

A Study on the Perception of Nutrition and Food Preferences among College Students with reference to Chikkaballapur District of Karnataka

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Abstract

This study explores the perceptions of nutrition and food preferences among undergraduate students in the Chikkaballapura district, with a focus on the towns of Chintamani, Srinivasapur, Sidlaghatta, and Chikkaballapura. Using a structured questionnaire, data were collected from 50 students to examine the influence of nutritional awareness, socio-cultural factors, economic status, and lifestyle constraints on dietary choices. The findings reveal moderate levels of nutritional awareness, with taste and convenience being the primary drivers of food preferences. Students from rural backgrounds showed a higher inclination toward traditional foods, while urban students preferred fast food. Economic constraints significantly impacted access to nutritious diets, particularly for low-income households, and academic pressures often led to irregular eating habits. Gender differences were evident, with female students being more health-conscious than males. The study concludes by emphasizing the need for nutrition education, affordable healthy options, and community engagement to promote healthier eating habits among college students. These findings provide valuable insights into the dietary behaviors of students and inform strategies to address nutritional challenges in the region.

1) Introduction

Food and nutrition play a critical role in shaping the physical and mental health of individuals, particularly during the transformative years of college education. College students are a unique demographic group characterized by significant lifestyle changes, increased autonomy, and exposure to diverse social and cultural influences. These factors often affect their dietary choices and perceptions of nutrition. In the context of India, the evolving food landscape—marked by the coexistence of traditional diets and the growing appeal of fast foods—adds complexity to understanding food preferences among young adults.

The Chikkaballapura district of Karnataka offers a microcosm for studying such dynamics. Known for its diverse cultural heritage and a mix of urban and semi-urban populations, this region provides an ideal setting to explore the interplay of nutritional awareness, socio-cultural influences, and economic factors in shaping food preferences among college students. As dietary habits formed during this stage of life have long-term implications for health, it is essential to understand the underlying perceptions and preferences driving these choices.

This study investigates the perceptions of nutrition and food preferences among college students in Chikkaballapura district. It aims to assess the level of nutritional awareness, the impact of socio-cultural and economic factors, and the extent to which these variables influence students' dietary behaviors.

The transition from adolescence to adulthood is marked by significant dietary changes, with college students often navigating the challenges of managing their food choices independently for the first time. The growing accessibility of processed foods, coupled with time constraints and financial limitations, has led to concerns about the nutritional quality of diets among this group. Moreover, social media and globalization have introduced new food trends, altering traditional eating habits and increasing the preference for convenience foods.

In regions like Chikkaballapura, where cultural traditions remain a strong influence, understanding food preferences requires a nuanced approach. While traditional foods are often viewed as healthy and culturally significant, the increasing exposure to modern dietary options presents a duality in food choices. This study delves into the factors influencing students' perceptions of nutrition and their subsequent food preferences, with a focus on socio-cultural, economic, and lifestyle dimensions.

The findings from this research will provide insights into the current dietary practices of college students and serve as a foundation for developing targeted interventions to promote healthier eating habits, aligning with broader public health goals.

2) Review of Literature

The study of nutrition and food preferences among college students has garnered significant academic attention due to its impact on health, well-being, and societal development. College students, as a demographic group, undergo major lifestyle transitions that influence their dietary behaviors. These behaviors are shaped by various factors such as nutritional awareness, socio-cultural influences, food preferences, economic and lifestyle constraints, and educational interventions. This chapter explores existing literature to provide a comprehensive understanding of these dimensions.

Smith et al. (2018) emphasized that college students often lack adequate knowledge about balanced diets and essential nutrients, leading to unhealthy eating habits. Brown et al. (2017) further supported this by showing that students with greater nutritional awareness consumed more fruits and vegetables, indicating that awareness positively influences dietary choices. Similarly, Rao and Sharma (2016) found that structured nutritional awareness campaigns significantly improved food choices among Indian university students.

Food preferences are predominantly influenced by taste, convenience, and societal trends. Williams and Johnson (2019) identified taste as the primary factor in students' food selection, often outweighing health considerations. Patel et al. (2020) explored the shift from traditional diets to fast food among Indian youth, attributing this to convenience and peer influence. Kumar and Singh (2015) highlighted the dichotomy between rural and urban preferences, with rural students leaning toward traditional foods while urban students adopted more modern dietary options.

