

APPRAISING THE NUTRITIONAL STATUS OF THE SCHOOL FEEDING PROGRAMME IN PUBLIC PRIMARY SCHOOLS IN FEDERAL CAPITAL TERRITORY, ABUJA.

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Abstract

This study appraised the nutritional status of school feeding programme in public primary schools in Federal Capital Territory, Abuja. The research design adopted was descriptive survey. Questionnaire titled, "Appraisal of Nutritional status of the School Feeding Programme in Elementary Schools in Federal Capital Territory, Abuja (AHCSFP) Questionnaire," was the instrument used. The sample size of 336 was randomly selected from a population of 5108 public primary school teachers. Data analysis was by mean score, standard deviation and Pearson-Product-Moment Correlation. Findings indicated that food services are enhanced by ensuring that food are well prepared to avoid food poisoning, ensuring that food are served in a clean environment, avoiding the risk of consuming contaminated food; government policies and regulations enhance the pupils' health benefit through following approve recommendations on food safety, providing sustainable financial support for food safety committee, collaborating and forming partnership with stakeholders and conducting regular monitoring and evaluation of the implementation system. Based on the findings, the recommendations proposed are that great efforts should aimed at enhancing hygiene, and also contamination of food should be avoided so that germs can be prevented; government regulatory agencies should ensure that the policy framework of school feeding strictly follows the approve recommendations, as well as ensuring regular monitoring and evaluation of the system.

Keywords: Appraisal, Health Condition, School, Feeding programme.

Introduction

Hunger has contributed in retardation of the educational status and other sectors of human development. So, the attendant consequences of hunger can be seen in the population of school children roaming the streets in major Nigerian cities. According to Duffy (2009) cited in Walida (2010), "Providing a meal at school is a simple but concrete way to give poor children a chance to learn and thrive." This is basically because daily in Nigeria, pupils often trek long distance to attend school. The sad development is that they often do so on empty stomach. Since they often come back home exhausted with nothing to replenish their lost energies, the idea of school is nothing but an unprofitable venture (Kawafha, 2013). Hence, the need for school feeding programme.

Therefore, the idea of Home-Grown school feeding scheme is an initiative of New Partnership for Africa's Development (NEPAD), which is meant to keep children of school age in school. NEPAD and other partners, is linking school feeding directly with agricultural development (NEPAD, 2009). It is thus seen as a novel programme, which has received United Nations backing with some specific objectives, to encourage children of school age to embrace schooling. The first phase of this initiative which is adopted by NEPAD is designed to provide meals for about 674,000 students (Azubuike, & Mbah, 2019).

In spite of the laudable nature of this initiative, there are issues surrounding funding of the school feeding program in Nigeria. There are problems of: choosing food vendors; how

hygienic the food services are; the notion regarding maintenance of standard while preparing and serving the food. There is also the fact that the growing child needs some nutrients in order to grow, and so the health benefit of the school meals to the children is of great essence in order to protect their current and future nutritional status (Falade *et al.*, 2012).

Food Hygiene, otherwise known as food safety entails food handling, preparation and storage of foods or drinks in a way that best reduces the risk of consumers becoming sick from the food-borne disease (Adrian, 2020). The principles of food safety are aimed at preventing food from becoming contaminated and causing food poisoning. It ensures that, food is safe for human consumption, and this ranges from what is taken from the farms all the way to the plate. There is an ever-increasing awareness of food safety by the general public and available statistics shows that each year, 48 million people get sick from a foodborne illness, 128,000 are hospitalized, and 3,000 die from food poisoning (Kibret & Abera, 2012).

Maintaining food standard and quality practices in food preparation and the environment where food is being served is important because food poisoning can lead to gastroenteritis and dehydration or potentially even more serious health problems such as kidney failure and death; checking risk, which is especially significant for those in the high-risk category: Small children/ babies, pregnant mums, the elderly and immunocompromised, especially HIV infections and cancer patients; preventing germs from multiplying in foods and reaching dangerous levels; and ensuring daily healthy family living and thereby preventing the additional cost of buying medication and medical check-ups; and because of the fact that companies worldwide loss so much per year due to staff downtime (Adrian, 2020).

