

# ASSESSMENT AND PERCEIVED IMPACT OF JUNK FOOD CONSUMPTION AMONG UNDERGRADUATES OF LADOKE AKINTOLA UNIVERSITY OF TECHNOLOGY, OGBOMOSO, NIGERIA.

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## **ABSTRACT**

*It is observed that Nigerian foods is being substituted for Western food by the young, youths and old, thus, changing their eating lifestyle which in turn contributed to non-communicable diseases. This study assessed the perceived impact of junk food consumption among undergraduates of Ladoke Akintola University of Technology, Ogbomoso, Nigeria. Descriptive design is used for this study and multistage sampling technique is used to select 323 respondents from nine departments within three faculties in the University. The instrument used for this study is a self-developed questionnaire divided into five sections, with a reliability coefficient score of 0.8 using test retest method. SPSS version 21 is used for the study and presented in frequencies, percentages and tables. The result showed that, 53.3% of the respondents were male; 56.0% are within the age range of 21-25 years, majority are either Christians or Muslims. The result of this study further revealed that the consumption of junk foods among undergraduates is very high (70.1%) and more females consume junk food than males. This study also observed that the respondents had adequate knowledge on junk foods and perceived that the impact of junk food consumption is associated with health challenges. It is therefore recommended that production process of food product should be taken through strict scrutiny to ensure adherence to the health safe standard.*

**Keywords:** Junk food, Perceived Impact, Undergraduates.

## **INTRODUCTION**

Junk food is a derogative term for food containing high level of calories from sugar or fat with little fibres, protein, vitamins or minerals (Merriam Webster, 2015). Redmond (2009) defined food as anything eaten to satisfy appetite and to meet physiological needs for growth, to maintain all body processes and to supply energy to maintain body temperature and activity. Kusum (2005) described food as the chief source of essential materials (nutrients) which the body needs for its wellbeing. Merriam-Webster (2016) further stated that food is a material consisting essentially carbohydrates, proteins fats, vitamins and minerals used in the body of an organism to sustain growth, and vital processes and to furnish energy. Macmillan (2015), explained that junk food is a particular food that has little nutritional value and contains excessive fat, sugar, salt and calories. Worthington (2008) viewed junk food as food that tastes good, high in calories but has a low nutritional value. Junk food can also be referred to as high protein food like meat prepared with saturated fat as reported by O'Neill (2006) which some believe may be unhealthy, although some studies have shown no correlation between saturated fat and cardiovascular diseases as reported by Patty (2009).

O'Neill (2006) reported that the term was coined by Jacobson Michael, in 1972 as junk foods typically contain high level of calories from sugar or fat with little protein, vitamins or minerals. Ahmed (2014) viewed it as cheat food, that is, anything made principally of white flour and or refined white sugar or syrup.

Larsen, ([http:// www.dietitian .com/ junk food.html](http://www.dietitian.com/junk-food.html)) submitted that food commonly considered junk foods include salted snack foods, gum, candy, sweet desserts, fried fast food and sugary carbonated beverages that many foods such as hamburgers, pizza and tacos can be considered either healthy or junk food depending on their ingredients and preparation methods. Huffington (2010) opined that the more highly processed items usually fall under the junk food category. Arulogun and Owolabi (2011) stated that consumption of fast foods has gradually become a common lifestyle in Nigeria especially in urban areas and among young people in spite of the associated adverse health consequences as 80.5 percent of respondents consumed fast foods weekly, hence, an increase risk factor for non-communicable diseases. They further said that university undergraduates' pattern of consumption of fast foods and their perception of this practice as a risk factor for non-communicable diseases (NCDs) have not been fully explored. Hulya, Yahya, Ayse and Metin observed that 98.0 % of students in Ankara university in Turkey go to fast food restaurant 43% of those students visit fast food restaurants both week days and weekends (p 265).

Hulya, Yahya, Ayse and Metin, (2012) stated that consumption of animal products increased by nearly 40% between 1989 and 1997 in China, fast-food sales more than doubled between 1999 and 2005. Jean and Welsh (2010) further said that, consumption of soft drinks has soared in the United States and worldwide. A study was carried out in four universities in Bangladesh which denoted that the students were aware of the fact that junk foods are implicated for NCDs, they still clamour for it said Munmun & Shatabdi (2013). They further said that the prevalence of fast food consumption among those students was 98.5%, and 43.3% of their pocket money was spent on its purchase.