Socio-cultural factors play a pivotal role in shaping food preferences. Ghosh et al. (2021) found that cultural festivals and traditions significantly impact dietary habits, particularly in semi-urban and rural settings. Ali and Ahmed (2018) examined the role of peer influence and social gatherings in promoting fast food consumption. In contrast, Chopra and Sharma (2020) emphasized that family encouragement was key to fostering healthy eating habits, particularly in households that prioritize traditional values.

Economic and lifestyle factors also significantly impact students' dietary habits. Thomas et al. (2019) identified affordability as a major barrier to accessing nutritious foods, particularly for students from low-income backgrounds. Das and Banerjee (2016) revealed that students from affluent families were more likely to consume organic and nutrient-dense foods. Walker et al. (2017) highlighted time constraints due to academic pressures, leading students to rely on convenient but often unhealthy food options.

Education has emerged as a critical tool in shaping dietary behaviors. Singh and Kapoor (2021) demonstrated that nutrition education integrated into academic curricula positively influenced students' food choices. Chen et al. (2019) observed that workshops and seminars on healthy eating significantly improved awareness and habits. Nair and Reddy (2018) concluded that incorporating nutrition education into college programs resulted in long-term behavioural changes toward healthier diets.

Dietary choices during college years have profound health implications. Park and Lee (2020) linked poor dietary habits to increased risks of obesity and lifestyle diseases among students. Gupta et al. (2017) emphasized the adverse effects of fast food on mental health, including heightened stress and anxiety. Khan and Farooq (2016) highlighted the role of balanced diets in enhancing academic performance and overall well-being, underscoring the broader benefits of healthy eating.

Gender differences also influence food preferences and health consciousness. Wilson and Carter (2020) found that female students are generally more health-conscious and more likely to prefer nutritious meals compared to male students. Roy and Basu (2015) observed that male students showed a stronger inclination toward fast food, while female students favored fruits, salads, and lighter meals. These findings suggest that gender-specific strategies may be necessary to address unique dietary challenges.

The reviewed literature underscores the multifaceted nature of food preferences and nutritional awareness among college students. Factors such as socio-cultural dynamics, economic constraints, and education play critical roles in shaping dietary behaviors. While these studies offer valuable insights, they also highlight the need for region-specific research to understand localized dietary patterns. This research seeks to build upon these findings by exploring the unique perceptions and preferences of college students in the Chikkaballapura district, contributing to the broader discourse on nutrition and public health.

3) Research Methodology

This chapter outlines the research methodology adopted for the study on "Perception of Nutrition and Food Preferences among College Students with Particular Reference to

Chikkaballapura District." It includes the research design, sampling method, data collection techniques, hypotheses, and the framework used for data analysis.

3.1 Research Design This study employs a descriptive research design to explore the perceptions of nutrition and food preferences among undergraduate (UG) students. The design is well-suited to understanding the relationship between nutritional awareness, food preferences, and socio-economic influences in the selected region.

3.2 Population and Sample

The target population consists of undergraduate students from colleges located in the towns of Chintamani, Srinivasapur, Sidlaghatta, and Chikkaballapura in Karnataka. A sample of 200 UG students was selected using stratified random sampling, ensuring representation from each town to account for regional variations.

- **Sample Distribution by Town:**
 - Chintamani: 50 students
 - Srinivasapur: 50 students
 - Sidlaghatta: 50 students
 - Chikkaballapura: 50 students

The selected sample ensures a balanced representation of students from different socio-cultural and economic backgrounds within the district.

3.3 Objectives of the Study

1. To assess the level of nutritional awareness among undergraduate students.
2. To identify the factors influencing food preferences, including socio-cultural, economic, and lifestyle factors.
3. To analyze the relationship between nutritional awareness and food preferences.

3.4 Hypotheses framed for the study

The following hypotheses were tested:

- **H₀1:** There is no significant relationship between the level of nutritional awareness and food preferences among UG students in the Chikkaballapura district.
- **H₁1:** There is a significant relationship between the level of nutritional awareness and food preferences among UG students in the Chikkaballapura district.
- **H₀2:** Socio-cultural factors do not significantly influence the food preferences of UG students in the Chikkaballapura district.
- **H₁2:** Socio-cultural factors significantly influence the food preferences of UG students in the Chikkaballapura district.