However, good hygiene can be practiced through good personal hygiene, such as cleaning of utensils and cooking equipment; keeping foods that need to be kept cold in the fridge; separating raw and ready to eat foods; washing fruits and vegetables before use; using appropriate kitchen tools for food preparation; keeping dry foods separate from liquids; cooking food to an appropriate temperature; keeping insects and pests away from food areas; always use clean water to prepare food; and cleaning the kitchen and mop the floor after each food preparation (Adrian, 2020).

It is important to note that choosing the wrong vendor can cost significant damage in terms of time and money. Thus, Lotich (2019) considered the following when choosing a vendor:

1. Cost: Your goal should always be to get the maximum value for the lowest possible cost. To be assured that you are getting the best deal, you need to ask for more than one bid.
2. Quality of Product: Price should not matter so much so long that there will be quality of good food.
3. Check References: In many ways, hiring a vendor is like hiring an employee. Most people would not employ a worker without checking references, and you should not make that mistake when selecting a vendor also.
4. Customer Service: Use of vendors with a reputation for exemplary customer service is of great essence.
5. Ethics and Integrity of the Vendor: It is also important to learn about vendors and how much importance they put on operating with high ethical standards and integrity.
6. Professional Employees: The employees of the vendors should exhibit high level of professionalism as well. This is perhaps the most difficult factor to check.
7. Recommendations from Others: Word of mouth is always a great way to find a vendor if everything else is equal. This is because people will share honest opinions about vendors.

8. Existing Relationships: Leverage the experience and relationships already established especially if there is an existing likable vendor.

It is important to specify the policies and regulations of government on food services in schools. According to the Federal Ministry of Health (2014), government policies and regulations functions shall be to:

- a) Approve recommendations on food safety matters from the National Food Safety Management Committee (NFSMC);
- b) Provide sustainable financial support for the Food Safety Management Committee and its programmes;
- c) Authorize the processes for collaboration, coordination and partnership between stakeholders that will assure food safety, address public health and barriers to trade;
- d) Provide financial and technical support to accomplish an effective food safety management system; Give other directives as may be necessary to advance effective Food Safety System in Nigeria;
- e) Appoint a chair and a co-chair for the NFSMC (either of whom should come from the public and private sector alternately). Both of these individuals should have track record of administrative and leadership qualities not below the level of a Director in the public service or its equivalent in the private sector. The tenure of the Chair and co-Chair shall be for a period of two years and may be renewed for another two years;
- f) To conduct a regular monitoring and evaluation of the implementation of the National Food Safety System.

There are a number of health benefits which students/pupils derive from schools feeding program in schools. Food Research and Action Centre (2019) itemized some of them as:

1. School meals play a critical role in student health, well-being, and academic success: A considerable body of evidence shows that the school meals programs are profoundly important for students, especially low-income students, with well documented benefits.
2. School meals alleviate food insecurity and poverty: School meals are a critical in reducing food insecurity among elementary school children.
3. School meals support good nutrition: School meals support good nutrition throughout the school day. Program participants are less likely to have nutrient inadequacies and are more likely to consume fruits, vegetables, and milk at breakfast and lunch (Polonsky, Davey, Bauer, Foster, Sherman, Abel, Dale & Fisher, 2018).
4. School meals improve health outcomes: School meals support and improve student physical and mental health, including weight-related outcomes.
5. School meals boost learning school: School meal programs are linked with improvements in the classroom. Students who participate in school breakfast programs have improved attendance, behavior, academic performance, and academic achievement (Frisvold, 2015).
6. School meals improve student dietary intake: Since overall rule require schools to offer more fruits, vegetables, and whole grain-rich foods, it tends to improve student dietary intake daily.

