

# Fast Food Consumption among Primary Schools Pupils and its Influence on the Attainment of Sustainable Development Goal3

<sup>1</sup>ASUNMO, M. R., <sup>1</sup>JEMBI, R.O.

<sup>1</sup>DEPARTMENT OF HOME ECONOMICS,  
LAGOS STATE UNIVERSITY OF

EDUCATION (LASUED), EPE, LAGOS, NIGERIA

<sup>2</sup>SERIKI-MOSADOLORUN, J.S., <sup>2</sup>ABIAMUWE, N.O.

Ph.D. <sup>2</sup>SCHOOL OF TECHNICAL EDUCATION,  
YABA COLLEGE OF TECHNOLOGY,  
YABA, LAGOS, NIGERIA

**Abstract:-** High consumption rate of unhealthy foods such as sweets, snacks and soft drinks between main meals among school-aged children is a major lifestyle problem in Western society and has important implications on health and wellbeing, which is one of the cardinal points of Sustainable development Goals (SDGs). This study examined fast food consumption among primary school pupils and its influence on the attainment of sustainable development goal3. The study adopted a descriptive survey design. Population of the study was 3,682 primary 5 and 6 pupils in the 49 public primary schools in Epe Local Government Area in 2018/2019 academic session. Sample size was 360 pupils which were randomly selected from the population. Three research questions were raised to guide the study and one hypothesis was formulated and tested at 0.05 level of significance. Two instruments were used for data collection. One of the instruments was a validated questionnaire while the second instrument was used to determine the nutritional status of the pupils. The second instrument was used to obtain data on the pupils' age, height and weight. Data collected were analyzed using percentage, standard deviation and t-test. Findings revealed that the fast foods commonly consumed by the pupils included puff-puff, doughnut, chin-chin, bread-roll, samosa, biscuit, gala, fish-roll, meat-pie, coco chips, plantain chips, cookies, sausage roll, sweet potato chips and "Ojojo". Findings from the study showed that majority of the pupils (50% girls and 40% boys) of the pupils have normal weight. Thirty-eight percent (38%) are underweight, 37% of the pupils are pre-obese while 35% of the pupils were obese. The study revealed that often consumption of fast foods may result to breakdown of the digestive system; increased sugar levels; increased risk of type 2diabetes and blood pressure; respiratory problems among more which may hinder the realization of the sustainable development goal 3(Good health and wellbeing). The result of hypothesis tested showed no significant difference between fast foods consumption of the male and female pupils (tcal <0.05). Among the recommendations proffered were that Parents should monitor the kinds of meals their children eat by spending time with them and eating healthy so that their children can emulate them.

**Keyword:-** Fast food consumption, primary school, pupils, Health, Wellbeing.

## I. INTRODUCTION

Nutrition is a critical part of health and development. Good nutrition is related to improved infant, child and maternal health, stronger immune systems, safer pregnancy and childbirth, lower risk of non-communicable diseases (such as diabetes and cardiovascular disease) and longevity. Food is essential for growth and development of a child. Food that can be served ready to eat refers to fast food. Fast food denotes foods prepared and served quickly either at home or at outlets. Popular fast foods include hamburgers of various types, hot dog, fried chicken, fish sandwiches, bread, oysters, crabs or other sea foods; pizzas, fries such as doughnuts, puff-puff, chips, bread-pie, ice cream cones, pop corn etc . All public primary schools in Lagos State have food vendors and food canteens where fast foods are sold. Cafeterias in schools are reluctant with balance nutrition diet but are rather interested in selling cold drinks, ice creams among others to the children which may cause a lifelong damage to the children's health as well as influence their nutritional status and the realization of their maximum potentials (Uche, 2013).

Nutritional status is influenced by the amount of nutrients consumed. Nutrition plays a vital role in human growth and development. Inadequate nutrition during childhood may lead to malnutrition, growth retardation, reduced work capacity, poor mental and social development.

