

FACTORS AFFECTING THE FOOD CHOICES AND DIETARY PRACTICES OF STUDENTS IN DELTA STATE POLYTECHNIC OGWASHI-UKU (DSPG)



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Abstract

This study on tertiary institution students was done with the main thrust of finding out the factors affecting their food choices and dietary practices. Eating habits and dietary practices are of great concern because they are major determinants of individual's health status. A total of 49 students were investigated. Questionnaire was the instrument used for data collection. Data obtained was analyzed using frequency and simple percentages. Results showed that about 70.8% were of 15-25 years of age brackets and 73.5% were single, and 70% were living alone. Factors affecting their food choices found were: Social\Psiychological (36.7%), Nutritional (30.6%), Environmental (16.4%), Economic (16.3%) and no reason (0.00%). The poor dietary practices observed includes: Skipping of meals e.g. breakfast (46.9%), low consumption of fruits, (30.6%), legumes and leafy vegetables, (12.3%), and low water intake (18.4%). It is apparent that poor food choices and negative dietary practices occur among students in tertiary institutions and good nutrition education programme is required to reduce or completely correct it.

Keywords: Food Choices, Dietary Practices, Eating Habits, Health Status Factors.

Introduction

Foods are substances eaten (either solid or liquid) which gives energy to do work and to carry out other body vital functions like repairs of worn out tissues and other processes. A person's eating habits is very important since it can affect one's health status (Ene-Obong, 2001). Food is very necessary for the human systems to function effectively (Ejei-Okeke, 2017). Poor eating habits and negative dietary

practices is a major public health concern since they can result in serious health problems.

Students in tertiary institution are often challenged with rapid changes in physical growth and psychological development, higher academic activity (Astraful et al., 2018), which have placed them in the nutritionally vulnerable group. Poor eating habits and bad dietary practices which do not meet nutritional requirement may worsen the already existing challenges from growth spurt and psychosocial pressures.

Although these behaviour of students are considered temporary as part of tertiary institutions' life, unhealthy habits and poor dietary practices picked up at this age may persist into adult life and this may have a negative effect on the individual's life. Some workers (Chin and Mond, 2009) highlighted the presence of unhealthy eating behaviours and inadequate nutrient intake among tertiary institutions students (in Malaysia). The study concluded that there was a need to promote healthy eating habits among young adults to achieve a healthy nutritional status.

Tertiary institution students tend to make their own food choices based on cost of food and availability of fast food. They lack the knowledge of healthy food choices that may affect eating habits and nutritional status negatively. A study by Chin and Mond, (2009) revealed that students in tertiary institutions failed to meet the recommended intakes of fruits and vegetables. They had frequent snacking habit and had a higher frequency of fast food consumption.

Skipping of meals, particularly breakfast, snacking, and various weigh- loss or malnutrition-prone dietary behaviours were practiced by Malaysian adolescent girls. The study above concluded that promotion of healthy eating was crucial for future healthy well-being of the group of individuals.

Having knowledge of nutrition without the actual application of such knowledge may not even reduce wrong food habits and poor dietary practices as revealed in a study done among medical students (Rubina *et al*, 2009). The study revealed that medical students exhibited early risk factors for chronic diseases due to poor eating habits. It was found that although medical students had sufficient knowledge regarding good dietary habits, they failed to apply this knowledge in their daily food practice.

Several factors are implicated as responsible for food habits (Choices) and dietary practices of individuals. These could be economics, psychological, and environmental to mention a few. Environmental/Social reasons like mush- rooming of eateries (fast food outfits), shopping malls, convenience food stores, food vending machines, etc. have contributed to creating an alarming situation for young adults to practice unhealthy eating habits.

Materials and Methods

This study was a cross-sectional descriptive researchin design which investigated 49 students (both ND and HND) of Delta State polytechnic, Ogwashi-

ukwu (D.S.P.G). The stratified random sampling was used to select the respondents (60 students from the four school was the target population) in order to provide adequate representation for the population studied. Students who were not willing to be used for the study were not included.

The main objective of the research which was “to find out the factors that affect the food habits and dietary practices of tertiary institution students” was explained to them. Structured questionnaire was the instrument for data collection which covered the areas of personal characteristics of the respondents, eating habits and dietary practices of the respondents. Factors that affect their food choices were not left out. The research questions were:

1. What are the food choices common among the students of D.S.P.G?
2. What are the dietary practices of the students of D.S.P.G?
3. What factors influence the food choices of D.S.P.G. students?

Data obtained were analyzed using frequency and simple percentages Body mass index was calculated using the standard calculation of $Wt (kg)/Ht$ in M^2 .

Results

Section A: Personal characteristics of respondents (only 49 questionnaires were filled and returned. Analysis was based on this).

