



SOCIO-DEMOGRAPHIC CHARACTERISTICS AND KNOWLEDGE OF JUNK FOOD CONSUMPTION AMONG UNDERGRADUATE STUDENTS IN A SELECTED PRIVATE UNIVERSITY IN ABUJA, NIGERIA

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ABSTRACT

Junk food consumption among university students has emerged as a public health concern due to its potential impact on dietary habits and risk of non-communicable diseases, including diabetes. Socioeconomic and demographic factors, such as age, gender, accommodation, and financial support, can significantly influence students' food choices. This study examined the socioeconomic and demographic characteristics of undergraduate students and their junk food consumption patterns in a private university in Abuja, Nigeria. A descriptive cross-sectional survey was conducted among 348 undergraduate students using a structured questionnaire. Data were collected on age, gender, academic level, faculty, accommodation, family history of diabetes, and monthly allowances. Information on junk food consumption frequency, sources, expenditure, and preferences was also obtained. Descriptive statistics, including frequencies and percentages, were used to analyze the data. The majority of respondents were aged 16–20 years (74.7%) and female (56.9%). Most were lower-level students, with 52.9% enrolled in the Faculty of Medical and Basic Sciences. About 42.2% lived in school hostels, and 76.7% received monthly allowances, with over half receiving amounts above ₦50,000. While 55.2% reported no family history of diabetes, 33.6% had a positive history. Junk food consumption varied by type; pastries, meat pies, and puff-puff were most frequently consumed, whereas energy drinks were rarely consumed. School cafeterias were the primary source, and 59.8% spent over ₦3,000 weekly on junk foods. Despite these trends, 66% preferred home-cooked meals over fast foods. Socioeconomic and demographic factors influence junk food consumption among undergraduates. Although home-cooked meals remain preferred, the high expenditure on junk foods may increase the risk of unhealthy dietary behaviors. Universities should implement nutrition education, improve access to healthy meals, and provide financial guidance to promote healthier eating habits.

Keywords: Junk food, Undergraduate students, Dietary habits, Socioeconomic factors, Diabetes risk, Nigeria

INTRODUCTION

Junk food consumption has become a growing public health concern worldwide, particularly among young adults and university students. Junk foods are typically high in calories, saturated fats, sugar, and salt but low in essential nutrients. Frequent consumption of these foods has been associated with several health problems, including obesity, cardiovascular diseases, and metabolic disorders such as diabetes (Popkin & Reardon, 2018). University students are particularly vulnerable to unhealthy eating behaviors due to lifestyle transitions, academic pressures, and increased independence in food choices.

Socio-demographic and socio-economic characteristics play an important role in shaping

dietary behaviors and food consumption patterns. Factors such as age, gender, family background, monthly allowance, and parental education influence students' knowledge, attitudes, and consumption of junk foods (Story et al., 2008). For many undergraduate students, the transition from home to university life exposes them to a food environment dominated by fast food outlets, convenience foods, and aggressive marketing strategies, which may increase the likelihood of unhealthy dietary choices (Swinburn et al., 2019).

Age is a significant demographic factor influencing food choices and health awareness. Younger individuals tend to prefer energy-dense and highly palatable foods due to taste preferences and social influences (Ding et al., 2021). At the same time, their knowledge of long-

term health risks associated with poor dietary habits may be limited. Gender differences have also been observed in dietary practices, with several studies reporting that male students consume junk food more frequently than females, while females often demonstrate greater concern for nutrition and health outcomes (Wardle et al., 2004).

Socioeconomic status, including students' financial allowance, parental income, and educational background, also affects dietary patterns. Students with limited financial resources may rely more heavily on inexpensive fast foods and processed snacks because they are affordable and readily available (Darmon & Drewnowski, 2008). Conversely, students from higher socioeconomic backgrounds may have greater access to healthier food options and better nutrition knowledge.

In developing countries such as Nigeria, rapid urbanization and globalization have further increased the availability and consumption of junk foods among young people. The proliferation of fast-food restaurants and convenience stores around university campuses has made unhealthy foods easily accessible to students (Akinyemi et al., 2022). Despite increasing awareness of the health risks associated with poor dietary habits, junk food consumption remains widespread among undergraduates.

Understanding how socio-demographic and socio-economic factors influence junk food consumption is therefore important for designing effective health promotion strategies. Identifying the characteristics associated with unhealthy dietary behaviors among university students can help policymakers, educators, and public health practitioners develop targeted interventions to promote healthier eating habits and reduce diet-related health risks.