Mikolajczyk et al (2009) opined that there was correlation between unhealthy food and depressive symptoms as 65% of United Arab Emirates university students reported that their stress levels were too high and 50% reported that their diet was unhealthy. In year 2001, non-communicable diseases accounted for 60 percent of the 56 million deaths worldwide and 47 percent of the global burden of disease. Apart from tobacco consumption, high levels of cholesterol in the blood, low intake of fruit and vegetables, being overweight and physical inactivity are among the leading factors in the increase in non-communicable diseases (Arulogun and Owolabi, 2011). Arulogun and Owolabi, (2011) further submitted and highlighted that current evidence suggests that for all countries, the underlying determinants of non-communicable diseases are largely same; these include increased consumption of energy-dense nutrient-poor foods that are high in fat, sugar and salt this is due to the fact that traditional food is replaced by fast food. Fast food is a major contributor to the nutrient intake of undergraduates. However, excess energy and the low intake of micronutrients from fast foods place the students at risk of malnutrition. They further admitted that the low vitamin intake may be attributed to low consumption of fruits and vegetables. Patty (2009) said that fast foods are poor sources of micronutrients but associated with higher energy and fat intake. Foods with low energy density include high-fibre green and colourful vegetables. Watery foods like whole fruits tend to be less energy-dense, as well. Fruits and vegetables are also nutrient-dense, which means they have a lot of nutrients per serving size. Zellner, Loaiza, Gonzalez, Pita, Morales, Pecora and Wolf, (2010) Males consumed fast food more frequently than females. The most popular fast foods consumed were burgers (69.5%), pizza (56.6%) and fried chicken (38.4%). Soft drinks were the most popular beverage consumed (56%). The main reasons for choosing fast food were time limitations

(58.9%), convenience (58.2%) and taste (52.5%). The majority of the participants were concerned about their health (93.3%) and indicated a fear of becoming overweight (44.3%). Seventy-eight per cent of all the participants would have chosen a healthier option if it had been available on the menu. Television was reported to be the most effective medium influencing their food choices.

### **OBJECTIVES OF THE STUDY**

- i. To assess the level of junk foods eaten by undergraduates.
- ii. To identify the gender that consume more junk foods
- iii. To determine the knowledge of undergraduate students on junk foods.
- iv. To identify the perceived effect consumption of junk foods on the undergraduates.

### **MATERIALS AND METHODS**

The research design used in this study is descriptive survey. The research area is Ladoke Akintola University of Technology (LAUTECH). LAUTECH is a tertiary institution located in the northern part of Ogbomoso, Oyo state Nigeria, in the sub-Saharan of west Africa. It was established in April 23<sup>rd</sup>, 1990. It is made up of students, academics staff and non-academics staff. The population of this study is undergraduates of Ladoke Akintola University of Technology in Ogbomoso, the estimated population is 14,000 students. Thom's rule was employed to determine the sample size, the formula recommended a sample size of 323 subjects to be representative of the population. Multi stage sampling technique was used for this study. Stage 1, three faculties were randomly selected

i.e. Basic Medical, Engineering and Management sciences. Stage 2, nine departments were randomly selected from the three selected faculties. Stage 3, from the selected departments, 36 students were purposively selected from each of the 9 departments. A total of 323 respondents were selected. This include 172 males and 151 females

Questionnaire was the main source of data collection. It was self-designed and was divided into five sections: section A; deals with demographic data of respondents with four closed ended questions in all. Section B: assess the level of junk foods eaten by undergraduates. Section C; identify the gender that consume more junk foods. Section D: examines the respondents' knowledge about junk foods and it contains 9 closed ended questions. Section E; observes the effect of junk consumption on human health. And it is made up of 10 questions.

Validity; the instrument was examined to ascertain the face and content validity, also reliability of the instrument was determined using test retest method and yielded a coefficient of 0.80. The instrument was used for data collection and the data was analysed with the help of SPSS at 0.05 level of significance.

### **RESULTS**

Results as presented in Table 1 shows that 172 (53.3%) were males while 151 (46.7%) were females. The age distribution shows that, 48 (14.9%) of the respondents were between 16 - 20 years, 183 (56.6%) were between 21 - 25 years of age, 76 (23.6%) of the respondents were between 23-30 years, 5% are between 31 - 35 years while 2% did not respond. The result shows that 60.7% are Christians while 34.4% are Islam and 5% traditional religion.

**Table 1:  
Demographic Variable**

Variables	Category	N	PERCENTAGE (%)
SEX	Male	172	53.3
	Female	151	46.7
	Total	323	100
AGE	16-20	48	14.9
	21-25	183	56.6
	26-30	76	23.6
	31 -35	16	5.0
	Total	323	100
RELIGION	Christianity	196	60.7
	Islam	111	34.4
	Traditional	16	5.0
	Total	323	100

The result in Table 2 showed that 95% of respondents consumed Biscuit, 67% consumed Ice-cream, 93% Doughnuts, 100% Noodles, 92% Chocolates, 53% Fried chicken, 58% Sandwich,

52% Pizza, 56% Burger and 38% meat pie. This result implies that the consumption of junk foods among undergraduates is very high (70.1%).

