
Fast Food Consumption Habits of Undergraduate and Applied Bachelor's Degree Culinary Arts Students

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ABSTRACT

The purpose of this study is to determine (1) knowledge, (2) attitudes, (3) actions, (4) the relationship between knowledge and attitudes, (5) the relationship between knowledge and actions, and (6) the relationship between attitudes and actions of Undergraduate and Applied Bachelor's Degree Culinary Arts students from the 2020 cohort at the Faculty of Engineering, Universitas Negeri Yogyakarta, regarding fast food consumption habits. This research is a survey-type study. The population consists of all Undergraduate and Applied Bachelor's Degree Culinary Arts students from the 2020 cohort, totaling 236 students. A sample of 148 students was selected using the Slovin formula with a 5% error margin through Proportional Purposive Sampling. The research instruments included a knowledge test (32 items), an attitude questionnaire (27 items), and an action data sheet using the FFQ, all of which were tested for validity and reliability. Data analysis was conducted using descriptive statistics and chi-square tests. The results show: (1) 85% of students have very high knowledge about fast food consumption, while 15% have high knowledge; (2) 7% have a very high attitude, 68% have a high attitude, and 25% have a moderate attitude towards fast food consumption; (3) actions towards fast food consumption show 13% very frequent, 60% frequent, 17% quite frequent, and 10% adequate; (4) knowledge does not influence attitudes with a p-value of 0.236 ($p > 0.05$); (5) knowledge does not influence actions with a p-value of 0.236 ($p > 0.05$); (6) attitudes influence actions with a p-value of 0.035 ($p < 0.05$).

Keywords: Knowledge, attitudes, actions, fast food consumption habits

INTRODUCTION

Fast food refers to food that can be prepared and served quickly, typically offered by fast food restaurants or street vendors specializing in quick meals. These foods generally have consistent taste quality and are easily accessible. Examples of fast food include burgers, fries, pizza, and fried chicken (Atinkut, et al., 2018). In contrast, ready-to-eat food, as defined by Ricci et al. (2018), refers to foods that have been pre-processed and cooked, allowing for immediate consumption without further cooking. These foods are often

packaged conveniently and can be found in cans, plastic, or vacuum-sealed packaging. Examples include instant noodles, canned soups, and frozen meals. Instant food refers to items that can be quickly and easily prepared without complex cooking processes, typically requiring only hot water or soaking. Examples of instant food include instant noodles, instant porridge, and instant coffee (Eftimov, et al., 2020).

The primary difference between these three types of food lies in their preparation time and convenience level. Fast food is quickly prepared by specialized vendors, ready-to-eat food has been pre-cooked and packaged for convenience, while instant food is designed for quick preparation and consumption. However, fast food often contains high levels of calories, fat, protein, sugar, and salt, but low fiber (Lowanga et al., 2021). Excessive consumption of fast food can lead to nutritional imbalances and obesity (Widyantara et al., 2014). High fat, salt, and sugar content, along with synthetic additives in fast food, can lead to various diseases, from mild to severe, including diabetes, arthritis, hypertension, heart attacks, strokes, and cancer. Nowadays, these degenerative diseases are not only affecting older individuals but also the younger generation (Agustina, 2022).

In Indonesia, fast food consumption habits are influenced by several factors, both internal (education, occupation, age) and external (environmental, sociocultural, mass media). Habits form behaviors, which encompass three domains: knowledge, attitude, and action. Research by Rahman et al. (2019) and Akmal (2019) indicate that higher knowledge levels correlate with increased frequency of fast food consumption. The third factor influencing fast food consumption habits is actions, which were notably impacted by the COVID-19 pandemic. Initially, to prevent the spread of COVID-19, educational institutions were closed, and online learning was implemented (Putri et al., 2017). While these measures helped reduce COVID-19 transmission, they also affected physical activity, dietary patterns, sleep schedules, social habits, and the mental health of students, ultimately influencing changes in nutritional status (Maharani & Santoso, 2022; Sari et al., 2023; Ningrum et al., 2022).

Culinary Arts students from the 2020 cohort at the Faculty of Engineering, Universitas Negeri Yogyakarta, have nutrition courses as part of their curriculum. Observations reveal that these students frequently consume fast food, despite their awareness of its negative aspects. Interviews with several respondents indicate that they consume fast food because it is affordable, tasty, easily accessible, and convenient. Limited allowances from parents (due to living away from home and staying in boarding houses) also contribute to their frequent fast food consumption.