Primary school pupils are young children within ages 6 to 12 years. This period is also referred to as late childhood. Late childhood stage is one of the most fascinating and complex transitions in the life span of man. School age period is nutritionally significant because it is the prime time to build up body stores of nutrients in preparation for rapid growth and development at adolescence. The high consumption rate of unhealthy foods such as sweets and snacks between main meals among school aged children is a major lifestyle problem in Western societies which has important implications for public health. Many school children seem not to be getting enough of the healthy foods they need to support optimal health and learning. Consumption of fast foods, which are typically of low nutritional value has been linked to poor diet quality, increased energy intake, and weight gain over time which influences nutritional status and an individual's overall wellbeing.

The consumption of fast foods and non-nutritious snacks are progressively increasing among primary school children. The prevalence of childhood obesity is both high and rising. Energy dense foods often advertised to children are high in fat and sugars and low in nutrients, hence, considered unhealthy. Healthy snacks are nutrient dense which are made up of fruits, vegetables and fibre. Dietary behaviours associated with obesity among children include the overconsumption of refined carbohydrates, dietary fat and sugar sweetened beverages as well as the consumption of energy dense foods and large portion sizes. These foods have several characteristics which contribute to poor health quality and impede maintenance of a healthy weight. Unhealthy weight is an indication of malnutrition. Malnutrition occurs when a person does not receive adequate nutrients from diet, which causes damage to the vital organs and functions of the body. This could be a barrier to the realization of sustainable development goal 3 (Good health and Wellbeing).

Sustainable development goal 3 which is concerned with good health and wellbeing may not be realized without sustainable nutrition for children. Ensuring healthy lives and promoting wellbeing at all stages is critical for sustainable development. Wellbeing is a feeling of satisfaction with life. It is a state characterized by health, happiness and prosperity. Good health is concerned with the care of human body and all that can be done to protect it from sickness and intoxicants. Without adequate and sustained investments in good nutrition, the sustainable development goals may not be realized. Healthy children learn better. Societies with adequate nutrition are more productive and can create opportunities to gradually break the cycles of poverty and hunger. Malnutrition in every form presents significant threats to human health.

Malnutrition occurs when a person does not receive adequate nutrients from diets. This causes damage to the vital organs and functions of the body. Malnutrition has long-term impacts on physical and mental capacity and the pupil's ability to learn. Health and nutrition problems among children prevent them from attending school regularly, impair their ability to learn and often cause them to leave school early (World Health Organization [WHO,] 2010). Good nutrition is an important factor that contributes to our general wellbeing. The quest for sustainable development is not feasible without optimal nutrient intake. This study examined fast food consumption among primary school pupils and its influence on the attainment of SDG3.

#### A. Research Questions

The following research questions guided the study:

- What are the fast foods commonly consumed by primary school pupils in Lagos State?
- What is the nutritional status of the primary school pupils?
- What is the influence of fast food consumption on the attainment of sustainable development goal 3?

#### B. Hypothesis

One null hypothesis was formulated and tested at 0.05 level of significance

$H_{01}$ : There is no significant difference in the food consumption between male and female pupils.

## II. METHODOLOGY

The study adopted a descriptive survey design. The population of the study comprised all primary 5 and 6 pupils (3,682) in the 49 public primary schools in Epe Local Government Area of Lagos State in the 2018/2019 academic session (office of the secretary, Local Government Education Authority, Epe). Purposive sampling technique was used to select 18 schools from the 49 public primary schools in the local government area. The sample size used for the study comprised three hundred and sixty (360) pupils and their guardians. This represented about 10% of the total population. Simple random sampling technique was used to select three hundred and sixty (360) primary 5 and 6 pupils from the population. The selected sample served as respondents and provided the needed information for the study.

