BREAKFAST HABITS OF UNIVERSITY STUDENTS AND THE ADVERSE IMPACT ON ACADEMIC PERFORMANCE DUE TO SKIPPING BREAKFAST

A THESIS REPORT

BY

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

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APPROVAL

This Thesis titled "Breakfast Habits of University Students and the Adverse Impact on Academic Performance due to Skipping Breakfast", submitted by **SHARMIN NAHAR SHATHY** 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, its style and contents are approved. The presentation was held on 9th December 2024

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DECLARATION

I hereby declare that," Breakfast Habits of University Students and the Adverse Impact on Academic Performance due to Skipping Breakfast" this project has been done under the supervision of **Ms. Arifa Sultana**, Lecturer (senior scale), Department of NFE, Daffodil International University. I also declare that neither this project nor any part of this project has been submitted elsewhere for award of any degree.

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ABSTRACT

This research delves into the breakfast habits of university students, shedding light on the potential detrimental effects of skipping this crucial meal on academic performance. Recognizing breakfast as a cornerstone for overall health and cognitive function, the study addresses the growing concern surrounding the prevalence of breakfast skipping among university students and its potential implications for academic success.

Extensive research has already demonstrated links between breakfast habits and various factors, including chronic illness, mental health issues, and unhealthy behaviors. Despite the global significance of this topic, there remains a significant gap in research specific to the prevalence and consequences of breakfast skipping among university students in Bangladesh.

This study aims to bridge this gap by meticulously examining the prevalence of breakfast skipping among university students in Bangladesh and dissecting its potential adverse impact on academic performance. By doing so, the research seeks to provide valuable insights that contribute to a comprehensive understanding of the intricate relationship between dietary habits and educational outcomes among university students. Through its findings, this research endeavors to illuminate the importance of prioritizing a healthy breakfast routine for optimal academic achievement and overall well-being.

Keywords: Breakfast habits, skipping, Academic performance, Cognitive function, Chronic illness, Unhealthy behaviors, Dietary habits, Prevalence, Diet and cognition.

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

CHAPTER ONE

INTRODUCTION

3.2 Introduction

Breakfast is the most essential meal of the day, and it is defined as any meal consumed between six and nine in the morning. When you eat within two hours of waking up in the morning, you help your body meet its daily nutritional demands, maintain a healthy weight, boost your mood, accelerate your metabolism, and prevent malnutrition. Moreover, having breakfast every day lowers the risk of chronic illness, insulin resistance, and metabolic syndrome while also playing a major role in dietary regulation and energy balance maintenance.

Previous studies have demonstrated that breakfast skipping was increasingly prevalent in all age groups. During the school-to-adult transition phase, there are behavioral and psychological changes that occur, including adjustments to breakfast consumption. Unhealthy behaviors like skipping breakfast can be the outcome of these changes. A increased risk of diabetes mellitus, insulin resistance, high body mass index, body storage fat, cardiometabolic disease, hypertension, high systolic blood pressure, and death has been associated with skipping breakfast, according to study. It has also been connected to a wide range of mental health conditions, including substance abuse, alcohol and tobacco use, depression, stress, mental agony, insomnia, trouble sleeping at night, and the formation of suicidal thoughts and behaviors. Regarding the prevalence of breakfast skipping among college students, there are differing reports. For example, in Bahrain, 47.7% of people skipped breakfast, compared to 50% in Turkey. 33% of women and 24% of men in America's adult population have inadequate breakfast habits. Youth in Saudi Arabia are more prone than other Saudi men to forgo breakfast. An extensive study conducted recently on children and teenagers from 33 different countries found that, on average, between 10% and 30% of young people skipped breakfast. People in their youth who are between the ages of 18 and 25 are usually ignored. Because of this, children's eating habits frequently get worse when they leave home to attend college, where they have to rely on themselves. In addition, they often skip breakfast and eat fast food. There are several reasons why students skip breakfast. For example, the children wanted to lose weight, were underweight, had nothing to eat, were pressed for time, did not want to eat early, and did not have an appetite. Moreover, they did not live with their parents, who used to prepare their breakfast. Additionally, eating habits were connected to students who were physically inactive, had divorced parents, lived alone or in rented accommodation, smoked, and went through stressful times.

A number of variables, such as gender, age, marital status, kind of household, educational attainment, parents' educational attainment, race, housing, academic achievement, skipping dinner, eating fast food or fruits and vegetables, smoking, getting enough sleep, where the students lived, and monthly income, have all been related in the past to the frequency of skipping breakfast. Environmental factors that contribute to breakfast skipping include the

growth of fast-food chains, convenience stores, shopping centers, and vending machines, as well as the encouragement of unhealthy eating practices. Student breakfast skipping is often caused by psychological factors, particularly mental health issues. Aspects of mental health include stress levels, depressed emotions, low happiness ratings, suicidal thoughts and behaviors, irregular sleep schedules, problems with nocturnal sleep, and poor quality of sleep. The risk of students skipping breakfast was also significantly raised by a variety of other characteristics, such as sadness, loneliness, sleep disorders, restless nights, and lack of sleep as a result of traumatic experiences. A sedentary lifestyle and lack of physical activity have also been associated with skipping breakfast.

A major negative sign of one's health, skipping breakfast is a behavior that many university students have. There are few studies on the prevalence of and reasons for breakfast skipping among university students in Bangladesh. This study aims to ascertain the prevalence of breakfast skipping among university students in Bangladesh and the associated factors.

1.2 Background of the study

The importance of breakfast as a fundamental component of a healthy lifestyle has been widely acknowledged, particularly for its role in meeting nutritional needs, enhancing cognitive function, and maintaining overall well-being. However, the prevalence of breakfast skipping, especially among university students, has become a growing concern due to its potential impact on academic performance. The transition from school life to university introduces significant behavioral and psychological changes, including shifts in dietary habits that may lead to unhealthy practices such as skipping breakfast.

Existing research highlights a clear connection between breakfast habits and health outcomes, spanning chronic illnesses, mental health issues, and unhealthy behaviors. Despite global awareness, a research gap exists in understanding the prevalence and consequences of breakfast skipping among Bangladeshi university students. This study aims to address this gap, examining breakfast habits and investigating how skipping breakfast may impact academic performance. Young adults aged 18 to 25, often overlooked in dietary studies, are a crucial demographic facing challenges in university life. Factors like time constraints, lifestyle changes, and environmental influences contribute to breakfast skipping. This research aims to provide valuable insights for interventions, support services, and policies promoting healthier dietary choices and enhancing academic outcomes among university students in Bangladesh. Understanding breakfast habits and their consequences is vital for crafting targeted strategies to improve the overall well-being and success of Bangladeshi university students.

1.3 Significant of the study

This study fills a significant research gap regarding the breakfast habits of university students in Bangladesh and the possible effects of skipping breakfast on academic performance. In order to promote healthy eating choices among this particular group, legislation, support services, and focused interventions must take these dynamics into account. The study's conclusions should provide insightful information that improves university students in Bangladesh's general well-being and academic performance by providing a framework for creating methods catered to their particular problems and circumstances.

1.4 Academic and research contribution

The academic and research contribution of this topic lies in its exploration of the breakfast habits of Bangladeshi university students and the consequent impact on academic performance. By addressing a research gap in this context, the study contributes valuable insights to the existing body of knowledge. The findings are expected to offer a nuanced understanding of how dietary choices influence academic outcomes in the specific setting of Bangladesh. This research can serve as a foundation for future academic inquiries into the complex relationship between lifestyle choices and educational success among university students. Furthermore, the study may provide practical implications for educators, policymakers, and support services in Bangladesh, offering tailored strategies to enhance the overall well-being and academic achievements of university students in the country.

1.5 Research objective

1.5.1 Investigate Breakfast Habits:

- Assess the frequency of breakfast consumption among university students.
- Identify the types of food typically consumed during breakfast.

1.5.2 Analyze Breakfast Skipping:

- Determine the causes of breakfast skipping among students.
- Explore demographic differences in breakfast habits.

1.5.3 Assess Impact on Academic Performance:

- Examine the relationship between breakfast habits and students' academic performance using GPA analysis.

1.5.4 Evaluate Nutritional Awareness:

- Assess students' awareness of the nutritional importance of breakfast.
- Explore how nutritional knowledge influences breakfast choices.

1.5.5 Understand Broader Impacts:

- Investigate the effects of breakfast habits on fatigue and concentration levels.
- Examine the overall well-being of students in relation to their breakfast behaviors.

1.5.6 Propose Interventions:

- Suggest strategies to promote healthier breakfast habits among university students.

CHAPTER TWO

LITERATURE REVIEW

The text discusses the rising prevalence of chronic diseases in the United States, particularly among college students, and highlights the need for early detection and lifestyle changes. It emphasizes the critical role of the college period in shaping lifelong habits and underscores the importance of nutrition education and empowerment through knowledge. A research study conducted at Central Michigan University (CMU) found variations in weight status, dietary habits, physical activity, and nutritional knowledge among students. The outcomes suggest a need for tailored interventions to improve students' wellness. The text also notes the scarcity of research on health-risk behaviors among college students in Michigan. Overall, it stresses the urgency of addressing unhealthy behaviors to prevent the development of chronic diseases. (Yahia, N., et al., "Weight status, dietary habits, physical activity, and nutritional knowledge among university students," *Perspectives in Public Health*, vol. 136, no. 4, pp. 231-244, 2016.)