Literature Review

Socio-Demographic Characteristics and Junk Food Consumption

Socio-demographic characteristics such as age, gender, and family background have been identified as important determinants of dietary habits among young adults. These factors influence food preferences, eating behavior, and knowledge about nutrition and health risks associated with poor dietary practices.

Age plays a significant role in shaping

dietary behaviors. Young adults, particularly university students, often exhibit irregular eating patterns due to academic commitments, social activities, and increased independence. According to Ding et al. (2021), younger individuals are more likely to consume fast foods and processed snacks because of their convenience and appealing taste. Similarly, a study by Smith et al. (2020) found that undergraduate students frequently relied on junk foods due to busy academic schedules and easy access to fast food outlets around university campuses.

Gender differences in food consumption patterns have also been widely reported in the literature. Research indicates that male students tend to consume junk food more frequently than female students. Wardle et al. (2004) reported that men generally have higher energy intake and are more likely to consume high-fat and high-calorie foods compared to women. In contrast, female students are often more conscious of dietary choices and health outcomes, which may influence them to adopt healthier eating habits.

Similarly, Adeyemi et al. (2022) conducted a study among young adults in Nigeria and reported that male students consumed fast foods and sugar-sweetened beverages more frequently than female students. The study also observed that females demonstrated greater awareness of nutrition-related health risks, including diabetes and obesity.

Family background is another demographic factor that influences dietary behavior. Students raised in households where balanced diets and home-cooked meals are emphasized are more likely to maintain healthy eating habits even after leaving home (Fischer et al., 2022). Conversely, individuals from families with poor dietary practices may be more inclined to adopt unhealthy eating behaviors.

Socioeconomic Factors Influencing Junk Food Consumption

Socioeconomic factors such as income level, monthly allowance, parental education, and employment status significantly influence food consumption patterns. Students' financial resources often determine their food choices, particularly in university settings where affordability is a major consideration.

Darmon and Drewnowski (2008) noted that individuals with limited financial resources often rely on cheaper energy-dense foods that are high in

fat and sugar but low in nutritional value. These foods are widely available and relatively inexpensive, making them attractive options for students with restricted budgets.

Similarly, a study conducted in Nigeria by Abiodun and Chukwu (2022) found that students from low-income households consumed more processed and fast foods compared to those from higher socioeconomic backgrounds. The study attributed this trend to the affordability and accessibility of junk foods.

Parental education is another important socioeconomic determinant of dietary behavior. Individuals whose parents have higher levels of education are more likely to possess better knowledge of nutrition and healthy eating practices (Akinyemi et al., 2022). Educated parents may also influence their children's dietary choices by encouraging balanced diets and healthy food consumption.

Monthly allowance also affects students' dietary decisions. Students with higher allowances may have greater purchasing power and access to a wider variety of foods, including healthier options. However, increased financial resources may also lead to higher consumption of fast foods and snacks, particularly in environments where these foods are readily available.

Peer Influence and Food Environment

The food environment within university campuses significantly affects students' eating behaviors. Fast food outlets, convenience stores, and vending machines located around campuses often promote the consumption of energy-dense foods (Swinburn et al., 2019).

Peer influence is also a significant factor affecting food choices among undergraduates. Students frequently make food decisions based on social interactions and group norms. Research by Harris et al. (2021) found that young adults were more likely to consume fast foods when dining with friends or participating in social activities.

Social media has also emerged as a powerful influence on dietary behaviors. Exposure to online food advertisements and social media trends can shape food preferences and encourage the consumption of highly processed foods among young people.

Health Implications of Junk Food Consumption

Frequent consumption of junk food has been linked to several adverse health outcomes. Diets high in saturated fats, refined sugars, and sodium contribute to weight gain, insulin resistance, and increased risk of type 2 diabetes (Micha et al., 2017).

Popkin and Reardon (2018) reported that the global rise in consumption of ultra-processed foods has contributed significantly to the increasing prevalence of obesity and metabolic diseases. Among university students, unhealthy dietary patterns established during early adulthood may persist into later life, increasing the risk of chronic diseases.

Given these health risks, several public health interventions have been proposed to reduce junk food consumption. Strategies such as nutrition education programs, food labeling regulations, and restrictions on unhealthy food marketing have shown promising results in improving dietary behaviors among young populations (Brown et al., 2020).