#### A. Instrument for Data Collection

A well structured validated 4-point questionnaire with tested reliability value of 0.78 was administered to the pupils and their guardians. The headmistress/headmasters of the schools were consulted in order to obtain permissions to obtain data from the children and their parents. The questionnaire was divided into three (3) sections. Section A elicited data on the types of fast foods commonly consumed by the primary school pupils. Section B was designed to obtain information on the children's age, weight and height. Section C obtained information on perception of guardians on ways fast food consumption influence the children's health and wellbeing. The items on section A were rated on a four point scale of never consumed (NC)-1; Fairly Often Consumed (FOC)-2; Often Consumed (OC)-3 and Very Often Consumed (VOC)-4. Centre for Disease Control (CDC, 2008) reference point for determining children's BMI-for-age was used to indicate the prevalence rate of malnutrition. Nutritional status assessment was done through measurement of height, weight and calculation of BMI. For weight, each pupil was asked to stand bare foot on a weighing scale after removing any article that would increase the actual weight. The weight was recorded to the nearest 0.1kg. For the height, a microtoise was used. Each pupil was asked to stand vertically against a wall on which a microtoise has been attached and the result recorded to the nearest 0.1mm. Items on section C were drawn on a 4-point scale of: Strongly Agreed (SA) =4, Agreed (A) =3, Disagreed (D) =2, Strongly Disagreed (SD) =1. Three Home Economist in Yaba College of Technology and Michael Otedola College of Primary Education (MOCPED) Lagos validated the instrument. Test retest method was used to determine the reliability of the instrument and it yielded reliability co-efficient of 0.78.

### B. Method of Data Collection

Three hundred and sixty (360) copies of the questionnaire were distributed to the pupils and their guardians by the researchers. Out of the 360 questionnaires distributed, 354 were returned showing 98% return rate.

### C. Method of Data Analysis

Data were analyzed using simple percentage, mean and standard deviation. Mean ratings from 2.50 and above were considered as consumed while mean ratings of 2.49 and below were regarded as not consumed.

## III. DISCUSSION OF FINDINGS

Results of findings from Table 1 showed that puff-puff, doughnut, chin-chin, bread roll, biscuit, fish roll and the likes were fast foods very often consumed by the pupils. The often consumption of fast foods among primary school pupils may be attributed to children's socio-economic status, close proximity to fast food shops, food taste and quick service. This corroborated the findings of Jagadish (2015) that majority of working parents with school going children found it more convenient to pack fast foods for their wards to school or give the money to buy rather than cooking for them. Vijayapushpam, Menon & Rao (2016) also submitted that socio-economic status is an important factor related to fast food consumption. Children from high socio-economic status prefer fast foods to traditional foods despite their good nutritional knowledge. Arcedondo, Castaneda, Elder & Symen (2019) opined that children who are overweight are significantly more likely to recognize fast food restaurant logos than other food logos. Also, family's socio-demographic characteristics play a significant role in children's recognition of fast food logos. Most fast foods are rich in sugar, saturated fat, salt and calorie which can be hazardous to health. This supported Kaushik, Narag & Parakh (2017) who reported that young people might have high intakes of saturated fat and sugar due to consumption of fast foods, which can lead to weight issues and an increased risk of diet related diseases such as type-2 diabetes.

Results of findings from Figure 1 showed that majority (50% females and 40% males) had normal nutritional status. About 38% of the pupils were underweight, 37% were pre-obese. Percentages of obese female and male pupils were 13% and 22% respectively. The types of food consumed and activities engaged in are principal determinants of nutritional status. The provision of adequate nutrition during childhood is a basic requirement for the development and promotion of optimum growth, health and behaviour of the child. Adequate nutrient intake is necessary for the utilization of energy and nutrients to maintain the child's wellbeing, health and productivity (United Nations International Children's Emergency Fund [UNICEF], 2017).

