

# A Qualitative Study on Status of Implementation of School Health Programme in South Western Nigeria: Implications for Healthy Living of School Age Children in Developing Countries

Oluwakemi M. Ademokun<sup>1</sup>, Kayode O. Osungbade<sup>1</sup>, Taiwo A. Obembe<sup>1,\*</sup>

Department of Health Policy and Management, University of Ibadan, Ibadan, Nigeria

\*Corresponding author: tobems@yahoo.com

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**Abstract** Over the past decade, effective school health programme has attracted much attention in addressing various issues pertaining to school age children. This study assessed the implementation of school health programme in selected public secondary schools in Ibadan metropolis, Nigeria. Key informant interviews of 21 school head teachers were conducted while observational checklist/proforma was used to document the components of school health programme being implemented. Data from key informant interviews were analyzed using thematic approach. The assessment of the implementation of the various components of the school health programme revealed that school-feeding services and sanitary conditions could be better implemented in majority of the schools. Implementation was poor, most especially in the areas of school health services and healthful school environment. Reported reasons for poor implementation from key informant interviews were lack of funds and inadequate health facilities. Concerted efforts are required to intensify awareness campaign on National School Health Policy. The implementation of School Health Programme should be strengthened through advocacy to relevant stakeholders for provision of funds and health facilities.

**Keywords:** school health policy, school health program, implementation, public secondary schools

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## 1. Introduction

School health programme (SHP) is an important component of the overall health care delivery system of any country. Next to the family, the school is the primary institution responsible for the development of young people all over the world. The school has direct contact with more than 95 percent of the nation's young people aged 5–17 years, for about 6 hours a day, and for up to 13 critical years of their social, psychological, physical, and intellectual development [1]. 'School age children (6-14 years) constitute about 23% of the population of the average Nigerian community. Although, largely dependent and not considered productive in terms of income generation, their health status and indices are used to determine a nation's state of development' [2].

Despite this, up to half of all school children in developing countries suffer from anemia with substantial evidence linking anemia with impaired cognitive abilities [3] and school health programs in sub-Saharan Africa have continued to reveal obvious gaps in implementation of school policies.

Without a doubt, the advantages of an effective school health service cannot be over-emphasized. When effectively managed, school health services have yielded significant contributions in school based health programs [4,5,6]; health related interventions [7] feeding [8], smoking cessation programs [9], in primary prevention of cardiovascular disease in children [10] and in detecting large citywide epidemics [11]. The inter-related linkage between proper school health and academic performance, oral health and other long term outcomes and vice versa is therefore worthy of note and of paramount significance.

Besides augmenting the care for the populace, research indicates that effective school health policy helps to increase school attendance and academic performance, decrease school drop-out rates [12,13]. In a study conducted in Bangladesh, a school sanitation project alone helped boost girls' school attendance 11 per cent per year, on average, from 1992 to 1999 [14].

The National School Health Policy was introduced in 2006 to improve the state of school health services in the country. [15] Sadly, despite the facts established that emphasize the advantages of school health services, the embrace of proper and effective services in schools are yet

to be fully imbibed [16]. In a study carried out in Southwestern Nigeria, communicable diseases was significantly controlled while there was a neglect of health appraisal, follow up services, emergency care and first aid services [17].

Prior to the formulation of the National School Health Policy in 2006, there had been a gross neglect of School Health Programme in Nigeria. A national study of the school health system conducted by the World Health Organization in collaboration with the Federal Ministry of Health and Federal Ministry of Education revealed that health care services in schools were sub-optimal [15]. A high proportion (80%) of head teachers did not know that pre-admission medical examination should be made compulsory in their schools. Screening of food handlers was not seen as an activity to be carried out before they are employed in schools due to the fact that the screening was done only in 17% of schools. A high proportion (83%) of the schools did not have school nurses and only smaller proportions (6%) of the schools have linkages with government-designated clinics. Moreover, most of the schools had inadequate environmental health facilities with only 25% of the schools having ventilated pit latrine and just 46% had pipe-borne water or bore hole [15].

