



Cultural Influence on Dietary Patterns amongst Undergraduate Students at a Tertiary Institution in Keffi, Nasarawa State, Nigeria

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ABSTRACT: This study investigated the influence of culture on dietary patterns among undergraduate students at a tertiary institution in Keffi Nasarawa State, Nigeria. A cross-sectional descriptive survey was conducted among 395 students selected via stratified random sampling. Data were analysed using reliability analysis, regression, and descriptive statistics. Cultural restrictions influenced 60.9% of students, with 49.5% favouring local Nigerian cuisine over Western options (27.9%). Regression analysis confirmed cultural factors as significant predictors of healthier dietary patterns (R-squared = 0.21, coefficient = 0.28, $p < 0.05$). Cultural traditions extend beyond individual preferences, influencing communal eating habits and overall dietary patterns. Tailoring health education to cultural contexts can promote healthier eating behaviours.

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Dietary habits are deeply rooted in cultural, social, and economic contexts. Food preferences and consumption patterns often reflect the geographic region, religious beliefs, and socioeconomic status of a population (Abrahams *et al.*, 2011). In Nigeria, the diverse ethnic and cultural composition has contributed to the country's rich variety of traditional dishes. These include food staples such as yams, rice, beans, and cassava, often accompanied by local vegetables and meats. However, urbanization and the global rise of fast-food consumption have introduced new eating habits, particularly among younger populations, leading to a shift in dietary patterns (Fryar *et al.*, 2018). The influence of cultural traditions on food consumption in Nigeria remains significant, as religious practices, social gatherings, and family structures continue to dictate the types of food eaten and the frequency of consumption (Joy and Segi,

2023). University students, who are often at the crossroads of tradition and modernity, face unique dietary challenges. Many students experience newfound autonomy when they leave home, allowing them to explore new food options, including Western fast food (Lupi *et al.*, 2015). At the same time, the influence of cultural norms persists, especially regarding the preference for traditional dishes, adherence to religious dietary restrictions, and participation in communal meals. Consequently, the objective of this study is to investigate the cultural influence on dietary patterns amongst undergraduate students at a tertiary institution in Keffi, Nasarawa, Nigeria

MATERIALS AND METHODS

A cross-sectional descriptive survey design was adopted for this study. Cross-sectional studies provide

a snapshot of a population at a particular point in time, making them well-suited for investigating relationships between variables such as cultural influences and dietary patterns (Kumar, 2019). This method allows for the collection of data from a large number of participants, facilitating the identification of trends within a specific population.

The study was conducted at Nasarawa State University, Keffi, located in Keffi town, Nasarawa State, Nigeria. Keffi is geographically positioned near Abuja and is easily accessible from several major routes. It is a multi-ethnic town with a rich cultural heritage that reflects the diverse ethnic composition of Nasarawa State. The university itself draws students from across the country, making it an ideal setting to explore the cultural dynamics influencing dietary habits.

The study population consisted of undergraduate students at Nasarawa State University. Stratified random sampling was employed to ensure that the sample was representative of the larger student body. Participants were stratified by gender, year of study, and whether they lived on-campus or off-campus. From these strata, a sample size of 395 students was randomly selected, which is in line with guidelines for adequate sample sizes in survey-based research (Bryman, 2016). A structured questionnaire was developed to assess both cultural influences and dietary patterns. The first section is demographics, which includes age, gender, ethnicity, year of study, and living arrangements. The second part comprises cultural factors focusing on religious dietary restrictions, preference for traditional cuisine, and the influence of cultural traditions on food choices. Dietary patterns, which is the last part, include

frequency of consumption of different food types and participation in communal eating. The questionnaire was pre-tested for reliability and validity. Cronbach's Alpha was used to assess internal consistency, with a value of 0.7 or higher indicating acceptable reliability (Tavakol and Dennick, 2011).

Ethical approval was obtained from the university's institutional review board. All participants provided informed consent prior to data collection, ensuring that they were fully aware of the study's objectives and their right to withdraw at any time. Data were analyzed using the Statistical Package for Social Sciences (SPSS) version 25. Descriptive statistics such as frequencies and percentages were used to summarise demographic characteristics and key variables. Regression analysis was conducted to explore the relationship between cultural influences and dietary patterns. Statistical significance was set at $p < 0.05$.