Results of findings on Table 2 revealed that ways by which fast foods influence children's wellbeing include the breakdown of the digestive system; increased sugar levels; increased risk of type 2 diabetes and blood pressure; respiratory problems among more. Although, the guardians showed knowledge of the impact of fast food consumption practices on the children's wellbeing as most of the items had mean ratings above 2.50, they still feed their wards with fast foods. This could be due to laziness on part of the guardians or the kind of work they do which may not give room for proper cooking. This supported the findings of Jagadish (2015) that majority of working parents with school going children found it more convenient to pack fast foods for their wards to school or give them money to buy rather than cooking for them. Among the sustainable development goals is to achieve good health and wellbeing (SDG3). Ensuring healthy lives and promoting wellbeing at all ages is crucial to the overall advancement of a society. Frequent consumption of fast foods among children may hinder the realization of this goal. This is because most fast foods are energy dense with little or no nutrient value. They lack protein, fibre, vitamin and mineral contents which are necessary for sound health and wellbeing. This confirmed Wike, Carola, Gerda & Dike (2015) that energy dense foods often advertised to children are high in fat and sugars but low in nutrient which makes it detrimental to health. Late childhood is a growth stage for habit formation among children. Lifestyle formed at this stage is carried through life as childhood nutrition becomes habitual in adulthood which has implications on the child's overall wellbeing. Poor lifestyle could lead to non-communicable diseases associated with poor nutrition. Nutrition is one of the principal determinants of health and wellbeing.

Results of findings on Table 3 showed no significant difference between fast foods consumption of the male and female pupils ( $P > 0.05$ ). The implication of this finding is that the gender of the respondents did not significantly affect their opinions on each item. This also showed that gender does not influence food choices. This could be traced to the children's family eating life style. This affirmed Oguntona (2013) that food choices and intake can be associated with factors such as family upbringing, social interaction, customs taboos, weather and climate, the types of food produced within the locality, health of the individual, economic status, education, religion and emotional feeling.

## IV. RESULTS

- Majority of the pupils were within ages 7-9 years (67%), 33% of the respondents were within ages 10-12 years.
- The sex of the pupils showed that majority (51%) were females while 49% were males.
- Majority of the guardians (73%) were females

➤ **Research Question 1:** What are the fast foods commonly consumed by primary schools pupils in Lagos State?

S/N	Snacks Commonly Consumed	Mean	SD	Decision
1	Puff-puff	3.96	0.18	VOC
2	Pizza	2.03	1.54	NC
3	Toast Bread	1.94	1.08	NC
4	Sandwich	1.50	2.90	NC
5	Burger	1.90	1.03	NC
6	Doughnuts	3.67	0.47	VOC
7	Chin Chin	3.92	0.26	VOC
8	Bread roll	3.36	1.02	VOC
9	Samosa	2.86	0.64	VOC
10	Biscuits	3.74	0.75	VOC
11	Gala	3.10	1.06	VOC
12	Fish-pie	3.31	0.94	VOC
13	Meat-pie	3.22	1.01	VOC
14	Cookies	2.81	0.98	VOC
15	Sausage roll	3.36	1.02	VOC
16	Plantain chips	3.49	0.66	VOC
17	Coco chips	3.10	1.06	VOC
18	Sweet Potato chips	3.41	0.58	VOC
19	Corn Fritters	1.87	0.76	NC
20	Yam balls (“Ojojo”)	3.63	0.61	VOC

Table 1: Fast Foods Commonly Consumed by Primary School Pupils in Lagos State

Table 1 showed that the commonly consumed fast foods among the children were puff-puff, doughnut, chin-chin, bread-roll, samosa, biscuit, gala, fish-roll, meat-pie,

coco chips, plantain chips, cookies, sausage roll, sweet potato chips and “Ojojo”. They had mean ratings above the cut-off point of 2.50.

➤ **Research Question 2:** What is the nutritional status of the male and female pupils in Lagos State?

