



FACTORS IMPACTING FAST FOOD INTAKE TENDENCIES AMONG COLLEGE STUDENTS

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ABSTRACT

This review paper examines the factors impacting fast food intake tendencies among college students and their implications for dietary habits and health outcomes. The rising trend of fast food consumption among college students presents significant challenges to their nutritional well-being and overall health. Through a comprehensive analysis of existing literature, this paper explores the interplay of taste preferences, convenience, nutritional knowledge, peer influences, and socio-cultural factors in shaping fast food consumption behaviors. Key findings highlight the association between frequent snacking, consumption of unhealthy snacks, and increased risk of obesity among college students. Moreover, the adverse effects of frequent fast food intake on dietary habits and obesity are underscored. The role of nutrition education in improving knowledge, dietary habits, and overall well-being is also discussed. Future research directions are proposed to further expand knowledge and address emerging issues, including longitudinal studies tracking snacking behaviors and fast food consumption trends, evaluation of intervention effectiveness, exploration of socio-cultural influences, investigation of specific health outcomes, and development of innovative approaches to promote healthier food choices. In conclusion, this paper emphasizes the need for comprehensive interventions and policies aimed at promoting healthier dietary habits among college students. By addressing research gaps and implementing evidence-based strategies, we can better understand the complex dynamics driving fast food consumption and support the nutritional well-being and overall health of college students.

KEYWORDS: Snacking Frequency, Fast Food Consumption, College Students, Dietary Habits, Nutritional Knowledge

INTRODUCTION

The consumption of calorie-dense, less healthful snacks has increased while consumption of fruits and vegetables has dropped [1]. During this time, adopting a sedentary lifestyle and poor eating habits increases the risk of developing chronic conditions like obesity, metabolic syndrome, diabetes, and cardiovascular diseases later in adulthood. A common reason for snacking is hunger, with low energy levels being another potential factor that can be addressed by eating small snacks. Sometimes, the primary motivation for choosing a particular snack is simply its taste. Numerous studies have been conducted worldwide on young people's snacking patterns, notably among college students [3]. Additionally, it was reported that university students who received nutrition education increased their fruit and vegetable consumption and consumed less unhealthy fats and cholesterol [4]. Extensive epidemiological evidence suggests that inadequate vegetable intake is associated with an increased risk of many chronic/non infectious diseases, including heart disease, obesity and some types of cancers [5]. Adolescents have a high tendency to consume energy-dense fast food products, leading to significant scientific research in this area [6]. In addition, students are at risk of experiencing a decline in both their intellectual and physical performance if they do not have the daily nutrients they require [7].

REVIEW OF LITERATURE

(Morgan et al., 2010) investigated the impact of school garden-enhanced nutrition education (NE) on children's fruit and vegetable consumption, preferences, and knowledge, as well as the quality of school life. The study used a quasi-experimental design with a 10-week intervention, including nutrition education and gardening components. The study measured fruit and vegetable knowledge, preferences, consumption, and quality of school life at both baseline and a 4-month follow-up. Conducted in two primary schools in New South Wales, Australia, the study found that school gardens positively influenced children's willingness to try vegetables and improved their vegetable taste ratings. However, the study noted that due to the complexity of dietary behavior change, more comprehensive strategies are needed to increase vegetable intake.

(Seo et al., 2011) examined fast food consumption among middle school students and explored the factors influencing their behavior through the application of the Theory of Planned Behavior. The study suggested that effective nutrition education programs should focus on changing subjective norms surrounding fast food consumption, especially peer influence, and enhancing perceived behavioral control. The authors called for further research into the most effective ways to alter subjective norms and provide alternatives to fast food to improve students' behavioral control.

(Poti et al., 2014) conducted a cross-sectional analysis of 4,466 U.S. children aged 2–18 years, using data from the NHANES 2007–2010. The analysis identified two dietary patterns for non-fast food intake: the Western pattern and the prudent pattern. Multivariable-adjusted linear and logistic regression models were used to explore the association between fast food consumption and dietary patterns and their independent associations with overweight/obesity. The study found that half of the U.S. children consumed fast food, with 39.5% being low-consumers and 10.5% being high-consumers. The findings suggested that fast food consumers also ate Western diets, which were more strongly associated with overweight/obesity and poor dietary outcomes than fast food consumption alone. The study highlights the need for further prospective research to validate these findings.

(Nuru & Mamang, 2015) conducted a study aimed at informing readers about the association between snacking and weight gain in children. Data for this study was gathered from published papers between January 2004 and 2014; using databases like Google Scholar and Pub Med. Articles were restricted to the English language, focusing on keywords such as snacking, obesity, and children. The study found that snacking significantly affects children's diet quality, particularly their body mass index (BMI). Children who frequently consumed large portions of snacks were at higher risk of obesity, while those who ate snacks without feeling hungry showed an improvement in diet quality. The study also emphasized that snacking is not the sole factor contributing to weight gain in children but can have a positive impact on diet quality. Further research is needed to gain a clearer understanding of the relationship between snacking and weight gain.

