweetened sugar beverages Three or six servings a week. (59.5%) of the participants think that they should eat Meat, veg and other variety of foods to have balanced nutrition, (22.8%) of the participants think that they should eat Mainly vegetables to have balanced nutrition.

**Table 4:** Significant Relationship between Eating Habits and Obesity among Nursing Students

| Variable | Category | Body Mass Index (BMI) | | | | Chi-Square | p-value |
|---|---|---|---|---|---|---|---|
| | | Less than 18.5 kg/m2 | 18.5 to 24.9 kg/m2 | 25 to 29.9 kg/m2 | More than 30 kg/m2 | | |
| Do you take your meals regularly? | Always regular | 8 | 33 | 18 | 10 | 9.562 | 0.023 |
| | Irregular | 32 | 41 | 40 | 33 | | |
| Do you take the breakfast? | Daily | 9 | 36 | 22 | 14 | 12.656 | 0.011 |
| | Three or four times per week | 11 | 20 | 17 | 9 | | |
| | Once or twice per week | 9 | 9 | 8 | 10 | | |
| | Rarely | 11 | 9 | 11 | 10 | | |
| How many times do you eat meals except snacks? | One time | 9 | 18 | 6 | 11 | 8.397 | 0.495 |
| | Two times | 26 | 44 | 37 | 25 | | |
| | Three times | 4 | 11 | 12 | 5 | | |
| | Four times | 1 | 1 | 3 | 2 | | |
| How often do you take snacks from regular meals? | Daily | 16 | 21 | 14 | 14 | 4.948 | 0.839 |
| | Three or four times per week | 5 | 19 | 15 | 10 | | |
| | Once or twice per week | 8 | 15 | 14 | 9 | | |
| | Rarely | 11 | 19 | 15 | 10 | | |
| How often do you eat green-, red- or yellow-colored vegetables? | Daily | 10 | 7 | 9 | 10 | 11.148 | 0.004 |
| | Three or four times per week | 7 | 11 | 9 | 6 | | |
| | Once or twice per week | 6 | 20 | 15 | 13 | | |
| | Rarely | 17 | 36 | 25 | 14 | | |
| How often do you eat fruits? | Daily | 5 | 9 | 7 | 3 | 10.554 | .008 |
| | Three or four times per week | 7 | 15 | 7 | 7 | | |
| | Once or twice per week | 11 | 21 | 25 | 20 | | |
| | Rarely | 17 | 29 | 19 | 13 | | |
| How often do you eat fried food? | Daily | 23 | 43 | 25 | 20 | 10.863 | 0.005 |
| | Three or four times per week | 7 | 14 | 18 | 6 | | |
| | Once or twice per week | 6 | 9 | 11 | 12 | | |
| | Rarely | 4 | 8 | 4 | 5 | | |
| How often do you eat with friends and family? | Daily | 6 | 7 | 8 | 9 | 7.060 | 0.631 |
| | Three or four times per week | 13 | 19 | 12 | 8 | | |
| | Once or twice per week | 13 | 26 | 25 | 17 | | |
| | Rarely | 8 | 22 | 13 | 9 | | |
| How often do you exercise regularly | Never | 9 | 23 | 17 | 17 | 17.753 | 0.00 |
| | Less than 1 hour per week | 15 | 18 | 19 | 12 | | |
| | 1 to 2 hours per week | 13 | 22 | 12 | 9 | | |
| | Daily | 3 | 11 | 10 | 5 | | |
| How often do you drink sweetened sugar beverages? | Never | 2 | 16 | 9 | 9 | 13.838 | 0.001 |
| | On or two servings a week | 18 | 24 | 20 | 12 | | |
| | Three or six servings a week | 11 | 16 | 14 | 9 | | |
| | Every day | 9 | 18 | 15 | 13 | | |
| What type of food do you think you should eat to have balanced nutrition? | Mainly meat | 6 | 7 | 6 | 4 | 19.964 | 0.003 |
| | Mainly vegetables | 11 | 11 | 16 | 11 | | |
| | Meat, veg and other variety of foods | 21 | 47 | 35 | 25 | | |
| | Others | 2 | 9 | 1 | 3 | | |

The table 4 shows the relationship between the eating habits and obesity of the nursing students. Based on the results, there is a significant relationship between taking meals regularly and obesity among nursing students where (p-value=0.023) less than (0.05) and (chi-Square=9.562). There is a significant relationship between taking breakfast and obesity among nursing students where (p-value=0.011) less than (0.05) and (chi-Square=12.656). There is no significant relationship between times eating meals except snacks and obesity among nursing students where (p-value=0.495) more than (0.05) and (chi-Square=8.397). There is no significant relationship between taking snacks from regular meals and obesity among nursing students where (p-value=0.839) more than (0.05) and (chi-square=4.948). There is a significant relationship between eating green-, red- or yellow-colored vegetables and obesity among nursing students where (p-value=0.004) less than (0.05) and (chi-square=11.148). There is a significant relationship between eating fruits and obesity among nursing students where (p-value=0.008) less than (0.05) and (chi-square=10.554). There is a significant relationship between eating fried food and obesity among nursing students where (p-value=0.005) less than (0.05) and (chi-square=10.863). There is no significant relationship between eating with friends and family and obesity among nursing students where (p-value=0.631) more than (0.05) and chi-square=7.060). There is a significant relationship between doing exercise regularly and obesity among nursing students where (p-value=0.00) less than (0.05) and (chi-square=17.753). There is a significant relationship between drinking sweetened sugar beverages and obesity among nursing students where (p-value=0.001) less than (0.05) and (chi-square=13.838). There is a significant relationship between the type of food they should eat to have balanced nutrition and obesity among nursing students where p-value=0.003) less than (0.05) and (chi-square=19.964).