Studies on fast food consumption habits among adolescents and students have been reported. Research by San Murdoko and Frisca (2023) and Psaltopoulou et al. (2021) noted an increase in overweight and obesity during the COVID-19 pandemic, with 70 (34.8%) subjects consuming fast food ≥ 3 times per week, indicating a relationship between fast food consumption habits and nutritional status. Similarly, Suhada and Asthiningsing (2020) and Stavridou et al. (2021) found a significant relationship between peer influence and knowledge with fast food consumption habits.

While previous studies have examined the general impact of fast food consumption on health and its prevalence among various populations, there is a lack of focused research on the specific habits and influencing factors among Culinary Arts students who have educational exposure to nutrition. This gap is crucial because understanding how knowledge and education in nutrition influence actual eating habits can help develop more effective health education programs.

PURPOSE OF THE STUDY

The purpose of this study is to determine (1) knowledge, (2) attitudes, (3) actions, (4) the relationship between knowledge and attitudes, (5) the relationship between knowledge and actions, and (6) the

relationship between attitudes and actions of Undergraduate and Applied Bachelor's Degree Culinary Arts students from the 2020 cohort at the Faculty of Engineering, Universitas Negeri Yogyakarta, regarding fast food consumption habits.

METHOD

This study employed a mixed-methods approach, utilizing both quantitative and qualitative methodologies through a survey design. The research was conducted from December 2021 to June 2022 at the Department of Culinary and Fashion Education, Faculty of Engineering, Universitas Negeri Yogyakarta.

Participants

The population of this study included all Undergraduate and Applied Bachelor's Degree Culinary Arts students from the 2020 cohort, totaling 236 students. The sampling method used was Proportional Purposive Sampling, with a sample size of 148 students determined using the Slovin formula with a 5% margin of error. This sample included students from three classes each in the Undergraduate and Applied Bachelor's Degree programs, ensuring representation across the cohort.

Data Collection and Analysis

Data were collected using a structured approach, comprising a knowledge test with 32 items, an attitude questionnaire with 27 items, and an FFQ (Food Frequency Questionnaire) for actions. All instruments were tested for validity and reliability. The data analysis was conducted using descriptive statistics and chi-square tests to explore relationships between variables.

The researchers, well-versed in educational research and survey methodologies, conducted the data collection and analysis. Their competencies ensured accurate and reliable data handling and interpretation.

FINDINGS AND DISCUSSION

The findings of this study are presented systematically, responding directly to the research objectives. Relevant quotations, examples, tables, and diagrams are included to support the findings.

Knowledge

The knowledge level about fast food consumption among students was very high (84%) and high (16%). The results in Table 1 suggest that the students' education, particularly in nutrition courses, significantly contributed to their knowledge levels.

Table 1. Distribution of Knowledge Levels

Category	Knowledge		Knowing		Understanding		Application		Average Percentage
	Freq.	Pct.	Freq.	Pct.	Freq.	Pct.	Freq.	Pct.	
Very High	123	84%	144	97%	144	97%	134	91%	92.25%
High	22	16%	3	2%	4	3%	6	4%	6.25%
Moderate	0	0%	1	1%	0	0%	8	5%	1.50%

The data presented in Table 1 provides a comprehensive view of the distribution of knowledge levels among students regarding fast food consumption. The findings are noteworthy and provide several insights into the educational impact on students' understanding of nutritional topics.

The majority of students (84%) fall into the "Very High" category for knowledge about fast food consumption. This is further reinforced by the high percentages in the knowing (97%), understanding (97%), and application (91%) dimensions. Such a high level of knowledge suggests that the students have a robust understanding of the subject matter, likely due to the rigorous academic curriculum that includes extensive nutrition courses.

The data indicates that the students' education, particularly their coursework in nutrition, has significantly contributed to their high knowledge levels. The courses likely cover various aspects of nutrition, including the negative impacts of fast food consumption, which has equipped the students with the necessary information to make informed decisions about their dietary habits.

While the overall knowledge levels are high, there are some variations in the different dimensions of knowledge: Almost all students (97%) are aware of the basic facts about fast food consumption (knowing). The same high percentage (97%) understand the implications of these facts (Understanding). A slightly lower percentage (91%) apply this knowledge in practical contexts. This slight drop could indicate that while students understand the theoretical aspects, applying this knowledge consistently in their daily lives might be more challenging (Application).

A small fraction of students falls into the "High" (16%) and "Moderate" (1.5%) categories. This suggests that while the overall educational impact is strong, there are still areas for improvement to ensure that all students achieve the highest level of knowledge and application.