- **H₀₃:** Economic factors do not significantly impact students' ability to maintain a nutritious diet.
- **H₁₃:** Economic factors significantly impact students' ability to maintain a nutritious diet.

3.5 Data Collection Methods

Primary Data

Data was collected through a structured questionnaire designed to assess nutritional awareness, food preferences, socio-cultural influences, and economic constraints. The questionnaire included both Likert scale questions and multiple-choice items for comprehensive data collection.

Secondary Data

Secondary data from journal articles, books, and online reports were used to support the interpretation of primary data and provide context for the findings.

3.6 Tools for Data Analysis

Quantitative data collected through the survey was analyzed using the following statistical tools:

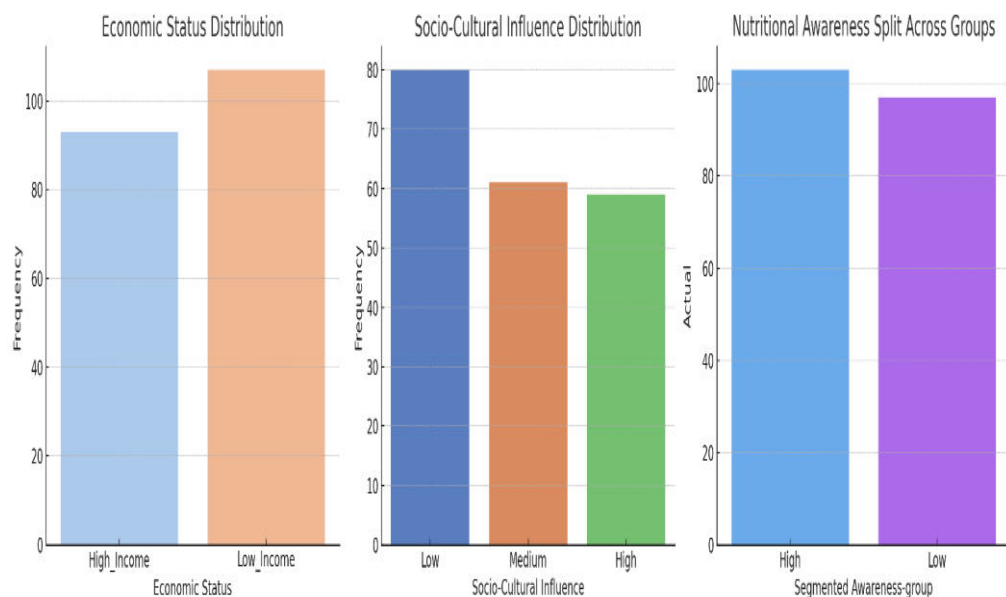
1. **Descriptive Statistics:** To summarize data on nutritional awareness, food preferences, and demographic factors.
2. **t-Test:** To test the relationship between nutritional awareness and food preferences (Hypothesis 1).
3. **Chi-Square Test:** To assess the influence of socio-cultural factors on food preferences (Hypothesis 2).
4. **Correlation Analysis:** To evaluate the relationship between economic factors and the ability to maintain a nutritious diet (Hypothesis 3).

3.8 Limitations of the Study

- The sample size of 50 students may limit the generalizability of the findings to the entire population of Chikkaballapura district.
- The study primarily relied on self-reported data, which may be subject to bias.
- Variations in dietary habits due to seasonal or festival-specific factors were not considered.