**Table 2:  
Frequently consumed junk food**

Statements	Yes	No
1 Do you consume junk food	267 (83.4%)	53 (16.6%)
2 Type of Junk food prepared	N	%
a Biscuit	304	95
b Ice-cream	214	67
c Doughnuts	298	93
d Noodles	320	100
e Chocolates	294	92
f Fried chicken	180	56
G Sandwich	186	58
h Pizza	166	52
i Burger	180	56
j Meat pie	121	38
		<b>70.7</b>
3 <b>Drinks ordered with junk food</b>		
a None	26	8
b Bottled water	96	30
c Juices	67	21
d Tea/coffee	105	33
e Chapman	57	18
f Carbonated drinks	256	80
		37

As presented in Table 3, there were more males 200 (61.7%) than females 124 (38.3%) used for this study. Out of the 124 females, more than 50% consumed all the junk food considered in

this study while only 7 junk food considered in this study was consumed by 50% of males. From this result we can conclude that, more females consume junk food than males in the study area.

Table 3:

Junk food consumption				
	Male	200	Female	124
Biscuit	99	49.5	112	90.3
Ice-cream	78	39.0	120	96.7
Dougnuts	124	62.0	80	64.5
Nooddles	102	51.0	121	98.3
Chocolates	78	39.0	123	99.1
Fried chicken	147	73.5	118	95.1
Sandwitch	150	75.0	101	81.4
Pizza	147	73.5	119	95.9
Burger	187	93.5	77	62.0
Meat pie	174	87.0	87	70.1

**Decision:**  $\geq$  50% positive  
 $\leq$  50% negative

Results in Table 4 shows that, majority of the students, 74.5% agree that junk foods are all processed food and 93.2% agree that Junk foods are fast food that are accessible. Most, (96.3%) of the students agree that there are different types of junk foods and 75.5% agree that Junk foods are usually prepared with some chemicals. Among the respondents, 56.0% agree that Junk food do not contain the required

body nutrient, 72.4% agree that Junk food are more affordable, 80.8% disagree that Junk foods are imported foreign foods, 74.5% agree that there is no age difference in junk food consumption, and 92.6% agree that Junk foods are easily available. We can conclude that, the respondents in the study area have adequate knowledge of foods that constitute junk food.

Table 4:  
**Knowledge about Junk Food**

S/N	QUESTIONS	YES	NO	No response
1.	Junk food are all processed foods	240 (74.5%)	79 (24.5)	4 (1.2%)
2.	Junk food are fast food that are accessible	301 (93.2%)	20 (6.2%)	2 (0.6%)
3.	There are different types of junk food	311 (96.3%)	12 (3.7%)	0
4.	Junk food is being prepared with some chemicals	244 (75.5%)	69 (21.4%)	10 (3.1)
5.	Junk food do not contain the required body nutrient	181 (56.0%)	140 (43.5%)	2 (0.6%)
6.	Junk foods are more affordable	234 (72.4%)	89 (27.6%)	0
7.	Junk foods are imported foreign food	52 (16.1%)	261 (80.8%)	10 (3.1%)
8.	There is no age difference in junk food consumption	240 (74.5%)	73 (22.6%)	10 (3.1%)
9.	Junk food are easily available	299 (92.6%)	24 (7.4%)	0

Table 5, 47.7% of the respondents strongly agreed that junk foods can lead to sudden death and 15.5% agreed, 25.4% disagreed while 11.5% strongly disagreed. 66.6% of the respondents strongly agreed that dangers of chemicals in junk foods are not indicated and 6.2% agreed while 14.2% disagreed and 18.6% strongly disagreed. 42.1% of the respondents strongly agreed that junk foods can be discouraged in the society and 21.1% agreed, 24.5% disagreed while 12.4% strongly disagreed. 65.8% of the respondents strongly agreed that junk foods can be linked to kidney disease and 19.2% agreed, 5.6% disagreed while 9.6% strongly disagreed. 48.9% of the respondents strongly agreed that junk foods consumption may lead to hypertension and 27.9% agreed, 18.9% disagreed while 4.3% strongly disagreed. 70.4% of the respondents strongly agreed that Hemorrhoids (jedi-jedi) can be attributed to junk food consumption

and 7.4% agreed, 6.5% disagreed while 8.7% strongly disagreed. 81.9% of the respondents strongly agreed that High level of cholesterol in the blood can be associated with junk food and 9.3% agreed, 6.2% disagreed while 3.6% strongly disagreed. 67.8% of the respondents strongly agreed that Junk food do affect the normal functioning of different organs in the body and 16.7% agreed, 9.3% disagreed while 6.3% strongly disagreed. 71.3% of the respondents strongly agreed that Most junk foods can lead to malnutrition and 10.5% agreed, 14.6% disagreed while 3.7% strongly disagreed. 46.3% of the respondents strongly agreed that Junk foods usually predispose one to non-communicable diseases and 27.2% agreed, 18.0% disagreed while 8.0% strongly disagreed. We can conclude that, the respondents perceived that the impact of junk food consumption is associated with health challenges.