Theoretical Framework

This research is anchored on the theory of Change. The theory could be traced to Peter Drucker's articulation of Management by Objectives, which was made popular in his 1954 book, 'The Practice of Management.' Management by objectives requires identifying higher-order goals, and lower-order objectives which, if achieved, are expected to result in the goals being achieved. The theory explains the process of change by outlining causal linkages in an

initiative, i.e., its shorter-term, intermediate, and longer-term outcomes. The identified changes are mapped – as the "outcomes pathway" – showing each outcome in logical relationship to all the others, as well as chronological flow. The links between outcomes are explained by rationales of why one outcome is thought to be a prerequisite for another. Theory of Change can begin at any stage of an initiative, depending on the intended use. The theory of Change can be developed in retrospect by reading program documents, talking to stakeholders, and analyzing data. This is often done during evaluations so as to reflect on what has worked or not so as to plan for the future.

An important first step in the process is identifying a workable long-term goal and long-term outcomes. The long-term goal should be something the initiative can realistically achieve and that everyone involved can understand. Once a long-term goal is identified, the group then considers what conditions that must be in place for the goal to be reached. Any such necessary conditions should be shown as outcomes on the Theory of Change pathway, underneath the long-term outcome. These outcomes act as preconditions to the long-term outcome. For instance, school feeding programme is a change initiative introduced with the aim of improving school attendance. In other words, the goal is to ensure that pupils attend school. This is to say pupils who ordinarily will stay at home probably with hunger will be motivated to go school, since they know that they will be fed with nutritious food while at school. By this way, school feeding becomes an objective aimed at getting pupils to attend school, which is the main goal.

Statement of the Problem

Studies have shown that hunger causes malnutrition; as such the number of malnourished people in the world exceeded 1 billion people, about a sixth of the world's total population, (Food & Agriculture Organization, 2013). Also, Statistics has shown that on the average, 36 million people die each year as a direct or indirect result of poor nutrition, which is more than one death each second. The second aspect is that on the average, a child under five is malnourished as a direct or indirect result of poor nutrition (Falade *et al.*, 2012). Therefore, this study sought to appraise the nutritional status of the school feeding programme in elementary schools in Federal Capital Territory, Abuja.

Purpose of the Study

This study appraised the nutritional status of the school feeding programme in elementary schools in Federal Capital Territory, Abuja. The specific objectives are to:

- i. Find out how food services are determined to be hygienic in relation to standard while preparing and serving the food;
- ii. Examine how government policies and regulations of food services determine the health benefit of the school meals to the children.

Research Questions

The following research questions guided the study:

1. How are food services determined to be hygienic in relation to standard while preparing and serving the food?
2. How has government policies and regulations of food services determined the health benefit of the school meals to the children?

Hypotheses

A null hypothesis was formulated and tested at alpha 0.05 significant level:

Ho: There is no significant relationship between food services hygiene and government policies and regulations of food services in public primary schools in Federal Capital Territory, Abuja.

Research Methodology

The research design adopted in this study was descriptive survey. It is a survey method that draw sample from a population before using the finding to make generalization about the population from which the sample is drawn (Check & Schutt, 2016). The population of the study consisted of all teachers in public primary schools in Federal Capital Territory (FCT), Abuja. There are 448 public primary schools with 5108 (2695 males and 2413 female) teachers in FCT (Federal Ministry of Education, 2018). Stratified sampling technique was used in selecting 28 schools out of 448 in four out of the six area councils. A sample size of 336 teachers (12 teachers from each school) were randomly sampled, which is in line with John and James (2003) who stated that an ideal sample size should be large enough to serve as an adequate representative sample a researcher could use in a study, while considering logistic and other factors, such as availability of funding.