(Yahia et al., 2016) examined whether increased nutrition knowledge is associated with reduced consumption of unhealthy fats among university students. The study involved 231 students with a mean age of 20 years and used a validated questionnaire to assess demographics, nutrition knowledge, and daily fat consumption. Weight, height, and waist circumference measurements were also recorded. The study found that increased nutrition education could play a vital role in promoting healthy eating habits among college students. The findings serve as a foundation for future nutrition education intervention studies aimed at reducing fat consumption and improving overall diet quality in university settings.

(Kumar & Chambers, 2019) explored how food product choices are influenced by food properties, consumer motives, emotions, and context, particularly in cross-cultural studies. The research acknowledged the limitations of cross-cultural studies, including conceptual differences and linguistic and cultural variations in response styles. Results showed that consumers used a range of terms to describe texture, and these terms were specific to the product and perception. The findings presented a model that can be utilized in conducting cross-cultural research studies. The results also have practical implications for food industries in product development, consumer insights, communication, and product testing in international markets.

(Shubham & Shah, 2023) aimed to identify the factors influencing healthy and unhealthy snack consumption among college students. The data was collected from various reliable sources such as Google Scholar, Research Gate, Pub Med, and Science Direct. After analyzing multiple reviews, the study identified several factors affecting snack choices, including economic, physical, biological, psychological, and social factors. Despite being aware of the negative effects of unhealthy snacks, college students continued to prefer them over healthier options. The findings emphasize the need for targeted interventions to address the complex factors driving snack choices among college students.

Objectives

- To explore the connection between snacking frequency and its effect on overall energy balance in college students.
- To analyze the trends in fast food consumption among college students and its impact on their dietary habits and health outcomes.
- To examine the factors that influence food choices, including taste preferences, convenience, and nutritional awareness, among college students.

METHODS—LITERATURE SEARCH STRATEGY

A comprehensive search was conducted using electronic databases such as Pub Med, Medline, and Google Scholar to identify and evaluate relevant studies. Articles published between 2010 and January 2023 were included, using key terms like “snacking frequency,” “energy balance,” and “college students.”

Snacking Frequency and Its Impact on Overall Energy Balance

Understanding snacking habits and their effect on energy balance is essential for maintaining a healthy weight and overall wellness. Snacking frequency refers to how often individuals consume food between main meals, and it significantly influences their energy balance, which is the relationship between calorie intake and expenditure. For college students, this is particularly important as they often face unique dietary challenges. Frequent snacking, especially on calorie-dense, sugary, and fatty processed foods, can lead to excessive calorie intake. If these calories are not balanced by physical activity, they may be stored as fat, contributing to weight gain over time. Conversely, mindful snacking on nutrient-dense options such as fruits, vegetables, whole grains, and nuts can support energy management, reduce hunger between meals, and provide essential vitamins and minerals. These healthy snacks can also help maintain steady energy levels throughout the day, promoting metabolic health. However, snacking behavior can vary greatly between individuals. Therefore, it's crucial to make informed, balanced choices about snack frequency and food quality while maintaining an active lifestyle. For college students, mindful snacking can help in weight management and overall well-being.

Snacking Frequency and Its Impact on Energy Balance among College Students

Among college students, the frequency and quality of snacking

can have a significant impact on overall energy balance, which plays a critical role in weight maintenance and health. Frequent consumption of unhealthy snacks, such as chips, candy, and sugary beverages, often leads to excess caloric intake. This can cause an energy imbalance, where more calories are consumed than burned, potentially resulting in weight gain. Over time, such habits may contribute to obesity, poor diet quality, and increased risk of chronic diseases like cardiovascular issues and diabetes. On the other hand, making healthier snacking choices, such as opting for fruits, nuts, yogurt, and vegetables, can have the opposite effect. These nutrient-dense foods help control calorie intake, meet nutritional needs, and maintain satiety between meals, thus preventing overeating. Overall, the type and frequency of snacks consumed by college students significantly influence their energy balance and can affect both their academic performance and long-term health outcomes.