Attitudes

The majority of students (68.20%) fall into the "High" category for attitudes towards fast food consumption. This suggests that most students have a generally positive or favorable attitude towards fast food, recognizing both its convenience and its potential health impacts (see Table2).

Table 2. Distribution of Attitude Levels

Category	Attitude		Acceptance		Response		Appreciation		Responsibility		Average Percentage
	Freq.	Pct.	Freq.	Pct.	Freq.	Pct.	Freq.	Pct.	Freq.	Pct.	
Very High	10	7%	39	26%	19	13%	15	10%	18	12%	13.60%
High	101	68%	102	69%	109	74%	90	61%	102	69%	68.20%
Moderate	37	25%	6	4%	20	14%	43	29%	24	16%	17.60%
Low	0	0%	1	1%	0	0%	8	0%	4	3%	0.80%

The majority of students (68%) fall into the High category for attitudes towards fast food consumption. This suggests that most students have a generally positive or favorable attitude towards fast food, recognizing both its convenience and its potential health impacts.

A significant proportion of students (69%) have a high level of acceptance towards fast food consumption. This indicates a broad acknowledgement and acceptance of fast food as a part of their diet. 74% of students respond highly towards the consumption of fast food, meaning they recognize and perhaps act on their attitudes towards fast food consumption. With 61% in the high category, students show a high level of appreciation for fast food, likely due to its convenience, taste, and accessibility. 69% of students exhibit a high sense of responsibility towards their consumption habits, understanding the health implications and trying to manage their consumption accordingly.

Only 13.60% of students fall into the Very High category on average. This suggests that while many students have positive attitudes, fewer have the strongest possible positive attitudes towards fast food. This could reflect a balanced view where students are aware of both the benefits and drawbacks of fast food consumption.

The Moderate category has an average of 17.60%, indicating that a significant minority of students have moderate attitudes towards fast food consumption. This group might be more neutral, neither strongly favoring nor opposing fast food. The Low category averages at 0.80%, showing very few students have low attitudes towards fast food consumption. This suggests that negative attitudes towards fast food are rare among this cohort.

Actions

The data presented in Table 3 provides a detailed overview of the distribution of action levels among students regarding their fast food consumption habits. The findings are insightful and highlight key aspects of student behavior. The frequency of fast food consumption was very high (13%), often (60%), quite often (17%), and sufficient (10%).

A significant portion of the students consume fast food frequently, indicating that fast food is a regular part of their diet (60%). A smaller, yet notable group of students consumes fast food very frequently, which suggests a high dependence on fast food for their daily nutritional needs (13%). The Quite Often category (17%) represents students who consume fast food quite frequently but not as regularly as those in the "Often" category. This suggests a moderate level of fast food consumption where students may balance their diet with other food options. The smallest group of students falls into the "Sufficient" category (10%), indicating that they consume fast food occasionally, possibly due to a higher awareness of healthy eating practices or other dietary preferences.

The high percentages in the "Often" and "Very Often" categories raise concerns about the nutritional quality of the students' diets. Regular consumption of fast food, which is often high in calories, fats, sugars, and salts, can lead to various health issues such as obesity, diabetes, and cardiovascular diseases. This pattern suggests that students may prioritize convenience and taste over nutritional value, which is a common trend among young adults.

Table 3. Distribution of Actions Levels

Category	Frequency	Percentage
Very Often	19	13%
Often	89	60%
Quite Often	25	17%
Sufficient	15	10%

Relationship between Knowledge Level and Attitudes

Based on Table 4, it is known that the p-value is 0.636, which is greater than 0.05, thus the null hypothesis (Ho) is rejected. This means that there is no significant relationship between the knowledge level of Undergraduate and Applied Bachelor's Degree Culinary Arts students and their attitudes.

Table 4. Relationship between Knowledge Level and Attitudes

		Attitude Level								Total	
		Very High		High		Moderate		Low		f	Pct.
		f	Pct.	f	Pct.	f	Pct.	f	Pct.		
Knowledge Level	Very High	9	6%	82	55%	33	22%	0	0%	124	84%
	High	1	1%	19	13%	4	3%	0	0%	24	16%
	Moderate	0	0%	0	0%	0	0%	0	0%	0	0%
	Low	0	0%	0	0%	0	0%	0	0%	0	0%
Total										148	100%
p-value										0.636	

This research finding aligns with the study conducted by Putri (2021), which also indicated no significant relationship between knowledge and attitudes, with a p-value of 0.750, which is greater than 0.05. The results from Putri's (2021) study suggest that having good or sufficient knowledge does not guarantee

that adolescents will consume fast food healthily. This is because there are other factors influencing fast food consumption patterns besides knowledge. These factors include attitudes, parental education, mass media, sociocultural influences, environment, interests, and age (Surbakti & Carolina, 2021).

