



IMPACT OF FEEDING PATTERN ON THE NUTRITIONAL STATUS OF UNDERGRADUATES IN FEDERAL UNIVERSITY OF TECHNOLOGY AKURE

BY

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ABSTRACT

This research centered on the impact of feeding pattern on the nutritional status of undergraduates in Akure South Local Government Area. Descriptive research design was used. The population of the study consisted of all undergraduates in Federal University of Technology, Akure. The sample size for this study was selected randomly by 204 students. The study employed both descriptive and inferential statistics. Findings revealed that undergraduates do not skip meals, may repeat desired meals over and over again, may consume meals based on their taste and that undergraduates hardly eat three square meals value. Also, that undergraduates prefer readily made meals, have preference for junks, prefer meals that are affordable without minding the nutritional and that the absence of meals varieties for undergraduates. It was therefore recommended that undergraduates should acquire nutrition education which will help understand the need for balanced diets, there is need for undergraduates to be encouraged to prepare meals and shun fast meals, should pay attention to the state of health and avoid junks and that the over consumption of carbonated drinks should be avoided by undergraduates

Keywords: Feeding pattern, Nutritional Status, Undergraduates, Junk Foods

Introduction

Feeding pattern is the plan of meals models that indicates the kind of food eaten, when eaten as well as the ways they are obtained, stored, used, and discarded. Also, food patterns can be simply explained as the quantities, proportions, variety or combinations of different foods and beverages in diets, and the frequency with which they are habitually consumed. Feeding patterns are useful for determining single-nutrient analysis and a good way of understanding the possibilities in deficiencies of essential nutrients

Majority of undergraduates are adults or adolescents in which there are lots of transitions; physical, psychological, hormonal, cognitive and social transformation changes that occur during this growth period, the body's nutritional needs, eating habits and food choices fluctuate. These changes have implications towards the alarming rate of non-communicable disease including obesity, high glucose levels which are emerging public health problems globally especially in developing countries (James, 2019). A nutritional valuation is that evaluates the

correct growth and development, somatic, psychological and social, avoiding deficiency states. The nutritional needs vary in function of the development stage and the genetic and metabolic differences in everyone (Khali, 2019). Good nutrition helps prevent diseases and develop physical and mental potential. Evaluation of nutritional status it's been used as an indicator of the health state and in the location of risk groups for deficiencies and excesses, which can be a risk factor in many of the most prevalent chronic diseases nowadays.

The food choice preferences of undergraduates and the kinds of foods popularly consumed may be mainly determined by the cost, availability, individual preference, nutrition education and most importantly the ability of undergraduates to prepare meals or their schedule. In a nutshell, undergraduates generally have preference for ready-made meals or fast foods which they easily purchase and eat without going through the stress of cooking. It is perceived that these poor eating habits may arise from lack of knowledge of the cumulative effects

of their eating habits. The last group of factors is probably the most important as the search for identity, the struggle for independence and acceptance, and concern about appearance, tends to have a great impact on lifestyle, eating patterns among adolescents (Raheena, 2019). Some illnesses are known to be lifestyle related like coronary diseases, obesity, high blood pressure, diabetes, and to a certain extent, osteoporosis.

Statement of the Problem

Poor nutritional pattern is a major public health concern among young adults who experience transition into university life during which they are exposed to stress and lack of time to prepare meals among other factors. Often, undergraduates tend to buy fast food from different food joints around the university while others eat from university cafeteria, and others can afford to cook in their hostels. Some undergraduates have reported skipping meals to achieve and maintain their desired body size. These routines can have an impact on the nutritional status of the undergraduates which may subsequently lead to decreased immunity, peptic ulcer disease, low weight, obesity, and cardiovascular diseases among others. Hence, the researcher investigates the impact of feeding patterns on the nutritional status of undergraduates at the Federal University of Technology Akure

Purpose of the Study

This study focused on feeding patterns and its impact on the nutritional status of undergraduates at Federal University of Technology Akure. Specifically, this research work:

- i. examined the meal consumption pattern among undergraduates at Federal University of Technology, Akure
- ii. assessed the food choice preference of undergraduates in at Federal University of Technology, Akure
- iii. investigated the factors influencing the feeding patterns of undergraduates at Federal University of Technology, Akure
- iv. determined the health implications of the consumption pattern of undergraduates at Federal University of Technology, Akure

- v. suggested possible solution to the problem of unhealthy feeding pattern of undergraduates at Federal University of Technology, Akure

Research Questions

The following research questions were formulated to guide the study:

- i. What are the meal consumption patterns among undergraduates at Federal University of Technology, Akure
- ii. What are the food choice preferences of undergraduates at Federal University of Technology, Akure
- iii. What are the factors influencing the feeding patterns of undergraduates at Federal University of Technology, Akure
- iv. What are the health implications of the consumption pattern of undergraduates at Federal university of Technology, Akure
- v. What are the solutions to the problem of unhealthy feeding pattern of undergraduates in Akure South Local Government Area?