## Discussion

This study examined the relationship between eating habits and obesity & overweight among nursing students. It also evaluates the association between BMI classification to a

specific dietary pattern and lifestyle practices. Based on the findings, nearly half of the respondents were classified as either overweight or obese and more than a third belong to normal BMI. The results imply that a substantial portion of the students were having an excess of weight. Bakr *et al*., (2022) [1] found that obesity is becoming more prevalent and concerning issue among university students which has bad effects or consequences to the health outcomes of the undergraduate students. The present findings align with the findings of the national level. Despite their academic course that focuses on health, they were not protected by obesogenic environment.

On the hypothesis, the relationship was supported by 8 of 11 dietary and lifestyle variables. One of this is the association between BMI category such as regularity of meals ($p = 0.023$), breakfast consumption ($p = 0.011$), intake of colored vegetables ($p = 0.004$), fruit consumption ($p = 0.008$), fried food consumption ($p = 0.005$), regular exercise ($p = 0.00$), consumption of sweetened beverages ($p = 0.001$), and perceived balanced nutrition ($p = 0.003$). Only the frequency of snacking between meals ($p = 0.839$), the number of daily meals excluding snacks ($p = 0.495$), and the practice of eating with friends and family ($p = 0.631$) failed to reach statistical significance. In contrast, study of Rodríguez-Santamaría (2009) [8] cited the results of a test study which has a sample of under diet and not dieting, when they asked to taste a foodstuff the person under diet ate more during the test if the food, they were given previous to the test was high in calories, whilst those who had not been on a diet exhibited compensatory regulating behavior and ate less following a previous high-calorie intake.

With respect to meal regularity and breakfast consumption, this study found that irregular meal taking and obesity are correlated. This finding was consistent with previous literature. Additionally, breakfast consumption and BMI were correlated. Skipping meals during breakfast has been affecting appetite regulations, reuptake of the bigger caloric intake in the later day which may explained that irregular breakfast of the respondents falls them to a higher BMI level. This study aligns with the study of Longo-Silva (2024) [4] about the relationship of eating frequency, meal timings with obesity and BMI which concluded that taking large meals within a day which concentrate in caloric intake in lunch and consuming more than three meals present a good effect to prevent obesity.

In terms of fruit and vegetable and fried food consumption, the quality of diet is significantly correlated with BMI. The consumption of healthy vegetables influences the level of obesity. Interestingly, rarely of the respondents eat healthy vegetables and fruits reflecting a low fiber diet. This low diet for fruits and vegetables resulted to more caloric density, less satiety and increased the weight. Meanwhile, consuming fried and processed foods helps increase the fat on the body causing the displace of essential nutrients. Yet, the physical activity reveals the strongest correlation of BMI. Since this study shows a sample not exercising, it underscores the energy expenditure which unhealthy diet becomes the cause of obesity.

Finally, the findings of this study shows that obesity is closely link to modifiable risk factors such as dietary and lifestyle behavior. This includes irregular breakfast, the intake of fruit and vegetable, consumption of fried processed and sweet and beverage foods and activity levels. Since the nursing students were the future healthcare professionals, it is expected that they promote healthy behavior to the patients. The unhealthy pattern as revealed by this study carries implications that extend the health outcome not just personally but for the patient as well. The nursing credibility and effectiveness as a healthcare provider has an impact on the future.

## Conclusion

The eating habits for the participants were as follows: the participants take their meals irregularly, some of them daily take their breakfast, they eat meals except snacks two times, some of them daily take snacks from regular meals, more of the participants rarely eat green-, red- or yellow-colored vegetables, some of the participants rarely eat fruits, also more of the participants daily eat fried food, some of the participants eat with friends and family once or twice per week, they never do exercise, they drink sweetened sugar beverages one or two servings a week, most of the participants think that they should eat meat, vegetable and other variety of foods to have balanced nutrition.

## Recommendations

Based on the findings, the following recommendations were drawn:

1. Providing detailed and practical nutrition education programs in nursing curricula.
2. Providing workshops and seminars on healthy eating and weight management for nursing students.
3. Placing clear nutritional information labels (calories, fat, sugar, and sodium) on all food items available on campus.
4. Encourage physical activity through accessible facilities on campus and organized sports or fitness programs.
5. Replication studies across various course discipline within Saudi Arabia to establish generalizability of the study.

## Data Availability

The data used in the present study are not available to others in order to protect the privacy of the participants. However, they are available from the corresponding author upon reasonable request.

## Declaration of Interests

Conflicts of interest the authors have no financial or even relevant non-financial interests in the material presented here.

## Conflict of Interest Statement

The authors have no conflicts of interest for this study.

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