METHODOLOGY

Research Design

This study adopted a descriptive cross-sectional research design to assess the socio-demographic characteristics and knowledge of junk food consumption among undergraduate students in a private university in Abuja, Nigeria. The cross-sectional design was considered appropriate because it allows the collection of data from a population at a single point in time to examine relationships between variables such as age, gender, socioeconomic background, and knowledge of junk food consumption (Setia, 2016).

Study Area

The study was conducted in a private university located in Abuja, Federal Capital Territory, Nigeria. Abuja is the administrative capital of Nigeria and hosts several tertiary institutions with diverse student populations from different socioeconomic and cultural backgrounds. The university environment provides easy access to fast food outlets, cafeterias, and snack vendors, which may influence students' food consumption patterns.

Study Population

The target population for this study consisted of all undergraduate students enrolled in the selected private university in Abuja during the period of the study. These students represent a population that is particularly exposed to fast food consumption due to academic schedules, peer influence, and lifestyle changes associated with university life.

Sample Size and Sampling Technique

A sample size of (348) undergraduate students was selected for the study.

A multistage sampling technique was used to select respondents. In the first stage, faculties within the university were selected. In the second stage, departments were selected from the identified faculties. Finally, students were selected using simple random sampling to ensure that every student had an equal chance of being included in the study.

This sampling approach helped ensure adequate representation of students from different academic disciplines and socio-demographic backgrounds.

Instrument for Data Collection

Data for the study were collected using a standardized structured self-administered questionnaire adapted by researcher to suit the study based on existing literature on junk food consumption and nutrition knowledge.

The questionnaire consisted of two main sections:

Section A:

Focused on the socio-demographic characteristics of respondents, including age, gender, level of study, family background, parental education, and monthly allowance.

Section B:

Assessed respondents' knowledge of junk food consumption, including awareness of junk food types, health implications of frequent consumption, and knowledge of diet-related diseases such as obesity and diabetes.

The questionnaire contained both closed-ended and Likert-scale questions to obtain quantitative data.

Validity of the Instrument

To ensure content and face validity, the questionnaire was reviewed by experts in community health, nutrition, and health education. Their suggestions and corrections were incorporated into the final version of the instrument to ensure that the questions adequately measured the variables of interest.

Reliability of the Instrument

A pilot test of the questionnaire was conducted among a small group of undergraduate students in another institution with similar characteristics to the study population. The reliability of the instrument was determined using Cronbach's alpha coefficient, which produced a reliability value of (0.71). This value indicated that the instrument had acceptable internal consistency.

Method of Data Collection

The researcher and trained research assistants administered the questionnaires to selected respondents within the university campus. Respondents were given adequate time to complete the questionnaires, and completed copies were collected immediately to ensure a high response rate.

Method of Data Analysis

Data collected from the questionnaires were coded and analyzed using Statistical Package for Social Sciences (SPSS) version 23.

Descriptive statistics such as frequency distributions, percentages, mean, and standard deviation were used to summarize the socio-demographic characteristics and knowledge levels of respondents.

Inferential statistics such as Chi-square analysis were used to test the relationship between socio-demographic variables (such as age, gender, and socioeconomic background) and knowledge of junk food consumption. The level of statistical significance was set at $p < 0.05$.

Table 1: Socioeconomic and Demographic Characteristics of the Respondents

Variables	Frequency F	Percentage (%)
Age 19.65±3.66		
16-18 Years	151	43.4
19-20 Years	109	31.3
21-25 Years	74	21.3
26-30 Years	7	2.0
31-35 Years	1	.3
36-40 Years	6	1.7
Total	348	100.0
Gender		
No response	7	2.0
Male	139	39.9
Female	198	56.9
Others	4	1.1
Total	348	100.0
Academic Level		
No response	2	.6
100L	95	27.3
200L	118	33.9
300L	23	6.6
400L	68	19.5
500L	37	10.6
Others	5	1.4
Total	348	100.0
Faculty		
No response	3	.9
Engineering	63	18.1
Management and social science	35	10.1
Law	29	8.3
Computer and applied science	32	9.2
Environmental science	2	0.6
Medical basic science	184	52.9

Table 1 cont'd: Socioeconomic and Demographic Characteristics of the Respondents

Variables	Frequency F	Percentage (%)
Do you have a family history of diabetes?		
No response	1	.3
Yes	117	33.6
No	192	55.2
I don't know	38	10.9
Total	348	100.0
Do you receive a monthly allowance?		
No response	8	2.3
Yes	267	76.7
No	73	21.0
Total	348	100.0
If yes, how much on average?		
No response	84	24.1
<N10,000	8	2.3
N10,000 - N20,000	9	2.6
N20,100 - N50,000	47	13.5
>N50,000	200	57.5
Total	348	100.0