Table 1: Gender, Age, Educational level and marital status of respondents

GENDER:	FREQUENCY	PERCENTAGE
Male	26	54.2
Female	23	45.8
Total	49	100.0
Age:		
15-20	11	22.9
21-25	23	47.9
26-30	09	47.9
31-36	06	12.7
Total	49	100.0
Level:		
ND	30	61.2
HND	19	38.8
Total	49	100.0
Marital status:		
Single	36	73.5
Married	13	26.5
Total	49	100.0

Data from table 1 shows that more males (54.2%) were seen than the females (45.8%). Near half (47.9%) fell within the age range of 21-25 years. Put together, 70.8% fell within 15-25 years age range. Majority (73.5%) were single while some (26.5%) were married. More than half of the respondents (61.2%) were at ND level while the rest (38.8) were at HND level.

Table 2: Monthly Allowance, Living Arrangement, Life Style, and body mass

Index of Respondents

ALLOWANCE:	FREQUENCY	PERCENTAGE
≤ N10, 000	21	42.9
N11, 000-N20, 000	27	55.1
N21, 000-N30, 000	01	2.0
N 31,000- N 40,000	--	--
Total	49	100.0
Living Arrangement:		
Living alone	34	69.4
With family guardian	03	6.1
With other students	12	24.5
Total	49	100.0
Life Style:		
Smoking	05	10.2
Alcohol	05	10.2
Soft drinks	19	38.8
Others (e.g. exercise)	20	40.8
Total	49	100.0
Body Mass Index:		
Under-weight	08	16.3
Normal	28	57.1
Pre-obese	10	20.4
Obsessed	03	6.2
Total	49	100.0

More than half (55.1%) of the respondents were within monthly allowance of N11,000 - N20,000; some (42.9%) were in ≤ N10,000 group while very few (2.0%) were within N21,000 - N30,000 group. More than half of the respondents (64.4%) were living alone; some (24.5%) were living with other students, while a few (6.1%) were living with their families/guardian. Smoking and alcohol consumption were found

among equal numbers (10.2% each) of the respondents while some (40.8%) do exercise.

For their nutritional status as judged by their body mass index, more than half (57.1%) were normal, some (20.4%) were pre-obsessed while a few (6.2%) were obsessed. Under-weight was found among 16.3% of the respondents.

Section B: Food Choices and Dietary Practices of respondents.

Table 3: Choice Foods of Respondents.

CHOICED FOODS:	FREQUENCY	PERCENTAGE
Carbohydrate:		
Rice	47	95.9
Bread	31	63.3
Indomie	45	91.8
Yam	42	85.7
Eba&Soup	47	95.9
Akpu&soup	29	59.2
Plantain	39	79.6
Potatoes	25	51.0
Cocoyam	09	18.4
Total	314	640.8
Proteins:		
Meat (all types)	49	100.00
Fish	49	100.00
Eggs	42	85.7
Milk	29	59.2
Yoghurt	19	38.8
Ice-cream	36	73.5
Cheese	-	-
Beans	6	12.3
Total	230	469.5
Minerals & Vitamins:		
Fruits and vegetables	15	30.6
Vegetables	35	71.4
Total	50	102.0
Fats:		
Fried foods	35	71.4
Margarine/Butter	11	22.5
Total	46	93.9

* Multiple responses allowed.

Table 3 above shows that the most commonly consumed carbohydrate food of choice by the respondents is rice and eba and soup to the same degree (95.9%) each.

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Next to this value, was 9 1.8% for indomie, 85.7% for yam, 79.6% akpu and soup, 51.0% for potatoes. The least food consumed among the starches is cocoyam (18.4%) For the protein food sources, the respondents ate meat and fish to the same degree (100%). Eggs were also well consumed by more than half of them (85.7%). Dairy foods consumed were ice-cream (73.5%), milk (59.2%), Yoghurt (3 8.8%), and cheese was consumed by none of the respondent, while beans were consumed by 12.3% only. Fruits and vegetables were consumed by 30.6% and 71.4% of the respondents respectively. They all consumed (100%) Fried foods and some (22.5%) consumed margarine/butter.

Table 4: Reasons for choosing these foods and number of meals per day

REASONS:	FREQUENCY	PERCENTAGE
What I can afford (E)	08	16.3
Their nutritional value (N)	15	30.6
Easy & quick to cook (P)	13	26.5
What I am offered (EN)	01	2.1
Peer influence (P)	05	10.2
What I was brought up with (EN)	07	14.3
Other reasons (State)	-	-
No reason	-	-
Total	49	100.00
No. of Meals Per Day:		
Once	02	4.1
Twice	14	28.6
Thrice	32	65.3
Above 3 times	01	2.0
Total	49	100.0

Note: (E) - Economic, (N)-Nutritional, (P) – Psychological (EN) - Environmental.