The text discusses the transition from adolescence to adulthood as a period associated with the adoption of negative health behaviors, such as increased smoking, decreased physical activity, and lower consumption of fruits and vegetables. It specifically focuses on college students, highlighting that their first year often leads to unhealthy dietary patterns and potential weight gain. The relationship between obesity and serious health risks, such as hypertension and coronary heart disease, is emphasized. The importance of breakfast in obesity prevention is explored, with studies suggesting its role in reducing weight and obesity. The text introduces a local study aiming to investigate the association between breakfast habits, snack consumption frequency, and body mass index (BMI) among young adults in a Malaysian university. The study includes demographic characteristics of the participants, indicating a majority of female students with a predominantly normal BMI. The findings reveal that having breakfast was more prevalent among students with a normal BMI compared to those in the obesity group. The frequency of breakfast consumption during the study week, the previous week, and holidays is presented, showing variations between BMI groups. Overall, the study aims to contribute to the understanding of the relationship between breakfast habits, snack consumption, and BMI among young adults in the local setting. (Isa, K. A. M., and M. G. Masuri, "Breakfast consumption, snacking behavior, and BMI among university students," *Am. J. Food Nutr.*, vol. 1, no. 2, pp. 55-60, 2011.)

The study included 78,905 Iranian university students aged 18 or older from 28 provinces. It aimed to explore the link between breakfast consumption habits and overweight/obesity. Breakfast patterns were assessed through a questionnaire, and BMI was calculated using height and weight measurements. Overweight and obesity were defined as BMI≥25 and BMI≥30 kg/m2, respectively. (Mansouri, M., et al., "Breakfast consumption pattern and obesity among university students," *Eat. Weight Disord.*, vol. 25, pp. 379-387, 2020.)

The results, after adjusting for potential confounders, revealed that students who ate breakfast more than four days a week had a 15% lower risk of being overweight compared to those who ate breakfast less than once a week. This association was significant for female students (18% lower risk) and marginally significant for males (11% lower risk).

Additionally, a significant inverse association was observed between breakfast consumption and obesity. Students who had breakfast more than four days a week were 33% less likely to be obese compared to those who consumed it less than once a week. This significant inverse association held true for both genders. (Watanabe, Y., et al., "Skipping breakfast correlated with obesity," *J. Rural Med.*, vol. 9, no. 2, pp. 51-58, 2014.)

the study found a consistent inverse relationship between frequent breakfast consumption and the likelihood of being overweight or obese among Iranian university students. In summary of (Díaz-Torrente, X., and D. Quintiliano-Scarpelli, "Dietary patterns of breakfast consumption among Chilean university students," *Nutrients*, vol. 12, no. 2, p. 552, 2020.)

Chrono nutrition will be utilized to consider nutrient intake, physical assessments, serum markers, and lifestyle variables in order to examine the relationship between meal timing and obesity in Japan. 766 people of Toon City, ages 30 to 79, who underwent medical examinations between 2011 and 2013 had their data examined (286 men and 480 women). Measures included physical attributes, blood markers, lifestyle inquiries, a food frequency questionnaire, and details on when to eat and snack. Those who ate dinner fewer than three hours before going to bed had higher BMIs and waist circumferences. The groups' eating habits (snacking, late-night snacks, dinner after 8 p.m., and supper after 9 p.m.) differed noticeably from one another. Only the BMI ($\beta = 0.581$) was impacted by eating dinner fewer than three hours before bed, but the BMI ($\beta = 1.440$) and waist circumference ($\beta = 5.271$) were greatly impacted by skipping breakfast. Skipping breakfast had a greater effect on BMI and waist circumference than eating dinner less than three hours before bed. (Lien, L., "Breakfast consumption, mental distress, and academic performance in adolescents," *Public Health Nutr.*, vol. 10, no. 4, pp. 422-428, 2007.)

The study aims to determine breakfast patterns and assess breakfast quality among Chilean university students, identifying four distinct patterns. This research is the first of its kind in this population. Data from 766 university students in Toon City were analyzed, incorporating physical measurements, serum markers, lifestyle questionnaires, and food frequency assessments to identify common breakfast patterns. Four patterns were identified, explaining 37.5% of variance. No significant sex differences were observed, but "traditional salty" pattern was more common in men. Regular breakfast consumption related to "dairy & cereals" and "traditional sweet" patterns. The "healthy" pattern was associated with overweight. The study revealed low fruit intake among participants. The study highlights varied breakfast patterns among Chilean university students, with implications for nutritional quality. Strategies addressing barriers to fruit consumption and promoting regular breakfast habits are suggested for improving the dietary quality of this population. (Sadr Hashemi, F., et al., "Relationship between breakfast consumption and self-efficacy in elementary students," *Int. J. Pediatr.*, vol. 5, no. 1, pp. 4163-4174, 2017.)

The study aims to investigate the differences in emotional distress, academic achievement, and regular breakfast consumption among tenth grade pupils in relation to gender and immigration status. This cross-sectional population-based study employed two surveys completed during Oslo, Norway's school seasons. 7343 students participated, making up 88.3% of the eligible 10th graders. In Norway, girls and immigrant groups—aside from Western countries—miss breakfast more frequently than boys and students. Adjusted odds ratios show a greater link between mental distress, subpar academic achievement, and

infrequent breakfast consumption when comparing boys and Norwegians to girls and immigrants. Regular breakfast consumption is associated with less emotional distress and improved academic performance, with variations based on gender and immigration status. The paper suggests investigating measures such as school food programs and teaching parents about the benefits of eating breakfast daily. (Pengpid, S., and K. Peltzer, "Skipping breakfast, health risk behavior, and mental health among university students," *Diabetes Metab. Syndr. Obes.*, pp. 2889-2897, 2020.)

Analyze how primary school kids' breakfast consumption habits relate to their assessments, knowledge, expectations for their performance, and self-perceptions of their talents. 514 elementary school students in Isfahan, Iran participated in a cross-sectional study using a questionnaire created by the researchers. Data analysis was done with SPSS 18.0. Only 10.5% of students ate breakfast each day. A substantial correlation was seen between breakfast consumption and self-efficacy, as well as result expectancies and outcome evaluation. It was observed that there were inverse relationships between the students' age and financial situation. Multiple regression analysis revealed that self-efficacy, school type, and student age explained 24.3% of the variance in breakfast consumption. According to the report, students' breakfast habits are not the best. Self-efficacy is a strong predictor of breakfast intake, suggesting that interventions such as counseling and educational programs are necessary to raise students' self-efficacy and increase their awareness of breakfast habits. (Ren, Z., et al., "Association between breakfast consumption and depressive symptoms in Chinese college students," *Int. J. Environ. Res. Public Health*, vol. 17, no. 5, p. 1571, 2020.)

Analyze the connections between academic success, mental health, risky behavior, and skipping breakfast among university students in 28 different countries. cross-sectional survey of 21,972 college students (median age: 20) from Africa, the Americas, and Asia. Self-reported measurements included breakfast consumption, health-related behaviors, mental health indices, and protective variables. A logistic regression analysis showed that skipping breakfast on a regular or rarely basis was associated with poor mental health indicators (such as depression, anxiety, and PTSD), sleep issues, subpar academic performance, and other risk behaviors. The study provides strong evidence linking skipping breakfast to poor university student academic performance, 10 out of 15 health risk behaviors, and all nine mental health indicators. (Goon, S., and M. S. Islam, "Breakfast skipping and obesity risk among urban adults in Bangladesh," *Int. J. Public Health*, vol. 3, p. 15, 2014.)

The purpose of this one-year prospective study was to investigate the association between Chinese college students' likelihood of experiencing depression symptoms and how often they ate breakfast. After controlling for relevant confounders, the study discovered a strong correlation between skipping breakfast and a higher likelihood of depressed symptoms. These findings provide credence to the theory that eating breakfast on a regular basis may prevent the onset of depression symptoms. The influence of carbohydrate intake, nutritional intake (zinc, magnesium, and folate), and possible contributions from daily routines and socioeconomic position are all plausible explanations for this link. The study's observational design, which precludes the establishment of causality, the regional focus on Chinese college students, and the use of self-reported depression severity ratings are among

its limitations. This study highlights the possible significance of breakfast habits in mental health and offers insightful information about the relationship between eating breakfast and depressed symptoms. To investigate causal linkages and create successful intervention strategies, more interventional research is required. (Brikou, D., et al., "Breakfast consumption and weight-loss maintenance: MedWeight study," *Br. J. Nutr.*, vol. 115, no. 12, pp. 2246-2251, 2016.)

This study investigates the prevalence of skipping breakfast and its associations with health issues among urban individuals in Bangladesh. 35.2% of adult Bangladeshis skip breakfast, the research states, with women being more likely to do so. Among the reasons were habits, work pressure, and a lack of time. Obesity and skipping breakfast were significantly correlated (OR 3.5; 95% CI 2.2-5.5). The study suggests that missing breakfast may have detrimental effects on one's health, such as obesity and low energy. The study highlights the importance of eating breakfast regularly for behaviors that enhance health. Among the study's limitations include the cross-sectional design, self-reporting bias, and absence of analysis of breakfast content or quality. It may be relevant to Dhaka after all. Given Bangladeshi urban people's high rate of breakfast skipping and the associated health risks, this study provides essential data to track and raise awareness of the importance of having breakfast on a regular basis. (Wicherski, J., S. Schlesinger, and F. Fischer, "Association between breakfast skipping and body weight," *Nutrients*, vol. 13, no. 1, p. 272, 2021.)

CHAPTER THREE

METHODOLOGY

3.1 Research design

Research design is a very important part of a research. This study's research method is a cross-sectional survey. This approach is good for collecting data at a certain point in time to look at the relationship between variables and find out what participants think about skipping breakfast. In the sections that follow, we'll talk about the most important parts of the study design.

