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STATUS OF SCHOOL MEAL PROGRAMME IN SELECTED SECONDARY SCHOOLS IN CALABAR MUNICIPALITY, CROSS RIVER STATE, NIGERIA

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ABSTRACT

Purpose: This paper sought to assess the status of school feeding programme in secondary schools in Calabar, Cross River State in relation to the School Health Programme implementation guidelines. **Methodology:** Two hypotheses were formulated to guide the study. The study employed the descriptive survey design. The multi-stage sampling technique was adopted to select a total of 314 SS2 students, 100 teachers and 20 principals from 20 schools (10 public and 10 private) and 2 policy makers to make up the sample size of 436. A well validated questionnaire, key informant interview guides and observation checklist developed by the researchers were used to collect both qualitative and quantitative data from respondents. **Results:** The two hypotheses formulated were tested with Population and independent t-test. The results of data analysis were presented in tables and figures. The results of the study revealed that a significant difference exist between the School Health Programme implementation guidelines and the school feeding programme in schools (P = 0.000) and that school ownership does not significantly influence the implementation of school feeding programme (P = 0.329 and 0.678). The school feeding programme was observed to have suffered great deprivation because only one (5%) school (private) was observed to be serving school lunch, only 3 (15%) schools (one public and 2 private) had school canteens, as much as 8 (40%) schools (all public schools) were patronizing indiscriminate hawkers and only 7 (35%) schools (3 public and 4 private) were conducting regular inspection of foods sold by vendors. **Recommendations:** The state government should take the bull by the horn and launch the school meal programme in the state and ensure its implementation in all public schools as a model for the private schools owners to follow suit. All schools should form school health committees whose duty will be to look into the modalities for the effective implementation of school meal programme.

KEYWORDS: School health programme, school meal/feeding programme, implementation guidelines.

INTRODUCTION

School feeding services is a very important component of School Health Programme (SHP) because of the close relationship between nutrition and learning. Nutrition experts over the years have linked good feeding to improved academic achievement and health of learners now and later in life (Moronkola, 2012). According to Olsen and Allensworth (2012), this is the arm of SHP which creates opportunity for learners to receive adequate diet and nutrition information. The school environment is organized in such a way that students are encouraged to consume healthy foods. The programme provides suitable eating places for both students and staff with adequate time given for eating to avoid hurried consumption of meals. It is also necessary to have a laboratory for food demonstration and other nutrition activities. The school feeding services in the Implementation guidelines on SHP is recognized as a strategy for improving school enrolment, regularizing attendance, ensuring retention, completion and learning achievement among pupils (Kupony & Amoram, 2016).

As a way forward to the achievement of "Universal Basic Education (U.B.E)" and the realization of the "Sustainable Development Goals (SDGs)" in Nigeria, the President of the country launched a programme to promote school feeding called the "Home Grown School Feeding and Health Programme (HGSFHP)" alongside with a "National Guidelines for School Meal Planning and Implementation" in 2005. The major aim of the school feeding services is to provide learners with a daily supplementary adequate meal aimed at improving their health and nutritional status and enhancing effective learning and achievement (F.M.O.E[2], 2006 and Hart, 2016). It also affords the teachers opportunity to teach learners hygiene and nutrition. Njoku (2007) stressed

that UNICEF specifically supported the launch of the school meal programme because it has the advantage of reducing malnutrition and hunger among school children.

The guideline for school meal provided clear directions for planning and implementing the school feeding programme in schools which includes the provision of at least an adequate meal per day (breakfast or lunch), maintaining sanitation and hygiene practices among food handlers including routine medical examination and vaccination, promoting food fortification, supplementation and dietary diversification, carrying out regular de-worming of the pupils, and the delivery of regular nutrition education (FMOE & UNICEF, 2007 and Kadinge and John, 2014).