Research Hypotheses

The following null hypotheses were formulated to guide the study, and tested at 0.05 level of significance:

H01: There is no significant influence of undergraduates' meal consumption patterns on their nutritional status at the Federal University of Technology, Akure

H02: There is no significant influence of undergraduates' food choice preferences on their nutritional status

Scope of the Study:

This study investigates the impact of feeding pattern on the nutritional status of undergraduates of The Federal University of Technology, Akure.

Methodology:

This study employed descriptive survey design. This research design elicited information by asking respondents questions on the impact of feeding patterns on the nutritional status of undergraduates at Federal University of Technology, Akure, Ondo State.

The population of the study consisted of all undergraduates in Federal University of

Technology, Akure. The total population of undergraduates in FUTA is eighteen thousand, five hundred and eighty-five (17,7516) (Source: FUTA, 2026).

The sample consisted of two hundred and four undergraduates (204) in FUTA constituted the respondents. Random sampling techniques was used to select undergraduates in the Federal University of Technology, Akure. A 4-Likert Scale structured questionnaire consisting of four (4) options denoting SA (4 points), A (3 points), D (2 points), SD (1 points) were used as the rating scale. The questionnaire was titled “impact of feeding pattern on the nutritional status of undergraduates in Akure South Local Government Area” which was used to collect information from the respondents. The research instrument contained two sections: Sections A and B. A thorough scrutiny of the research instrument was carried out by the researcher and two other experts in the Department of Home Economics, School of Vocational and Technical Education, Adeyemi College of Education, Ondo. Pilot

study was conducted to establish the reliability of the research instrument. Therefore, test re-test methods of establishing reliability was applied by administering research instruments to twenty (20) undergraduates in Federal University of Technology Akure who were not part of the study. After a period of about two weeks, the same instrument was administered to same set of undergraduates. Data from both sets of responses were computed using Cronbach. The researcher personally administered and retrieved the questionnaires from the respondents. The completed copies of questionnaire were collected immediately to avoid loss in transit.

The responses to the questionnaire were collated and analyzed using Mean (X) and t-test

Results and Discussion

Research Question 1: What are the feeding patterns among undergraduates in FUTA

Table 1: Mean responses on the meal feeding patterns among undergraduates at Federal University of Technology, Akure

S/N	Items	\bar{x}	Decision
1	Undergraduates do not skip meals	3.22	Agreed
2	Undergraduates may repeat desired meals over and over again	3.65	Agreed
3	Undergraduates may consume meals based on their taste	3.25	Agreed
4	Undergraduates hardly eat three square meals value	3.71	Agreed

Table 1 shows mean responses on the meal feeding patterns among undergraduates in Akure South Local Government Area.. Items 1, 2, 3 and 4 have mean values of 3.22, 3.65, 3.25 and 3.71 respectively which are all above the cut-of point of 2.50 which implies that they undergraduates do not skip meals,

may repeat desired meals over and over again, may consume meals based on tsssheir taste and that undergraduates hardly eat three square meals value.

Research Question 2: What are the food choices preferences of undergraduates in FUTA?

Table 2: Mean responses on the food choice preferences of undergraduates in Akure South Local Government Area

S/N	Items	\bar{x}	Decision
5	Undergraduates prefer readily made meals	3.26	Agreed
6	Undergraduates have preference for junks	3.58	Agreed
7	Undergraduates prefer meals that are affordable without minding the nutritional	3.43	Agreed
8	Absence of meals varieties for undergraduates	3.21	Agreed

Key: = mean, SD = Standard deviation

Source: Field Survey (2023)

Table 3 shows mean responses on the food choice preferences of

undergraduates in Akure South Local Government Area. Items 1, 2, 3 and 4

have mean values of 3.26, 3.58, 3.43 and 3.21 respectively which are all above the cut-off point of 2.50 which implies that undergraduates prefer readily made meals, have preference for junks, prefer meals that are affordable without minding the

nutritional and that the absence of meals varieties for undergraduates.