3.1.1 Research Approach: The study uses a quantitative method to collect data in the form of numbers that can be analyzed statistically. This method lets researchers look for patterns, trends, and links between breakfast habit of university students.

3.1.2 Sampling: People from different universities in Bangladesh are chosen using a process called "convenience sampling." The size of the group is based on how much data can be collected in the time allotted and how many resources are available. There are efforts to make sure that members come from a wide range of universities and academic fields.

3.1.3 Instrument for the survey: A structured questionnaire is made to collect information about how participant breakfast habit, age, living area, financial condition, BMI, how their body react for skipping breakfast. The poll has both closed- and open-ended questions to get both numerical and qualitative data. The questionnaire is tried ahead of time to make sure it is clear, valid, and reliable.

3.1.4 Data collection: Google Forms or SurveyMonkey, which are online poll platforms, are used to collect data. The link to the poll is sent to people who might be interested in taking it through email, social media groups, and university communication channels. Participants are told what the study is about, that they can choose whether or not to take part, and that their answers will be kept secret. They have a certain amount of time to finish the study. Quantitative data from the poll is analyzed using statistical methods like descriptive statistics, chi-square tests, correlation analysis, and regression analysis.

3.1.5 Ethical Considerations: The study follows ethical rules to make sure that participants'information stays private, that they give full consent, and that they choose to take part. Participants are told that they can quit the study at any time without getting in trouble. The information is stored safely and is only used for study. Institutional review boards are asked for ethical approval, which makes sure that the study meets ethical standards. The cross-sectional survey design makes it possible to get information about how non-residential college students use social media and how they eat. This gives us useful information about how these two variables are related.

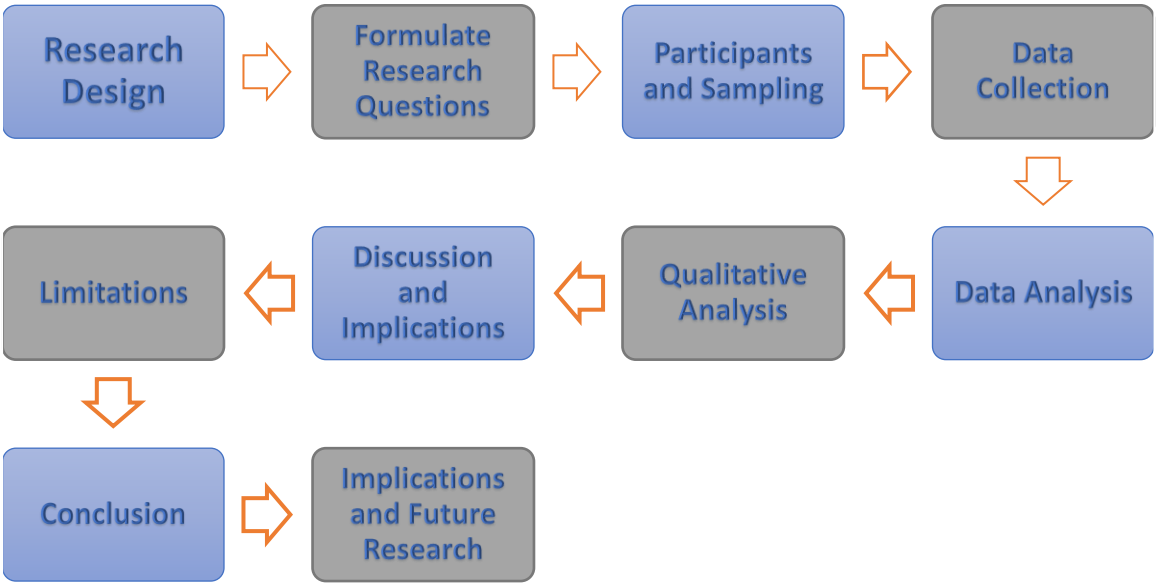

Figure 01: Research methodology design

3.2 Sampling technique and participant characteristics

The study will utilize a convenience sampling technique to recruit participants from various universities in Bangladesh. Convenience sampling is chosen due to its practicality and accessibility, allowing for the recruitment of readily available and willing participants. Non-residential and residential students of university students will be eligible to participate in the study.

Characteristic	**Description**
Eligibility	Residential and Non-residential university students aged 18 years or older
Sampling Method	Stratified random sample for the quantitative phase and purposive sampling for the qualitative phase make up the sampling strategy outlined in the research design.
Sample Size	Determined based on feasibility and available resources
University Affiliation	Participants from various universities in Bangladesh
Academic Discipline	Students from diverse academic disciplines
Demographic Information	Age, gender, university affiliation, academic discipline

Table 01: Eligible to participate in the study.

3.3 Data collection methods

To gather data for this study, an online survey was conducted with a sample of 200 participants from three universities (DIU, BRUR, HSTU) of Bangladesh. The survey consists of 22 questions related to their breakfast habit and academic performance.

3.4 Sample size calculation

Target Population

The target population for this study was 380 individuals, who were invited to participate in the survey by receiving a Google Form.

Respondents

Of the 380 individuals, 200 responses were received, yielding a response rate of approximately 52.63%.

Formula for Sample Size

The sample size was calculated using the formula for estimating a population proportion with finite population correction:

For an Infinite Population:

$$n_{infinite} = \frac{Z^2 \cdot p \cdot (1-p)}{E^2}$$

Where:

- Z = Z-value for a 95% confidence level (Z=1.96Z = 1.96Z=1.96),
- p = Estimated population proportion (assumed 0.5 for maximum variability),
- E = Margin of error (set at 5%, E=0.05E = 0.05E=0.05).

Calculation:

$$n_{infinite} = \frac{1.96^2 \cdot 0.5 \cdot (1-0.5)}{0.05^2} = \frac{3.8416 \cdot 0.25}{0.0025} = 384.16$$

Finite Population Adjustment:

$$n_{adjusted} = \frac{n_{infinite}}{1 + \frac{n_{infinite}-1}{N}}$$

Where:

- n = Initial sample size for an infinite population,
- N = Total population size (N=380).

Calculation:

$$n_{adjusted} = \frac{384.16}{1 + \frac{384.16-1}{380}} = \frac{384.16}{1 + 1.011} = \frac{384.16}{2.011} \approx 191$$

The required sample size for a population of 380 at a 95% confidence level with a ±5% margin of error was calculated to be 191. Since the study received 200 responses, the sample size was deemed sufficient to meet statistical requirements.
This format clearly explains the process while demonstrating your understanding of the methodology. Include any assumptions, such as the confidence level, margin of error, or variability, and ensure your readers understand how you determined the adequacy of your sample size.

CHAPTER FOUR

RESULT AND DISCUSSION

4.1 Findings and analysis

The survey conducted on User Breakfast Habits of University Students and the Adverse Impact on Academic Performance due to Skipping Breakfast yielded several interesting findings. Here is an analysis of the results:

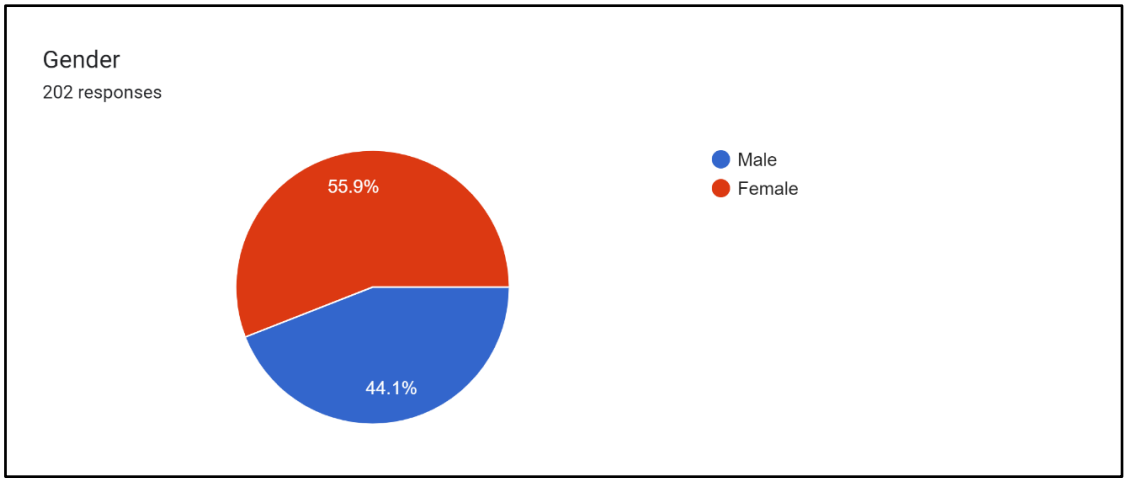

Figure 02: Gender of participates

1. Among the 202 participate this figure shows that 55.9% (113 female) were female and 44.1% (89 male) were male.

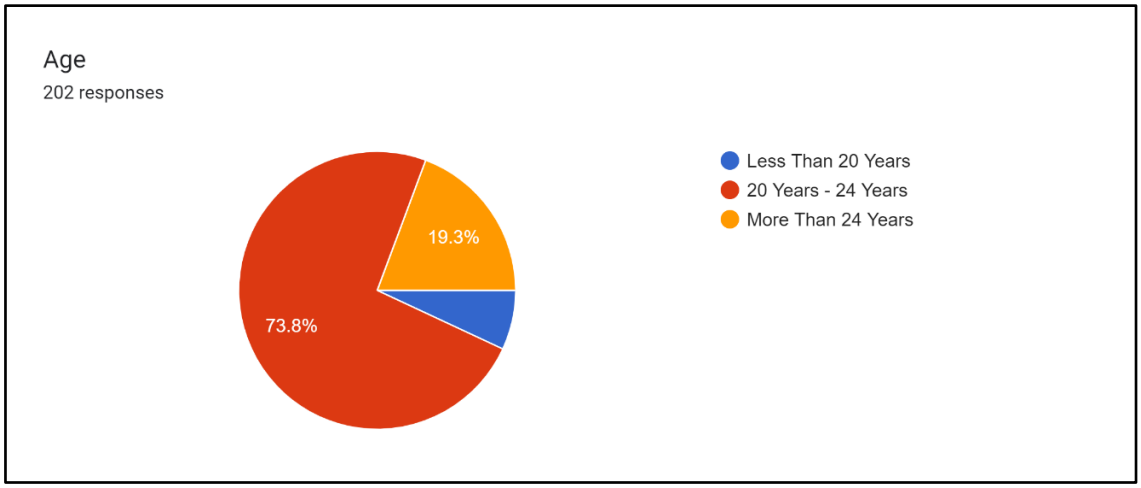

Figure 03: Age of participates

2. Find out the age of the participants. I divided age into three categories: less than 20, 20 to 24 and more than 24.
   Among 202 participants 73.8% participants which means 149 peoples age 20 to 24 years. 39 participants which is 19.3% of total participants are more than 24 years old. The remaining 6.9% i.e. 14 participants are under 20 years old.

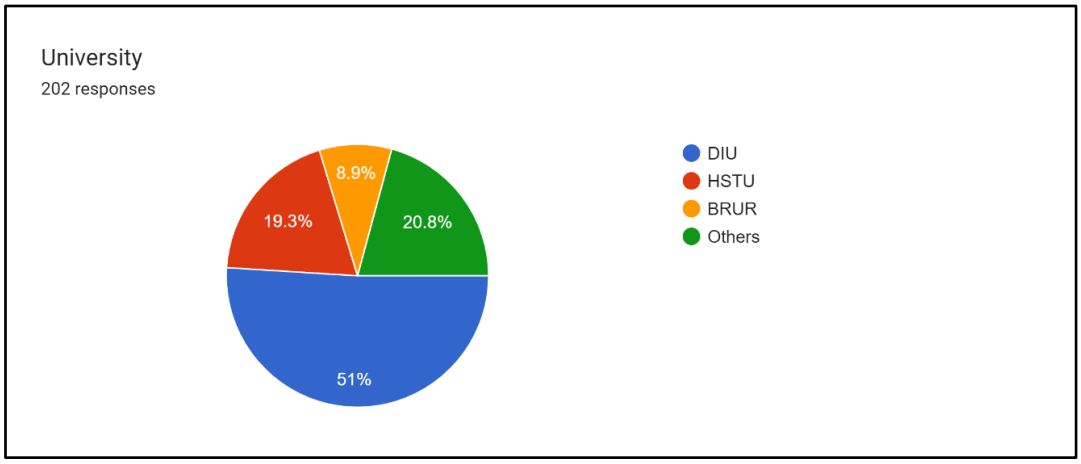

Figure 04: University of participates

3. I find the participants university. Most of the participants are from Daffodil International University which is 51% of total participants. 19.3% are from Hajee Mohammad Danesh Science & Technology University, 8.9% Begum Rokeya University, Rangpur and 20.8% participants are from different universities of Bangladesh.

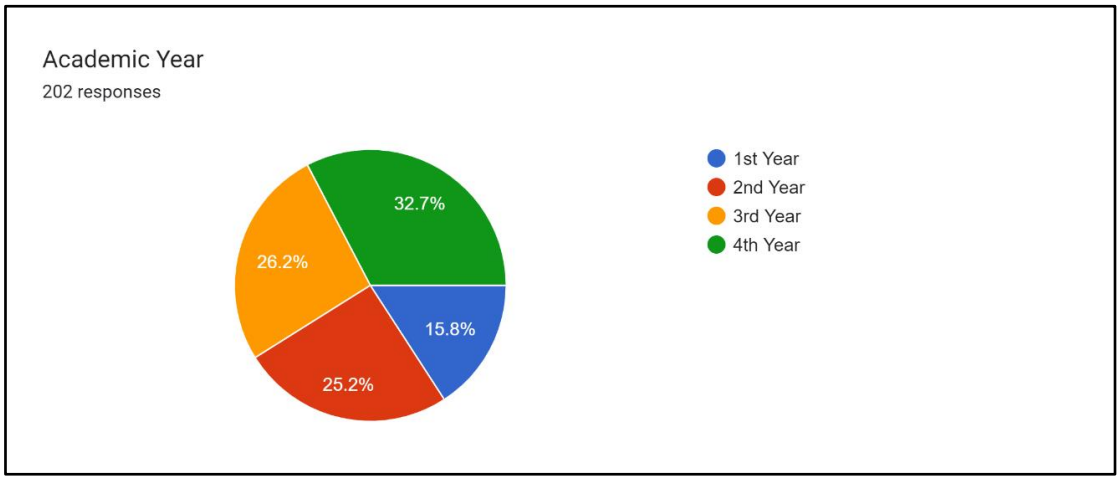

Figure 05: Academic year of participates

4. Among the participants 32.7% are 4th year students, 26.2% are 3rd year students, 25.2% are 2nd year students and 15.8% students are 1st year students.

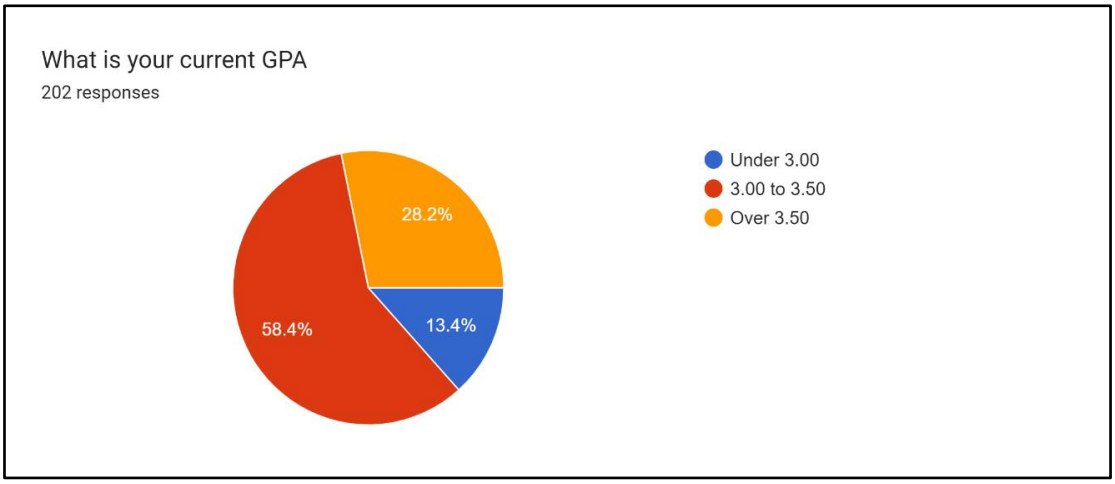

Figure 06: Result of participates

5. I asked their CGPA for analysis the impact of skipping breakfast on their study. I divided CGPA with three categories which is under 3.00, 3.00 to 3.50 and over 3.50. 58.4% said their CGPA was between 3 and 3.5, 28.2% said their CGPA was above 3.5 and 13.4% said their CGPA was below 3.00.

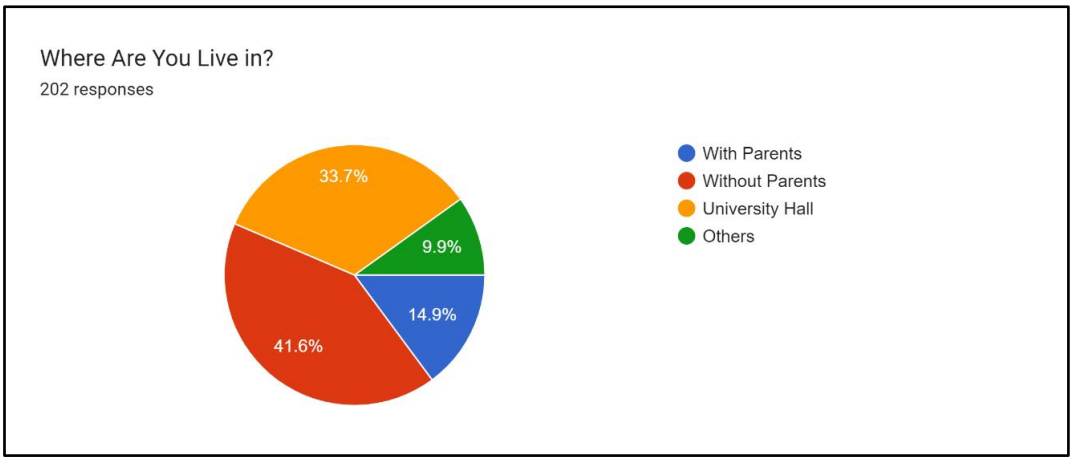

Figure 07: Participates with whom they live

6. I tried to get an idea of who the participants live with. 33.7% live in university halls, 41.6% live without their parents, 14.9% live with parents, 9.9% live otherwise.

