



**Relationship between Dietary Habits and Various Socio-Demographic,
Psychological, and Lifestyle Factors among University Students**

A PROJECT REPORT

BY

SHANTO KARMOKER

ID: 201-34-291

Submitted to the Department of Nutrition and Food Engineering in the partial fulfillment of
B.Sc. in Nutrition and Food Engineering

Supervised By

Abu Saeid

Lecturer (Senior Scale)

Department of Nutrition and Food Engineering

Co-Supervised By

Akibul Islam Chowdhury

Lecturer

Department of Nutrition and Food Engineering

FACULTY OF HEALTH AND LIFE SCIENCES (FHLS)

DAFFODIL INTERNATIONAL UNIVERSITY

MARCH 2024

APPROVAL

This Project titled “**Relationship between Dietary Habits and Various Socio-Demographic, Psychological, and Lifestyle Factors among University Students**”, submitted by Shanto Karmoker to the Department of Nutrition and Food Engineering, Daffodil International University, has been accepted as satisfactory for the partial fulfillment of the requirements for the degree of B.Sc. in Nutrition and Food Engineering and approved as to its style and contents.

EXAMINING COMMITTEE

Chairman of the Board	_____	_____
External Member	_____	_____
Internal Member-1	_____	_____
Internal Member-2	_____	_____

Dr. Nizam Uddin

Head

Nutrition and Food Engineering

Faculty of Health and Life Sciences

Daffodil International University

DECLARATION

Sincerely, I declare that we, working under the direction of **Abu Saeid, Lecturer (Senior Scale) of the NFE department** at Daffodil International University, have conducted research on the “Relationship between Dietary Habits and Various Socio-Demographic, Psychological, and Lifestyle Factors among University Students”. I further affirm that no portion of this project, nor any portion of it, has ever been submitted for consideration for a degree or diploma elsewhere.

Supervised by:



Abu Saeid

Lecturer (Senior Scale)

Department of Nutrition and Food Engineering,
Daffodil International University

Co-Supervised by:



Akibul Islam Chowdhury

Lecturer

Department of Nutrition and Food Engineering,
Daffodil International University

Submitted by:



Shanto Karmoker

ID: 201-34-291

Department of Nutrition and Food Engineering
Daffodil International University

ACKNOWLEDGEMENT

Firstly, I would want to thank God from the bottom of my heart for His heavenly grace, which has enabled me to successfully complete the final year project.

My sincere gratitude and deepest debt of gratitude are owed to **Abu Saeid, Lecturer (Senior Scale) of the NFE department** of Daffodil International University's Department of Nutrition and Food Engineering. My supervisor has a deep understanding of the “The Effects of Dietary Habits on University Students Vary Depending on Where They Live”, and is highly motivated to complete this project. It has been possible to finish this assignment because of his unending patience, academic guidance, ongoing encouragement, constant and energetic supervision, constructive criticism, insightful advice, and his reading of numerous subpar draft and correction of them at every step.

I would like to extend my sincere gratitude to the other faculty members and department personnel, as well as to my co-supervisor **Akibul Islam Chowdhury, of the NFE department** of Daffodil International University's Department of Nutrition and Food Engineering for his helpful assistance in completing my project.

I want to express my gratitude to every student at Daffodil International University who participated in this discussion while finishing the assigned material.

Lastly, I must respectfully thank my parents for their unwavering support and patience.

ABSTRACT

In this study, university students' food habits are examined in relation to a number of socio-demographic, psychological, and lifestyle variables by using a cross-sectional study design to look into the connections of the included variable. Numerous noteworthy associations that illuminated the complex nature of students' eating habits were found through a data collection method Surveys or questionnaires were most likely used in this study, which was conducted on people living in hostels, residences, and rental homes from 650 respondents aged 18-26. A substantial statistical correlation ($p = 0.004$) has been established between gender and overall health satisfaction. This is a noteworthy finding. Further factors that influence students' eating habits are residence and educational attainment. Food frequency maintenance ($p = 0.004$), breakfast frequency ($p = 0.000$), meal time ($p = 0.000$), and fruit consumption ($p = 0.000$) are all influenced by residence. Education level is correlated with meal location ($p = 0.003$). Consistencies and differences are found when compared to the body of extant literature. Our results, which show that 56% of respondents reported having weight-related concerns, are in line with other research in showing the prevalence of overweight and obesity among college students. There are discrepancies in nutritional knowledge and awareness, nevertheless, which draws attention to possible disconnects between students' awareness and behavior. In addition, our study highlights the numerous barriers that students encounter while trying to obtain nutritious meals, mentioning issues such lack of availability, high prices, and poor food quality. These results highlight the necessity of focused interventions to encourage better eating habits and raise students' general wellbeing. To sum up, this research provides insightful information about the intricate web of variables affecting students' eating preferences. Stakeholders may create successful initiatives to encourage kids to make healthier food choices and eventually improve their general health and well-being by identifying and comprehending these variables.

TABLE OF CONTENTS

CONTENTS	PAGE
Cover Page	i
Approval	ii
Declaration	iii
Acknowledgement	iv
Abstract	v
Table of Contents	vi
of Tables	vii
List of Figures	viii
CHAPTER 1: INTRODUCTION	1-2
1.1 Introduction	1
1.4 Objectives	2
CHAPTER 2: LITERATURE REVIEW	3-5
2.1 Literature Review	3-5
CHAPTER 3: METHODOLOGY	6-7
CHAPTER 4: Result & Discussion	8-23
4.1 Results	8-19
4.2 Associate table including KAP variable and socio-demographic status	20-23
4.3 Discussion	24-25
CHAPTER 5: CONCLUSION	26
5. Conclusion	26
REFERENCE	27-28
APPENDIX	29-35

LIST OF TABLES

Table	Page No
Table 4.1: Respondent's Age distribution	8
Table 4.2: Maintaining Food Frequency	10
Table 4.3: Taking Meal Timely Table	11
Table 4.4: Late night eating snacks Table	11
Table 4.5: Satisfaction of Individuals Overall Health Table	12
Table 4.6: Avoid eating percentage Table	16
Table 4.7: like to eat street food more often	16
Table 4.8: Students Thinking, Mood Affect Their Eating Habit	16
Table 4.9: Students Feeling About Food Can Control Their Life	16
Table 4.10: Experiencing Students Recently Weight Gaining	17
Table 4.11 Associate table including Educational level and Practice variable	20
Table 4.12 Associate table including Gender and Attitude variable	21
Table 4.13 Associate table including residency and practice variable	21
Table 4.14 Associate table including residency and practice variable	22
Table 4.15 Associate table including residency and knowledge variable	22
Table 4.16 Associate table including residency and practice variable	23

LIST OF FIGURES

FIGURES	Page No
Fig 4.1: The respondent's gender	8
Fig 4.2: The responders' degree of education	9
Fig 4.3 The respondents' residential area	9
Fig 4.4 Place of taking meal percentage	10
Fig 4.5 Taking Breakfast in weekly	11
Fig 4.6 Eating Snacks during daytime	12
Fig 4.7 Types of food students eat in campus	13
Fig 4.8 Protein source of student's meal	13
Fig 4.9 Consumption of Fruits weekly	14
Fig 4.10 Consumption of Vegetable weekly	15
Fig 4.11 Reasons behind can't take healthy foods	15
Fig 4.12 Students Having Food Allergy	17
Fig 4.13 Students Physical Exercise Regularity:	18
Fig 4.14 Students Having Food Diseases	18
Fig 4.15 Students Facing Health Illness	19
Fig 4.16 Students Facing Health problem for eating outsides	19

CHAPTER 1

INTRODUCTION

1.1 Introduction

Students use their time in university as a transitional stage into adulthood, when they start making their own food and lifestyle decisions and develop potentially harmful habits. These behaviors could continue into adulthood and have a detrimental impact on their long-term health and risk of illness. (Al-Awwad et al., 2021).

Students' eating habits and behavior may change depending on whether they live at home with their family or live away from them in a dorm at the university. One of the main causes of death and morbidity worldwide is an unhealthy diet combined with inactivity. Students at universities go through a transition in their lives that frequently leads to bad eating habits and an unpleasant rise in mass. Independent food preparation and purchasing is a responsibility for students living away from their family, which may have a negative impact on their eating habits. This could be due to a number of things, including a lack of funds, stress from school, and time constraints (Alghamdi et al., 2018).

Unhealthy lifestyles and inappropriate health habits are real, according to recent studies conducted on university students. The university stage is a time of transition between adolescence and adulthood and is marked by greater independence, autonomy, and responsibility, according (Vankim & Nelson, 2013) Young people frequently make their own decisions about "what, how, where, and when to eat" during this stage for the first time For this reason, it is a critical stage in the adoption of long-term health-related habits and behaviors, such as balanced eating. Thus, additional research suggests that this population engages in poor eating habits, including quick weight loss plans, skipping out on some crucial food groups, consuming a lot of high-calorie and low-nutrient meals, drinking too much alcohol, and other harmful behaviors. Any of these practices may result in inadequacies in macro- and micronutrients as well as other vital dietary elements necessary to sustain the best possible nutritional health. Keeping all of these things in mind, the development and upkeep of poor eating habits and lifestyle choices play a crucial role in the genesis of chronic non-communicable diseases (CNCDS), like obesity and cardiovascular disease. (Prado et al., 2018)

Exercise is now more important than ever for maintaining mental health and preventing many disorders. Frequent exercise improves physical self-efficacy and lowers stress levels. (Kim et al., 2021) Having bad eating habits and being unable to make educated food choices are hallmarks of the transition from high school to university. The purpose of this study is to explore dietary variety, the incidence of overweight and obesity among university students, and the associations between various dietary components and overweight and obesity. (Niba, Atanga, & Navti, 2017)

1.2 Objectives

- Analyze eating habits among college students according to various socio-demographic criteria.
- Analyze how dietary decisions and psychological variables are related.
- Analyze how university students' lifestyle choices affect their eating habits.