Table 5:  
Perceived Effects of Junk Food on Human Health

SN	QUESTIONS	SA	A	D	SD
1	Junk foods can lead to sudden death	154 (47.7)	50 (15.5)	82 (25.4)	37 (11.5)
2	Dangers of chemical in the junk foods are not indicated	215 (66.6)	20 (6.2)	46 (14.2)	60 (18.6)
3	Junk foods should be discouraged in the society	136 (42.1)	68 (21.1)	79 (24.5)	40 (12.4)
4	Junk foods can be linked to kidney disease	212 (65.8)	62 (19.2)	18 (5.6)	31 (9.6)
5.	Junk food consumption may lead to hypertension	158 (48.9)	90 (27.9)	61 (18.9)	14 (4.3)
6.	Hemorrhoids (jedi-jedi) can be attributed to junk food consumption	250 (70.4)	24 (7.4)	21 (6.5)	28 (8.7)
7	High level of cholesterol in the blood can be associated with junk food	265 (81.9)	30 (9.3)	20 (6.2)	12 (3.6)
8.	Junk food do affect the normal functioning of different organs in the body	219 (67.8)	54 (16.7)	30 (9.3)	20 (6.3)
9.	Most junk foods can lead to malnutrition	230 (71.3)	34 (10.5)	47 (14.6)	12 (3.7)
10	Junk foods usually predispose one to non-communicable diseases	151 (46.3)	88 (27.2)	58 (18.0)	26 (8.0)

\*Percentages are written in parenthesis

## DISCUSSION OF FINDINGS

This study is on the assessment and perceived impact of junk food consumption among undergraduates of Ladoke Akintola University of Technology, Ogbomoso, Nigeria. The demographic characteristics revealed that the age range of respondents are within 21- 25 years and their religion are majorly Christianity and Islam.

The findings of this study showed that the consumption of junk foods among undergraduates is very high (70.1%). Arulogun and Owolabi (2011) collaborates the result that consumption of fast foods has gradually become a common lifestyle in Nigeria especially in urban areas and among young people in spite of the associated adverse health consequences as 80.5 percent of respondents consumed fast foods weekly, hence, an increase risk factor for non-communicable diseases.

This study observed that more females consume junk food than males in the study area, this result support Sutapa and Analaya (2009) who noted that more females consume junk food than males This result contradict Zellner, Loaiza, Gonzalez, Pita, Morales, Pecora and Wolf, (2010) who holds the view that males consumed fast food more frequently than females. Also, Dugdale (2009) who also reported that males consumed fast food more than females in Mansoura University, Egypt.

The result of this research shows that the respondents in the study area have adequate knowledge of foods that constitute junk food, this result is supported by Briefel *et al* (2009) that, the wide patronage of junk food is influence ease of getting it and the knowledge that it constitutes the required energy. This is because common junk food (salted snack foods, gum, candy, sweet desserts, fried fast food and sugary carbonated beverages) are high in energy density. Energy density is the amount of energy as represented by the number

of calories in a specific weight of food. Energy-dense foods have a large number of calories per serving. An example of food with high energy density is ice cream with lots of calories from the sugar and fat.

The result of this study shows that the *respondents perceived* junk food consumption to be associated with health challenges. This result supports Mikolajczyk (2009) who opined in his work that there are correlations between unhealthy food and depressive symptoms as 65% of United Arab Emirates university students reported that their stress levels were too high and 50% reported that their diet was unhealthy.

## NURSING IMPLICATION

The findings in the study showed that the sex of the student influence the consumption of of junk food. The implications for nursing practice are: nurses should take in to consideration detailed health education of youths on the health implication of junk foods consumption and There should be visual aid images discouraging the consumption of junk food amidst youth in youth concentrated areas and the schools health centre.

## CONCLUSION AND RECOMMENDATIONS

rom findings of the study, respondents junk food consumption is high, despite that the respondents were aware of the associated diseases. It was recommended that, the production process of food product should be taken through strict scrutiny to ensure adherence to the health safe standard and the use of the media should be engaged in the discouragement of junk food consumption.

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