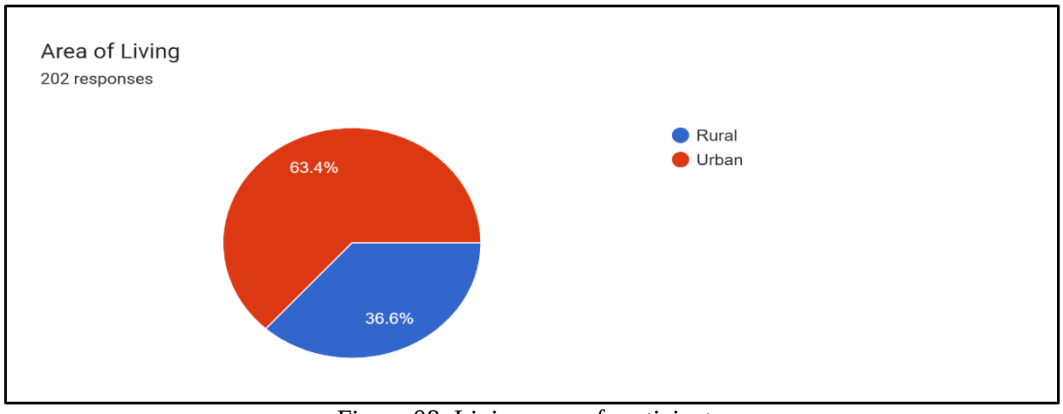

Figure 08: Living area of participates

7. In order to find out which area participants do not eat breakfast, we know whether they live in urban or rural areas. 63.4% of the participants live in urban areas and 36.6% of participants live in rural areas.

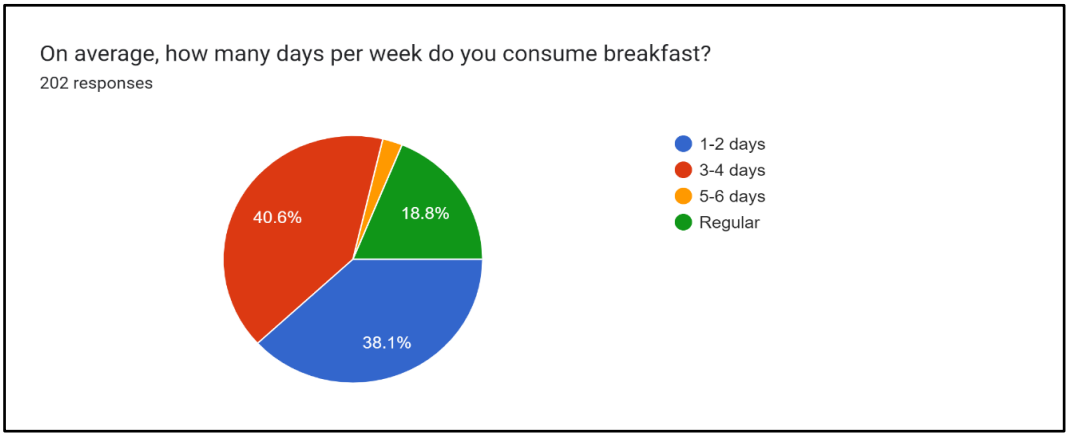

Figure 09: Breakfast consume of participates

8. Then I asked how many days a week they had breakfast. Among the 202 participants only 18.8% i.e. 38 had breakfast daily, 2.5% had breakfast 5 to 6 days a week, 40.6% had breakfast 3 to 4 days and 38.1% had breakfast only 1 to 2 days a week.

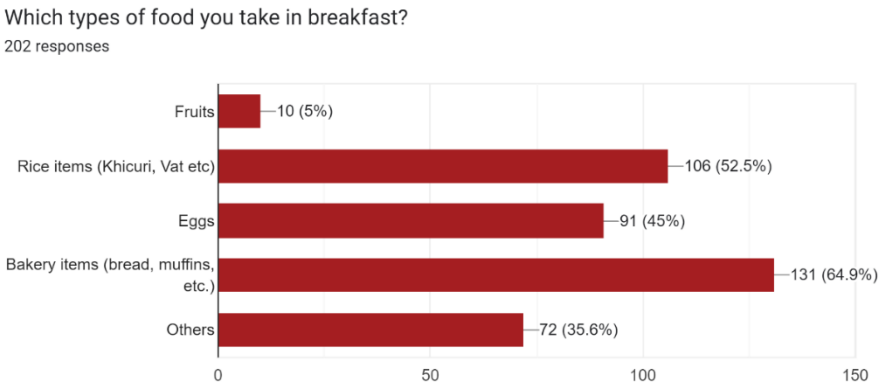

Figure 10: Breakfast choice of participates

9. Then I asked them which types of foods they take into the breakfast. Most of them are depended on bakery items and also rice items.

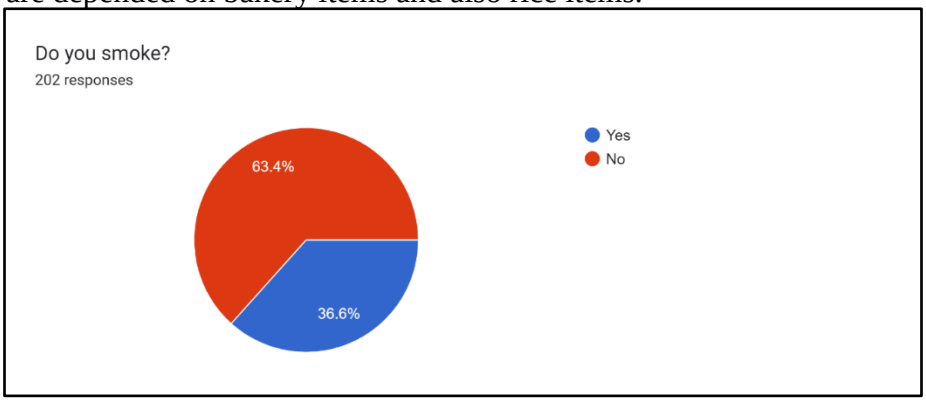

Figure 11: Smoking habit of participates

10. When asked whether the participants smoked or not, 63.4% said they did not smoke and 36.6% said they smoked.

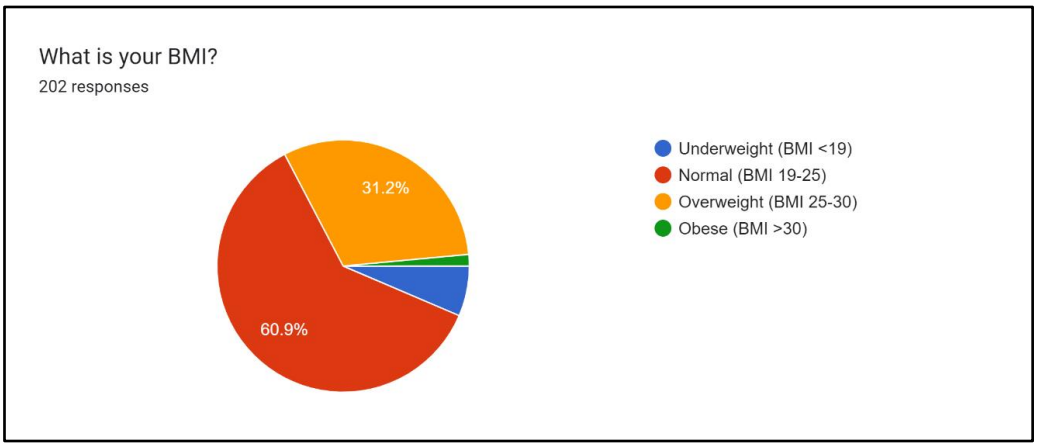

Figure 12: BMI of participates

11. I divided BMI into 4 categories according to Who's BMI scale and took data from participants.
    Those with BMI below 19 are underweight, BMI 19 to 25 are normal weight, BMI 25 to 30 are overweight and those with BMI over 30 are obese.

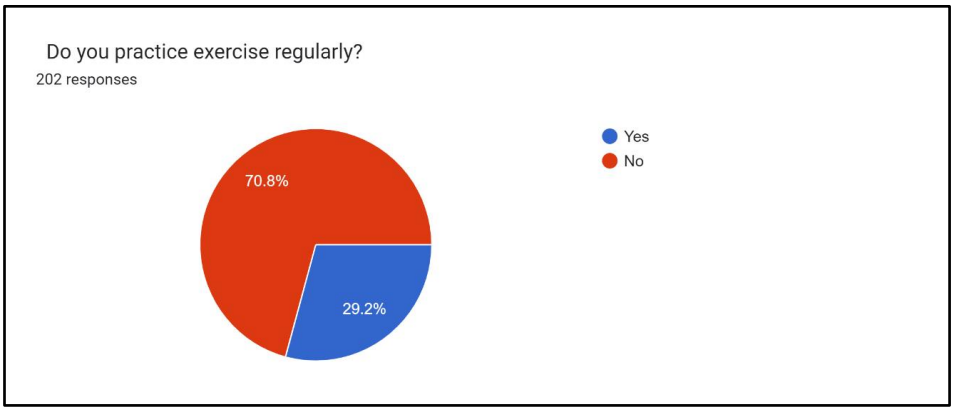

Figure 13: Exercise habit of participates

12. Among the 202 participants, 70.8% exercised daily but 29.2% did not.

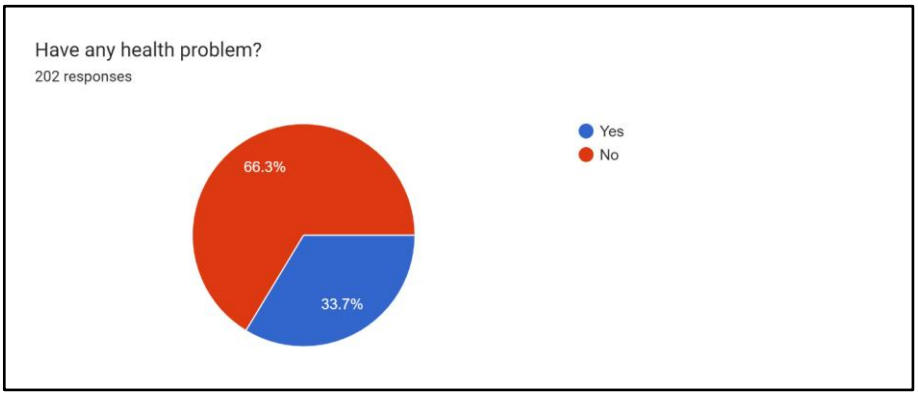

Figure 14: Health problem of participates

13. Try to know about the health condition of participants. 66.3% have no any health problems but 33.7% have some health problem.