CHAPTER 2

LITERATURE REVIEW

2.1 Literature Review

The cross-sectional study reveals that 28.8% of people are overweight or obese. While most people had regular daily meals, over half did not have breakfast. It was customary to snack frequently, eat fried food at least three times a week, and consume little fruit and vegetable each day. The proportion of overweight and obese people who visited fast food outlets more frequently was statistically greater. At least three times a week, 25.4% of the kids worked out. Nearly every student knows about the food pyramid and balanced nutrition. However, this study lacks all related lifestyle analysis. It is possible to include other significant analyses together with the timing, food settings, and meal location. (Yun, Ahmad, & Quee, 2018)

According to meal patterns, eating behaviors, food choice habits, and food safety practice categories, this survey reveals that 99% of students have unsatisfactory dietary habits. Over three-quarters (83%) of students had low knowledge scores regarding a healthy diet. The majority of them select food items with good form, flavor, and aroma (89.3%, 97.9%, and 92.4%, respectively). Regarding attitudes about good and unhealthy diets, 43.2 percent of respondents had low score levels. With regard to the culinary scene, all food courts were quick service establishments offering high-energy dishes and drinks. None of them display menus or signs with nutrition information on the food and beverages they provide, and the majority of them promote and position less healthful options where students can quickly get to them. However, the food habits and lifestyles of residential and non-residential students were not shown in this study. (El-Mouty, 2016)

Making healthy dietary choices is a constant challenge for students, especially as they move from high school to university and become more independent. Students stated that the physical environment (such as food product availability and prices), the microenvironment (such as media and advertising), their social networks (such as friends, peers, and parents who may or may not exercise parental control), and their personal preferences (such as taste preferences, self-discipline, time, and convenience) all had an impact on them. Moreover, residence, student organizations, campus life, and tests appeared to attenuate the associations between variables and eating habits of college students. Researchers and administrators at universities should consider offering guidance and information on how to prepare and choose healthy foods (for example, through social media), improving self-control and discipline, learning time management techniques, strengthening social networks, and changing both the objective and subjective aspects of the campus food environment—for example, by making healthy foods more affordable and stocking vending machines with more vegetables. However, the study does not address the appropriate lifestyle of students. Just food choices are the subject of this investigation. However, dietary patterns might also be hampered by other lifestyle factors. (Deliens, Clarys, Bourdeaudhuij, & Deforche, 2018)

Less than half of the students had a regular, nutritious breakfast, one-third drank soft drinks, and half of the students only ate one to two portions of fruit and vegetables per day. Over half also made other unhealthy dietary choices. Every time, female students showed greater dietary awareness. More

nutritious food options should be available on campus, according to the students' numerous suggestions for how the university might support them in making good decisions. This study set out to investigate how university students regarded their diets and related health habits, as well as if they differed according to gender, faculty, and academic year. Examining the suggestions made by the kids regarding how to adopt a healthy diet was another goal. However, the right dietary recommendation is absent from this text. They just pay attention to fruits and vegetables. It is also not possible for them to display the analysis of residential or nonresidential students. (Cefai & Camilleri, 2011)

This review's objective is to offer an overview of research on the efficacy of nutrition education programs utilized by university students. Articles pertaining to nutrition education interventions for college students published between 1990 and 2011 were searched through electronic databases, including Science Direct, Medline, Google Scholar, and CINAHL (EBSCOhost). There were found and 14 studies that satisfied the inclusion requirements, with 1668 college students serving as respondents overall. Three main types of nutrition education interventions were identified by the results: web-based education, lectures, and supplement provision. In nearly all investigations, dietary intake metrics were employed, and the main methods of data collection were meal records, memory, food frequency questionnaires, and dietary habit questionnaires. The quality of life, physical activity, nutrition knowledge, food intake, and dietary habits were among the variables included in the various outcome measures throughout the research. There were also found to be methodological problems. Generally speaking, when the treatments were implemented, college students saw notable changes in their eating patterns. Students attending college between the ages of 18 and 24 go from youth to adulthood by gaining new experiences, exercising personal independence, and forging their own identities. Unfortunately, the inclination to partake in improper dieting, skip meals, and consume fast food is rather frequent during this phase. There's also a norm of little physical activity. Later in life, osteoporosis, obesity, hyperlipidemia, diabetes, and cancer risk are all likely to increase with poor eating habits and insufficient physical exercise. Furthermore connected to an individual's nutritional state is health-related quality of life (HRQoL), which is influenced by an unhealthy lifestyle. Based on all of these correlations, it appears that developing healthy eating habits early in life is critical. For a variety of demographic groups, nutrition education is a popular means of disseminating knowledge about a healthy diet; yet, college students still receive very little of this kind of intervention. Though nutrition education initiatives come in many forms, it is still unknown how effective they are at changing eating patterns. Nevertheless, the new result is not visible in this review article. There is no relationship between diet and lifestyle. (PL & Elena, 2012)

The purpose of this study was to evaluate a sample of university students' eating habits, identify any disparities between students who live at home and those who don't, and look at various elements of their nutritional and overall health. A self-administered questionnaire about eating habits, with three main sections—demographic, social and cultural factors, eating habits, and health information—was filled out by 153 undergraduate students at the University of Salento in Lecce, Italy. Pupils who lived at home exercised more and ate more cooked veggies, fish, meat products, chips, bread/cereals, cooked dinners, and sandwiches. On the other hand, raw/cold meals, frozen meals, ready meals, beer, and alcoholic beverages were consumed in greater quantities by students who were living away from home. In addition, students who were living alone reported having more gastroenteritis episodes and thought they were heavier overall. Students appear to be at greater risk of food-borne disease due to their living

arrangements and lifestyle choices, which have been linked to a move away from the Mediterranean diet. This seemed particularly apparent to students who were living away from home, for whom taking on the primary role in food preparation and shopping can result in unhealthful eating habits. The correct percentage of poor eating choices could not be determined by this journal. Moreover, the sample size is too small to produce reliable results. (FRANCESCO et al., 2013)

Dietary analysis identified four main dietary patterns: "health-conscious," "vegetarian," "snacking," and "convenience, red meat, & alcohol." The most advantageous micronutrient profile was found in the "health-conscious" design. Variations in the pattern behavior of students were related to their gender, age, year of study, region, and cooking proficiency. The "vegetarian" pattern was preferred by female students, whereas the "convenience, red meat, & alcohol" pattern was preferred by male students. Lifestyle risk factors like smoking, insufficient physical exercise, and takeout consumption have been positively correlated with less nutritious dietary choices. With regard to nutrient density, the health-conscious pattern excelled. The pattern that was most consistently seen across universities was "convenience, red meat, and alcohol," which was linked to increase weekly food spending. The patterns of "vegetarian" and "health-conscious" students who reported being better cooks were more common. Because this study only looks at a limited number of food habits, it has a gap. But students at universities display every kind of food pattern. (Sprake et al., 2018)

According to the journal, obesity risk is increased by bad eating habits. The purpose of this study was to examine the relationship between Saudi Arabian university students' snacking habits and obesity. Sixty-six King Abdul-Aziz University students, ages 18 to 29, were involved in the study. The body mass index (BMI), lifestyle behaviors, eating habits, and snack consumption were determined by means of an online survey that gathered information on height, weight, and socio demographic traits. Less than 6% and 12.7% of pupils, respectively, were overweight or obese. Obesity was not significantly impacted by socio-demographic traits or lifestyle choices. Two meals a day and more cereal for breakfast were consumed by obese pupils. At breakfast and at their everyday meals with their families, non-obese students drank more drinks. On obesity, snack consumption frequency had no discernible impact. If non-obesity students had significantly more salads than obese students did, obese students consumed significantly more potato chips, popcorn, and biscuits. Comparing snack consumption within and outside of the institution, students eat much fewer fruit and vegetables, chocolate, biscuits, almonds, and dairy items. Universities should provide healthy snack options and offer health education programs to promote a healthy diet and way of life in order to lower the obesity rate among their student population. Overall lifestyle and eating habits relationship in the missing outcome. (Aljefree, Shatwan, & Almoraie, 2022)

CHAPTER 3

METHODOLOGY

3.1 Methodology:

3.1.1 Study Design

This study uses a cross-sectional study design to look into the connections between university students' food choices and a range of socio-demographic, psychological, and lifestyle variables. Undergraduate students enrolled at several universities in a variety of academic programs make up the study population.

3.1.2 Area of the study

Participants in the research ranged in age from 18 to 26. The questionnaire was specifically designed to focus on universities in Bangladesh, particularly those in Dhaka. Only first-year to final-year students who dwell in distinct residential areas responded to this study.

3.1.3 Population of The study

This study covered students in 1st year to 4th year. People could be between the ages of 18-26. The analysis did not include those who refused to furnish the information. Total 650 student's aged from 18 to 26 were participated in this study.

3.2 Data Collection:

Developed a structured questionnaire comprising validated scales and items to analyze socio-demographic, psychological factors, lifestyle choices and dietary habits. Administer the questionnaire in-person, ensuring confidentiality and voluntary participation.

3.2.1 Pretest Data

40 students from Daffodil International University were participated for pretesting the questionnaire for assessing the acceptability & assuring the quality of questionnaire.

3.2.2 Survey

Participants completed prepared surveys to provide information for in-person interviews including demographics, lifestyle traits, eating patterns, and dietary habits. The surveys are meant to collect high-quality information regarding the food and lifestyle habits of students.

3.2.3 Study Period

15 September to 28 February

3.3 Data Analysis Method:

Data were analyzed statistically using the statistical software SPSS windows version 22.0 used for statistical analysis, descriptive analysis, and cross-tab analysis. Microsoft Excel used for organizing data's.

CHAPTER 4

RESULTS AND DISCUSSION

4.1 Result:

4.1.1 Frequency Distribution Table of Age distribution of the Respondents

Table 4.1: Respondent's Age distribution		
Age	Frequency	Percentage
17-19	31	4.7%
20-22	457	70.4%
23-26	162	24.9%

650 people took part in this study. 4.7% of the respondents, as shown in the table, are in the 17–19 age range. Twenty-four percent (20–22) and twenty-nine percent (23.9) of the respondents are in the 23–26 age range.

4.1.2 The respondent's gender

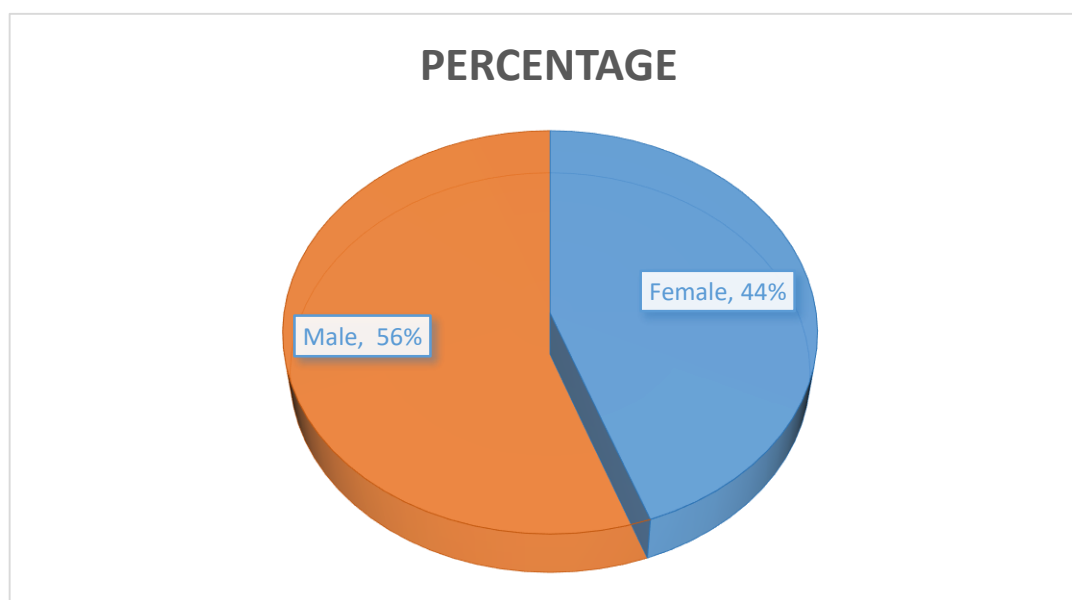


Fig 4.1: The respondent's gender

Out of the 650 participants, the percentage of men and women who responded to the survey is shown in the pie chart as 55.1% and 44.9%, respectively.