From table 4 above, 30.6% made their choices based on the nutritional value of the food. Twenty-six point five percent (26.5%) based on the fact that their choice of food were easy and quick to cook. Some (14.3%) of the respondents made their choice because such foods are what they were brought up with, 10.2% made their choice based on peer influence and very few (2.1%) made their choice based on what they were offered.

Table 5: Regular meal intake, breakfast intake consumption/degree of snacking and consumption of fast food

REGULAR MEALS	FREQUENCY	PERCENTAGE
Yes	36	73.5
No	13	26.5
Total	49	100.0
Break Fast Intake		
Yes	26	53.1
No	23	46.9
Total	49	100.0
Snacking:		
Yes	27	55.1
No	22	44.9
Total	49	100.0
No of Snacking/Day:		
Once	7	25.9
Twice	14	51.9
Thrice	06	22.2
Total	27	100.0
Fast foods:		
Often	16	32.6
Rarely	33	67.4
Total	49	100

The tables above shows that majority (73.5%) of the respondents had their regular meals while some (26.5%) do not have their meals regularly. Close to half (46.9%) of the respondents skipped their breakfast, while others did not skip; more (55.1%) of the respondents indulge in snacking but the rest (44.9%) do not. Among those who practice snacking, 25.9% had it once a day, 51.9% had it twice a day while 22.2% snacked thrice or more times per day. Some (32.6%) of the respondent often consumed fast food while others (67.4%) rarely consume fast foods.

Table 6: Consumption of foods, vegetables and legumes, fried foods and water intake.

FRUIT/WEEK:	FREQUENCY	
PERCENTAGE		
<3 times	18	36.7
≥3 times	31	63.3
Total	49	
100.00		
Vegetables and Legumes/ Week		
<3times	13	26.53
≥3 times	36	73
Total	49	
100.00		
Fried Food/Week		
≤2 times	28	57.1
>3 times	21	42.9
Total	49	
100.00		
Water Intake (Liter/Day):		
≤2times	09	18.4
≥3 times	40	86.6
Total	49	100.00

The table above on the respondents consumption pattern shows that some of them (36.7%) ate fruit less than three times per week while more than half (63.2%) ate fruits above three times per week. Majority of the respondent (73.5%) consumed vegetables more than three times per week and some (26.5%) ate vegetables less than three times per week.

Fried foods were consumed less than twice weekly by more than half (57.1%) while others (42.9%) consume it more than thrice weekly. For water consumption, the majority of the respondents (86.6%) drank more than 3 liters per day while the rest (18.4%) drank two or less litres per day.

Analysis of Research Questions

On the food choices of student in DSPG, result shows that the highly choice foods were of high carbohydrate. They are Rice (95.9%) Eba and soup (95.9%) and Indomie (91.8%). High protein-rich foods include meat (100%), fish (100%) and eggs

(85.7%). The least consumed in this group was cheese which no one consumed. Consumption of low fruit and water were observed. Fried food and other fatty foods like margarine/butter were also consumed (71.4% and 22.5% respectively). The food choice could be summarized to be: high in starch, and first class protein, low in vitamins and water, moderate in vegetables (minerals) and high in fat.

On the factor responsible for these food choices, several of them were revealed by the data from this study thus: economic (what can afford (16.3%); nutritional value (30.6%); psychological (easy and quick to cook, and peer influence (36.7%) and environmental (what I am offered and what I was brought up with (4.6%). See table 4. The highest factor was based on psychological factor (36.7%) and not even nutritional (30.6%)

For the likely implication of these food choices and practices, ill health/poor nutritional status would likely result in the lives of this students (both in the now and in the future). This is evidenced in the underweight and obesity that were observed in the study. Though this work did not go into determining the vitamins and mineral status of respondents, some might have existed. Prolonged malnutrition could result into chronic deficiency disease and also could be a predisposing factor to other chronic health conditions for instance poor birth outcomes, diabetes, heart and vascular disorder, immune disorders, to mention a few.

Discussion

Discussion will be done under three broad heading: General characteristics of the respondents, choices, and dietary practices of the respondents.