The Relationship between Snacking Frequency and Energy Balance among College Students

The frequency of snacking plays an important role in how much energy college students take in compared to how much they burn off. Snacking is common among college students, driven by convenience, taste preferences, and social influences. Some students snack occasionally, while others consume snacks throughout the day. This frequency has a direct impact on energy intake and overall health. Consuming snacks frequently, especially calorie-rich foods high in sugar and fat, can lead to an energy imbalance, where more calories are consumed than expended. This often results in weight gain and adverse health effects over time. However, choosing healthier snack options, such as fruits, vegetables, whole grains, and nuts, can fill the nutritional gaps between meals and help regulate energy levels. These healthy snacks can also prevent overeating during main meals by keeping hunger at bay and stabilizing blood sugar levels. The impact of snacking on energy balance depends on various factors, including metabolism, physical activity, and overall eating habits. For college students, snacking can either contribute to a balanced diet or lead to unhealthy weight gain, depending on the frequency and type of snacks consumed. Smart snacking habits can enhance energy levels, promote metabolic health, and improve academic performance.

The Trend of Fast Food Consumption among College Students Over Time and Its Implications for Dietary Habits and Health Outcomes

Understanding the changes in fast food consumption patterns among college students is critical to assessing how these trends impact their diet and health. Over recent years, fast food has gained popularity among students, largely due to its convenience and affordability. Research shows that students are increasingly choosing high-calorie, nutrient-poor fast food, which raises concerns about the potential for poor dietary habits and negative health outcomes. Analyzing the frequency and types of fast food consumed by students over time allows researchers to detect shifts in eating habits. Factors such as convenience, price, and taste drive this trend, but the implications extend beyond immediate food choices, affecting students' overall diet and health. Fast food, typically rich in calories, fats, sugar, and sodium, but low in essential nutrients, contributes to the decline

in consumption of healthier foods like fruits, vegetables, and whole grains. Consequently, frequent consumption of fast food is linked to the risk of developing chronic health issues, including obesity, diabetes, and cardiovascular diseases. Understanding these trends is vital for devising interventions that promote healthier eating habits among college students.

The Rise of Fast Food Consumption among College Students

In recent years, fast food consumption among college students has increased significantly, influenced by several factors. One key reason is convenience. Students, often dealing with packed schedules, find fast food to be a quick solution that fits well into their busy lives. Its easy availability and fast service make it a go-to option for students on the move. Affordability is another factor, as many fast food options are relatively inexpensive, appealing to students working with limited budgets. Additionally, marketing strategies targeting young consumers, particularly through social media and digital campaigns, play a significant role in promoting fast food. Fast food brands often use catchy advertising and student-specific promotions to attract this demographic. Social norms also contribute to the trend, with fast food frequently being a part of college life, from late-night study sessions to social outings with peers. Proximity to fast food outlets on or near campuses further exacerbates the trend, making it an easily accessible option for many students. These factors combined underscore the growing presence of fast food in college students' diets.

Implications for Dietary Habits

The increasing reliance on fast food among college students has notable implications for their dietary habits. Fast food is typically high in unhealthy fats, sugar, salt, and calories, while being low in essential nutrients such as vitamins, minerals, and fiber. As a result, frequent consumption of fast food can displace healthier foods from the diet, creating nutritional imbalances. Over time, this can lead to poor eating habits, including irregular meal patterns, excessive caloric intake, and a dependency on processed foods. Such dietary habits increase the risk of various health issues, including weight gain, obesity, and nutrient deficiencies. To combat these effects, raising awareness about the nutritional downsides of fast food is essential, as is equipping students with the skills to prepare healthier meals. Providing greater access to nutritious food options on college campuses can also help students make healthier choices, thus promoting better dietary habits. Interventions that focus on nutrition education and accessibility to healthy food options can play a crucial role in mitigating the impact of fast food on students' diets.

Implications for Health Outcomes

The rise in fast food consumption among college students has significant implications for their health. Fast food is notoriously high in calories, unhealthy fats, sodium, and sugar, while lacking important nutrients like vitamins, minerals, and fiber. Regular consumption of fast food can lead to weight gain and, eventually, obesity, which increases the risk of developing chronic health conditions such as heart disease, diabetes, and hypertension. The excessive intake of unhealthy fats found in fast food can also negatively affect cholesterol levels, increasing

the likelihood of heart attacks and strokes. Additionally, the high sodium content in fast food can raise blood pressure, contributing to cardiovascular problems. Frequent fast food consumption may also weaken the immune system, making students more susceptible to illnesses. If these unhealthy eating patterns persist, they can lead to long-term health problems that may follow students into adulthood. Therefore, it is crucial to promote healthier lifestyle choices and eating habits among college students to reduce the risk of such health complications. Encouraging balanced diets, incorporating nutrient-rich foods, and providing education on the risks of fast food consumption can help mitigate these negative health outcomes.