Ever since, there have been very few studies that have re-assessed the knowledge of teachers or implementation of the policy in secondary schools in Nigeria. There is no available report on the assessment of National School Health Policy and School Health Programme. This study thus becomes highly imperative because it will provide information on the level of implementation of SHP in selected public secondary schools in Ibadan, Oyo-State. Furthermore, improving implementation of school health services and programmes will impact positively school age morbidity and mortality statistics and help in the achievement of Health for All (HFA) declaration; education and health Millennium Development Goals precisely through MDG Goals 2 - achievement of universal primary education; 4 - Reduction of child mortality; and 6 - Combatting HIV/AIDs, malaria and other diseases, significantly [18].

## 2. Methods

### 2.1. Study Area

Study was conducted in Ibadan, the state capital of Oyo State in Southwestern Nigeria. According to the 2006 National Population Census, the population of Ibadan was about 1,835,300. The Inhabitants of Ibadan are predominantly Yoruba by tribe. Other ethnic minorities include Igbo, Urhobos, Edos, Efiks and Hausas. There are 11 Local Government Areas (LGAs) in Ibadan. Five of these LGAs are urban while the remaining six are located in the rural areas. This study focused on the principals of schools in the urban local government areas of Ibadan, which are Ibadan North, Ibadan North-East, Ibadan North-West, Ibadan South-East and Ibadan South-West Local Government area by purposive selection. Sampling frames for all the school in each local government was initially obtained and by proportional allocation, principals of selected schools were approached to participate in the study.

### 2.2. Ethical consideration

Ethical approval to conduct the study was obtained from the UI/UCH Ethical Review Committee. A written permission was obtained from the Oyo State Ministry of Education; in addition, a written informed consent was obtained from the participating school head teachers. Participation was voluntary; interview was conducted in a setting that ensured privacy and confidentiality of divulged information. There was no identifier on the interview recordings and observational checklists. The participants were thoroughly explained to the whole research process in addition to the written permission from the Oyo State Ministry of Education. In obtaining consent to participate in the study, confidentiality was re-assured in line with the approved procedure for obtaining consent to participate in the study. This was achieved by the use of codes on the forms that participants filled rather than their names. Participants were in no way coerced to participate but absolute honesty in answering the research questions was solicited for.

### 2.3. Study Instruments

Study instruments used to elicit and collect data were with 'Key informant Interview' (KII) guides and 'Observational checklists'.

The KII guide was developed from the review of relevant literatures [19]. The KII guide was administered to principals of the selected schools. The KII guide had 14 main questions. The questions were constructed to provide information on: awareness of the National School Health Policy and School Health Programme, the roles of government parastatals in the implementation of School Health Programme, the status of implementation of the components of the School Health Programme in their schools, the facilitators and constraints affecting the implementation of the programme, and suggestions to facilitate the successful implementation of the programme.

The observational checklist, a standard checklist adapted from literature, was used to assess the status of implementation of the four components of the School Health Programme in the selected schools. The four components were 'Healthful School Environment', 'School Health Services', 'Skill Based Health Education' and 'School Feeding Services'.

### 2.4. Data Collection, Analysis and Management

Interviews were tape-recorded with permission of the principals in addition to jotting of side-notes from time to time. Interviews were in entirety conducted in English as all principals interviewed could communicate freely in English. Taped interviews were transcribed punctiliously with texts analyzed using the thematic approach. After repeated listening to the tape recordings in a bid to ensure credibility of the findings, an independent coder was also employed to ratify findings extracted from the interviews. Transcripts from the data were interpreted with thematic approach; Main themes and sub-themes are discussed below in subheadings and illustrated by quotes.

The level of implementation of the school health programme was assessed using observational checklist. Items were given graded scores if such question was

meant to ascertain both presence and level of appropriateness of the options e.g. 0-3, 4, 5 etc. depending on the number of items in the question. In others, one [1] point was scored for each available item where the question only required a check for the presence or availability of such item. The maximum obtainable score for all the items on the observational checklist on the components of the School Health Programme, which included “healthful school environment”, “school feeding services”, “skill based health education” and “school health services” was 145.

For each of the different items, the observational checklist with scores less than or equal to 39% of the maximum obtainable score (MOS) were categorized “Poor”; schools with scores that fell within 40-59% of the maximum obtainable score were categorized as “Fair” and schools with scores above or equal to 60% of the maximum obtainable score were categorized as “Good”.