Fisher, Hunt, Kann, Kolbe, Patterson, and Wechsler (2010) observed that several research results in U.S of America points to the fact that the school environment encourage youths to consume unhealthy diets and thus, exposing them to the risk of obesity. They opined that schools occupy a unique position which gives them opportunity to promote health by providing healthy diets and nutrition information. They also pointed out that the child nutrition and re-authorization act of 2004 require schools to provide school lunch or breakfast for their learners and to develop principles that will ensure safety of all foods available on school campuses. Whereas Ministry of Education (MOE) and United Nations Educational, Scientific and Cultural Organizations (UNESCO) (2010) stated that most countries have implemented the school food services, the reverse is the observation by researchers in Nigeria. According to MOE and UNESCO (2010), nations and states such as Iran, Malaysia, Bangladesh, Philippines, Pakistan, US, and India to mention but a few have long implemented the programme and are thus serving mid-day meals in schools and carrying out regular de-worming for children. They pointed out that this programme has led to improvement in health status of students and subsequent improvement in enrolment, retention and learning achievement especially in rural settlements where there are more economically deprived dwellers.

The study of Nwachukwu (2003) in Nigeria revealed a poor implementation of this component of SHP. According to the study results, only 24% of the students sampled, indicated that their school serve mid-day meals, 56% of them indicated they obtain mid-day meals from hawkers and only 18% of them indicated that their school carry out food inspection. According to the study, this could be tantamount to exposing the students to the risk of food-related infections.

The FMOE[1] (2006) stated that most schools in Nigeria are now aware of the food and nutrition policy. However they reported that only 17% of the schools assessed/screened their food handlers. Corroborating the FMOE's report, Ofovwe and Ofili (2007) observed that though 92.5% of all the schools they sampled had school meal policy, only 16% of them – 20.2% of private and 3.4% of public schools actually carry out medical examination for their food handlers. The school meal policy has not fully been implemented because most students were observed to be obtaining their mid-day meals from hawkers and other food vendors. None of the schools sampled had school canteen.

The MOE and UNESCO (2010) report has it that "Fit for school" programme and a food and nutrition programme was implemented in schools in Philippines. With this programme, they intervened in ensuring: every learner is served with a daily ration of nutritious meals which has helped to boost their academic performance. Students now carry out daily supervised hand washing with soap before break, daily supervised tooth brushing with fluoride toothpaste, and the conduct of bi-annual de-worming of all children. Evaluation of this programme revealed reduction in the rate of diarrhoea and respiratory tract infections by 30% to 50%, reduced rate of teeth and mouth infections by 40% to 50%, reduction in helminthic infections by 80%, reduction in the number of stunted and underweight children by 20% and an increase in school attendance by 20% to 25%.

It has been about a decade since the launch of school feeding programme in Nigeria. What the level of implementation is as provided in the guidelines? Is the implementation observed across different ownership of schools? These are some of the questions that necessitated this study.

METHODOLOGY

Study setting

The study was carried out in 'Calabar Municipality', one of the 18 Local Government Areas (LGA) in Cross River State. Records from the Secondary School Education Board and the Inspectorate Department of Ministry of Education Calabar, revealed that as at June 2015, there were 15 public and 36 private secondary schools in Calabar Municipality, bringing it to a total of 51 secondary schools.

This study was aimed at determining the status of school feeding programme in secondary schools in Calabar Municipal in relation to the implementation guidelines. The study was delimited to Senior Secondary Two (SS2) students, teachers of health-related subjects (health and physical education/nutrition/ agriculture/biology/integrated science), principals of the secondary schools and policy makers in the State Ministry of Health.

Study design/population

A descriptive survey design was adopted for the study. The study population consisted of all students, teachers and principals in private and public secondary schools in Calabar Municipality (14,502 students, 998 teachers and 15 principals – records only available for public schools) and policy makers in the state ministry of health.

Sample size determination
The sample size was determined using the formula for Dichotomous descriptive study as cited in Ejemot-Nwadiaro (2009). The sample size for students was 314 while that of teacher was 101. The principals of all the 20 selected secondary schools were interviewed as well as two policy makers from the State Ministry of Health. That made up the sample size to 437.