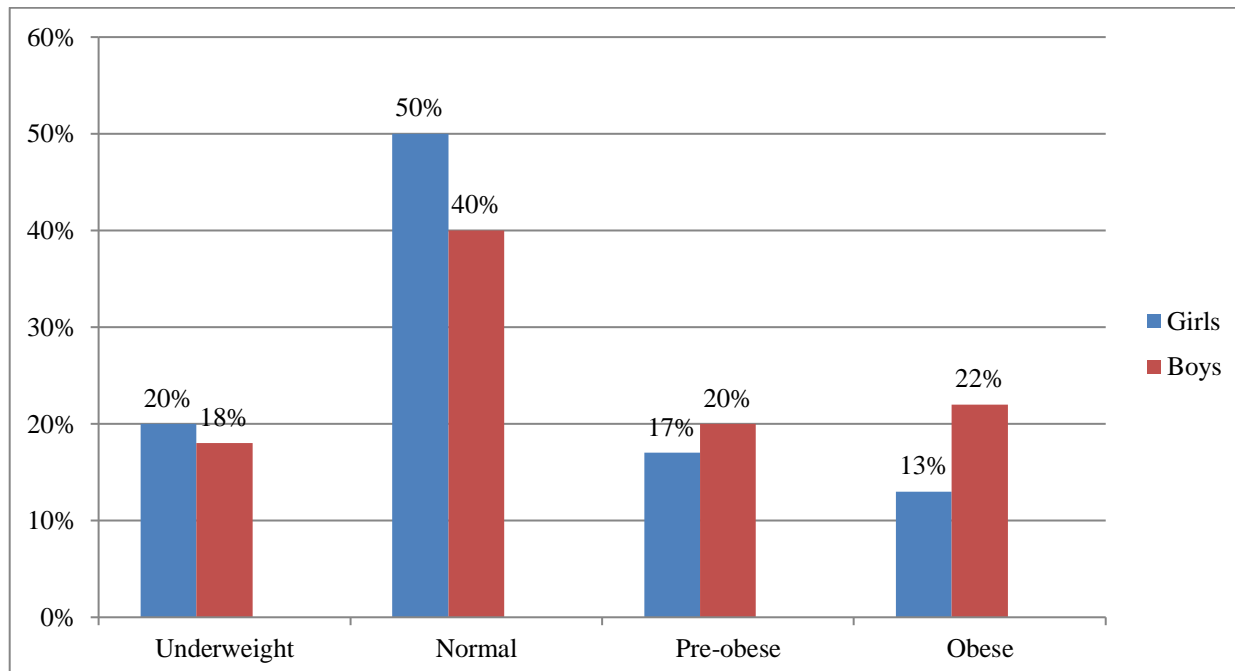


Fig. 1: Nutritional status of the Male and Female Pupils

Figure 1 showed that majority (50% girls and 40% boys) of the pupils had normal weight; females (20%) and males (18%) were underweight; female (17%) and male

(20%) were pre-obese pupils while percentages of the obese female and male pupils were 13% and 22% respectively.



➤ **Research Question 3:** What is the influence of fast food consumption on the attainment of sustainable development goal 3?

S/N	Ways Fast Food Consumption Influence Children’s Wellbeing	Mean	_____
1	Most fast foods are loaded with carbohydrates with little or no Fibre which breaks down the digestive system	3.70	.57
2	Fast foods consumption increases blood sugar levels	2.81	.8
3	Fast foods are appetizing and increases satiety	2.98	.90
4	Excess calories from fast food meals can lead to obesity	3.57	.6
5	Fast foods are rich in sodium which leads to water retention in the body	3.57	.6
6	Diet high in sodium can be dangerous for children	2.16	1.06
7	Phthalates found in processed foods could lead to reproductive issues in adulthood	1.95	1.11
8	Fast foods are prepared with trans-fat	3.64	.46

Table 2: Influence of Fast Food Consumption on Children’s Wellbeing

Results on Table 2 showed that the children’s guardians indicated knowledge on the ways by which fast food consumption could influence children’s wellbeing. All the items were agreed upon with mean ratings above 2.50

except items 6 (Diet high in sodium can be dangerous for children) and 7 (Phthalates found in processed foods could lead to reproductive issues in adulthood) which have mean ratings of 2.16 and 1.95 respectively.