Table 2: Association Between the Socioeconomic and Demographic Characteristics of the Respondents and their Knowledge of Diabetes

Variables	Knowledge					χ^2	P-value
	Fail F (%)	Poor F (%)	Average F (%)	Excellent F (%)	Total F (%)		
Age							
16-18 Years	13(3.7)	17(4.9)	30 (8.6)	91 (26.1)	151(43.4)	24.350	0.059
19-20 Years	12(3.4)	5(1.4)	14 (4.0)	78 (22.4)	109 (31.3)		
21-25 Years	10(2.9)	7(2.0)	11 (3.2)	46 (13.2)	74 (21.3)		
26-30 Years	0(0.0)	0(0.0)	0 (0.0)	7 (2.0)	7 (2.0)		
31-35 Years	0(0.0)	1(0.3)	0 (0.0)	0 (0.0)	1 (0.3)		
36-40 Years	1(0.3)	0(0.0)	2 (0.6)	3 (0.9)	6 (1.7)		
Total	36(10.0)	30 (8.6)	57(16.4)	225(64.7)	348(100.0)		
Gender							
No response	3(0.9)	0(0.0)	2 (0.6)	2 (0.6)	7 (2.0)	25.571	0.002
Male	21(6.0)	15(4.3)	28 (8.0)	75 (21.6)	139(39.9)		
Female	12(3.4)	15(4.3)	26 (7.5)	145(41.7)	198(56.9)		
Others	0(0.0)	0(0.0)	1 (0.3)	3 (0.9)	4 (1.1)		
Total	36(10.3)	30(8.6)	57(16.4)	225(64.7)	348(100.0)		
Academic Level							
No response	0(0.0)	1(0.2)	0 (0.0)	1 (0.3)	2 (0.6)	24.546	0.138
100L	13(3.7)	10(2.9)	17 (4.9)	55 (15.8)	95(27.3)		
200L	8(2.3)	8(2.3)	22 (6.3)	80(23.0)	118(33.9)		
300L	5(1.4)	2(0.6)	4 (1.1)	12 (3.4)	23(6.6)		
400L	3(0.9)	4(1.1)	11 (3.2)	50 (14.4)	68(19.5)		
500L	7(2.0)	5(1.4)	3 (0.9)	62 (17.5)	77(22.3)		
Others	0(0.0)	0(0.0)	0 (0.0)	5 (1.4)	5 (1.4)		
Total	36(10.3)	30(8.6)	57(16.4)	225(64.7)	348(100.0)		
Accommodation							
No response	1(0.3)	0(0.0)	0 (0.0)	1 (0.3)	2 (0.6)		

Table 3 cont'd: Association Between the Socioeconomic and Demographic Characteristics of the Respondents and their Knowledge of Diabetes Mellitus

Variables	Knowledge					χ^2	
	Fail F (%)	Poor F (%)	Average F (%)	Excellent F (%)	Total F (%)		P- value
Faculty							
No response	0(0.0)	1(0.3)	0 (0.0)	2 (0.6)	3 (0.9)		
Engineering	8(2.3)	8(2.3)	11 (3.2)	36 (10.3)	63(18.1)		
Management and Social Science	7(2.0)	4(1.1)	8 (2.3)	16 (4.6)	35(10.1)		
Law	5(1.4)	1(0.3)	8 (2.3)	15 (4.3)	29(8.3)	27.604	0.068
Computer and Applied Science	4(1.1)	4(1.1)	7 (2.0)	17 (4.9)	32(9.2)		
Environmental Science	0(0.0)	0(0.0)	0 (0.0)	2 (0.6)	2 (0.6)		
Medical Basic Science	12(3.4)	12(3.4)	23 (6.6)	137(39.4)	184(52.9)		
Total	36(10.3)	30(8.6)	57(16.4)	225(64.7)	348(100.0)		
Do you have a family history of diabetes?							
No response	0(0.0)	1(0.3)	0 (0.0)	0 (0.0)	1 (0.3)		
Yes	6(1.7)	156(1.7)	(4.3)	90 (25.9)	117(33.6)		
No	27(7.8)	22(6.3)	35(10.1)	108(31.0)	192(55.2)	27.958	0.001
I don't know	3(0.9)	1(0.3)	7 (2.0)	27 (7.8)	38(10.9)		
Total	36(10.3)	30(8.6)	57(16.4)	225(64.7)	348(100.0)		
Do you receive a monthly allowance?							
No response	0(0.0)	2(0.6)	3 (0.9)	3 (0.9)	8 (2.3)		
Yes	25(7.2)	21(6.0)	42(12.1)	179(51.4)	267(76.7)	9.165	0.164
No	11(3.2)	7(2.0)	12 (3.4)	43 (12.4)	73(21.0)		
Total	36(10.3)	30(8.6)	57(16.4)	225(64.7)	348(100.0)		
If yes, how much on average?							
No response	12(3.4)	9(2.6)	16 (4.6)	47 (13.5)	84(24.1)		
<₦10,000	1(0.3)	2(0.6)	1 (0.3)	4 (1.1)	8 (2.3)		