General Characteristics of the Respondents

The more males than females in the study could be a result of the sampling method that was used. Majority (70.8%) of the respondents were within the age brackets 15-20 and 21-25. This agrees with work of Kurubaran et al (2012) that eating habit score was significantly low among young students. More (73.5%) of the respondents were still single and to an extent, their freedom and independence could have influenced their food choices and practices. From the result on their monthly allowance, a good number of the respondents (42.9%) received below 10, 000 per month and income could affect one's dietary demands. Smoking and alcohol found in this study (10.2% each) are established factors which can lead to low food intake cause malnutrition as observed/seen in this study (16.3% - underweight). This agrees with the work of Kurubaran et al (2012), that eating habit score was low among smokers and those who do not exercise. Alizadeh and Gbabili (2008) also found that health related lifestyle can lead to malnutrition. Lack of exercise among respondents (59.2%) could also lead to malnutrition (obesity-6.2%) as observed in this study.

Food Choices of Respondent

Table 3 shows the choice foods of the respondent and it reveals that the most highly consumed carbohydrate-rich foods are rice (95.9%), eba and soup (95.9%) and indomie (91.8%). The least consumed food in this list is cocoyam (18.4%). In the protein list, all the respondent (100% each) consumed meat and fish, majority (85.7%) consumed eggs while 73.5% consumed ice cream, although the study did not consider the amount or quantity eaten compared with daily requirement.

This agrees with the general notion that first-class proteins are highly craved for by most people. Surprisingly, cheese was not eaten by any of the respondents; this may be attributed to the fact that it is not available in Ogwashi-uku so it is not known to the people.

Reasons for their choices include; economic, nutritional, psychological and environmental factor (Table 4) this results agrees with that of several other authors that food choices have a multi-factorssuch asBundell (2010), Kuruban et al(2012), Chin &Mohd (2009) Moy et al (2009), who stated that several factors are responsible for the food choices of individual such as hormonal, psychological (behavioural), environmental, educational, cultural, etc.

Result of this study also shows that some (4.1%) of the respondents have just one meal a day. This may be associated with the underweight also observed (16.3%) in the study (see table 2). This agrees with the works of Anuar and Ghazili (2011), Musaiger et al (2011).

For dietary practices, result showed that some of the respondents (26.5%) did not have regular meals; this value is higher than the result from other study (Moyet *al.*, 2009) that found out that some of the studied population skipped meals (42.4%) and breakfast (45.7%). However, skipping of meals as found in this study agreed with other studies that skipping of meals was a feature among higher institution students (Moy et al, 2009, Anuar& Ghazali, 2011). Breakfast was skipped by near half (46.9%) of the respondent. This may be attributed to their early lecture hours (lectures starts by 7am in DSPG). This result is higher than that found in another study by Kuruvan et al (2012) where 45.9% did not have breakfast. It is quite striking to observe that the majority (74.1%) ate snacks up to 2-3times daily.

This is quite on the high side and may be associated with the high rate of skipping of meals found in this study (see table 4). Some may prefer to snack instead of having their regular meals, this is in agreement with work of Anuar&Ghazili (2011). This can have serious health implications both for now and later such as chronic diet-related diseases.

There was low (36.7%) consumption of fruit found in the study. This agrees with the result of Baranowski et al (2003) that consumption of fruits and vegetables are low. Vegetables and legumes were more consumed (73.5%) than fruits by the respondents. Consumption of fried foods was found in the study. Low water intake

(18.4%) was also observed. These can have detrimental effect on health according to Malkus et al (2006); and Paplona-Roger (2012).

Summary

The food choices and practices of respondents could be summarized as follows: high in starches and animal protein sources, very high in fat and fatty foods, low in water and vitamin-rich sources and moderate in mineral foods. This unbalanced meals and meal patterns could have not only nutritional effect but serious health implication on the respondents now and in the future.

Factors responsible for these choices found in this study were economic (what they could afford - 16.3%), nutritional value (30.6%), psychological (peer influence - 10.2%, and easy to cook - 25.5%), and environmental (what I am offered - 2.1%). Psychological factors ranked the highest (36.7%). This result has some agreement with results from other studies which found factors such as peer influence and social norms, availability of resources, other habits such as smoking and alcohol, and exercise. (Kuruban et, al – 2012; and Ashraful et al -2018).

Conclusion

Wrong food choices and dietary practices were observed among the respondents. Nutrition education is very vital to correct these wrongs in this their early stage of life in order to secure good health for the future. It is a major challenge to health professionals and the public to effect such a dietary change.

Different strategies are needed to initiate a change in behaviour, in groups with different priorities and views. It will be helpful to organize campaigns specifically geared towards achieving goals through practical solutions as well as environmental change which can help to enhance dietary changes.

Recommendations

Based on the findings of this study, it is appropriate to make the following recommendations:

1. Knowledge of basic nutrition should be inculcated into the general studies curriculum to help students improve on their personal nutrition.
2. Since just having the knowledge alone does not guarantee proper nutrition, emphasis should be on practicality not just theoretical knowledge. Any nutrition education programme to be adopted should emphasize on this.

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