A researcher developed instrument called, "Appraisal of Nutritional Status of the School Feeding Programme in Public Primary Schools in Federal Capital Territory, Abuja (ANSSFP) Questionnaire was used for data collection. A four-point Likert type questionnaire 10-items was used for data collection. The instrument was given to two experts both content and construct validation. Their observations and input formed the basis of the final instrument used for the main study. A pilot test was carried out by administering the instrument to 30 teachers in some selected public primary schools in Abuja Metropolis. The reliability coefficient of 0.811 was obtained, which proves the validity of the instrument, because Cronbach's alpha values above 0.7 indicate sufficient internal consistency (Gliem & Gliem, 2003). The opinion of the experts and the result of the pilot test proved that the instrument is valid and reliable. Data obtained from the administration of instrument were analyzed using descriptive and inferential statistics. In other words, mean and simple frequency counts were used to analyze the research questions, while the test of hypothesis was by using Pearson Product-Moment Correlation (PPMC) at 0.05 level of significance. The mean rating of each questionnaire items was determined by scoring each response as follows: Strongly Agree (SA) = 4, Agree (A) = 3, Disagree (D) = 2, and Strongly Disagree (SD) = 1. Mean score of 2.5 and above indicate agree, while a mean value less than 2.49 signifies disagree. The PPMC result was interpreted so that a null hypothesis was rejected if the p-value was less than 0.05 level of significance, but accepted if the p-value was greater than 0.05 level of significance.

Data Analysis

Research Question One: How are food services determined to be hygienic in relation to standard while preparing and serving the food?

Table 1 shows items on how food services are determined to be hygienic in relation to standard while preparing and serving the food from the questionnaire.

Table 1: Mean (\bar{X}) and Standard Deviation (SD) of Teachers on Determine Food Services Hygiene

S/N	Enhancing Food Services	SA	A	D	SD	\bar{X}	Sd	Decision
1.	Ensuring that food are well prepared to avoid food poisoning which can lead to health problems such as kidney failure and death.	138	129	32	37	3.10	0.614	Agree

2. Ensuring that food are properly served in a clean environment to avoid food poisoning.	135	136	31	34	3.11	0.771	Agree
3. Checking to ensure that the risk of consuming contamination food is avoided.	136	142	26	32	3.14	0.658	Agree
4. Preventing germs from multiplying in foods and reaching dangerous levels.	140	131	30	35	3.12	0.693	Agree
5. Ensuring that only healthy food is prepared and served to prevent the cost of medical services.	135	138	33	30	3.13	0.710	Agree
Average Mean					3.12	0.689	Agree

Table 1 shows mean scores of 3.10, 3.11, 3.14, 3.12, and 3.13 for items 1, 2, 3, 4 and 5 respectively. The average mean scores of 3.12 and a standard deviation of 0.69 shows that food services are agreed to be hygienic in relation to standard while preparing and serving the food by ensuring that food are well prepared to avoid food poisoning which can lead to health problems such as kidney failure and death, ensuring that food are properly served in a clean environment to avoid food poisoning, checking to ensure that the risk of consuming contamination food is avoided, preventing germs from multiplying in foods and reaching dangerous levels, and ensuring that only healthy food is prepared and served to prevent the cost of medical services.

Research Question Two: How has government policies and regulations of food services determined the health benefit of the school meals to the children?

Table 2 shows teachers' response to items on government policies and regulations of food services from the questionnaire.