Socioeconomic and Demographic Characteristics of the Respondents

As presented in Table 1, a total of 348 undergraduate students participated in the study. The age distribution indicated that the majority of respondents were within the 16–18 years age group (43.4%), followed by those aged 19–20 years (31.3%), while 21.3% were between 21–25 years. Only a small proportion of respondents fell within the older age categories of 26–30 years (2.0%), 31–35 years (0.3%), and 36–40 years (1.7%).

In terms of gender distribution, 56.9% of the respondents were female, while 39.9% were male. A small proportion (1.1%) identified as other genders, while 2.0% did not respond.

Regarding academic level, most of the respondents were in 200 level (33.9%), followed by 100 level (27.3%) and 400 level (19.5%), indicating that lower-level students constituted the largest proportion of participants in the study.

The faculty distribution showed that the majority of respondents were from the Faculty of Medical and Basic Sciences (52.9%), followed by Engineering (18.1%), Management and Social Sciences (10.1%), Computer and Applied Sciences (9.2%), and Law (8.3%). Only a small proportion (0.6%) belonged to the Faculty of Environmental Sciences.

With respect to accommodation, 42.2% of respondents resided in school hostels, while 37.6% lived off-campus, and 19.5% stayed in family houses.

Concerning family health background, 55.2% of respondents reported that they had no family history of diabetes, while 33.6% indicated a positive family history, and 10.9% reported that they did not know their family diabetes history.

In relation to financial support, a substantial proportion of the respondents (76.7%) reported receiving monthly allowances, while 21.0% indicated that they did not receive allowances.

Among those receiving allowances, 57.5% reported receiving more than ₦50,000 monthly, 13.5% received between ₦20,100 and ₦50,000, while smaller proportions received ₦10,000–₦20,000 (2.6%) and less than ₦10,000 (2.3%). About 24.1% of respondents did not indicate the amount received as allowance.

CONCLUSION

The study revealed that undergraduate students in the private university in Abuja are

predominantly young, female, and in lower-level academic years, with most residing in school hostels or off-campus. While the majority receive monthly allowances, over half of these allowances are substantial (above ₦50,000), which may influence dietary choices. Junk food consumption among students is common, particularly pastries, meat pies, and puff-puff, though energy drinks are rarely consumed. Despite frequent junk food intake, most students expressed a preference for home-cooked meals. Family history of diabetes was reported by one-third of respondents, indicating a potential hereditary risk that, combined with unhealthy dietary habits, may increase vulnerability to non-communicable diseases such as diabetes. Socioeconomic and demographic factors—including age, gender, financial support, and living arrangements—play a significant role in shaping students' dietary behaviors.

RECOMMENDATIONS

- 1. Nutrition Education and Awareness:** Universities should implement targeted programs to educate students on healthy eating, the risks associated with frequent junk food consumption, and diabetes prevention strategies.
- 2. Healthy Food Accessibility:** Institutions should provide affordable and nutritious meal options in cafeterias and promote initiatives that make home-cooked meals accessible to students living away from family homes.
- 3. Financial Guidance:** Students receiving allowances should be encouraged to budget for nutritious foods to reduce over reliance on high-calorie, low-nutrient junk foods.
- 4. Family Health Screening:** Routine assessment of family history of diabetes should be incorporated into student health programs, coupled with counseling on lifestyle modifications to reduce hereditary risks.
- 5. Further Research:** Additional studies should explore the relationship between socioeconomic status, dietary patterns, and health outcomes among undergraduates to inform policy and interventions tailored to young adults.

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