4.1.3 The responders' degree of education

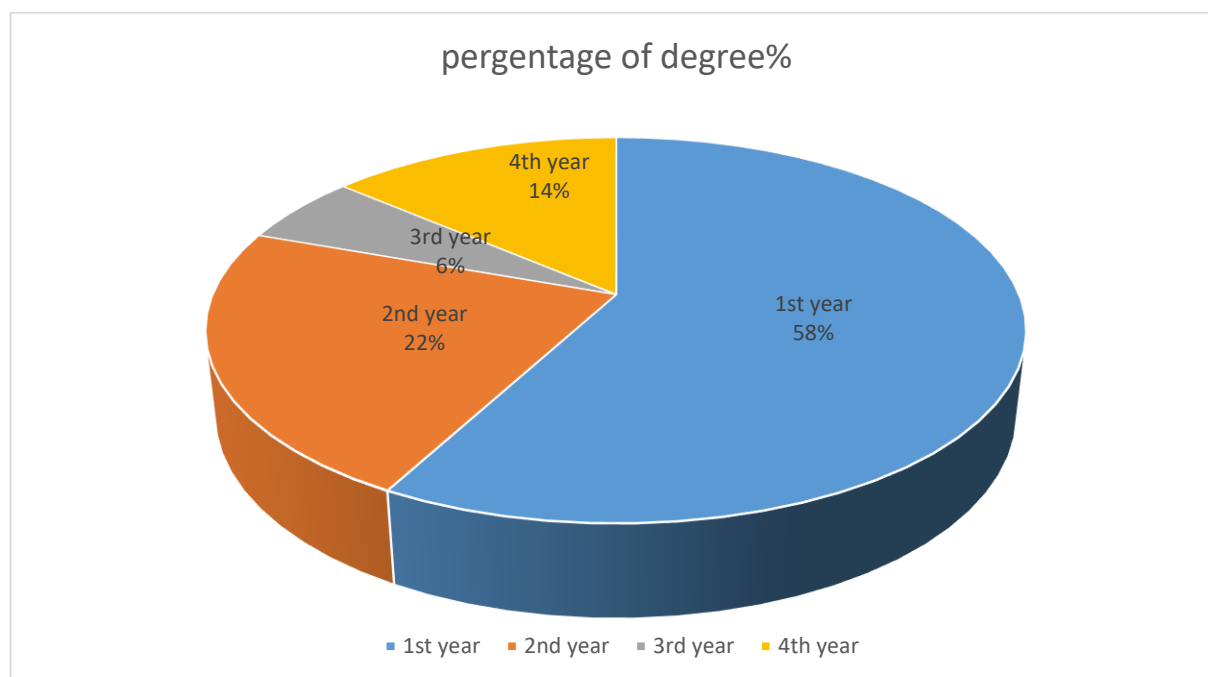


Fig 4.2: The responders' degree of education

Based on data from 650 survey respondents, the majority of students—57.8%—are enrolled in first-year courses, according to the table. At that point, the percentage of second-year students was 22.6, while the percentage of fourth-year students was 13.7%. The respondent's lowest percentage was 5.8%.

4.1.4 The respondents' residential area:

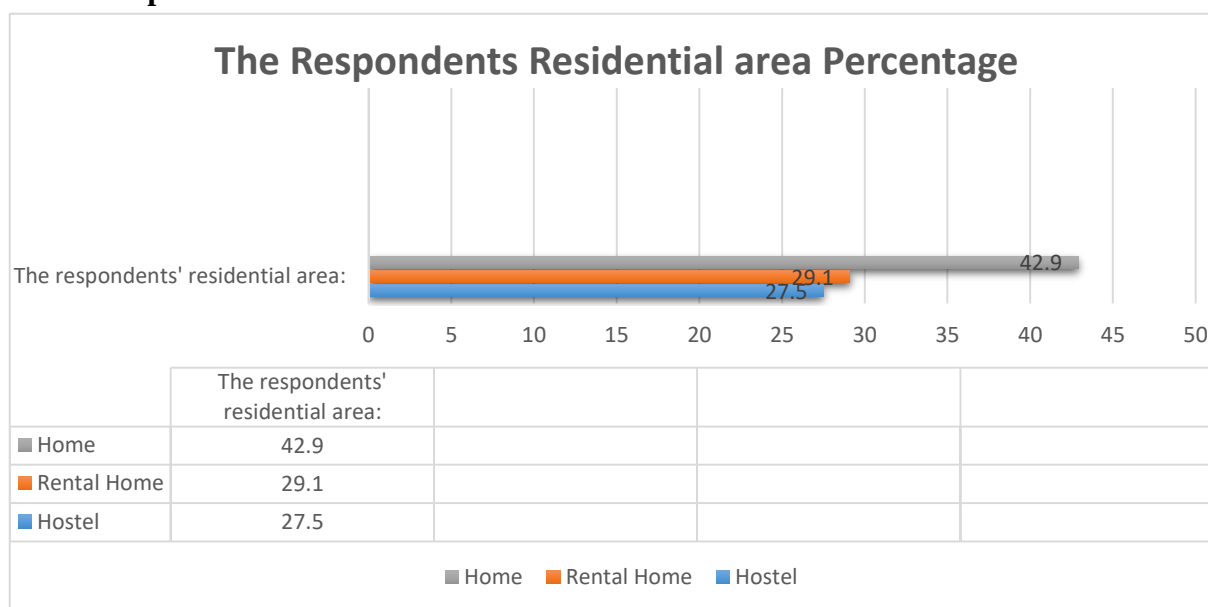


Fig 4.3 The respondents' residential area

Students who reside at home and pursue their education there make up 42.9% of the participants. About 29.1% of students live in rental properties, with the remaining 27.5% residing in residence halls or hostels on campus.

4.1.5 Frequency Distribution Table of Maintaining Food Frequency Table

Table 4.2: Maintaining Food Frequency		
Maintaining Food Frequency	Frequency	Percentage
Yes	377	58%
No	273	42%

Of the students, 58% continue to eat regularly. Nevertheless, 42% of kids were unable to continue eating often.

4.1.6 Place of taking meal percentage

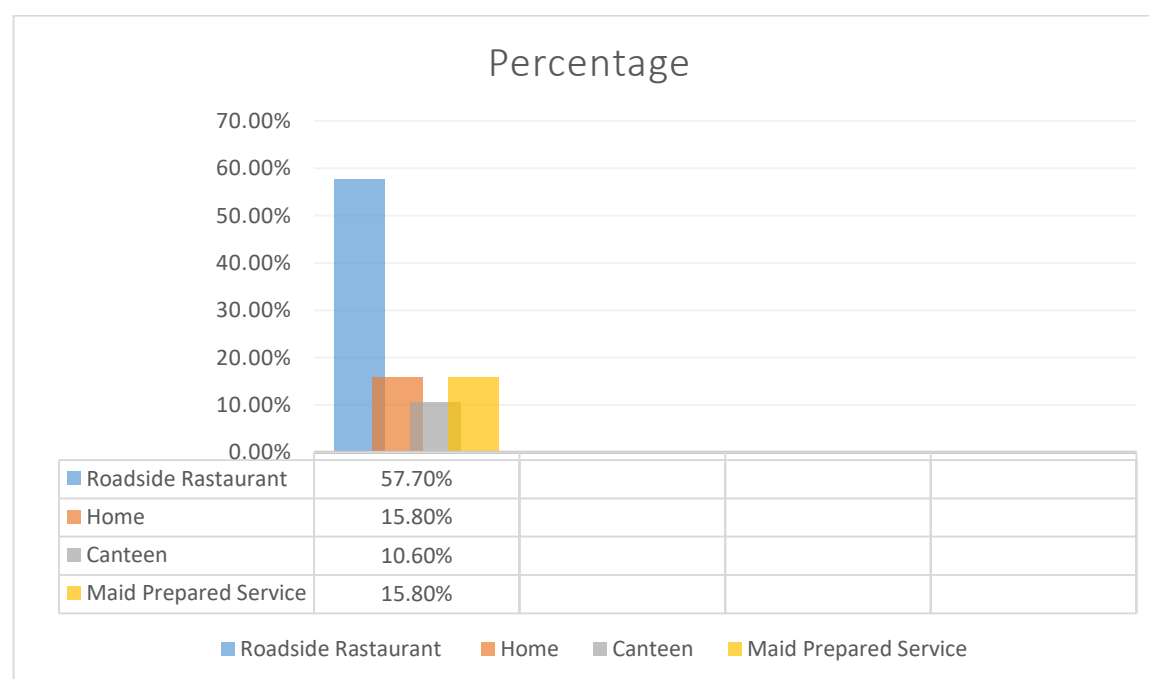


Fig 4.4 Place of taking meal percentage

A huge number of students (57.70%) eat meal roadside restaurant. 15.80% take meal from home. 15.80% take meal from maid prepared service & only 10.60% take meal from canteen.

4.1.7 Taking Breakfast in weekly

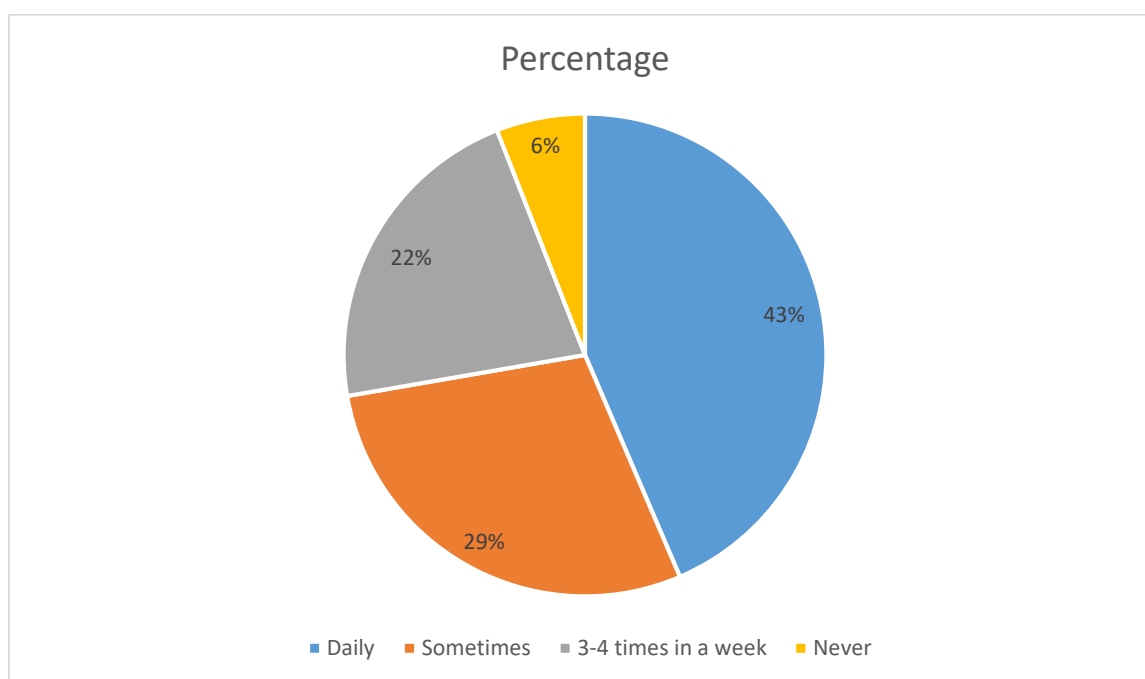


Fig 4.5 Taking Breakfast in weekly

29% students take breakfast sometimes. 6% students skip their breakfast & 43% students take breakfast daily. 22% students take breakfast 3-4 times in a week.