Sampling procedure/Instruments for data collection
The multi-stage sampling and the purposive sampling techniques were used for this study. The multi-stage sampling technique was applied for selection of Local government area (LGA), selection of schools, selection of students and selection of teachers while purposive sampling technique was used to select principals and policy makers. The instruments for data collection were a well validated questionnaire called the School Health Programme Questionnaire (SHPQ), key-informant interview guide and a guide for observation.

Data collection
The quantitative data were collected from 300 students (out of the 314 students enumerated – 96% response rate) and 100 teachers (out of the 101 enumerated - 99% response rate) with the use of copies of the questionnaire. Qualitative data were collected from twenty (20) principals and two (2) policy makers using the key informant interview guides and from the school directly during a physical observation exercise in the 20 selected schools.

Data analysis
The data collected from the field were collated and checked to ensure completeness and accuracy in documentation. The questionnaire responses for the different components of school meal programme were scored and then t-test used to test for the transformed data set from discrete to continuous. Qualitative data from the key informant interviews were exactly transcribed into word documents and transcripts and notes analyzed by themes; while the qualitative data from observation checklist were assessed against Implementation guidelines on SHP. Data were organized and presented in frequencies, percentages, tables and figures. The transformed data were analyzed using t-test and reported as means and standard deviations.

Ethical consideration
Ethical approval was obtained from the Ethics Board of the Cross River State Ministry of Health, Calabar. The respondents/key informants were presented with the study objectives and were informed of their freedom to participate in the study or to opt out. Their permission was sought and verbally obtained. All respondents were assured of confidentiality and anonymity.

RESULTS

Respondents' characteristics
Female students (56.3%) were more than males (43.7%); likewise female teachers (65%) were more than males (35%). However, among the 20 principals, 55% were males and 45% were females. The two policy makers were made of a male and a female (Table 1).

Students aged between 15 – 17 years constituted majority (62%) of the respondents while those 18years and above were the least (4.3%).

Status of school feeding services in private and public secondary schools
Whereas 28% teachers and 37.6% students from private schools reported that they had school canteens, only 10% teachers and 28.7% students from public schools reported same. Those who reported that their schools usually serve breakfast/lunch to students were 14% teachers and 12.1% students from private schools and 3.5% students from public schools. Students' patronage of indiscriminate hawkers was reported by 18% of teachers and 21.7% of the students from private schools and 56% teachers and 58% students from public schools; while 38% of the teachers and 31.2% students from private schools and 30% teachers and 43.4% students from public schools said their schools usually carry out regular inspection of food vendors' products. In the same vein, only a few teachers (22%) from private schools and 6% from public schools and 13.4% students from private schools and 21.7% from public schools reported that their food vendors were made to undergo regular medical examination (Tables 2 and 3).

Table 1: Respondents' characteristics.

Characteristics	Private schools		Public schools		Total	
	n	(%)	n	(%)	n	(%)
Students:						
Gender:						
Males	86	(28.7)	45	(15.0)	131	(43.7)
Females	71	(23.6)	98	(32.7)	169	(56.3)
Total	157	(52.3)	143	(47.7)	300	(100)
Age:						
12 - 14 years	76	(25.4)	25	(8.3)	101	(33.7)
15 - 17 years	77	(25.7)	109	(36.3)	186	(62.0)
18 years and above	4	(1.3)	9	(3.0)	13	(4.3)
Total	157	(52.3)	143	(47.7)	300	(100)
Teachers:						
Gender:						
Males	25	(25)	10	(10)	35	(35)
Females	25	(925)	40	(40)	65	(65)
Total	50	(50)	50	(50)	100	(100)
Principals:						
Gender:						
Males	8	(40)	3	(15)	11	(55)
Females	2	(10)	7	(35)	9	(45)
Total	10	(50)	10	(50)	20	(100)
Policy makers:	Ministry of Health					
Gender:						
Males	1					
Females	1					

Figures in parenthesis are percentage.