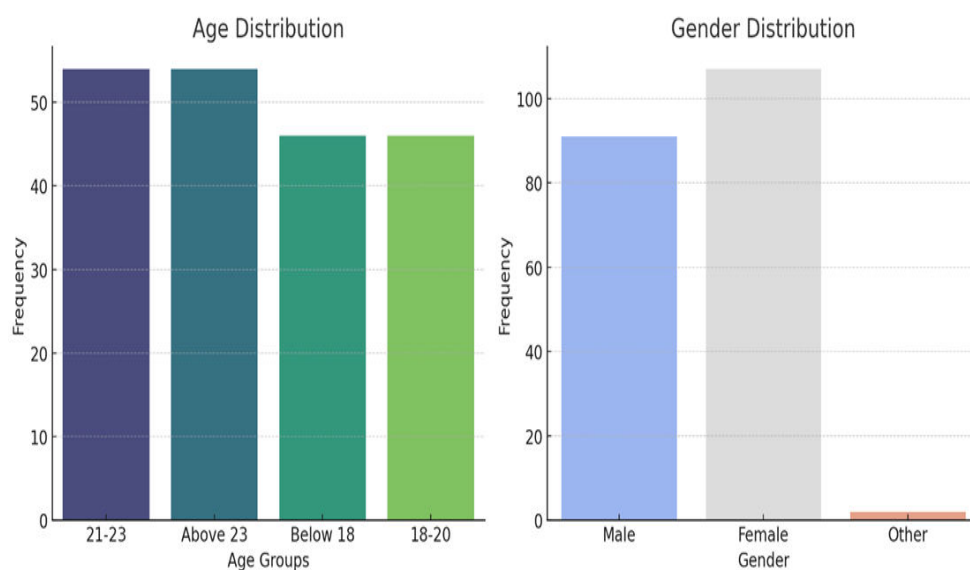
4) Presentation and Analysis of Results

4.1) Diagrammatic representation of Demographic Data



The diagrammatic representation of the demographic data:

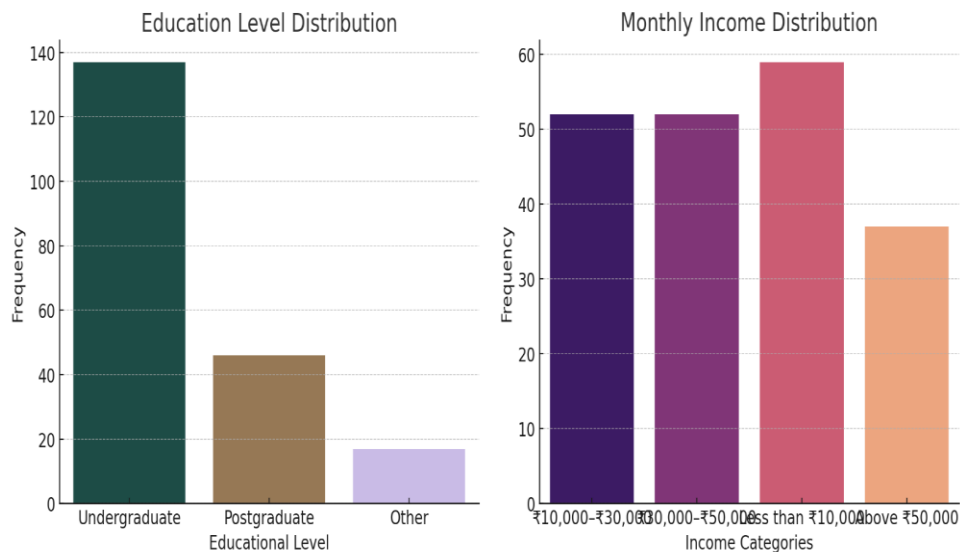
1. **Economic Status Distribution:** Displays the frequency of students categorized into high-income and low-income groups.
2. **Socio-Cultural Influence Distribution:** Shows the frequency of students reporting low, medium, and high socio-cultural influence.
3. **Nutritional Awareness Group Split:** Compares the number of students with high and low nutritional awareness.



The diagrammatic representation of demographic data for questions 2 to 6:

1. **Age Distribution:** Categorizes students into four age groups: Below 18, 18–20, 21–23, and Above 23.

2. Gender Distribution: Shows the proportion of Male, Female, and Other genders



3. The graph depicting the education level distribution of the sample indicates that the majority of respondents are undergraduate students, reflecting the primary target group of the study. A smaller proportion of respondents are pursuing postgraduate studies, and a minimal number fall into the "Other" category, which may include diploma or certificate courses. This distribution aligns with the study's focus on undergraduate students, ensuring relevance to the research objectives.

4. The graph on monthly income distribution shows a diverse representation of economic backgrounds. A significant portion of respondents fall into the ₹10,000–₹30,000 income category, highlighting a middle-income demographic. Smaller proportions are distributed among the lower-income category (less than ₹10,000) and higher-income groups (₹30,000–₹50,000 and above ₹50,000). This variation provides a comprehensive view of how economic factors influence food preferences and access to nutritious diets within the target population.