4.1.8 Frequency Distribution Table of Taking Meal Timely Table

Table 4.3: Taking Meal Timely Table		
Taking Meal Timely	Frequency	Percentage
Yes	260	40%
No	390	60%
Total	650	100%

260 students taking their meal timely but 390 students don't taking their meal timely.

4.1.9 Eating Snacks during daytime

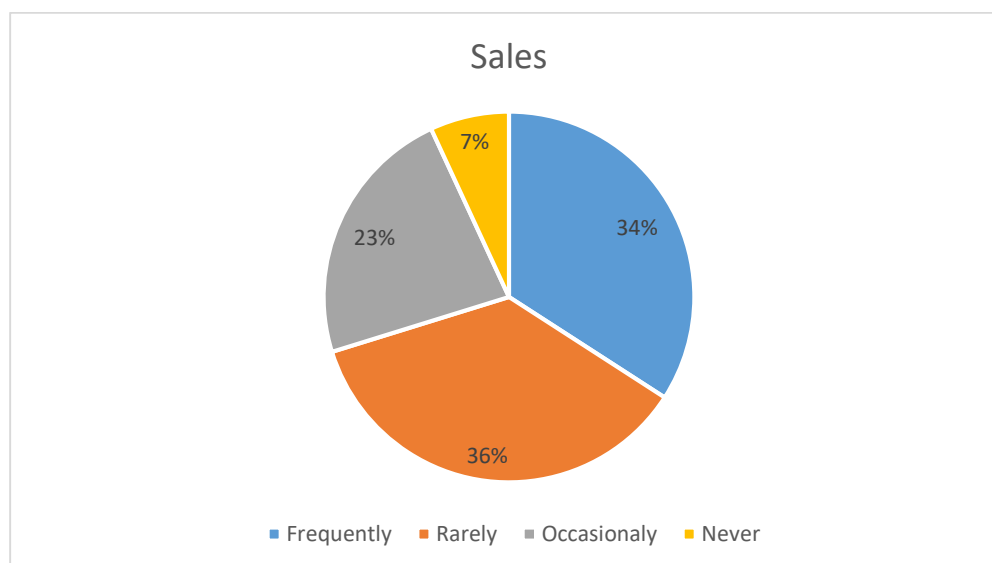


Fig 4.6 Eating Snacks during daytime

The data shows 34% eating snacks in day time frequently. 23% eating snacks occasionally. 36% rarely & 7% avoid it.

4.1.10 late night eating snacks

Table 4.4: Late night eating snacks Table		
Late night eating snacks	Frequency	Percentage
Yes	280	43%
No	370	57%

This data reveals 43% students enjoy late night snacks. & 57% avoid late night snacks.

4.1.11 Frequency Distribution Table of Satisfaction of Individuals Overall Health

Table 4.5: Satisfaction of Individuals Overall Health Table		
Satisfaction of Individuals Overall Health	Frequency	Percentage
Strongly Dissatisfied	33	5.1%
Dissatisfied	267	41.1%
Neutral	162	24.9%
Satisfied	161	24.8%
Strongly Satisfied	27	4.2%

This information shows the respondents' dispersion strongly dissatisfied 5.1%. 41.1% are dissatisfied. 24.9% are neutral of their health satisfaction. 24.8% are satisfied with their health. Only 4.2% are strongly satisfied.

4.1.12 Types of food students eat in campus

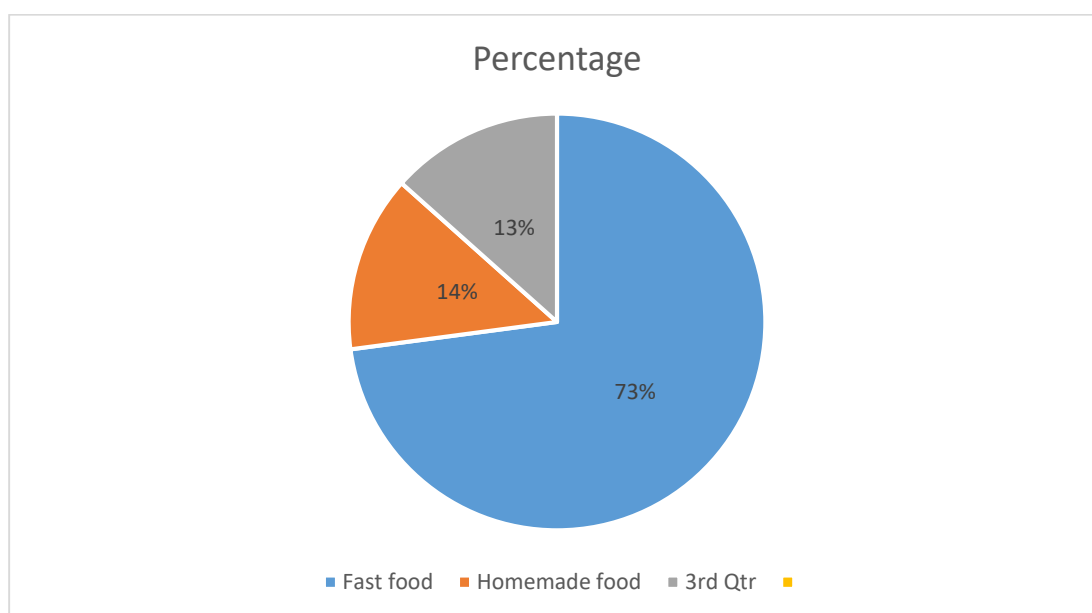


Fig 4.7 Types of food students eat in campus

More respondent, 73% students eat fast-food when they are staying in campus. 14% eat homemade foods & 13% students drink beverage product.

4.1.13 Protein source of student's meal

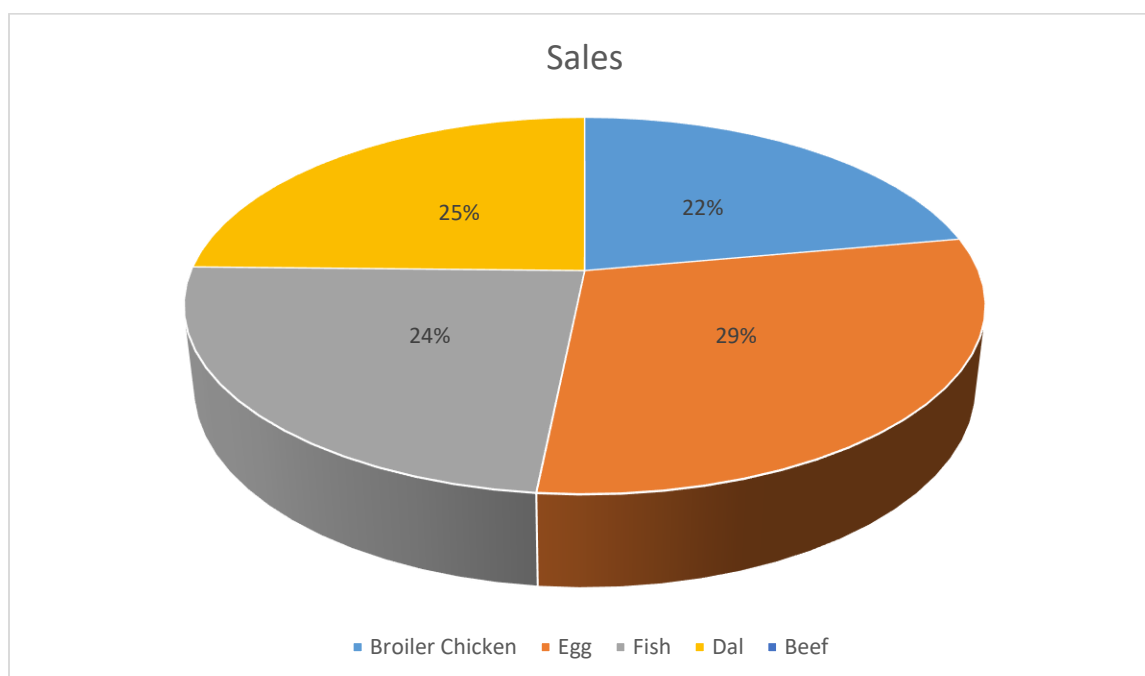


Fig 4.8 Protein source of student's meal

One individual student take protein significantly from Broiler chicken (61%) & egg (81.2%). Another big sources are fish (65.4%), Dal (68.5%) & Beef (48.9%).