The Factors Influencing Food Selection Behaviors among College Students: Taste Preferences, Convenience, and Nutritional Knowledge

The objective of investigating the factors that shape food selection behaviors among college students involves exploring the various determinants that influence their dietary choices. This includes analyzing the roles of taste preferences, convenience, and nutritional knowledge to provide a clearer understanding of the motivations driving students' food-related decisions.

Taste Preferences

Taste preferences significantly influence the food choices of college students. People naturally gravitate toward foods they find pleasurable and enjoyable, and these preferences are shaped by cultural, familial, and personal experiences. Taste is an important sensory factor that includes the flavor, texture, and other characteristics that impact how individuals perceive and choose food. Familiarity with specific cuisines and exposure to various culinary traditions also play a role in determining food preferences. Therefore, taste is a major factor that college students consider when selecting what to eat, often prioritizing foods that provide immediate sensory satisfaction.

Convenience

Convenience is another important factor in food selection for college students, as their busy schedules and academic commitments leave them with limited time to prepare meals. The accessibility, affordability, and ease of obtaining or preparing food are critical components of convenience. College students often prioritize readily available, quick-to-prepare meals, which may lead them to select less healthy options due to time constraints. Proximity to food outlets, ease of preparation, and portability of meals also contribute to their food choices, with more convenient options often taking precedence over healthier but more time-consuming alternatives.

Nutritional Knowledge

Nutritional knowledge also plays a key role in shaping food selection behaviors among college students. Awareness of the nutritional content, health benefits, and potential risks of different foods empowers individuals to make more informed decisions that align with their health goals. Educational exposure, access to information about nutrition, and personal beliefs about health and well-being contribute to students' understanding of dietary quality. This understanding influences

their choices, as those with higher nutritional knowledge are more likely to select healthier foods that support their overall well-being. In summary, understanding the factors that influence food selection behaviors among college students requires examining the interplay of taste preferences, convenience, and nutritional knowledge. Gaining insights into these elements can help researchers identify the motivations driving dietary choices and inform strategies aimed at improving the dietary habits and health outcomes of college students.

RESULTS

This study presents an overview of the health implications of snacking and fast food consumption among college students. It highlights the significance of snacking frequency and food selection on energy balance and overall health. The research demonstrates a link between frequent snacking on unhealthy foods and increased obesity risk among college students. Furthermore, the association between fast food consumption and poor dietary outcomes is emphasized, with frequent fast food intake linked to unhealthy eating habits and an increased likelihood of obesity. Additionally, the study explores the connection between nutritional knowledge and healthier dietary habits among college students. Higher levels of nutrition knowledge correlate with better food choices, such as reduced consumption of unhealthy fats. The impact of nutrition education programs on improving vegetable intake and enhancing the overall quality of life among college students is also evaluated. Furthermore, the application of the Theory of Planned Behavior in analyzing fast food consumption highlights key factors such as attitudes, social influences, and perceived behavioral control as determinants of food choices. This study synthesizes findings on the factors driving snack consumption behaviors among college students, emphasizing the roles of taste preferences, convenience, peer influences, and advertising.

Future Research Directions

Future research on factors influencing fast food consumption among college students could explore several areas to deepen understanding and address emerging issues. First, longitudinal studies that track snacking behaviors and fast food consumption trends over time could provide valuable insights into long-term changes and health outcomes. Additionally, investigating the effectiveness of various interventions, such as nutrition education programs, campus food environment modifications, and policy initiatives, could inform strategies to promote healthier eating habits and reduce fast food intake among students.

Further research could examine the influence of socio-cultural factors, including peer norms, social media influence, and marketing strategies, on fast food consumption behaviors among college students. Understanding these contextual drivers would enhance insight into the external factors shaping dietary choices. Moreover, studies exploring the impact of fast food consumption on specific health outcomes, such as metabolic health, cardiovascular risk, and mental well-being, could provide targeted information on the broader health implications of fast food.

Lastly, innovative approaches like gamification, technology-based interventions, and behavioral nudges could be examined as ways to encourage healthier food choices among college students. By addressing these research areas, future studies could offer innovative solutions for addressing unhealthy eating behaviors in this population.

CONCLUSION

The factors influencing food selection behaviors and fast food consumption among college students are complex and interconnected. These factors include taste preferences, convenience, nutritional knowledge, peer influences, and socio-cultural drivers. The increasing trend of fast food consumption among students highlights the need for comprehensive interventions aimed at promoting healthier eating habits and addressing the health risks associated with excessive fast food intake. Future research should focus on conducting longitudinal studies to track trends, evaluating the effectiveness of interventions, examining socio-cultural influences, exploring the health impacts of fast food consumption, and developing innovative strategies to promote healthier food choices. Addressing these gaps in research will provide a deeper understanding of the dynamics influencing fast food consumption and support the development of evidence-based strategies to enhance the nutritional well-being and health of college students.

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