**H<sub>01</sub>:** There is no significant difference in the fast food consumption between male and female pupils.

S/N	How often do you consume the following fast foods	X <sub>1</sub>	S <sup>2</sup> <sub>1</sub>	X <sub>2</sub>	S <sup>2</sup> <sub>2</sub>	t-cal	Remark
1	Puff-puff	3.30	0.99	3.33	0.75	0.21	NS
2	Pizza	3.70	1.07	3.80	1.24	0.47	NS
3	Toast bread	2.83	1.10	3.10	1.26	0.38	NS
4	Sandwich	3.56	1.30	3.70	1.39	0.04	NS
5	Burger	3.61	1.34	3.66	1.21	0.45	NS
6	Dough-nuts	2.98	1.33	3.44	1.47	0.46	NS
7	Chin-chin	3.25	1.34	3.56	1.19	0.33	NS
8	Bread roll	2.86	1.19	3.80	1.03	0.43	NS
9	Biscuits	3.81	1.17	3.85	1.04	0.01	NS
10	Samosa	3.80	1.12	3,90	1.26	0.55	NS
11	Gala	2.90	1.14	3.03	0.92	0.04	NS
12	Fish-pie	2.93	1.06	3.14	0.89	0.06	NS
13	Meat-pie	3.00	1.02	3.16	0.94	0.23	NS
14	Cookies	3.13	0.99	3.43	0.85	0.02	NS
15	Plantain chips	3.06	0.98	3.36	0.81	0.22	NS
16	Coco chips	2.88	1.16	3.06	1.04	0.04	NS
17	Sweet potato chips	2.68	0.74	3.03	0.54	0.22	NS
18	Corn fritters	3.23	1.29	3.43	0.85	0.45	NS
19	Sausage rolls	3.16	0.70	3.20	0.62	0.28	NS
20	Yam balls “Ojojo”	2.22	0.62	2.27	0.84	0.21	NS

Table 3: T-test analysis of the significant difference in the food consumption between male and female pupils

Data presented on Table 3 revealed that each of the twenty fast foods mentioned had their calculated t- values ranging from 0.01 to 0.55 which were less than t-table value of 1.56 at 0.05 level of significance and at 354 degree of freedom (df). This indicated that there was no significant difference in the fast food consumption between male and female pupils. Therefore, the null hypothesis of no significant difference in the fast food consumption between male and female pupils was upheld.

**V. CONCLUSION**

It can be concluded from the study that the fast foods commonly consumed by the pupils included puff-puff, doughnut, chin-chin, bread-roll, samosa, biscuit, gala, fish-roll, meat-pie, coco chips, plantain chips, cookies, sausage roll, sweet potato chips and “Ojojo”. The nutritional status of the pupils showed that majority (50% girls and 40% boys) of the pupils have normal weight. Thirty-eight percent

(38%) were underweight, 37% of the pupils were pre-obese while 35% of the pupils were obese. The study concluded that often consumption of fast foods may result to breakdown of the digestive system; increased sugar levels; increased risk of type 2 diabetes and blood pressure; respiratory problems among more which may hinder the realization of the sustainable development goal 3 (Good health and wellbeing). The result of hypothesis showed no significant difference between fast foods consumption of the male and female pupils ( $P > 0.05$ ).

## VI. RECOMMENDATION

Based on the findings of the study, it was recommended that:

- Parents should monitor the kinds of meals their children eat by spending time with them and eating healthy so that their children can emulate them.
- Nutrition Education should be integrated into the curriculum of primary schools.
- Parents should ensure that their children eat healthy breakfast before going to school daily.
- Parents and guardians should ensure that their children go to school daily with foods in their lunch boxes.
- Pupils should be taught to choose wisely when eating at food canteens, fast foods and convenience stores.

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