4.1.14 Consumption of Fruits weekly

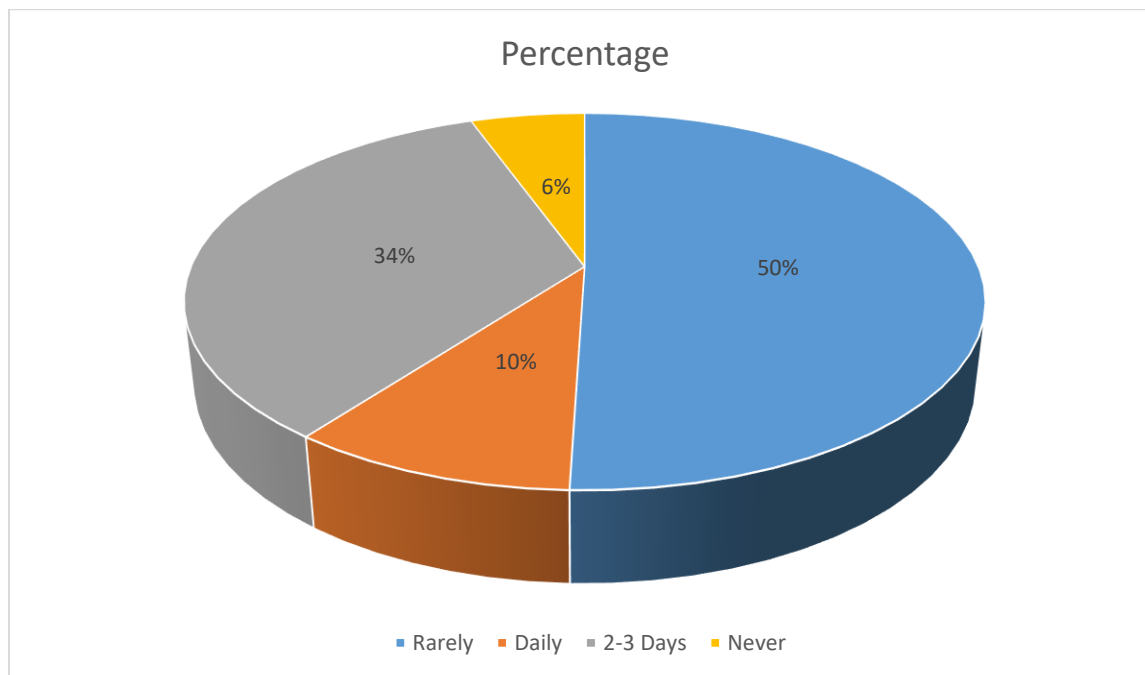


Fig 4.9 Consumption of Fruits weekly

Significant percentage of students 50% rarely consume fruits. Only 10% consume daily. 34% consume 2-3 days (sometimes) & 6% never consume any kinds of fruits.

4.1.15 Consumption of Vegetables weekly

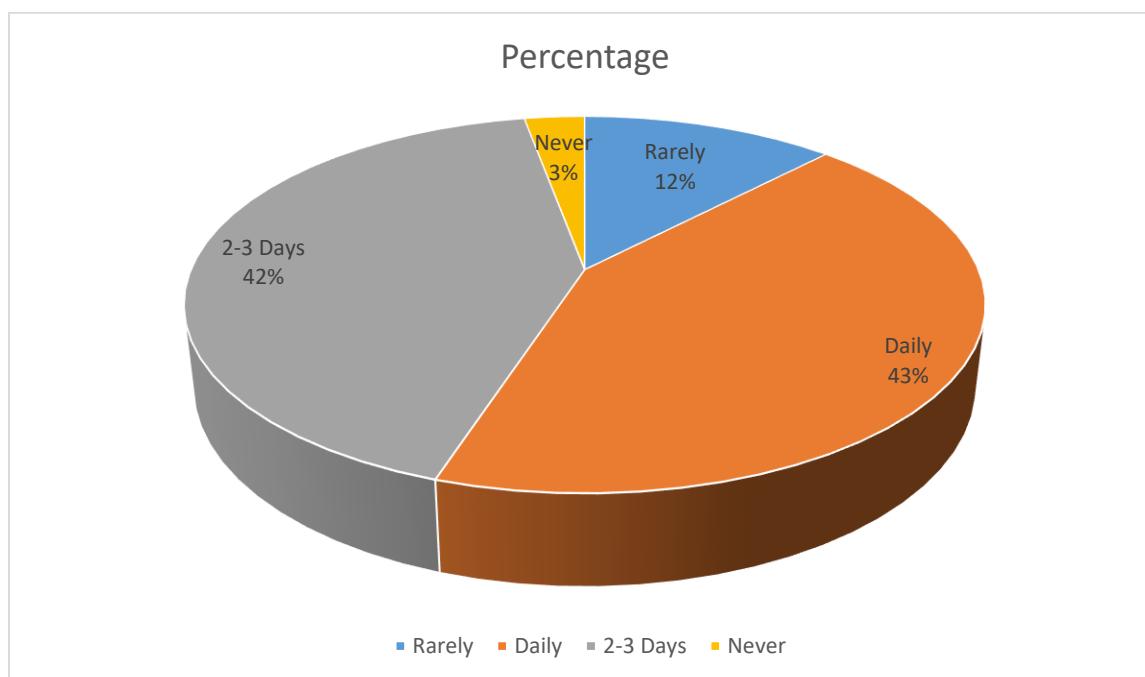


Fig 4.10 Consumption of Vegetable weekly

The data shows 42% students eat vegetable daily. 41% students eat vegetable 2-3 days (sometimes). 12% rarely eat vegetable & 5% do not eat vegetable.

4.1.16 Reasons behind can't take healthy foods

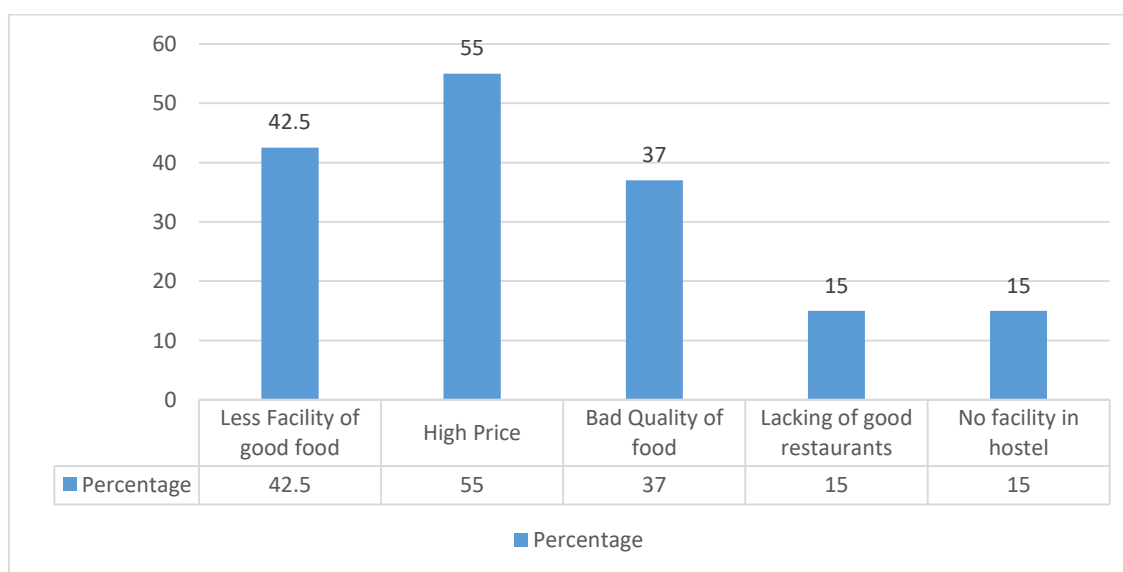


Fig 4.11 Reasons behind not taking healthy foods

A large number of students can't take healthy foods because of less facility of good food(42.5%), for high price(55%), for bad quality of food(37%, lacking of good restaurant (15%) & for no facility in hostel 15%

4.1.17 Frequency Distribution Table of Avoiding percentage of eating even when students feel hungry whether they're busy with work:

Table 4.6: Avoid eating percentage even when students feel hungry whether they're busy with work Table		
Avoid Eating Even When Feel Hungry	Frequency	Percentage
Yes	461	71
No	189	29

The table shows a huge % of students avoid eating (71%) when they are hungry whether they are busy with work. only 29% of students don't avoid eating when they are hungry but in the same times busy with work.

4.1.18 Frequency Distribution Table of liking to eat street food more often

Table 4.7: like to eat street food more often		
like to eat street food more often	Frequency	Percentage
Yes	460	70
No	190	30

Based on this data, 70% of students like to eat street food more often. But only 30% students dislike the street foods.

4.1.19 Frequency Distribution Table of Thinking Students Mood Affect Their Eating Habit:

Table 4.8: Students Thinking, Mood Affect Their Eating Habit		
Students Thinking, Mood Affect Their Eating Habit	Frequency	Percentage
Yes	494	76
No	156	24

The data shows 76% students think, their mood can affect their eating habit. Only 24% of students don't think that.

4.1.20 Frequency Distribution Table of Students Feeling About Food Can Control Their Life:

Table 4.9: Students Feeling About Food Can Control Their Life		
Students Feeling About Food Can Control Their Life	Frequency	Percentage
Yes	416	64
No	234	36

64% of students feel food can control their life. But 36% feel it's not happen.

4.1.21 Frequency Distribution Table of Experiencing Students Recently Weight Gaining:

Table 4.10: Experiencing Students Recently Weight Gaining		
Experiencing Students Recently Weight Gaining	Frequency	Percentage
Yes	364	56
No	286	44

According to the table, 56% students recently gained weight during university life. But on the other hand 44% haven't faced that.

4.1.22 Students Having Food Allergy:

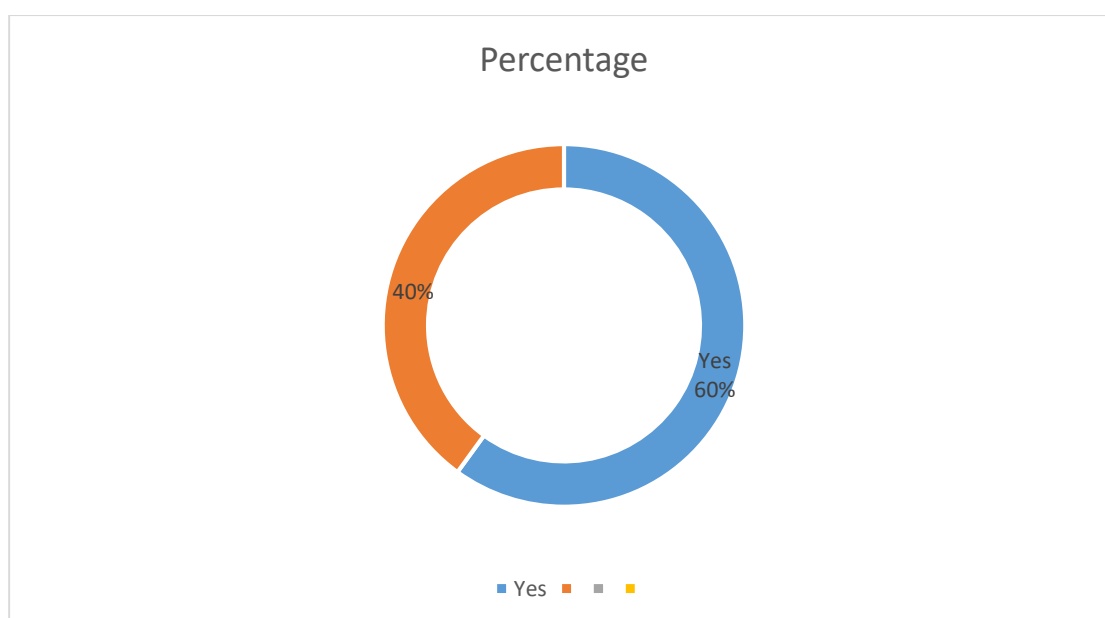


Fig 4.12 Students Having Food Allergy

According to this chart, 60% students face allergy problem during university life. 40% don't face this.