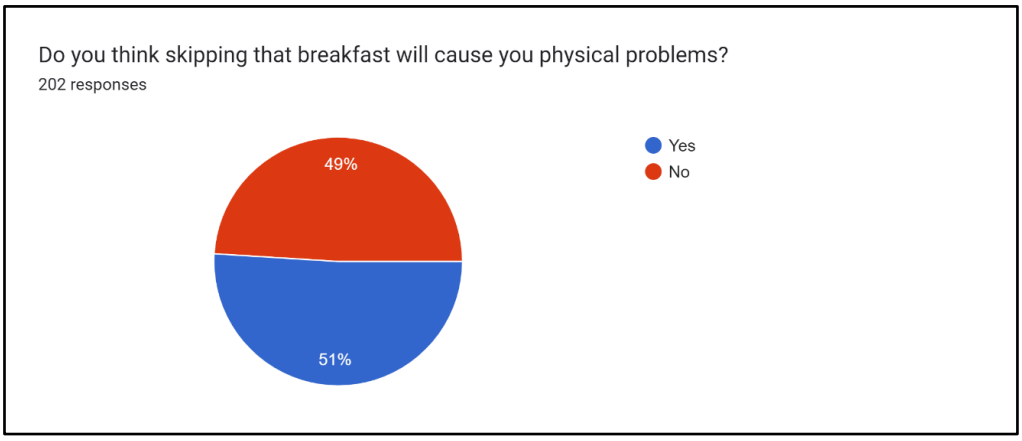

Figure 15: Thinking about skipping breakfast cause physical problem

14. 51% of participants think that skipping breakfast is harmful to their health, and 49% do not.

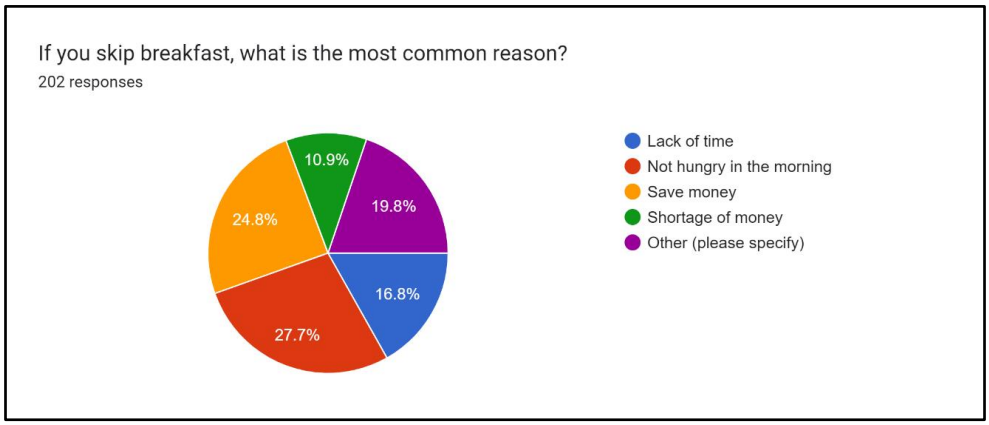

Figure 16: Reason behind skipping breakfast

15. Reason behind skipping breakfast:
    - Lack of time : 16.8%
    - Not hungry in the morning : 27.7%
    - Save money : 24.8%
    - Shortage of money : 10.9%
    - Other (please specify) : 19.8%

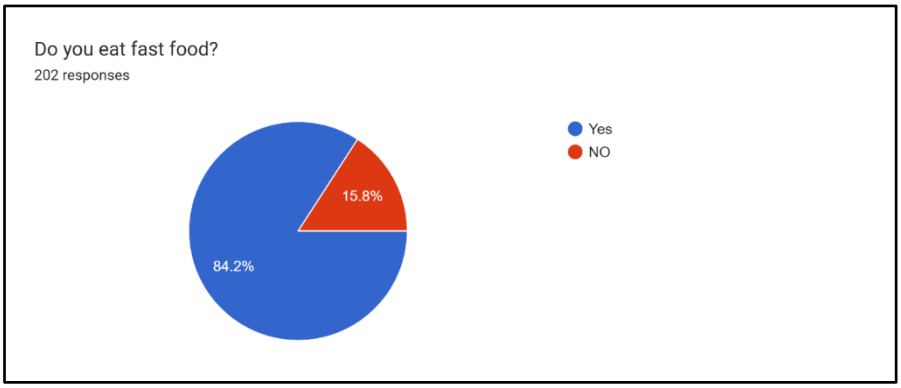

Figure 17: Fast food habit of participates

16. 84.2% participants have eaten fast food and 15.8% have try to skip fast food.

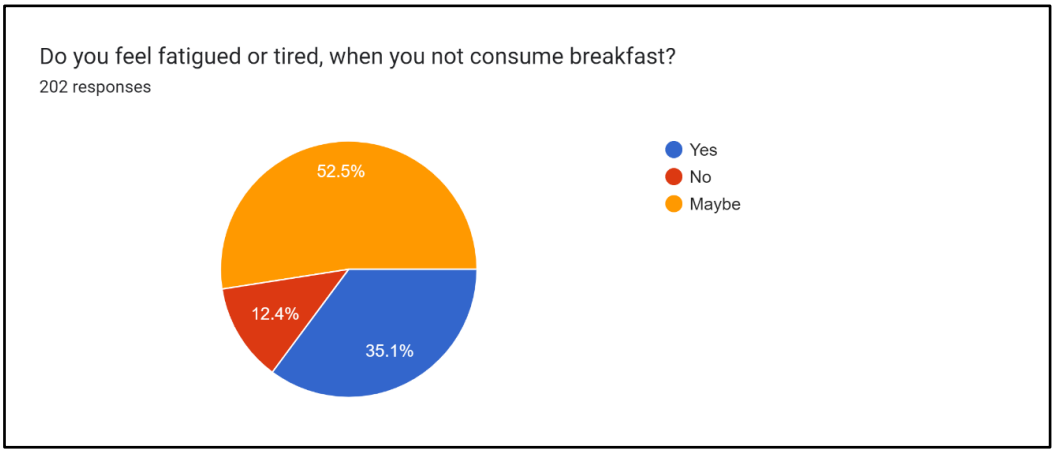

Figure 18: Thinking about skipping breakfast

17. 35.1% of participants are tired when they do not consume their breakfast, 12.4% are not affected by skipping breakfast and a huge number of participants which is 52.5% are confused they affected by skipping breakfast or not.

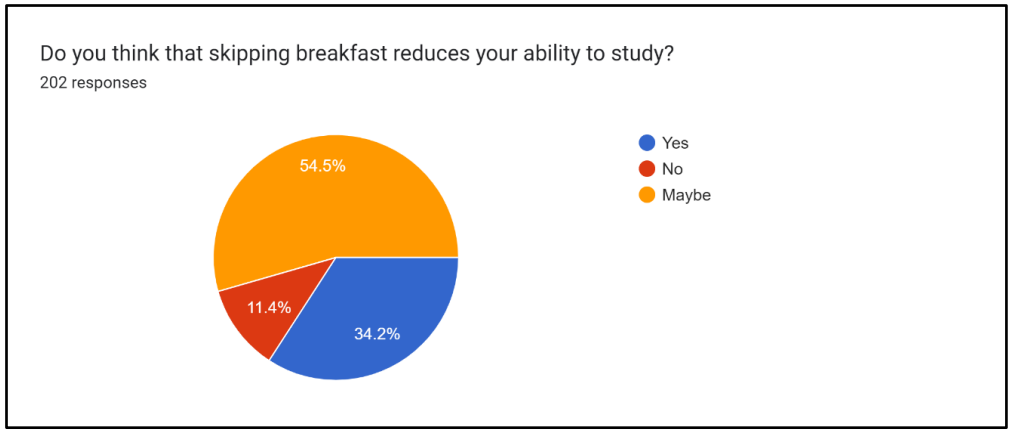

Figure 19: Thinking about skipping breakfast reduce ability of study

18. 34.2% of participants are lose their ability to study when they do not consume their breakfast, 11.4% are not affected by skipping breakfast and a huge number of participants which is 54.5% are confused they affected by skipping breakfast or not.