Table 2: Mean (X) and Standard Deviation (SD) of responses of Teachers towards Government Policies and Regulations of Food Services

Government Policies and Regulations	SA	A	D	SD	\bar{X}	Sd	Decision
6. Strictly following approve recommendations on food safety matters.	135	131	36	34	3.09	0.624	Agree
7. Providing sustainable financial support for food safety management committee and its programmes in schools.	128	136	35	37	3.06	0.781	Agree
8. Collaborating, coordinating and forming partnership with stakeholders to ensure food safety so as to address pupils' health.	136	133	32	35	3.10	0.648	Agree
9. Providing technical support as well as necessary directives to advance effective food safety system in the schools.	131	138	31	36	3.08	0.713	Agree

10. Conducting regular monitoring and evaluation of the implementation of the food safety system.	134	129	358	38	3.07	0.632	Agree
Average Mean					3.08	0.680	Agree

Table 2 shows mean scores of 3.09, 3.06, 3.10, 3.08 and 3.07 for items 6, 7, 8, 9 and 10 respectively. The overall mean scores of 3.08 and a standard deviation of 0.68 shows that the respondents agreed that government policies and regulations of food services determine the health benefit of the school children through strictly following approve recommendations on food safety matters, providing sustainable financial support for food safety management committee and its programmes in schools, collaborating, coordinating and forming partnership with stakeholders to ensure food safety so as to address pupils' health, providing technical support as well as necessary directives to advance effective food safety system in the schools, and conducting regular monitoring and evaluation of the implementation of the food safety system.

Ho₁: There is no significant relationship between food services hygiene and government policies and regulations of food services in public primary schools in Federal Capital Territory, Abuja.

Table 3 shows items on significant relationship between food services hygiene and government policies and regulations of food services as calculated using SPSS.

Table 3: Test of Significant Relationship between Food Services Hygiene and Government Policies and Regulations of Food Services

Variables	n	\bar{X}	Sd	df	r	*p-value	Decision
Food services hygiene	336	3.12	0.69				
				12	0.346	0.00	Significant
Government policies and regulations of food services	336	3.08	0.68				

**(P<0.05 level of significance)*

Table 3 shows the results of the test of significant relationship between food services hygiene and government policies and regulations of food services in elementary schools in Federal Capital Territory, Abuja. The coefficient obtained was 0.346, with a p-value = 0, which is less than the critical value at 0.05 level of significance and degree of freedom = 12. Therefore, the null hypothesis was rejected. This meant that there is a significant relationship between food services hygiene and government policies and regulations of food services in elementary schools in Federal Capital Territory, Abuja.

Discussion

Analysis of research question one (Table 1) established that the food services are determined to be hygienic by ensuring that food are well prepared to avoid food poisoning, ensuring that food are properly served in a clean environment, checking to ensure that the risk of consuming contamination food is avoided, preventing germs from multiplying in foods, and ensuring that only healthy food is prepared and served to pupils. This agrees with the work of Kibret and

Abera (2012) who posited that proper storing food or drink best reduces the risk of consumers becoming sick from the food-borne disease. Adrian (2020) also stated that food poisoning is avoided by following standard safety measures.

Analysis of research question two (Table 2) affirmed that government policies and regulations enhance the pupils' health benefit through strictly following approved recommendations on food safety, providing sustainable financial support for food safety committee, collaborating and forming partnership with stakeholders, providing technical support to advance effective food safety system, and conducting regular monitoring and evaluation of the implementation system. This agrees with the position of the Ministry of Health (2014), as well as Polonsky et al. (2018) who explained that government regulations promote food safety in schools.

Conclusion

Based on the above, the paper concludes that there is a significant relationship between food services hygiene and government policies and regulations of food services in public primary schools in Federal Capital Territory, Abuja. Also, food services are considered to be hygienic by ensuring that food are well prepared to avoid incidences of health problems such as kidney failure and death, ensuring that the risk of consuming contamination food is avoided, preventing germs from reaching dangerous levels, and ensuring that only healthy food are served. Also, the food services enhance the health benefit of the pupils through strict adherence to approved recommendations on food safety matters, providing sustainable financial support to safety management committee in schools, collaborating and forming partnership to ensure food safety, providing technical support to advance effective food safety system and conducting regular monitoring and evaluation of the implementation of the food safety system.