4.1.23 Students Physical Exercise Regularity:

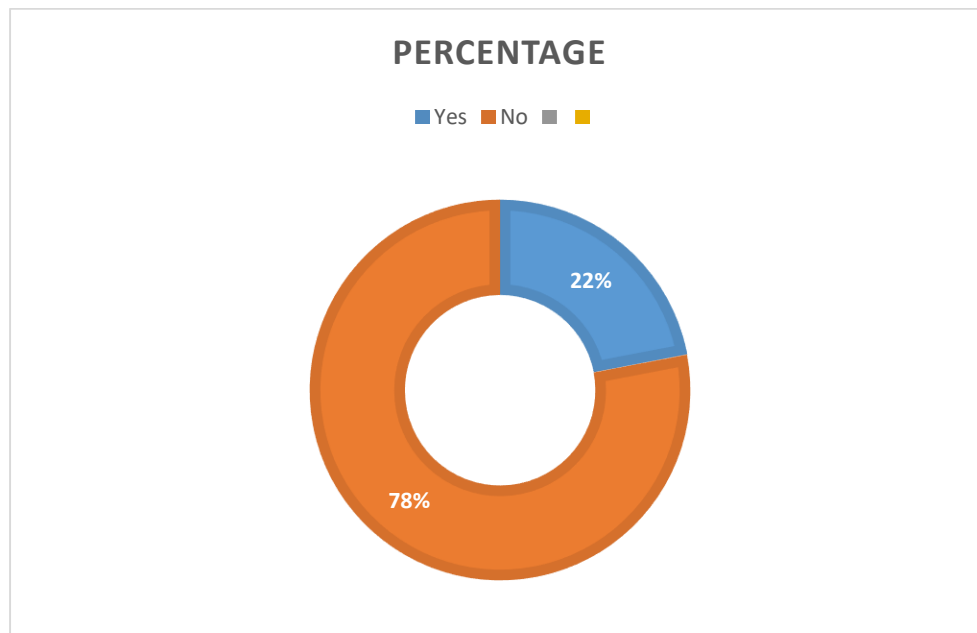


Fig 4.13 Students Physical Exercise Regularity:

The data shows higher number of students don't do exercise regularly. 78% students don't do exercise. On another hand, 22% students do physical exercise regularly.

4.1.24 Students Having Food Diseases:

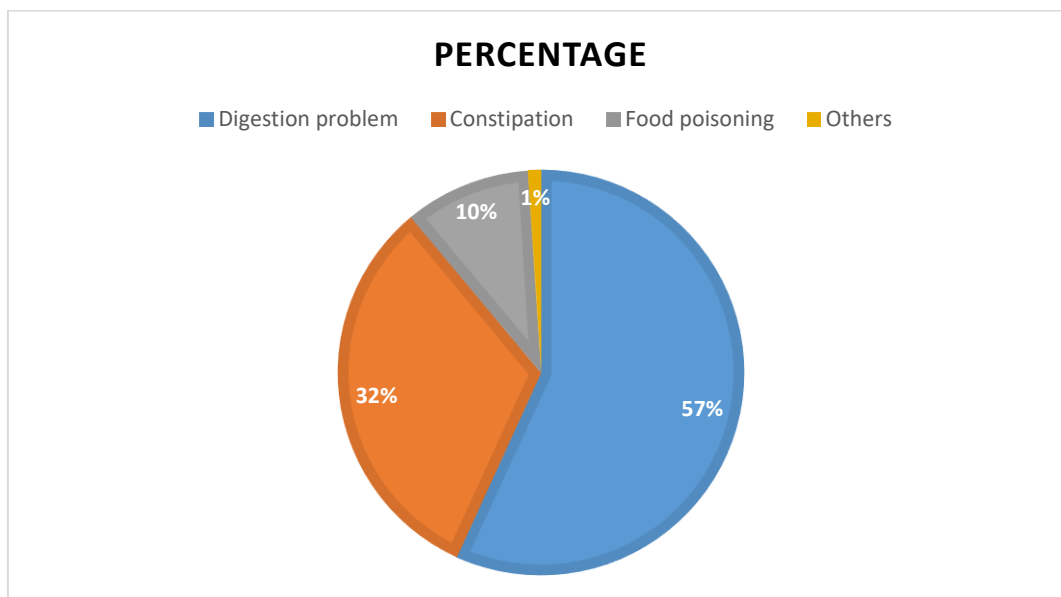


Fig 4.14 Students Having Food Diseases

A huge numbers of students suffering digestion problem. It's around 56.60%. 32% students suffering constipation. 10% food poisoning. 1% others.

4.1.25 Students Facing Health Illness:

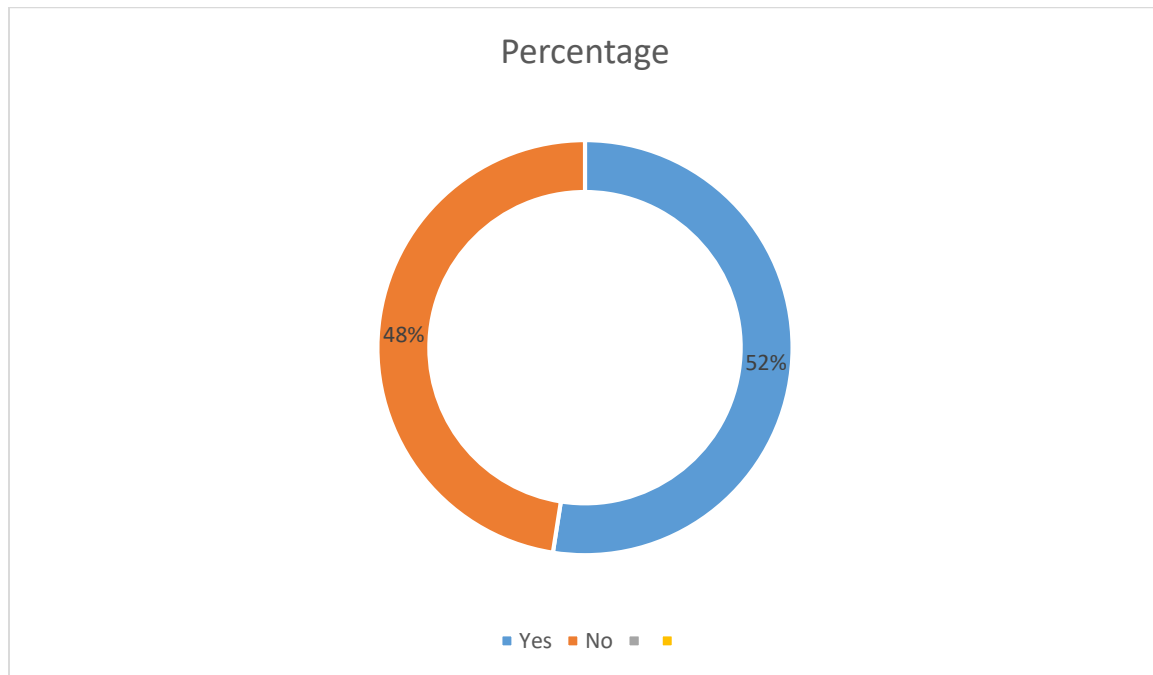


Fig 4.15 Students Facing Health Illness

The result shows that almost 52% of students facing health illness. And 48% do not facing.

4.1.26 Students Facing Health problem for eating outsides:

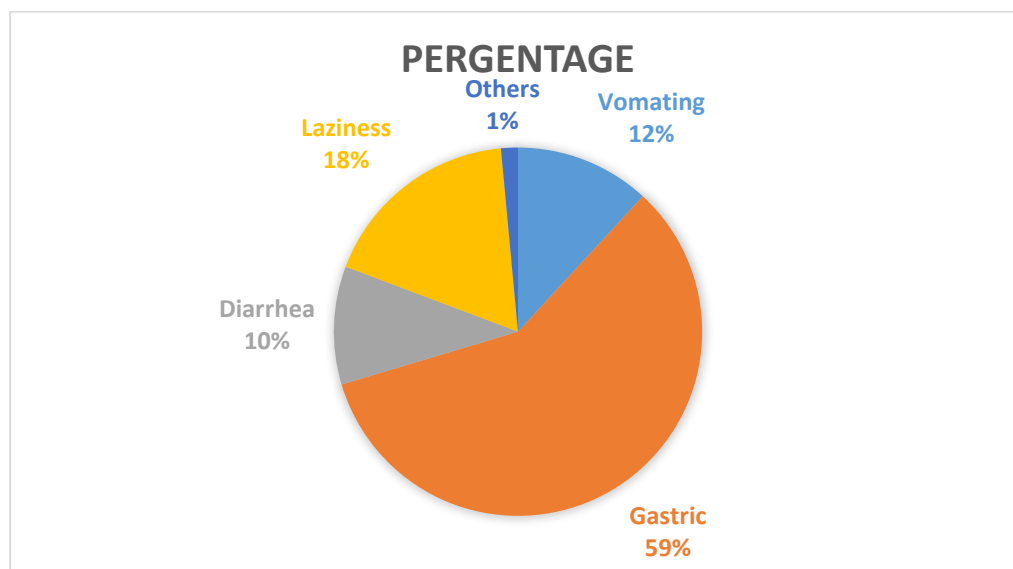


Fig 4.16 Students Facing Health problem for eating outsides

The data shows, a huge percentage 59% students facing gastric for eating outsides. 12% facing vomiting, 18% facing laziness, 10% facing diarrhea. 1% others

4.2 Association including KAP variable and socio-demographic status:

4.2.1 Associate table including Educational level and Practice variable

Practice Education Level		From where do you complete your meal?				Total	Significance
		Canteen	Roadside restaurants	Home	Maid prepared service		
Education Level	1st Year	57(15%)	47(12.43%)	229(60.53)	45(12%)	n=378	p=0.003
	2nd Year	22(15.06%)	16(10.95%)	81(55.48%)	27(18.49%)	n=146	
	3rd Year	7(18.42%)	1(2.63%)	22(57.9%)	8(21.05%)	n=38	
	4th Year	17(19.32%)	5(5.68%)	43(48.9%)	23(26.14%)	n=88	

Table 4.11 Associate table including residency and practice variable

With a total sample size of 650 respondents, the table shows the locations of meal completion among students

From various educational backgrounds. As an illustration, 229 first-year students eat all of their meals at home, 57 at the canteen, 47 at roadside eateries, and 45 through services provided by maids. A statistically significant variation in the locations where meals are completed across different educational levels is indicated by the significance value (p=0.003).