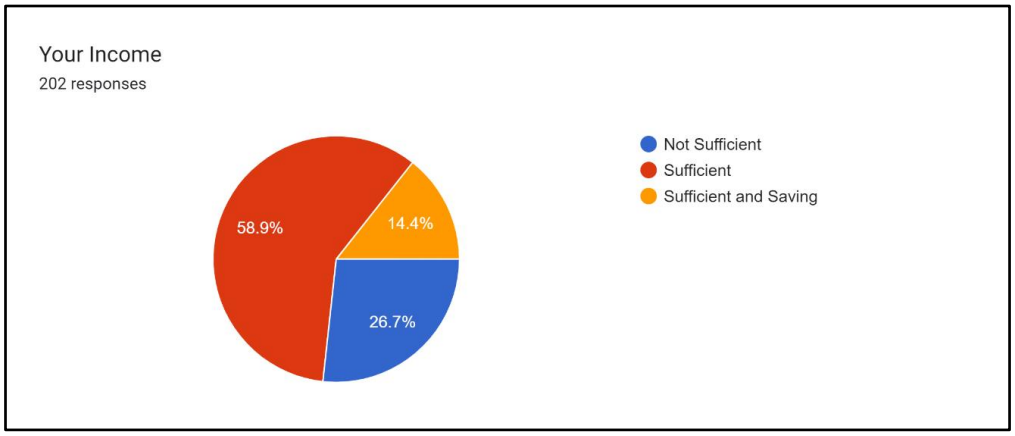

Figure 20: Income of participants

19. Income participants:
    - Not Sufficient : 26.7%
    - Sufficient : 58.9%
    - Sufficient and Saving : 14.4

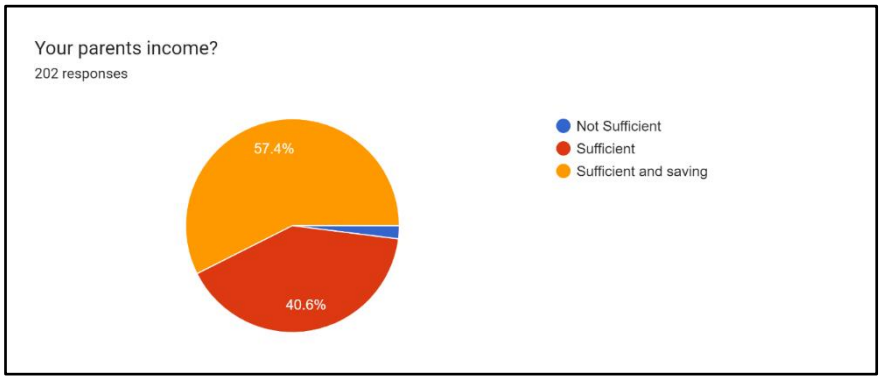

Figure 21: Income of their parents

20. Income participants:
    - Not Sufficient : 2%
    - Sufficient : 40.6%
    - Sufficient and Saving : 57.4%

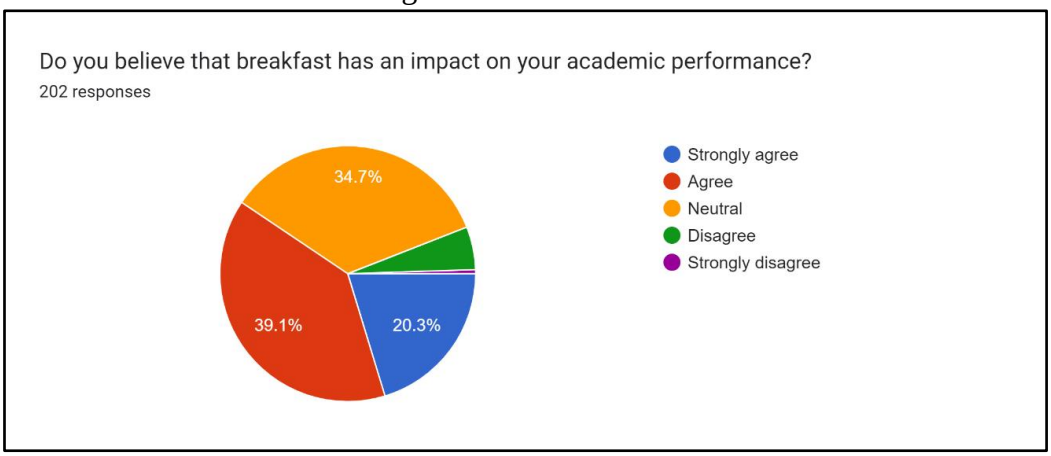

Figure 22: Thinking about skipping breakfast can impact their academic performance

21. Participants thought about breakfast has impacted their academic performance or not.
    - Strongly agree : 20.3%
    - Agree : 39.1%
    - Neutral : 34.7%
    - Disagree : 5.4%
    - Strongly disagree : 0.5%

The survey included 202 university students in total. In the study sample, the distribution of universities and genders was about equal. Nonetheless, the bulk of students (32.7%) were enrolled in their fourth year of study; over half of the sample (51%) was enrolled at Daffodil International University; and 73.8% of the students belonged to the 20–24 age range. The majority of them stated that they have enough money each month to cover their basic family requirements (57.4%), that they live in cities (63.4%), and that they are parentless (85.1%). Sixty-four percent of the pupils said they smoked. Sixty-three percent of the subjects had no disease, sixty-nine percent had a normal BMI, and nearly one-third (70.8%) did not exercise. Additionally, 170 pupils (84.2%) admitted to eating fast food. A total of thirty-seven kids (38.1%) did not have breakfast. Just 18.8% of pupils are able to

eat a typical breakfast. Some people eat breakfast three to four days a week, or five to six days a week. Roughly 8.9% of individuals consume fruits, 39.1% consume rice products, 29.2% consume eggs, and 22.8% consume baked goods. During university days, there was a higher incidence of skipping breakfast. Of the participants, 54.5% are unsure if skipping breakfast has an impact on their ability to study or not. 34.2% of people think that missing breakfast makes it harder for them to study. The majority of participants—59.4%—agreed that eating breakfast affects their academic achievement. while others disagreed and 34.7% expressed neutrality. The majority of participants claim to forgo breakfast in order to save money. Some claim not to have enough time for breakfast and other meals.

4.2 Discussion

Breakfast significantly impacts university students by enhancing cognitive function, concentration, and memory. It contributes to overall well-being, aids in weight management, and sets a positive tone for the day, influencing mood and encouraging healthier lifestyle choices. Regular breakfast consumption among university students is associated with improved academic performance and a lower risk of chronic diseases.

In my research I was saw that only 18.8% university students are taking their breakfast regularly which is only 38 persons among 202. But surprisingly, almost 60% of the participants skip breakfast even after being financially well off. And our research shows that most participants skip breakfast to save their money. And they believe that skipping breakfast makes them physically tired and reduce their energy for studying. Our research also shows that participants save their breakfast money, eat fast food (84.2%) and smoke (63.4%) with it. Which is very much harmful for their health.

Breakfast is widely regarded as the most important meal of the day, playing a crucial role in jumpstarting metabolism and providing the body with essential fuel after an overnight fasting period. Beyond mere sustenance, a well-balanced breakfast contributes significantly to overall health by supplying vital nutrients such as vitamins, minerals, and fiber. Research supports the positive impact of breakfast on cognitive function, enhancing concentration, memory, and mental performance. Contrary to the misconception that skipping breakfast aids in weight loss, studies suggest that a healthy breakfast is associated with better weight management, preventing overeating later in the day. Moreover, breakfast plays a role in blood sugar regulation, reducing the risk of insulin resistance and type 2 diabetes. Emotionally, a nutritious breakfast can contribute to a stable mood by preventing irritability and mood swings. Establishing a morning routine that includes a healthy breakfast sets a positive tone for the day, influencing subsequent food choices and promoting an overall healthier lifestyle. Regular breakfast consumption has also been linked to a lower risk of chronic diseases, further emphasizing its importance in maintaining optimal health.

Encouraging students to take breakfast regularly involves promoting awareness of its benefits, providing convenient and appealing breakfast options, and incorporating educational initiatives on the importance of a nutritious morning meal. Creating a positive breakfast environment, such as communal breakfast spaces, and involving students in the decision-making process can also foster a culture of regular breakfast consumption.

4.3 Future Implementation:

The future implementation of the research on "Breakfast Habits of University Students and the Adverse Impact on Academic Performance due to Skipping Breakfast" can have several practical applications and implications. Here are potential future implementations:

The research findings can inform the development of targeted intervention programs aimed at promoting healthier breakfast habits among university students. These programs may include educational campaigns, workshops, or nutritional counseling to raise awareness about the importance of breakfast and encourage positive dietary behaviors.

The research can contribute to evidence-based policy recommendations at the institutional or national level. Insights into the prevalence and consequences of breakfast skipping may guide policymakers in implementing measures to support students' well-being and academic success.

The findings can be integrated into educational curricula, especially in health and wellness programs. Universities may incorporate information about the importance of breakfast and its impact on academic performance into orientation programs or as part of the overall student well-being curriculum.

Universities may use the research findings to enhance student support services. This could involve the establishment of nutritional counseling services, mental health support programs, or time management workshops to address factors contributing to breakfast skipping.

The research outcomes can be disseminated through awareness campaigns within universities and broader communities. These campaigns may use various channels, such as social media, posters, and workshops, to educate students, faculty, and parents about the significance of breakfast for academic success.

The findings may stimulate further research and longitudinal studies to track changes in breakfast habits and academic performance over time. Long-term studies could provide valuable insights into the sustainability of interventions and the persistence of positive dietary behaviors.

Collaborations with health professionals, nutritionists, and mental health experts may be established to provide comprehensive support for students. These collaborations can offer personalized guidance, nutritional counseling, and mental health resources tailored to the needs of university students.

Engaging with the community, including parents, local businesses, and policymakers, can foster a holistic approach to addressing breakfast habits. Partnerships with local organizations may contribute to creating a supportive environment that encourages healthier dietary choices.