Thus, for School Health Services with an MOS of 36, scores lower than 14 was classified as ‘poor’; scores between 15-21 were classified as ‘fair’ and scores above 22 were classified as ‘good’. For School based Health Education at an MOS of 20, scores lower than 7 was classified as ‘poor’; scores between 8-12 were classified as ‘fair’ and scores above 20 were classified as ‘good’. Healthful School Environment had an MOS of 77, hence scores lower than 30 was classified as ‘poor’; scores between 31-45 were classified as ‘fair’ and scores above 46 were classified as ‘good’. School Feeding Services with an MOS of 12 was graded as ‘poor’ if scores were lower than 3; as ‘fair’ if scores fell between 4-7 and ‘good’ with scores above 12.

### 3. Results

#### 3.1. Key Informant Interview Report On National School Health Policy And School Health Programme

##### 3.1.1. Awareness of the 2006 National School Health Policy

Many of the school head teachers had never heard of the 2006 National School Health Policy. Few who were aware got to hear about it through the mass media. None of them had ever seen or read the policy document.

*“Yes, I got to hear of the 2006 National School Health Policy on a television broadcast on Nigerian Television Authority (NTA) station”.*

*“Yes, I heard of the 2006 National School Health Policy in the year 2010, I read about it in the dailies. I cannot remember correctly but I think I read about it in the Tribune Newspaper”*

*“I heard of the 2006 National School Health policy on a radio broadcast on school feeding services in Osun State”*

*“I heard it is being implemented in Osun state, I don’t know if they have started in Oyo state”*

##### 3.1.2. Awareness of School Health Programme in schools

All the respondents opined that they have school health programmes that they have been implementing but not

according to the minimum requirements stated in the 2006 National School Health Policy document.

*“How can we implement the school health programme according to the National School Health Policy, when the Ministry of Education has not sent delegates to our school to give us directives on how to go about it”*

##### 3.1.3. Allocation of Grant by Government Parastatals for the Implementation of the School Health Programme

Many respondents reported that there were no specific grants set aside by the government for the implementation of the school health programme. Widely accepted is the fact that a funding from the government that is explicitly targeted at implementation of the school health programme existed in the past. Others received funding from external sources such as parents and non-governmental organizations.

*“A stipend called ‘grant’ is given to the school by the Ministry of Education for the general maintenance of the school, out of which is used to stock the first aid box”.*

*“There used to be a grant from the Ministry of Education for the general maintenance of the school out of which is taken to implement the health programme but this has stopped for a while now”.*

*“There is no grant set aside for the implementation of the school health programme by the government but the Ministry of Education gives out grants for general maintenance of the school for instance the maintenance of the school buildings, repair of damaged windows, doors and buying of stationeries”.*

*“There is no specific grant for the implementation of the school health programme. The parents have been assisting in the implementation of the programme. For instance, one of the parents donated the drugs we have in the first aid box”.*

##### 3.1.4. Roles played by Government parastatals in the implementation of the School Health Programme

Government involvement in implementation of school health program ranged from minimal involvement to no involvement at all. Whilst the government was involved in positioning and funding of skilled personnel in some schools, for others, they were involved in supervisory roles or collaborative alliances with non-governmental agencies that have significant interest in the implementation.

*“Government parastatals have contributed in the implementation of the school health programme in our school. Here, we have a school clinic with health personnel e.g. local government matron, community health officer, and environmental health officer. These health personnel were posted to our school clinic from the local government but the State Ministry of Health pays them. The State Ministry of Health still came last year with the promise of supplying the clinic with drugs and also to renovate it. They also have the plan of constructing a hospital in the school that will have a resident doctor and nurses”.*

*“There is a collaborative effort between the various government parastatals; there is a grant from the Ministry of Education for the general maintenance of the school. The Ministry of Health plays supervisory roles by ensuring that the school food vendors are certified fit to*

*sell food that is consumed by the students and delegates are sent down to inspect their level of compliance whereas the Ministry of Environment sends delegates to inspect the neatness and cleanliness of the school environment. We usually invite the local government board council to the programmes or activities like inter-house sport competition organised in our school though they have been promising to assist the school but has not fulfilled any of their promises''.*