Table 2: School meal component in private schools.

Item	Number of students	(%)	Number of teachers	(%)
Availability of school canteen				
Yes	59	(37.6)	14	(28)
No	98	(62.4)	36	(72)
Total	157	(100)	50	(100)
School breakfast or lunch served to students				
Yes	19	(12.1)	7	(14)
No	138	(87.9)	43	(86)
Total	157	(100)	50	(100)
Patronage of indiscriminate hawkers				
Yes	34	(21.7)	9	(18)
No	123	(78.3)	41	(82)
Total	157	(100)	50	(100)
Conduct of regular inspection of food vendors products				
Yes	49	(31.2)	19	(38)
No	108	(68.8)	31	(62)
Total	157	(100)	50	(100)
Regular medical examination by food vendors				
Yes	21	(13.4)	11	(22)
No	136	(86.6)	39	(78)
Total	157	(100)	50	(100)

Figures in parenthesis are percentage.

Table 3: School meal component in public schools.

Item	Number of students	(%)	Number of teachers	(%)
Availability of school canteen				
Yes	41	(28.7)	5	(10)
No	102	(71.3)	45	(90)
Total	143	(100)	50	(100)
School breakfast or lunch served to students				
Yes	5	(3.5)	0	(0)
No	138	(96.5)	50	(100)
Total	143	(100)	50	(100)
Patronage of indiscriminate hawkers				
Yes	83	(58)	28	(56)
No	60	(42)	22	(44)
Total	143	(100)	50	(100)
Conduct of regular inspection of food vendors products				
Yes	62	(43.4)	15	(30)
No	81	(56.6)	35	(70)
Total	143	(100)	50	(100)
Regular medical examination by food vendors				
Yes	31	(21.7)	3	(6)
No	112	(78.3)	47	(94)
Total	143	(100)	50	(100)

Figures in parenthesis are percentage.

Test of hypotheses

The result of t-test analysis for the responses of teachers and students for hypothesis one which states that, the school meal programme in secondary schools in the study area does not significantly differ from the implementation guidelines revealed a calculated t value of 9.198 for teachers' responses and 15.311 for students' responses. These values were higher than 1.960 which is the critical t value at 0.05 level of significance (P = .000), thus the null hypothesis was rejected. Implying that, there is a significant difference between the actual implementation of school meal programme in secondary schools in Calabar Municipality and the implementation guidelines on national SHP (Table 4).

Analysis of data for hypothesis two which states that, the status of school meal programme in secondary schools in Calabar Municipality is not significantly influenced by school ownership (public/private) revealed calculated t values (for both teachers' and students' responses) of 3.933 and 1.614 at 0.05 level of significance with df of 98 and 298. The null hypothesis was upheld, which implies that the implementation of school meal programme in secondary schools in Calabar Municipality is not significantly influenced by school ownership (P = 0.678 and 0.329) (Table 5).

Table 4: Difference between the SHP implementation guidelines and school feeding programme in schools.

Variable	N	DF	Mean	μ	SD	t	P-value
Teachers' responses:							
SHP in secondary schools	100	99	1.37	0.28	1.185	9.198	0.000
Students' responses:							
SHP in secondary schools	300	299	1.50	0.49	1.142	15.311	0.000

P < at 0.05, Critical t = 1.960

Table 5: Influence of school ownership on the school feeding component of SHP in secondary schools.

Variable	N	DF	Mean	SD	T	P-value
School feeding:						
Teachers:						
Private schools	50	98	1.84	1.315		
					3.933	0.329
Public schools	50		0.9	1.005		
Students:						
Private schools	157	298	1.605	1.202		
					*1.614	0.678
Public schools	143		1.392	1.081		

P < at 0.05, DF 98 for teachers and 298 for students, Critical t = 1.960; * P > at 0.05.