The research can contribute to public health initiatives, especially in the context of promoting healthier lifestyles among young adults. Insights from the study may be shared with public health organizations and initiatives aimed at improving the overall health of university students and the broader population.

The future implementation of this research holds the potential to positively influence university policies, student support services, and community awareness, ultimately contributing to the well-being and academic success of students.

CHAPTER FIVE

CONCLUSION AND RECOMMENDATIONS

5.1 Conclusion

In conclusion, the research on "Breakfast Habits of University Students and the Adverse Impact on Academic Performance due to Skipping Breakfast" has provided valuable insights into the complex relationship between breakfast habits and academic success among university students. The study explored the prevalence of breakfast skipping, the reasons behind this behavior, and its potential consequences on academic performance.

The findings indicate a concerning prevalence of breakfast skipping among university students, with various factors contributing to this dietary choice. Time constraints, lifestyle changes, and environmental influences emerged as significant contributors, highlighting the challenges faced by young adults as they transition to university life.

Furthermore, the research established a clear association between breakfast habits and academic performance. Students who skipped breakfast demonstrated a higher likelihood of facing challenges in their academic endeavors. This correlation emphasizes the importance of addressing dietary behaviors as part of holistic student support services.

The study also revealed potential implications for students' mental health, with associations between breakfast skipping and factors such as stress, depressive mood, and poor sleep quality. These findings underscore the interconnectedness of dietary habits and overall well-being.

The research contributes to the existing body of knowledge by focusing on the specific context of university students, shedding light on a demographic often overlooked in dietary studies. The insights gained from this study can inform targeted interventions, support services, and policies aimed at promoting healthier breakfast habits and, consequently, improving academic outcomes.

As universities strive to enhance the overall well-being of their students, the findings of this research provide a foundation for implementing evidence-based interventions. Future initiatives may include educational campaigns, nutritional counseling services, and collaborations with health professionals to address the multifaceted factors influencing breakfast habits among university students.

In conclusion, this research contributes not only to academic literature but also offers practical implications for institutions and policymakers seeking to create a supportive environment that fosters healthier dietary choices and positively impacts the academic success and well-being of university students.

5.2 Recommendations

Recommendations to Improve Breakfast Habits Among University Students

5.2.1 Education and Awareness

- Organize workshops and campaigns highlighting the importance of breakfast for academic performance and mental health.
- Share quick breakfast recipes via social media or newsletters.

5.2.2 Affordable and Healthy Options

- Offer subsidized meal plans or vouchers for healthy breakfast items.
- Set up grab-and-go breakfast stations with nutritious choices like fruits and granola bars.

5.2.3 Time Management Support

- Conduct workshops on managing time to include breakfast in daily routines.
- Avoid early morning classes or provide mid-morning breaks.

5.2.4 Mental Health and Wellness

- Provide stress management and counseling services to address lifestyle issues.
- Educate students on improving sleep hygiene, which is linked to dietary habits.

5.2.5 Practical Interventions

- Regularly assess students' eating habits through surveys.
- Pilot programs, such as free breakfast weeks, to encourage healthy practices.

5.2.6 Collaboration and Advocacy

- Partner with health professionals for nutritional counseling services.
- Develop policies mandating affordable, healthy cafeteria breakfast options.

These concise steps aim to promote better breakfast habits, boosting both academic success and overall well-being among students.

CHAPTER SIX

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SYNOPSIS

Topic Name

Breakfast Habits of University Students and the Adverse Impact on Academic Performance due to Skipping Breakfast

Introduction

Breakfast is the most significant meal of the day and is defined as any meal between 6 and 9 in the morning. Eating between the beginning of the day and 2 hours after waking up helps meet the body's daily nutritional demands, maintain a healthy weight, enhance academic performance, activate the metabolism, boost mood, and protect against malnutrition problems. In addition, regular breakfast consumption lowers the risk of chronic illness, insulin resistance, and metabolic syndrome and plays a significant role in dietary regulation and maintaining energy balance. Research findings indicate that breakfast skipping is associated with diabetes mellitus, insulin insensitivity, elevated body mass index, body storage fat, cardiometabolic disease, hypertension, high systolic blood pressure, and mortality. Also, it is correlated with poor mental health, including depressive mood, stress, being mentally distressed, poor sleep, nocturnal sleeping problems, and developing suicidal behavior and substance use such as smoking and alcohol.

Among children and adolescents from 33 countries, a recent comprehensive study found that on average, between 10% and 30% of young people skipped breakfast. Young people between 18 and 25 years of age are often neglected. Thus, their dietary habits tend to decline when they leave home and go to college, where they have to be independent. Also, they have the habit of breakfast skipping and consuming fast foods. There are different reasons for students' breakfast skipping. For example, the students lacked time to eat, had no interest in eating early, experienced a lack of appetite and did not feel hungry, desired to lose weight, lacked something to eat, and were no longer living with their parents, who used to prepare them breakfast. In addition, students who smoked, lived in rented places or lived alone, were physically inactive, had separated parents, and were stressed were found to be associated with eating patterns.

In this research we want to find the main reason of skipping breakfast of university students, also we try to know the breakfast habit of university students. We also find the bad impact of students health and their study for skipping breakfast.

Objective

Explore Breakfast Habits

- Identify patterns of breakfast consumption among university students.
- Assess the frequency and types of food consumed during breakfast.

Understand Reasons for Skipping Breakfast

- Investigate factors leading to breakfast skipping, such as lifestyle changes and time constraints.

Analyze the Impact on Academic Performance

- Examine the relationship between breakfast habits and academic success using GPA analysis.
- Explore how breakfast skipping affects factors like fatigue and concentration levels.

Assess Nutritional Awareness

- Evaluate students' awareness of the nutritional importance of breakfast.
- Analyze how this awareness influences their dietary choices.

Compare Across Demographics

- Examine breakfast habits and their impacts across various demographic variables.

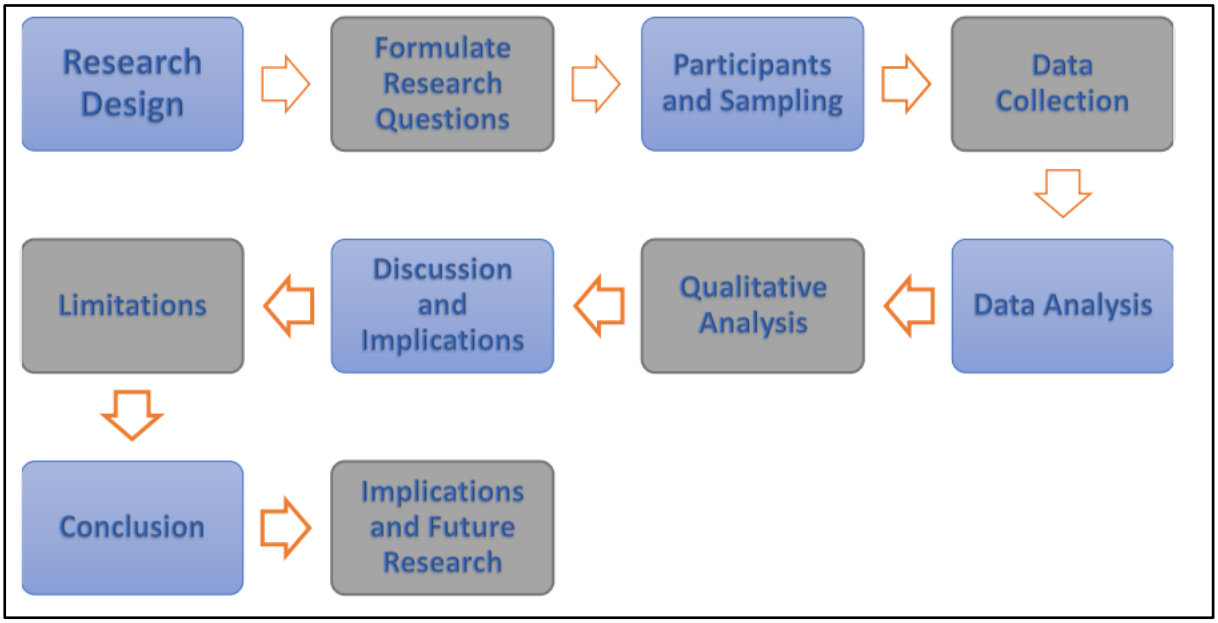
Propose Interventions

- Develop insights and recommendations for promoting healthier breakfast habits among university students.

Broader Impact on Well-Being

- Investigate the effects of breakfast habits on students' overall well-being, including mental and physical health.

Methodology



Expected Outcome

1. Breakfast Consumption habit among university students.
2. Effect of skipping breakfast on student's health and academic performance.
3. Behavioral Patterns and Breakfast Choices.
4. Awareness and its Influence on Dietary Choices.
5. Effects on Academic Performance.

Time Schedule of Activities

Time schedule of my research activities

Task	Activities by weeks											
	1	2	3	4	5	6	7	8	9	10	11	12
Literature research	⟷											
Study protocol and questionnaire development		⟷	⟷									
Ethical approval			⟷	⟷								
Pretesting of study protocols, questionnaire				⟷	⟷							
Data and sample collection phase					⟷	⟷						
Data analysis and report writing						⟷	⟷	⟷				
Report submission and article publication									⟷	⟷	⟷	⟷

BREAKFAST HABITS OF UNIVERSITY STUDENTS AND THE ADVERSE IMPACT ON ACADEMIC PERFORMANCE DUE TO SKIPPING BREAKFAST

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