RESULT AND DISCUSSION

Demographic Characteristics of Respondents: The study involved 395 undergraduate students from Nasarawa State University, Keffi. Table 1 summarizes the demographic characteristics of the respondents. The majority of the participants (44.8%) were between the ages of 18 and 22, while 35.9% were aged 23 to 27. The sample was almost evenly split by gender, with 52.7% being male and 47.3% female. Most respondents (86.6%) were single, and the predominant ethnic groups were Igbo (30.1%), Hausa (29.6%), and Yoruba (24.8%). The students were also distributed across different years of study, with the largest group (27.3%) in their third year, and most of them (61.3%) living on campus.

Table 1: Demographic Characteristics of Respondents (n = 395)

Characteristic	Category	Frequency (n)	Percentage (%)
Age Group	Under 18	31	7.8
	18-22	177	44.8
	23-27	142	35.9
	28 and above	45	11.4
Gender	Male	208	52.7
	Female	187	47.3
Marital Status	Single	342	86.6
	Married	53	13.4
Ethnicity	Hausa	117	29.6
	Yoruba	98	24.8
	Igbo	119	30.1
	Others	61	15.4
Year of Study	1st year	81	20.5
	2nd year	94	23.8
	3rd year	108	27.3
	4th year	69	17.5
	5th year and above	43	10.9
Living Conditions	On-campus	242	61.3
	Off-campus	153	38.7

Sources: Author (2024)

Influence of Cultural Factors on Dietary Patterns: The survey explored several cultural factors that influence the dietary patterns of students. The results (Table 2) indicate that 60.9% of students follow cultural or religious dietary restrictions. A significant

portion (49.5%) preferred local Nigerian dishes, while 27.9% of the students reported a preference for Western cuisine. Figure 1 visually represents the students' cuisine preferences.

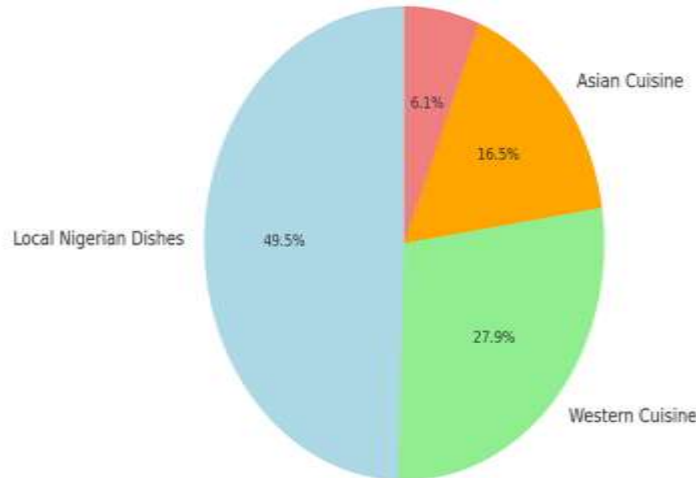


Fig.1: Cuisine Preference among Students at Nasarawa State University
Sources: Author (2024)

The pie chart highlights that nearly half of the students (49.5%) preferred local Nigerian dishes, compared to 27.9% who opted for Western cuisine. Additionally,

16.5% of the students favoured Asian cuisine, and 6.1% chose Middle Eastern cuisine

Table 2: Influence of Cultural Factors on Dietary Patterns of Students at Nasarawa State University (n = 395)

Question	Category	Frequency (n)	Percentage (%)
Follow Cultural or Religious Dietary Restrictions	Yes	240	60.9
	No	154	39.1
Cuisine Preference	Local Nigerian dishes	195	49.5
	Western Cuisine	110	27.9
	Asian Cuisine	65	16.5
	Middle Eastern Cuisine	24	6.1
Cultural Traditions Influence on Food Choices	Very Strongly	112	28.5
	Strongly	98	24.9
	Moderately	95	24.1
	Slightly	66	16.8
	Daily	78	19.8
How Often Do You Eat Meals That Are Part of Social and Community Gatherings?	Several times a week	105	26.7
	Weekly	90	22.8
	Monthly	48	12.2
	Rarely	45	11.4
	Never	28	7.1

Sources: Author (2024)

Statistical Analysis: Regression of Cultural Factors on Dietary Patterns: The regression analysis shows how much cultural factors influenced students' dietary patterns. The results show that cultural factors significantly impact dietary behaviours, as indicated by an R-squared value of 0.21 ($p < 0.05$). This R-value shows that cultural influences can explain 21% of the

variance in dietary patterns. The coefficient of 0.28 shows that with every unit increase in adherence to cultural dietary norms, students' dietary pattern scores improve by 0.28 units, indicating healthier eating habits.