Research Question 3: What are the possible factors influencing the feeding patterns of undergraduates at FUTA

Table 3: Mean responses on the possible factors influencing the feeding patterns of undergraduates in FUTA

S/N	Items	\bar{x}	Decision
9	Undergraduates nutrition education influences their feeding pattern to consume balanced diets	3.65	Agreed
10	Undergraduates prepare meals by themselves and shun fast meals	2.33	Disagreed
11	Undergraduates pay attention to their state of health and avoid junks	2.21	Disagreed
12	The over consumption of carbonated drinks should be avoided by undergraduates	2.32	Disagreed

Key: = mean, SD = Standard deviation

Source: Field Survey (2023)

Table 3 shows the possible factors influencing the feeding patterns of undergraduates in Akure South Local Government Area. Items 1, 2, 3 and 4 have 4 mean values of 3.65, 2.33, 2.21 and 2.32 which implies that the undergraduates should acquire nutrition education to help understand the need for balanced diets, they need to prepare meals and shun fast

meals, they need to pay attention to the state of health, avoid junk foods and carbonated drinks

Research Question 4: What are the health implications of the feeding pattern of undergraduates in Akure South Local Government Area?

Table 4: Mean responses on the health implications of the feeding pattern of undergraduates in Akure South Local Government Area.

S/N	Items	\bar{x}	Decision
13	Undergraduates are prone to the risk of obesity	3.44	Agreed
14	Poor consumption pattern may lead to metabolic disorders	3.13	Agreed
15	Wrong consumption pattern may result into gastrointestinal ulcer	2.90	Agreed
16	Undergraduates may be at risk of overweight	3.42	Agreed

Key: = mean, SD = Standard deviation

Source: Field Survey (2023)

Table 4 presents the health implications of the feeding pattern of undergraduates in Akure South Local Government Area Items 1, 2, 3, 4 and 5 have mean values of 3.44, 3.13, 2.90 and 3.42 which are above the cut-off point of 2.50 which implies that the respondents agreed that undergraduates are prone to the risk of obesity, poor consumption pattern may lead to metabolic disorders,

wrong consumption pattern may result into gastrointestinal ulcer and that undergraduates may be at the risk of overweight.

Research Question 5: What are the possible solutions to the problem of bad feeding pattern of undergraduate in Akure South Local Government Area?

Table 5: Mean responses on the possible solutions to the problem of unhealthy feeding pattern among undergraduates in Akure South Local Government Area

S/N	Items	\bar{x}	Decision
17	Individual preference of undergraduates determines their feeding pattern	3.22	Agreed
18	The gender of undergraduates may determine their feeding pattern	3.25	Agreed
19	The cost of meals affects feeding patterns	3.65	Agreed
20	The availability of meals dictates feeding patterns	3.13	Agreed

Key: = mean, SD = Standard deviation

Source: Field Survey (2023)

Table 5 presents the possible solutions to the problem of bad feeding patterns of undergraduates in Akure South Local Government Area. Items 1, 2, 3, 4 and 5 have mean values of 3.22, 3.25, 3.65 and 3.13 which are above the cut-off point of 2.50 which implies that the respondents agreed that individual preference of undergraduates determines

their feeding pattern the gender of undergraduates may determine their feeding pattern, the cost of meals affects feeding patterns and that availability of meals indicates feeding patterns.

Test of Hypotheses

H0₁: There is no significant influence of undergraduates' meal consumption pattern on their nutritional status.

ITEM	\bar{X}	DF	T - cal	T - tab	Decision
X ₁	89				
X ₂	115	205	4.21	2.31	Rejected

Table 6 shows the relationship between the meal consumption patterns of undergraduates and their nutritional status. At 0.05 alpha level, the T-tabulated is 2.31 and the T-calculated value is 4.21 which is greater than t-tab. Hence,

hypothesis 1 was rejected which implies there is no significant relationship between the meal consumption patterns of undergraduates and their nutritional status (df=202; T-cal-4.21>T-tab = 2.31).

H0₂: There is no significant relationship between the food choice preferences of undergraduates and patterns of undergraduates and their nutritional status

ITEM	\bar{X}	DF	T - cal	T - tab	Decision
X ₁	72				
X ₂	132	202	5.56	2.31	Rejected

Table 6 shows the relationship between the food choice preferences of undergraduates and patterns of undergraduates and their nutritional status. At 0.05 alpha level, the T-tabulated is 2.31 and the T-calculated value is 5.56 which is greater than t-tab. Hence, hypothesis 2 was rejected which implies there is significant relationship between the food choice preferences of undergraduates and patterns of undergraduates and their

nutritional status (df = 202; T-cal-5.56>T-tab =2.31).