Recommendations

Based on the findings, the following are recommended:

1. There should be great efforts towards ensuring that food is continuously prepared and served in a clean environment, and also contamination of food should be avoided through close monitoring and supervision of preparation process so that germs can be prevented from food prepared and served to the pupils.
2. Government regulatory agencies should ensure that the policy framework of school feeding strictly follows the approved recommendations on food safety matters, provision of adequate financial support and forming formidable partnership with stakeholders for effective food safety system, as well as ensuring regular monitoring and evaluation of the system.

References

- Adrian, H. (2020). Why is Food Hygiene Important? Retrieved 15th March, 2021 from <http://www.hygienefoodsafety.org>
- Azubuikwe, O. C., & Mbah, P. E. (2019). Challenges of child nutrition: An analysis of school feeding programmes (SFP) in South Eastern Nigeria. *Savanna Journal of Basic and Applied Sciences*, 1(1), 104-110
- Check, J., & Schutt, R. K. (2016). *Research methods in education*. Thousand Oaks, CA: Sage Publications.
- Duffy, G. (2009): *School Feeding Programme in Senegal*. Senegal: World Food Programme's Office.

- Falade, O. S., Otemuyiwa, I., Oluwasola, O., Oladipo, W., & Adewusi, S. A. (2012). School feeding programme in Nigeria: The nutritional status of pupils in a public primary school in Ile-Ife, Osun State, Nigeria. *Food and Nutrition Sciences, 3*, 596-605.
- FAO's Economic and Social Development Department (2013). *The state of food insecurity in the world: High prices and food security-threat and opportunities*. United Nations: Food and Agriculture Organization (FAO).
- Federal Ministry of Education (2018). Nigeria digest of education statistics. Retrieved 15th March, 2021 from <http://www.education.gov.ng>
- Federal Ministry of Health (2014). National policy on food safety and its implementation strategy. Retrieved 15th March, 2021 from <http://www.health.gov.ng>
- Food Research and Action Centre (2019). School meals are essential for student health and learning. Retrieved 15th March, 2021 from <http://www.FRAC.org>
- Frisvold, D. E. (2015). Nutrition and cognitive achievement: an evaluation of the School breakfast program. *Journal of Public Economics, 124*, 91–104.
- Gliem, J. A., & Gliem, R. R. (2003) Calculating, interpreting, and reporting Cronbach's Alpha reliability coefficient for Likert-type scales. Retrieved 15th March, 2021 from <https://www.researchgate.net/publication/31591315>
- John, W. B., & James, V. K. (2003). Research in education (9th). New Jersey-USA: Prentice-Hall Inc. Retrieved on 14th March, 2021 from <http://connect.educause.edu/Library/>
- Kawafha, M. (2013). Impact of skipping breakfast on various educational and overall academic achievements of primary schoolchildren in Northern of Jordan. *Journal of Basic and Applied Sciences, 7*(7), 155–160.
- Kibret, M., & Abera, B. (2012). The Sanitary Conditions of Food Service Establishments and Food Safety Knowledge and Practices of Food Handlers in Bahir Dar Town. Retrieved on 14th March, 2021 from <https://www.researchgate.net/publication/230864901>
- Lotich, P. (2019). The thriving small business. Retrieved on 14th March, 2021 from <http://www.thethrivingsmallbusiness.com>
- New Partnership for Africa's Development (2009). Home-grown school feeding programme: A concept. Retrieved on 14th March, 2021 from <http://www.africaunion.org>
- Polonsky, H. M., Davey, A., Bauer, K. W., Foster, G. D., Sherman, S., Abel, M. L., Dale, L. C., & Fisher, J. O. (2018). Breakfast quality varies by location among low-income ethnically diverse children in public urban schools. *Journal of Nutrition Education and Behavior, 50*(2), 190–197.
- Walida, S. A. (2010). An analytical study of the home-grown school feeding in educational system in FCT and Nasarawa State schools. Unpublished M.Ed Thesis of Department of Educational Administration and Planning, Faculty of Education, National Open University of Nigeria.