4.2.2 Associate table including Gender and Attitude variable

Attitude Gender		How satisfied are you with your overall health?					Total	Significance
		Strongly dissatisfied	Dissatisfied	Neutral	Satisfied	Strongly satisfied		
Gender	Male	8(2.23%)	97(27.1%)	151(42.18%)	86(24.02%)	16(4.47%)	n=358	p=0.004
	Female	25(8.56%)	65(22.26%)	113(33.7%)	78(26.7%)	11(3.8%)	n=292	

Table 4.12 Associate table including Gender and Attitude variable

650 respondents make up the overall sample size, and the table shows data on health satisfaction levels broken down by gender. It was found that 8 male respondents were "Strongly Dissatisfied," 97 "Dissatisfied," 151 "Neutral," 86 "Satisfied," and 16 "Strongly Satisfied." Women made up 25 "Strongly Dissatisfied," 65 "Dissatisfied," 113 "Neutral," 78 "Satisfied," and 11 "Strongly satisfied." Gender differences in health satisfaction are statistically significant, as indicated by the significance value ($p=0.004$).

4.2.3 Associate table including residency and practice variable

Practice Residency		How many times you eat fruits in a week?				Total	Significance
		Daily	2-3 days	Rarely	Never		
Where do you live?	Hostel	17(9.39%)	49(27.1%)	99(54.7%)	16(8.9%)	n=181	p=0.000
	Home	36(13%)	120(43.2%)	114(41%)	8(2.9%)	n=278	
	Rental home	10(5.2%)	55(28.8%)	113(59.2%)	13(6.8%)	n=191	

Table 4.13 Associate table including residency and practice variable

650 respondents who reside in homes, rental homes, and hostels are included in the table, which displays their fruit consumption patterns. Among all residency kinds, "Rarely" is notably the most prevalent frequency. A statistically significant variation in the frequency of fruit consumption based on residency is shown by the significance value ($p=0.000$).

4.2.4 Associate table including residency and practice variable

Residency \ Practice		How often do you eat breakfast in weekly?				Total	Significance
		Daily	Sometimes	3-4 times in a week	Never		
Where do you live?	Hostel	68(37.6%)	60(31.2%)	40(22.1%)	13(7.2%)	n=181	p=0.000
	Home	159(57.2%)	70(25.2%)	42(15.1%)	7(2.5%)	n=278	
	Rental home	59(30.9%)	57(29.8%)	58(30.4%)	17(9%)	n=191	

Table 4.14 Associate table including residency and practice variable

With 650 respondents, the frequency of breakfast intake among those residing in homes, rental homes, and hostels is displayed in the table. Across all residency kinds, eating breakfast "daily" is the most common. There is a statistically significant variation in the frequency of breakfast eating based on residency, as indicated by the significance value (p=0.000).

4.2.5 Associate table including residency and knowledge variable

Residency \ Knowledge		Do you maintain your food frequency?		Total	Significance
		Yes	No		
Where do you live?	Hostel	96(53%)	85(47%)	n=181	p=0.004
	Home	182(65.5%)	96(34.5%)	n=278	
	Rental home	99(51.8%)	92(48.2%)	n=191	

Table 4.15 Associate table including residency and knowledge variable

With 650 replies, the table illustrates whether people maintain their eating frequency throughout various residency types. In general, across all residency kinds, a greater number of people continue to eat at the same frequency than discontinue. Based on residency, there is a statistically significant difference in food frequency maintenance, as indicated by the significance value (p=0.004).

4.2.6 Associate table including residency and practice variable

Practice Residency		Do you take your meal timely?		Total	Significance
		Yes	No		
Where do you live?	Hostel	83(45.9%)	98(54.1%)	181	p=0.000
	Home	130(46.8%)	148(53.2%)	278	
	Rental home	53(27.8%)	138(72.2%)	191	

Table: 4.16 Associate table including residency and practice variable

With 650 responses in all, the table shows dinner timing among people in various residency categories. The proportion of timely meal intake is highest among house residents and lowest among hostel inhabitants. Based on residency, there is a statistically significant difference in meal timeliness, as indicated by the significance value ($p=0.000$).

4.3 Discussion:

Our study explores the relationships among university students' eating habits and other socio-demographic, psychological, and lifestyle factors.

Our findings are in line with studies like (Al-Awwad et al., 2021) and (Niba et al., 2017), which show a significant prevalence of obesity and overweight among college students. In keeping with the findings of (Al-Awwad et al., 2021) that 36% of students were overweight and 8.6% were obese, 56% of our surveyed said they had issues related to their weight.

Dietary changes and living circumstances (Alghamdi et al., 2018; Francesco et al., 2013) show how dietary patterns are impacted by living arrangements. Also, our study reveals that the eating habits of students who live away from home and those who live with their families differ. 57.7% of our respondents eat at roadside restaurants, for instance, indicating a move away from home-cooked meals.

The impact of religion on eating habits and cardiovascular risk is highlighted in Influences from Religion and Culture (Prado et al., 2018). Even though religion wasn't an explicit topic of discussion in our study, sociocultural factors undoubtedly influence dietary decisions. For example, our data show that 73% of students eat fast food on campus; this number may be explained by convenience and peer pressure. Meal Timing and Frequency: Our findings corroborate the findings of research on students' irregular meal schedules published in (Alghamdi et al., 2018) and (Niba et al., 2017). According to our data, 42% of students found it difficult to maintain a regular lunch schedule, which is in line with the general trend of irregular eating among college students.

Conscience and Understanding, (El-Mouty 2016) and (Cefai & Camilleri 2011) highlight the importance of dietary knowledge and awareness. Likewise, varying degrees of awareness are evident in our poll, as 76% of students admitted that eating habits are influenced by their mood. However, just 10% of people consume fruits daily, indicating a potential gap between knowledge and behavior.

Variations by Gender in Health Satisfaction Our study reveals gender variations in health satisfaction among college students, which validates the findings of (Al-Awwad et al., 2021). Gender and total health satisfaction were shown to be statistically significantly correlated ($p = 0.004$), which is in line with other studies and suggests that gender-specific health interventions are required.

Effect of Residency on Eating Behaviors, Living arrangements have a significant impact on dietary habits, as noted by (Alghamdi et al., 2018) and (Francesco et al., 2013). This is supported by our research, which shows a strong relationship between residence and meal frequency, timing, and choice of foods. Interestingly, students who live in dorms or rental houses on campus have different eating habits than students who live at home, highlighting the influence of surroundings on dietary habits. Eating Out and Fast Food Consumption: According to our research, 73% of students choose campus locations for fast food, indicating a predominance of this preference. This is consistent with (Yun et al., 2018), who find that overweight people consume more fast food. The widespread consumption of fast food highlights the necessity of campus-wide programs that support healthy dining options.

Challenges Getting Nutritious Meals, Nearly half of those polled list a number of barriers, such as scarcity, high cost, and poor quality that keep them from having access to nutritious meals. This is in line with studies by (Niba et al., 2017) and (El-Mouty 2016), which demonstrate structural barriers to

motivating college students to embrace a healthy diet. The Impact of Lifestyle Factors on Health: Our findings point to a concerning pattern of health issues, including allergies, weight gain, and digestive disorders, that are linked to the lifestyles of university students. These findings corroborate those of (Al-Awwad et al., 2021) and (Prado et al., 2018), emphasizing the value of all-encompassing health interventions that consider lifestyle and nutrition factors.

There are a number of limitations to our study on the relationships between eating habits and socio-demographic characteristics among college students. Firstly, because recruitment may have been restricted to particular universities or locations, the sample may not be representative of the larger student population due to potential sampling bias. Furthermore, depending solely on self-reported data raises the risk of social desirability bias and recall bias, which could skew responses. For deeper insights, longitudinal research is required because the study's cross-sectional design makes it difficult to demonstrate causal linkages. Also, it's possible that some significant variables that might have affected the observed relationships were overlooked in the study, including socioeconomic status or cultural standards. Additional challenges to interpreting results include measurement limitations and the existence of confounding variables. Even with these drawbacks, our research offers insightful information about the complexity of eating habits among college students, underscoring the need for more thorough studies to properly address these limitations and guide focused treatments.

CHAPTER 5

Conclusion

5. Conclusion

Our research explores the complex interactions that exist between eating practices and a range of socio-demographic, psychological, and lifestyle characteristics among college students. Numerous associations have surfaced from our investigation, illuminating the complex nature of students' eating habits. Gender differences in health-related attitudes and behaviors seem to be reflected in larger research findings on gender disparities in overall health satisfaction. This emphasizes the necessity of specialized health interventions that cater to the health needs and preferences of different genders. Furthermore, the degree of education and place of residence have a big influence on how students eat. Meal location and education level are correlated, indicating that dining preferences are influenced by educational backgrounds. Residency had an impact on fruit intake, breakfast frequency, meal time, and food frequency maintenance, underscoring the critical role that environmental factors play in influencing dietary practices. When we compare our results with previous research, we discover both similarities and differences. Our data are consistent with studies reporting a prevalence of obesity and overweight among college students. In a similar vein, the impact of living arrangements on eating habits is consistent with earlier studies, highlighting the significance of environmental influences on eating habits. On the other hand, differences emerge in terms of nutritional awareness and understanding. Although research highlights the importance of nutritional education, our findings point to a possible discrepancy between students' understanding and behavior. Furthermore, our results highlight the widespread obstacles that students have when trying to obtain nutritious meals, which is indicative of institutional impediments to encouraging a healthy diet on campus. All things considered, our research offers insightful information about the intricate web of variables affecting students' eating preferences. Stakeholders may create focused interventions that encourage healthier eating habits and enhance overall student well-being by identifying and comprehending these effects.

References

- Al-Awwad, N. J., Al-Sayyed, H. F., Zeinah, Z. A., & Tayyem, R. F. (2021). Dietary and lifestyle habits among university students at different academic years. *Clinical Nutrition ESPEN*, 44(12), 1-488.
- Alghamdi, E. S., Farrash, M. S., Bakarman, M. A., & Mukhtar, A. M. (2018). Dietary Habits of University Students Living at Home or at University. *Global Journal of Health Science*, 10(10), 50-54.
- Aljefree, N. M., Shatwan, I. M., & Almoraie, N. M. (2022). Impact of the Intake of Snacks and Lifestyle Behaviors on Obesity among University Students Living in Jeddah, Saudi Arabia. *Healcare Journal*, 1-14.
- Cefai, C., & Camilleri, L. (2011). The dietary habits of Maltese university students. *Malta Medical Journal*, 23(2), 7-12.
- Cozma, C. D., Gavrilută, C., Mitrea, G., & Cojocaru, D. C. (2014). THE IMPORTANCE OF HEALTHY LIFESTYLE IN MODERN SOCIETY. *European Journal of Science and Theology*, 10(3), 111-120.
- Deliens, T., Clarys, P., Bourdeaudhuij, I. D., & Deforche, B. (2018). Determinants of eating behaviour in university. *BMC Public Health*, 14(3), 1-12.
- El-Mouty, S. M. (2016). Exploring Factors Affecting Dietary Habits Of Mansoura. *IOSR Journal of Nursing and Health Science (IOSR-JNHS)*, 5(3), 90-100.
- FRANCESCO, B., TIZIANA, G., FRANCESCA, S., & ADELE, I. (2013). Dietary habits and health among university students living at or away from home in southern Italy. *Journal of Food & Nutrition Research*, 52(3), 164.
- Kim, J., Choi, O., Lee, Y., Lee, Y., & Song, K. (2021). A comparison on health-related lifestyle, dietary habits, and depression by exercise frequency of college students. *Nutrition reseach & practise*, 15(3), 355-366.
- McCarthy, M. B., Collins, A. M., Flaherty, S. J., & McCarthy, S. N. (2017). Healthy eating habit: A role for goals, identity, and self-control. *Phycology & Marketing*, 34(8), 772-785.
- Niba, L. L., Atanga, M. B., & Navti, L. K. (2017). *A cross sectional analysis of eating habits and weight status of university students in urban Cameroon* (Vol. 3).
- PL, L., & Elena, W. D. (2012). The Impact of Nutrition Education Interventions on the Dietary Habits of College Students in Developed Nations: A Brief Review. *The Malaysia Journal of Medical Sciences*, 19(1), 7-12.