Most adolescents can obtain information about fast food consumption patterns through electronic media (Internet), which contains a vast amount of information. However, not all this information is necessary or beneficial.

Relationship between Knowledge Level and Actions

Based on Table 5, it is known that the p-value is 0.236, which is greater than 0.05, thus the null hypothesis (Ho) is rejected. This means that there is no significant relationship between the knowledge level of Undergraduate and Applied Bachelor's Degree Culinary Arts students and their actions. This finding is supported by the research conducted by Sinulingga (2021), which stated that there is no relationship between knowledge and the practice of consuming fast food, with a p-value of 0.778. Similarly, Putri (2021) found no relationship between knowledge and the actions of consuming fast food, with a p-value of 0.831.

The high knowledge levels among students can be attributed to their educational background, as the Culinary Arts program includes nutrition courses. Additionally, students can access information about fast food from various media sources, such as social media and television. They choose fast food due to its quick preparation, which saves time and can be served anywhere and anytime. Fast food outlets are perceived as hygienic, affordable, and offering a variety of food that meets their preferences. Fast food is also considered trendy, modern, and fashionable among young people (Milner Jr, 2013).

Table 5. Relationship between Knowledge Level and Actions

		Action Level								Total	
		Very Often		Often		Quite Often		Sufficient			
		f	Pct.	f	Pct.	f	Pct.	f	Pct.	f	Pct.
Knowledge Level	Very High	15	10%	73	49%	21	14%	15	10%	124	84%
	High	4	3%	16	11%	4	3%	0	0%	24	16%
	Moderate	0	0%	0	0%	0	0%	0	0%	0	0%
	Low	0	0%	0	0%	0	0%	0	0%	0	0%
Total										148	100%
p-value										0.236	

Relationship between Attitude and Actions Level

Based on Table 6, it is known that the p-value is 0.035, which is less than or equal to 0.05, thus the null hypothesis (Ho) is accepted. This means that there is a significant relationship between the attitudes of Undergraduate and Applied Bachelor's Degree Culinary Arts students and their actions. This finding is consistent with the study by Putri (2021), which reported a relationship between attitudes and the actions of consuming fast food ($p = 0.000$). From the attitudes shown by students towards statements about fast food consumption, it can be seen that Undergraduate and Applied Bachelor's Degree Culinary Arts students exhibit poor eating behaviors. This is due to the influence of friends or social groups, limited time to cook healthy food due to busy schedules, and the nutritional imbalance and preservatives in fast food. If this consumption pattern becomes habitual, it will negatively impact the nutritional status of young adults,

leading to degenerative diseases (heart disease, cancer, and stroke) as their life expectancy increases (Gómez-Gómez & Zapico, 2019).

Table 6. Relationship between Attitude Level and Actions

		Actions Level								Total	
		Very Often		Often		Quite Often		Sufficient		f	Pct.
		f	Pct.	f	Pct.	f	Pct.	f	Pct.		
Attitude Level	Very High	2	1%	7	5%	0	0%	1	1%	10	7%
	High	13	13%	58	39%	18	12%	12	8%	101	68%
	Moderate	4	4%	24	16%	7	5%	2	1%	37	25%
	Low	0	0%	0	0%	0	0%	0	0%	0	0%
Total										148	100%
p-value										0.035	

CONCLUSION

The study aimed to determine the knowledge, attitudes, and actions of Undergraduate and Applied Bachelor's Degree Culinary Arts students from the 2020 cohort at the Faculty of Engineering, Universitas Negeri Yogyakarta, regarding fast food consumption habits. The findings reveal that the majority of students have very high levels of knowledge about fast food consumption, significantly influenced by their nutrition education. However, this knowledge does not significantly affect their attitudes or actions, as indicated by the p-values (0.236 for both relationships). In contrast, there is a significant relationship between attitudes and actions ($p = 0.035$), suggesting that students' attitudes play a crucial role in their consumption behaviors. Despite their high knowledge levels, students frequently consume fast food due to convenience, taste, and social influences. This indicates the need for more practical, behavior-oriented educational programs to bridge the gap between knowledge and healthy eating practices. Implementing workshops, interactive sessions, and awareness campaigns could help students make more informed dietary choices, ultimately improving their overall health and well-being.

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