*"It is only the local government that assisted in building toilets for our school, there is no grant for the implementation of the school health programme by any of the other Government parastatals''.*

*"Government does not give us grant for the implementation of the school health programme but some organisations usually come with letters of permission from Ministry of Education to give health talks to the students''.*

*"Ministry of Education does not allocate grant to us for the implementation of the school health programme but they give out grant for the general maintenance of the school for instance the maintenance of the school buildings, repair of damaged windows, doors and buying of stationeries''.*

### **3.1.5. Implementation of the Components of the School Health Programme Healthful School Environment**

Nearly all the schools have school sanitation committee which ensures that the school environment is kept neat and clean but almost all the schools lack adequate environmental facilities like good toilet facilities with most of them using the pit system while some do not have toilet facilities at all. In some schools, the water system is available and kept exclusive for the teachers while the students use the pit system. The main source of water supply in almost all the schools is by wells; just a few have boreholes and pipe borne water as their sources of supply. Many of the schools do not have proper means of refuse disposal, they dispose off their refuse by burning or dumping in nearby bushes, only few have incinerators. Most of the schools have old building structures and the furniture used by students in their classes, though there are few with new structures under construction. Few schools have adequate environmental facilities, which were provided by the Ministry of Education or the Old Students Association.

*"Here we do not have good toilet facilities, our students defecate in surrounding bushes but there is a good toilet facility for the teachers. There is a well not very far from my office, which appears neat but the students do not take it, it is only used during sanitation, they buy sachets of water from the food vendors. We have a school sanitation committee that is in charge of keeping the school environment tidy, this is headed by the vice principal and we dispose of our refuse in a nearby bush''.*

*"This school lacks good toilet facility and the students defecate in the bush, though there is one under construction by the old students association. Our source of water supply is a well that is not fit for drinking so the students take sachets of water. There is a school sanitation committee responsible for keeping the school compound neat and tidy, the vice principal heads this committee. Our means of refuse disposal is by collecting the refuse together and burning''.*

Some respondents who claimed to have adequate environmental facilities in their schools had these to say:

*"There is a school sanitation committee that is responsible for keeping the school environment neat and clean, this usually takes place every Thursday. The means of refuse disposal is by disposing the refuse in the incinerator. There is a good toilet facility in place, which is a water system for both teachers and students; the government through the Ministry of Education is constructing more toilets for the school. Our source of water supply is a well that is well treated''.*

*"I can proudly say we have good environmental facilities here, our source of water supply is a well that is two in number; there is also a borehole under construction courtesy of the old students' association. There are good toilet facilities, a water system is used and there are at least ten on every block. There is a school sanitation committee that ensures the school environment is kept neat and clean. We get rid of our refuse by collecting the refuse together and burning''.*

### **3.1.6. School Feeding Services**

From the responses of the participants, it could be deduced that school-feeding services implemented in schools does not involve the Federal Government providing at least, one adequate meal a day to students as specified in the National School Health Policy document. However, several measures have been taken by the State Government through the State Ministry of Health to ensure students consume well cooked meals that are sold by food vendors who have undergone series of tests and trainings and are certified fit to sell food to the students. Majority of the respondents corroborated that in their schools; the food vendors must come with their certificates before they are employed in schools to sell food to the students. Subsequently, these food vendors renew their certificates by undergoing series of tests and trainings yearly. It was also specified in the 2006 National School Health Policy document, that there should be regular de-worming of students but from what the respondents declared, this has not been effective. Just a few were able to attest to doing anything as such, some of the respondents also said deworming students without the consent of the parents are against the laid down rules by the Government.

These are the typical statements of the respondents:

*"We do not give free meals to our students, they obtain their midday meals from food vendors who have undergone tests and trainings at Jericho Health Office under the Ministry of Health and are issued certificates before they can sell food to the students. At times delegates are sent from the Ministry of Health to inspect the activities of these food vendors. There is also a food committee in the school to inspect food brought in by the food vendors before students consume the food''.*

*"Our food vendors come with their certificates before they can be allowed to sell food to the students. They have their uniforms, which are blue in colour, they also use apron and wear head covers. We also have a committee in the school that check the food brought in by the food vendors before break time''.*

*"We interview our food vendors before we employ them and we also ask for their certificates which are issued by the State Ministry of Health after they have undergone*

tests and trainings at Jericho Health Office. At least once in a month, inspectors are sent from the Ministry of Health to check the level of compliance of the food vendors. Before break time, the food is taken to the staff rooms to be checked by selected teachers before the students consume it. About three years ago, a group of student doctors came from University College Hospital to deworm the students, they promised to come back and we are still expecting them”.