Observation results on school feeding programme

The results revealed that up to three schools (15%) had school canteens (1 public and 2 private), only one school (private) (5%) had school meal programme, students from eight schools (40% - all public schools) patronized indiscriminate hawkers, seven schools (35% - 3 public and 4 private) organize regular inspection of food/snacks sold in the school and two schools (10% - 0 public and 2 private) insist on medical examination of their food vendors (Figures 1 and 2).

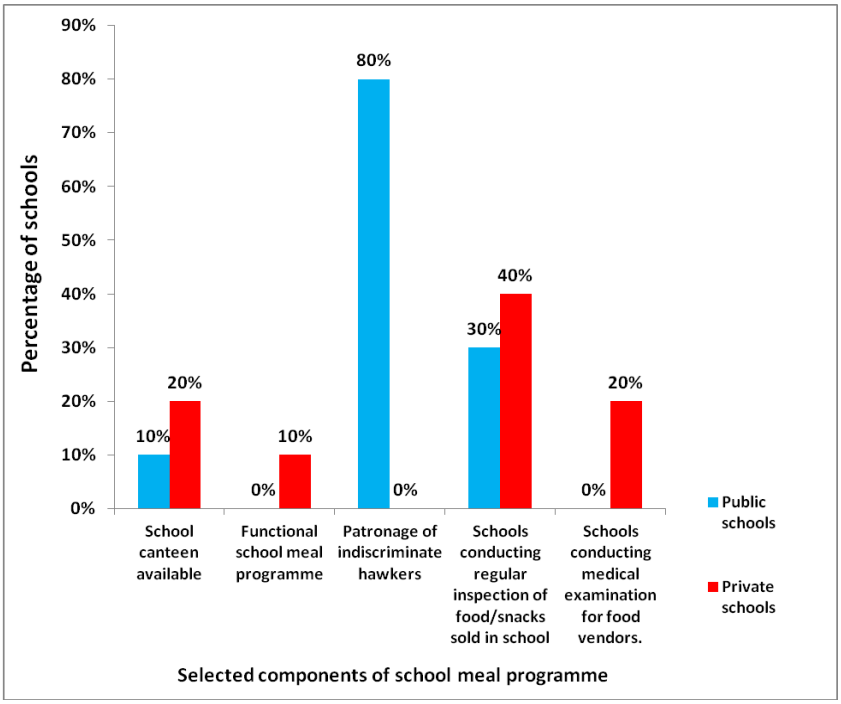

Fig. 1: School feeding programme in private and public secondary schools in Calabar Municipal as observed.

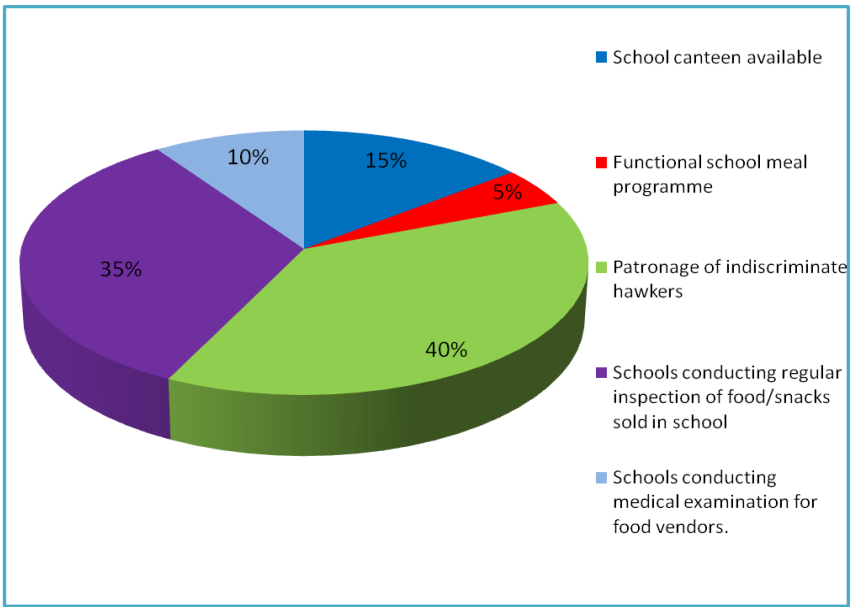

Fig. 2: School meal programme in the secondary schools as observed.