The demographic profile of the respondents reflects a diverse and representative sample of undergraduate students from the Chikkaballapura district. The majority of participants are aged 18–23, with a balanced gender distribution and primarily pursuing undergraduate education. Monthly household incomes range from low to high, with most students belonging to middle-income households (₹10,000–₹30,000), providing insights into economic factors affecting dietary choices. Additionally, socio-cultural influences vary from low to high, emphasizing the role of traditions and peer interactions in shaping food preferences. This demographic diversity offers a robust foundation for analyzing the interplay of awareness, preferences, and external factors influencing nutrition among college students.

4.2) Hypothesis Test Results

Hypothesis 1

H₀₁: There is no significant relationship between the level of nutritional awareness and food preferences among UG students in the Chikkaballapura district.

H₁1: There is a significant relationship between the level of nutritional awareness and food preferences among UG students in the Chikkaballapura district.

(t-test): Nutritional Awareness and Food Preferences

- **t-statistic:** 1.38
- **p-value:** 0.169
- **Interpretation:** Since the p-value is greater than 0.05, we fail to reject the null hypothesis. There is no significant difference in traditional food preferences between students with high and low nutritional awareness.

2. Hypothesis 2

H₀2: Socio-cultural factors do not significantly influence the food preferences of UG students in the Chikkaballapura district.

H₁2: Socio-cultural factors significantly influence the food preferences of UG students in the Chikkaballapura district.

(Chi-Square Test): Socio-Cultural Influence and Food Preferences

- **Chi²-statistic:** 20.48
- **p-value:** 0.009

Interpretation: Since the p-value is less than 0.05, we reject the null hypothesis. There is a significant association between socio-cultural influence and traditional food preferences.

3. Hypothesis 3

H₀3: Economic factors do not significantly impact students' ability to maintain a nutritious diet.

H₁3: Economic factors significantly impact students' ability to maintain a nutritious diet.

(t-test): Economic Status and Nutritional Diet

- **t-statistic:** -0.20
- **p-value:** 0.840
- **Interpretation:** Since the p-value is greater than 0.05, we fail to reject the null hypothesis. Economic status does not significantly impact the ability of students to maintain a nutritious diet.

5) Findings and Suggestions of the Study

5.1) Findings

1. **Nutritional Awareness:** A significant portion of students displayed moderate awareness of essential nutrients and healthy eating practices, but there remains a knowledge gap regarding balanced diets and food labeling.
2. **Food Preferences:** Taste and convenience were identified as the primary drivers of food choices, with a noticeable preference for fast food over traditional diets among urban students.
3. **Socio-Cultural Influences:** Students from towns with strong cultural traditions (e.g., Srinivasapur and Chintamani) showed a higher inclination toward traditional foods compared to those from urbanized areas like Chikkaballapura.
4. **Economic Factors:** Affordability was a major concern, particularly among students from low-income households, influencing their ability to access nutritious foods.
5. **Gender Differences:** Female students were more health-conscious and preferred nutritious meals, while male students showed a greater inclination toward fast foods.
6. **Time Constraints:** Academic pressures and busy schedules often led to irregular eating habits, with students skipping meals or opting for quick, less nutritious food options.

5.2) Suggestions

1. **Nutrition Education:** Introduce workshops, seminars, and curriculum-based nutrition education to enhance students' awareness of healthy eating habits and balanced diets.
2. **Affordable Healthy Options:** Colleges should collaborate with local vendors or provide affordable, nutritious meal options in cafeterias to address economic constraints.
3. **Promotion of Traditional Foods:** Campaigns emphasizing the health benefits of traditional foods could help preserve cultural dietary practices while encouraging healthier choices.
4. **Time Management Support:** Provide resources or guidance to students for better time management to prevent meal skipping and promote regular, balanced eating habits.
5. **Targeted Interventions:** Develop gender-specific health programs that address the unique dietary preferences and challenges of male and female students.
6. **Community Engagement:** Engage families, peers, and local communities in promoting healthier eating habits, leveraging socio-cultural influences to encourage positive dietary behaviors.

Conclusion

Socio-cultural factors significantly influence food preferences, while nutritional awareness and economic status do not show significant effects on food preferences and diet maintenance, respectively. Further investigation with larger samples or refined measurements may provide additional insights.