“In Osun state, I heard there is free midday meals given to the students at no cost, there is nothing like that in our own Oyo-state. Though the State Ministry of Health has put some measures in place to ensure students obtain their midday meals from food vendors who have undergone tests and training, at times delegates are sent from the Ministry of Health to inspect the activities of these food vendors. We have a food committee in the school that inspects the food brought in by the food vendors before students consume the food. At times health personnel are sent from the Ministry of Health to deworm the students”.

### 3.1.7. School Health Services

School health services are being implemented based on the available resources in the various schools, available resources in terms of availability of health facilities such as sickbay, first aid box, availability of health personnel (School Nurse, Community Health Officers, Trained First Aider). Most of the schools do not have a sickbay while almost all of them have first aid box. In some schools, the first aid box is not well stocked while those that have theirs well stocked got their supplies from teachers and students who are members of the Red Cross Society. Just a few respondents professed that they got their supplies from the State Ministry of Health. Amongst the Red Cross Society members is the Trained First aider who administers the first aid treatment. Majority of the respondents acknowledged that they refer cases beyond their control to the local government health facility or state government health facility nearby while the others simply place calls through to the relevant parents. Most of the respondents confessed that they do not carry out pre-medical screening of students before admission because the State Ministry of Education had not authorised them to do so. Some admitted to the fact that they carried out pre-medical screening in the past but they were usually served queries from the State Ministry of Education and for that reason stopped the exercise. Only few of the respondents had received delegates from the State Ministry of Health to carry out medical examination of the students, and this has been done infrequently.

“We do not have a sickbay here; what we have is a first aid box which is administered by the teacher that coordinates the activities of the Red Cross Society in the school. The contents of the first aid box are supplied by members of the Red Cross Society. When we have cases beyond our control we call on the parents to come for their wards or they are taken to a nearby private hospital by the name “St Lucia hospital”.

“There is a body called SIDCAIN (Strategy for improving Diabetes in Nigeria) founded by the world diabetes foundation, a non-governmental organisation, one of the teachers in the school is a member of the body, the objectives are to sensitize young people on the risk

factors associated with diabetes and hypertension, to create awareness among young people on how to develop a healthy behavioural lifestyles”.

“There is no sick bay but we have a first aid box to be administered when students suffer from minor injuries or ailments. Presently, the first aid box is not well stocked because the students just resumed. There is a school health committee who administers first aid and makes the referral of complicated cases to “Ibadan North East Health center” and the parents are called upon, though treatment is free but at times they run out of drugs and parents are asked to go and buy. Initially there was pre-screening of students before being admitted into schools but since Government has taken over the school, this has stopped”.

“Our first aid box is well stocked and administered by the head of department who studied physical and health education and has the knowledge of first aid; we refer cases beyond our control to Adeoyo General Hospital. We also carry out preschool medical screening of students before they are admitted into the school, the counsellor is in charge of this, the students are asked to bring medical reports including eye test, blood group and genotype even though the Government sometimes query the school for asking the students to bring medical reports. According to them, the school is using it as an avenue for exploiting the students”.

“There is a school health committee which is made up of the members of the Red Cross Society (RCS). The school has a first aid box; the health prefect who is a member of the RCS administers the first aid treatment. When we have cases beyond our control, such cases are taken to Jericho nursing homes and the parents are called upon. There is nothing like pre-screening of students before being admitted because the lists of these students are sent down to the school from the Ministry of Education but the Ministry of Education usually carries out a census by sending forms to the school to know the number of students being admitted and those with special needs”.