DISCUSSION

The data gathered revealed an obvious deviation from the implementation guidelines which recommended that schools should provide one nutritionally adequate meal each school day for all school children (FMOE[2], 2006 and Hart, 2016) because only one of all the schools sampled was observed to be serving lunch time meals to the students. During the interview session with the school principal, he said: "*we only serve indomie and for just twice a week*". This indicated a deviation from the recommended nutritionally adequate diet. One principal, when asked about the school meal programme (during the interview session), laughed hilariously and said: *"I have heard it on radio but I have not seen it yet"*. If the schools had school canteen to monitor what the students buy and eat, it could have helped matters, but only a few

schools (15%) had school canteen and only one of the three schools (5%) subject the food vendors to regular medical examination.

At variance with this result is the report made by MOE and UNESCO (2010) which stated that nations and states such as Iran, Malaysia, Bangladesh, Philippines, Pakistan, US and India to mention but a few have long implemented the school meal programme and are thus serving daily mid-day meals in their schools. This result rather agrees with the report made by Nwachukwu (2003), who observed a poor implementation of the school meal component of SHP. According to the author only 24% of the schools sampled serve mid-day meals, 56% of schools allow their students to patronize hawkers whereas only 18% of schools inspect food sold by hawkers. The result is also consistent with the report made by the FMOE[1] (2006) that only 17% of the schools assessed screen their food handlers and that of Ofovwe and Ofili (2007) who observed that only 17% of schools undertake medical examination of food handlers and that students were generally observed to be getting their mid-day meals from hawkers and other food vendors.

Despite the remark by Nwachukwu (2003:89) and corroborated by Buttenheim Alderman and freedman (2011) that "allowing food hawkers to do business in schools, without ensuring that the hawked food items are in good hygienic condition through constant inspection is tantamount to exposing the students to the risk of food-related infections", up to 40% of school principals accepted that their students patronize indiscriminate hawkers. When asked, one of the school principals said: *"how can you control them when the school is not fenced? We do the little we can and leave the rest to God."* This is a proof of low self efficacy on the part of the school administrators; thus, they will benefit from intervention programmes to boost their self efficacy.

The result for the t-test analysis of teachers' responses revealed a significant influence of school ownership while that of students' responses revealed a non significant influence. It is possible that teachers may have given responses to protect their integrity and that of the school while the students tried to be more realistic. This is obvious from the qualitative data which revealed availability of canteens in 10% public and 20% private schools, functional school meal programme in none of the public and 10% private schools, patronage of indiscriminate hawkers in 80% of public and none of the private schools, regular inspection of food and snacks in 30% public and 40% private schools and regular medical examination for food vendors in nil public and 20% private schools. This result is consistent with the findings of Ofovwe and Ofili (2007) who observed that none of the schools (private and public) had implemented the school meal programme, as such their students were observed to be patronizing food vendors. According to them, despite the high patronage for food vendors observed, only 20% of the private schools and 3.4% of public schools undertook medical examination for the vendors.

CONCLUSION

The researchers conclude that there is an obvious short-fall of the school meal programme in secondary schools in Calabar Municipality, Cross River State from the implementation guidelines and that school ownership significantly influenced the status of school meal programme in secondary schools favouring privately owned schools.

RECOMMENDATIONS

1. All schools should form school health committees whose duty will be to look into the modalities for the effective implementation of school meal programme.

2. A copy of the national policy on SHP and the implementation guidelines should be made compulsory documents for all schools to guide programme implementation.

3. The government should ensure that no one gets approval to operate a school without ensuring the availability of essential facilities for SHP including the school meal programme.

4. To boost the nutritional status of students and ensure a future healthy work-force for the nation, the state government should take the bull by the horn and formally launch the school meal programme in the state and ensure its implementation in all public schools as a model for the private school owners to follow suit.

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