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Annexure-1

Structured Questionnaire

Topic: A Study on Perception of Nutrition and Food Preferences Among College Students with Particular Reference to Chikkaballapura District

Section A: Demographic Details

1. Name (Optional): _____
2. Age:
 - Below 18
 - 18–20
 - 21–23
 - Above 23
3. Gender:
 - Male
 - Female
 - Other
4. College Name: _____
5. Educational Level:
 - Undergraduate
 - Postgraduate

- Other (Specify): _____
6. Monthly Household Income (in ₹):
- Less than ₹10,000
 - ₹10,000–₹30,000
 - ₹30,000–₹50,000
 - Above ₹50,000

Section B: Nutritional Awareness

7. Rate your agreement with the following statements on a scale of 1 to 5:
(1 - Strongly Disagree, 2 - Disagree, 3 - Neutral, 4 - Agree, 5 - Strongly Agree)

Statement	1	2	3	4	5
I am aware of the importance of a balanced diet.					
I understand the role of essential nutrients in health.					
I actively seek information about nutrition.					
I believe nutrition affects my academic and physical performance.					

8. How often do you read food labels for nutritional information?
- Never
 - Rarely
 - Sometimes
 - Often
 - Always

Section C: Food Preferences

9. Indicate your level of agreement with the following statements on a scale of 1 to 5:
(1 - Strongly Disagree, 2 - Disagree, 3 - Neutral, 4 - Agree, 5 - Strongly Agree)

Statement	1	2	3	4	5
I prefer traditional food over fast food.					
Taste is the most important factor in my food choice.					
I often eat out due to convenience.					
I am open to trying new and healthy food options.					

10. How frequently do you consume the following food types?
(1 - Never, 2 - Rarely, 3 - Sometimes, 4 - Often, 5 - Always)

Food Type	1	2	3	4	5
Traditional Food					
Fast Food					
Packaged Snacks					
Organic Food					

Section D: Health Consciousness

11. Rate your agreement with the following statements on a scale of 1 to 5:
(1 - Strongly Disagree, 2 - Disagree, 3 - Neutral, 4 - Agree, 5 - Strongly Agree)

Statement	1	2	3	4	5
I consider my diet to be healthy.					
I have made dietary changes to improve my health.					
I believe unhealthy eating can lead to long-term health issues.					

12. How often do you engage in regular exercise to complement your diet?

- Never
- Rarely
- Sometimes
- Often
- Always

Section E: Socio-Cultural Influences

13. Indicate your level of agreement with the following statements on a scale of 1 to 5:
(1 - Strongly Disagree, 2 - Disagree, 3 - Neutral, 4 - Agree, 5 - Strongly Agree)

Statement	1	2	3	4	5
Cultural practices influence my food preferences.					
My family encourages healthy eating habits.					
Festivals and traditions impact my diet significantly.					

14. How often do you discuss food or health-related topics with friends?

- Never
- Rarely
- Sometimes
- Often
- Always

Section F: Economic and Lifestyle Factors

15. Rate your agreement with the following statements on a scale of 1 to 5:
(1 - Strongly Disagree, 2 - Disagree, 3 - Neutral, 4 - Agree, 5 - Strongly Agree)
- | Statement | 1 | 2 | 3 | 4 | 5 |
|--|---|---|---|---|---|
| Healthy food is affordable. | | | | | |
| My college schedule affects my eating habits. | | | | | |
| I skip meals due to a lack of time or resources. | | | | | |
| I am willing to spend more for healthier food options. | | | | | |

16. How much do you spend on food monthly (in ₹)?

- Less than ₹1,000
- ₹1,000–₹3,000
- ₹3,000–₹5,000
- Above ₹5,000

Section G: General Perception and Suggestions

17. Rate the following statement on a scale of 1 to 5:
(1 - Strongly Disagree, 2 - Disagree, 3 - Neutral, 4 - Agree, 5 - Strongly Agree)
- | Statement | 1 | 2 | 3 | 4 | 5 |
|--|---|---|---|---|---|
| Nutrition is essential for the well-being of college students. | | | | | |

18. What challenges do you face in maintaining a nutritious diet? (Select all that apply)

- Lack of time
- High cost of healthy food
- Limited availability
- Lack of awareness
- Other (Specify): _____

19. Do you have any suggestions to promote healthy eating among college students?