Some respondents who said they have sickbay in their schools had these to say:

“Here we have a school clinic with health personnel e.g. local government matron, community health officer, environmental health officer; all these health personnel are posted to the school from the Local Government. When students fall sick or have minor injuries they are taken to the clinic and complicated cases are referred from the school clinic to “Adeoyo General Hospital” or “University College Hospital”.

“There is a school clinic with just a school nurse. At the clinic, injuries and ailments are taken care of. At the clinic, critical cases are referred to Adeoyo state hospital. There is pre-screening of students before they are given admission though this is not enforced because the Government owns the school. Parents are therefore advised to inform the school when they have children with special needs so the school can give them special attention”.

“We have a sickbay with a first aid box containing emergency drugs which is administered by the vice principal who is not a trained first aider. A letter of request has been written to the Ministry of Health for a school nurse but there has been no response. When we

have cases beyond our control, such cases are referred to a nearby private hospital and the parents are called upon”.

### 3.1.8. Skill Based Health Education

As stated in the 2006 National School Health Policy document, Physical and Health Education (PHE) should be taught at both junior and senior classes but from the responses of most of the participants, it could be deduced that health education as a subject is taught only at junior classes and the only subject under which health related topics are taught at senior classes is Biology. Few respondents said physical and health education is taught as a subject at both junior and senior classes in their schools.

Typical responses of the participants are as follows:

*“We do not have health education teacher for senior classes but only for the junior classes, Biology is the only subject at the senior level that topics concerning health is taught. Though the new school curriculum designed by the Federal Ministry of Education that has just been introduced to schools includes health education as a subject to be taught at both junior and senior classes but this has not been implemented”.*

*“There is a health education teacher at the junior classes but none at the senior classes, but health related topics are taught under biology for the senior classes. During extracurricular activities, health personnel are invited to give health talks centered on family life education, H.I.V etc. to the students”.*

### 3.1.9. School Home and Community Relationship

It can be deduced from the responses of most of the respondents that there has been a good relationship between schools and homes i.e., there is a cordial relationship between the teachers and the parents. There is a functional Parent Teacher’s Association (PTA) meeting well attended by parents; they also pay unscheduled visits to the schools to check on their wards. Some respondents also made mention of the contribution of parents to the implementation of the school health programme in place. Teachers also pay visits to the homes of these students when there is a need for it. Concerning the relationship between the school and the community in which the school is situated, majority of the respondents said they do not have any relationship with the community because the community members see the schools as government property rather than theirs. Most of the respondents declared that they have tried to sensitize and involve the community members in the implementation of the School Health Programme but this has not yielded any good result and some also said they have not tried to mobilize the community members because government had not approved such approval and they assume that community members do not have any roles to play in the implementation of the school health programme.

*“The PTA meetings hold once in a term and at times twice, if an important issue comes up to be discussed by the parents. Some of the parents pay visits to the school apart from PTA meeting days to check on their wards. At times, the teachers and even I myself, the principal pay visits to the homes of these students when there is need for it, there was a time, one of the students sustained injuries and had to be taken to UCH, the hospital bill was spearheaded by the school management who also had to*

*go check on the student at home after being discharged from the hospital. There is no community involvement in the implementation of the school health programme, the community members even go as far as dumping their refuse in the school compound and also bring their cows to feed on grasses in the school compound. We have reported to the chairman of the community and no action has been taken on it.*

*There is a functional PTA meeting in place, it holds twice in a term and also when the need arises, the parents are called upon. The community is not involved in the implementation of the school health programme; they even constitute a form of nuisance by polluting the air through their activities. Health workers (‘wolewole’- as they are called in Yoruba) have come several times to warn them but they gave no heed to the warnings”.*

Generally, involvement of the community with school health has only been productive through parent-teachers associations (PTA). However, the mobilization of community members in implementation of adequate school health programs has been futile. In extremes situations, the community members according to the school officials are a greater burden and impediment to proper implementation of school health programmes rather than co-operative.