- Prado , S. N., RioValle , J. S., Alonso, M. M., Aparicio, F. Á., & Jiménez, G. E. (2018). Unhealthy Lifestyle and Nutritional Habits Are Risk. *International Journal of Environmental Research and Public Health*, 15(12), 1-17.
- Sprake, E. F., Russell, J. M., Cecil, J. E., Cooper, R. J., Grabowski, P., Pourshahidi, L. K., & Barker, M. E. (2018). Dietary patterns of university students in the UK: a cross-sectional study. *Sprake et al. Nutrition Journal* (2018), 17(9), 1-17.
- Yun, T. C., Ahmad, S. R., & Quee, D. K. (2018). Dietary Habits and Lifestyle Practices among. *The Malaysia Journal of Medical Science*, 25(3), 56-66.

APPENDICES

Appendix 1: Questionnaires

SL No.	Questions	Options	Code categories
01	Education Level	1. 1st year----- 1 2. 2 nd year----- 2 3. 3 rd year----- 3 4. 4 th year----- 4	
02	Gender	1. Male----- 1 2. Female----- 2	
03	Where do you live?	1. Hostel----- 1 2. Home----- 2 3. Rental home----- 3 4. Others_____ 4	
04	Do you maintain your food frequency?	1. Yes----- 1 2. No----- 2	
05	From where do you complete your meal?	1. Canteen----- 1 2. Roadside restaurant----- 2 3. Home----- 3 4. Maid prepared service----- 4	
06	How often do you eat breakfast in weekly?	1. Daily ----- 1 2. Sometimes----- 2 3. ___ times in week----- 3 4. Never----- 4	
07	Do you take your meal timely?	1. Yes----- 1 2. No----- 2	
08	Do you eat snacks during the daytime?	1. Frequently----- 1 2. Occasionally----- 2 3. Rarely----- 3 4. Never----- 4	
09	Do you eat snacks at late night?	1. Yes----- 1 2. No----- 2	

10	How satisfied are you with your overall health?	1. Strongly dissatisfied----- 1 2. Dissatisfied----- 2 3. Neutral----- 3 4. Satisfied----- 4 5. Strongly Satisfied----- 5	
11	On average, how much money do you spend on food daily on average?	Answer: _____ Taka.----- 1	
12	What type of food you eat when you're on campus?	1. Fast food: _____ 1 2. Homemade food: _____ 2 3. Beverage: _____ 3	
13	What type of protein source do you prefer in your meal? (You could choose more than one) (Give ✓)	1. Broiler chicken ----- 1 2. Layer chicken ----- 2 3. Pakistani chicken ----- 3 4. Local chicken ----- 4 5. Beef ----- 5 6. Mutton ----- 6 7. Duck ----- 7 8. Fish ----- 8 9. Egg ----- 9 10. Dal ----- 10	
14	How many times you eat fruits in a week?	1. Daily----- 1 2. _____ days----- 2 3. Rarely----- 3 4. Never----- 4	
15	How many times you eat vegetables in a week?	1. Daily----- 1 2. _____ days----- 2 3. Rarely----- 3 4. Never----- 4	
16	For which reason, you can't take healthy food? (You could choose more than one) (Give ✓)	1. Less facility of good food---- 1 2. High price----- 2 3. Bad quality of foods----- 3 4. Lacking's of good restaurants---- ----- 4 5. No facilities in hostel----- 5	
17	Do you have any food diseases?	1. Constipation----- 1 2. Digestion problem----- 2 3. Food poisoning----- 3	

		4. Vomiting----- 4 5. Nausea----- 5 6. Other (____) ----- 6	
18	Do you have food related condition or disorder? (You could choose more than one) (Give ✓)	1. No----- 1 2. If yes----- 2 3. Compulsive reading----- 3 4. Night eating syndrome----- 4 5. Exercise addiction----- 5 6. Anxiety----- 6 7. Others----- 7	
19	Do you avoid eating even when you feel hungry whether you're busy with work?	1. Yes----- 1 2. No----- 2	
20	Do you like to eat street food more often?	1. Yes----- 1 2. No----- 2	
21	Do you think, your mood affect your eating habit?	1. Yes----- 1 2. No----- 2	
22	Do you feel, food can control your life?	1. Yes----- 1 2. No----- 2	
23	Have you experienced weight gain recently?	1. Yes----- 1 2. No----- 2	
24	Do you have any food allergy?	1. Yes----- 1 2. No----- 2	
25	Do you face health illness?	1. Yes----- 1 2. No----- 2	
26	What Kind of Health problem you face for eating outside? (You could choose more than one) (Give ✓)	1. Vomiting----- 1 2. Gastric----- 2 3. Diarrhea----- 3 4. Laziness ----- 4	
27	How many times you sick per week	1. 1 times----- 1 2. 2-3 times----- 2 3. Rarely----- 3	

		4. Never-----	4	
28	Do you exercise regularly?	1. Yes----- 1		
		2. No----- 2		
29	How many times you exercise?	1. 1-2 days-----	1	
		2. 3-4 days-----	2	
		3. Rarely-----	3	
		4. Never-----	4	

Height:

Weight:

Birth year:

Daffodil International University
Department of Nutrition and Food Engineering (NFE)
Faculty of Allied Health Sciences (FAHS)

Daffodil International University
Daffodil Smart City, Birulia, Savar, Dhaka – 1216, Bangladesh

1. Student's Name: Shanto Karmoker

2. Id: 201-34-291

3. Section: 201-D

1. Title: Relationship between Dietary Habits and Various Socio-Demographic, Psychological, and Lifestyle Factors among University Students.

2. Introduction:

The change from high school to college is a crucial time for kids to learn how to manage their newfound independence. However, there are long-term health hazards associated with this transition since it frequently occurs alongside bad eating and lifestyle choices. Studies reveal common problems including erratic eating habits, dependence on high-calorie meals, and insufficient nutritional consumption among college students. These habits lead to chronic diseases like obesity and cardiovascular problems, which are made worse by external causes like stress and time limits. It is essential to comprehend these dynamics in order to encourage healthy lifestyles and avert unfavorable health outcomes. This overview explores the effects of college living on eating patterns, the incidence of obesity, and the connection between student health outcomes and food choices. (Al-Awwad et al., 2021).

3. Background: Nutrition is essential for preserving general health, especially for undergraduates (18–25 years old), who have special difficulties forming good eating habits because of their shifting lifestyles and external factors. It is crucial to comprehend the relationships between socio-demographic factors, psychological traits, lifestyle choices, and eating habits of college students in order to create focused interventions that will encourage better eating practices and enhance long-term health outcomes. By investigating these associations on suburban and urban college campuses, this study seeks to close this gap. (Kim et al., 2021)

- **Rationale:** The selected nutrition-related issue investigates the complex interactions among college students' food habits, psychological traits, lifestyle choices, and socio-demographic variables. In order to address health inequities and encourage healthier eating habits, it is imperative to comprehend these linkages. But there are still questions about the underlying mechanisms generating these relationships, which emphasizes the need for more research to guide focused initiatives meant to enhance the general health and well-being of this population.

- **Research Question or Hypothesis:** What relationships exist between socio-demographic traits, psychological traits, lifestyle choices, and eating patterns among college students, and how do these relationships affect the course of their general health?

4. Objectives:

- Analyze eating habits among college students according to various socio-demographic criteria.
- Analyze how dietary decisions and psychological variables are related.
- Analyze how university students' lifestyle choices affect their eating habits.

1. Methodology: A mixed-methods approach will be used in this study to analyze university students' food choices with a particular focus on knowledge, attitude, and practice (KAP) analysis. The study will focus on individuals between the ages of 18 and 26 who attend different universities in Dhaka, Bangladesh. To gather information on dietary habits, eating patterns, and lifestyle factors, a structured questionnaire will be used. This questionnaire was verified through pretesting with forty students from Daffodil International University. Participating in the study will be 650 students from various academic years. Surveys and interviews will be done in person between September and February in order to collect data. The data will be organized in Microsoft Excel and statistical analysis will be carried out with SPSS version 22.0.

2. Expected Outcomes:

- Identify the associations between the variables and eating patterns.
- Find out about chances for healthier eating intervention.
- Participate in evidence-based college nutrition strategies.
- Expand knowledge of the psychological and socio-demographic factors that affect death

3. Socio-economic Impact:

- A clear understanding of the relationship between socioeconomic status and eating habits among college students.
- The creation of focused interventions to address socioeconomic gaps in access to healthy food options can be informed by the findings.
- Participation in the creation of research-based guidelines meant to encourage college students from a range of socioeconomic backgrounds to adopt healthier eating habits.

4. Time Schedule of Activities:

Task	Activities by Months					
	September	October	November	December	January	February
Literature research	2 th Sep,23					
Study protocol and questionnaire development	5 th Sep-7 th Sep,23					
Training	10 th sep-10 th Sep,23					
Pretesting of Study protocols, questionnaire		5 th Oct to 10 th Oct,23				
Data and sample collection phase			3 rd Nov 25 th Dec, 23			
Data analysis and report writing					3 Jan to 25 Feb, 24	
Report Submission						25 Feb, 24

5. Signature of Supervisor and Fellow:



Abu Saeid

Lecturer (Senior Scale)

Department of Nutrition and Food Engineering,
Daffodil International University

Relationship between Dietary Habits and Various Socio-Demographic, Psychological, and Lifestyle Factors among University Students

ORIGINALITY REPORT

14%	12%	7%	8%
SIMILARITY INDEX	INTERNET SOURCES	PUBLICATIONS	STUDENT PAPERS

PRIMARY SOURCES

1	dspace.daffodilvarsity.edu.bd:8080 Internet Source	4%
2	www.ncbi.nlm.nih.gov Internet Source	1%