The findings of this study confirm the significant role that cultural factors play in shaping the dietary patterns of students at Nasarawa State University. The strong preference for local Nigerian cuisine and the high level of adherence to religious dietary restrictions are consistent with previous studies conducted in similar settings (Abrahams *et al.*, 2011; Joy and Segi, 2023). Cultural beliefs around food consumption, particularly during communal gatherings, reinforce the notion that food is not merely a nutritional necessity but also a social and cultural activity. The regression analysis supports the hypothesis that cultural influences are positively associated with healthier dietary patterns. Students who adhered more closely to cultural dietary norms tended to consume healthier, more balanced diets. This finding aligns with existing research, which shows that traditional diets in Sub-Saharan Africa, often based on local grains, vegetables, and lean meats, are typically healthier than Western-style diets, which are higher in fats and processed foods (Lupi *et al.*, 2015). Given the centrality of food in Nigerian culture, public health initiatives aimed at promoting healthier eating habits among university students should consider cultural factors. Interventions that emphasise the health benefits of traditional Nigerian foods while encouraging moderation in consuming Western fast foods may be particularly effective.

Conclusion: This study provides compelling evidence that cultural influences significantly impact the dietary patterns of students at Nasarawa State University, Keffi. Cultural traditions, religious dietary restrictions, and communal eating habits all shape students' food choices. Understanding these influences is essential for developing culturally sensitive health promotion strategies to foster healthier dietary behaviors. Hence, this study recommends that tertiary institutions' dining services incorporate more culturally relevant and healthy food options, particularly those that reflect students' preference for local Nigerian cuisine. Additional research should be conducted to explore the specific cultural barriers and facilitators to healthy eating practices across different ethnic and religious groups within Nigeria.

Declaration for Conflicts of Interests: The author declares that there is no conflict of Interest.

Data Availability Statement: Data are available upon request from the author.

REFERENCE

Abrahams, Z; Mchiza, Z; Steyn, N. P. (2011). Diet and mortality rates in Sub-Saharan Africa: Stages in the nutrition transition. *BMC Public Health*, 11, 1-12. DOI: <https://doi.org/10.1186/1471-2458-11-801>

Bryman, A. (2016). *Social research methods* (5th ed.). Oxford University Press, Oxford, p. 747

Fryar, C. D; Hughes, J. P; Herrick, K. A; Ahluwalia, N. (2018). Fast food consumption among adults in the United States, 2013-2016. *National Center for Health Statistics Data Brief*, (375). Available at: <https://www.cdc.gov/nchs/products/databriefs/db322.htm>

Joy-Telu, H. E; Aga Segi. N. (2023). Cultural beliefs and practices and their relationship with food consumption in Nigeria. *Sumerianz J. Sci. Res.* 61(1), 1-8. DOI: <https://doi.org/10.47752/sjsr.61.1.8>

Kumar, R. (2019). *Research methodology: A step-by-step guide for beginners* (5th ed.). SAGE Publications, Thousand Oaks, p. 528

Lupi, S; Bagordo, F; Stefanati, A; Grassi, T; Piccinni, L; Bergamini, M; Donno, A. D. (2015). Assessment of lifestyle and eating habits among undergraduate students in Northern Italy. *Annali dell'Istituto Superiore di Sanità*, 51(2), 154-161. DOI: https://doi.org/10.4415/ANN_15_02_14

Tavakol, M; Dennick, R. (2011). Making sense of Cronbach's Alpha. *Intern. J. Med. Educ.* 2, 53-55. DOI: <https://doi.org/10.5116/ijme.4dfb.8dfd>