Discussion of Findings

Table 1 presented the responses on the feeding patterns among undergraduates in Akure South Local Government Area. Respondents agreed that undergraduates do not skip meals, may repeat desired meals over and over again, may consume meals based on their taste and that undergraduates hardly eat three square

meals. Musaiger (2017) stated that the food habit of undergraduates is uncertain as some avoid certain foods because of personal dislike, social and cultural pressure, peer group influence, religion among others, not knowing what those food items could contribute to the adequacy and inadequacy of their nutrient intake. In view of this, Raheena, (2019) noted that nutritional problems of adolescents, whether under nutrition or related to chronic diseases, are mainly the result of dietary inadequacies. These may be linked to a number of physiological, socio-economic and psychosocial factors. The last group of factors is probably the most important as the search for identity, the struggle for independence and acceptance, and concern about appearance, tends to have a great impact on lifestyle, eating patterns among adolescents.

Tables 2 presented responses on the food choice preferences of undergraduates in Akure South Local Government Area. Respondents agreed that undergraduates prefer readily made meals, have preference for junks, prefer meals that are affordable without minding the nutritional and that the absence of meals varieties for undergraduates. Musaiger (2017) noted that the poor feeding habits, such as skipping of meal especially breakfast, low intake of fruits and vegetables, milk, fish and high intake of fast food, sweets, and sugar-sweetened beverages are present in the diets of University students. In support of this, Fawemi (2019) noted that patterns of nutritional behavior adopted by undergraduates are mostly continued in adults' life and increased the risk of development of many chronic diseases.

Table 3 presented responses on the possible factors influencing the feeding patterns of undergraduates in Akure South Local Government Area. Respondents agree that undergraduates should acquire nutrition education which will help understand the need for balanced diets, should be encouraged to prepare meals and shun fast meals, should pay attention to the state of health and avoid junks, the over consumption of carbonated drinks should be avoided by undergraduates and that poor lesson delivery and inadequate classroom management. Sogari, (2018) reiterated that due to a variety of reasons, including a new environment, lack of time, lack of access to variety, snacking, stress,

skipping meals, convenience, frugality, emotional eating, and dieting. In addition, Ajala (2018) noted that poor eating habits may likely arise from lack of knowledge of the cumulative effects of their eating habits. In Nigeria, where there is an increase in fast food centers in its urban cities, it is a major concern. Undergraduates preparing their food have less problems of food poison as most of the catering establishment do not abide by the rules guiding hygienic practices (Bello *et al* 2022)

Table 4 presented responses on the health implications of the feeding pattern of undergraduates in Akure South Local Government Area. Respondents agreed that undergraduates are prone to the risk of obesity, poor consumption pattern may lead to metabolic disorders, wrong consumption pattern may result into gastrointestinal ulcer and that undergraduates may be at the risk of overweight. In support of this, Adams (2019) noted that poor feeding pattern will affect the overall academic performance of undergraduates in as much as there will be series of health problems which will not only reduce the academic time but also reduce their level of concentration. In addition Khali (2019) noted that a good nutrition helps prevent diseases and to develop physical and mental potential. Evaluation of the nutritional status is used as an indicator of the health state and in the location of risk groups for deficiencies and excesses, which can be a risk factor in many of the most prevalent chronic diseases nowadays.

Table 5 showed responses on the possible solutions to the problem of unhealthy feeding pattern of undergraduates in Akure South Local Government Area. Respondents agreed that individual preference of undergraduates determines their feeding pattern, the gender of undergraduates may determine their feeding pattern. In view of this Al-Nakeeb (2015) have suggested the need for good nutritional knowledge since poor eating habits may likely arise from lack of knowledge of the cumulative effects of their eating habits. In addition, Nutrition education programs can be organized for undergraduates where they will learn simple methods of preparing nutritive and hygienic meals, this is in line with Adeyanju *et al* (2025) who stated that proper food preparation improves the hygiene and

quality of food. Meg (2012) noted that food centers in its urban cities is a major concern due to high cost and hygiene maintenance. Most undergraduates are likely to be responsible for their diets for the first time away from home, therefore they need guidance on how to make informed dietary choices (Other studies have linked the lifestyle of students, especially breakfast consumption, to their mental abilities which is reflected in their academic performance. Bolade *et al* (2016) described easy method for preparing local and highly nutritive snacks which undergraduates can adopt.

Conclusion and recommendations

This study revealed that undergraduates are aware of importance of cooking, but they rely on junk foods, carbonated foods and eating in restaurants leading to diseases among them. This is due to time constraints and laziness on the part of undergraduates. This work therefore recommends organizing nutrition education on regular basis to keep them informed and learn easy methods of food preparation.

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