*“We usually try to involve the community members in the implementation of the school health programme; we seek assistance from them when we need their help but they don’t give positive responses. There was a time the school fence became dilapidated, we tried to mobilize the community members towards the building of a new fence for the school, though some of the community members promised to help but did not fulfil their promises”.*

*“The community in which the school is situated is not involved in any way in the promotion of the School Health Programme, the school management tried to mobilize them but there was no response. There was a time they were asked to clear the bush surrounding the school fence which was for their own good but they refused”.*

*“The community members are not in any way involved in the implementation of the school health programme, there was a time the community members were called upon to assist when the school fence caved in but it was the Ministry of Education that eventually erected a new school fence for us”.*

*“The community members do not assist us financially in the implementation of the health programme but they do inform us of plans by another school to engage our students in a fight”.*

### 3.1.10. Constraints affecting the Implementation of School Health Programme

School officials acknowledged a number of constraints to proper and effective implementation of the school health programme. Dilapidated structures and poor funding were by far the most crucial limitations towards achievement of effective school health program in most of the schools interviewed. Other reasons included poor nutritional status exhibited by most of the children and poor financial support from parents.

*“There is lack of fund for the implementation of the school health program; to stock the first aid box requires funding and also to provide basic social amenities for the schools. A letter of complaint was sent to the Ministry of*

Education on the issue of inadequate facilities in the school and they sent some delegates to the school who promised to take action but since then they haven't done anything concerning it".

"Most of the parents are not financially buoyant and when students are referred to hospitals, the school management spearheads the hospital bills".

"There is inadequate health facility in place like the presence of a sickbay. Due to the school not having a fence; animals roam about in the school compound and defecate all over, at times this brings out a very bad smell causing environmental pollution".

"Most of the students come from poor homes; they do not have nourished food to eat so they look unhealthy most times".

"The major constraint is lack of fund for the implementation of the school health programme because there is no how you will take a student to the health center without paying bills but if there is a school clinic, complicated cases that cannot be handled by the teachers will be taken care of in the school clinic".

### 3.1.11. Facilitators promoting the Implementation of School Health Programme

Self-awareness on issues relating to safety and hygiene, cordial parent-teacher-student relationships, has been listed as factors that facilitate proper implementation of school health program. Successes encountered in the implementation of the school health programme, according to the respondents include:

"The presence of the First aid box has gone a long way in helping to treat minor injuries and ailments instead of sending students home when there are cases that can be managed by giving first aid treatment".

"There is good cooperation between the teachers and the students in ensuring that the school environment is kept neat and clean".

"There are no cases of students consuming contaminated food items due to the successful implementation of the school feeding services. The school environment is kept neat and tidy due to the cooperation between the teachers and students".

"Most of our students are hale and hearty so cases of minor ailment and injuries are very rare".

"The school is managing the small amount taken out of the grant allocated for the general maintenance of the school; students are also advised to stay back at home in case of any symptoms of illness".

"Students are conscious of their health; they know how to take care of themselves when they have minor injuries by coming to ask for iodine, spirit. The teachers' cooperation is also commendable".

"People are sent from the Ministry of Health and Non-Governmental Organisations to give health talks to the students; this serves as a form of awareness and sensitisation on how to take preventive measures".

"The awareness created by the Ministry of Environment through the Ministry of Education that 'Cleanliness is next to Godliness' is a very crucial step towards promoting the health of the school community".

"There is a cordial relationship between the parents and the teachers".

## 3.2. Observational Checklist Report On The Level Of Implementation Of School Health Programme In Schools

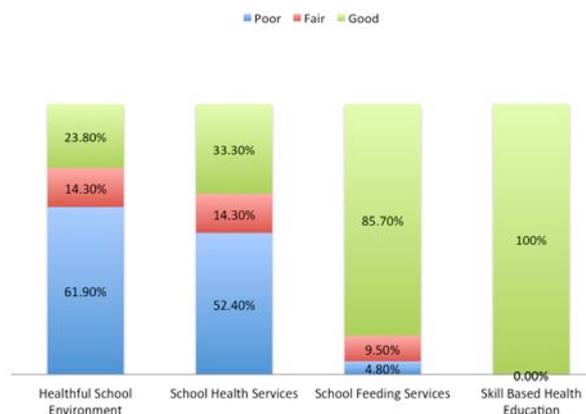
Table 1 shows the level of implementation of the components of the school health programme.

A higher proportion (85.7%) of schools had good implementation of school feeding services, followed by 33.3% and 23.8% of schools with good implementation of school health services and healthful school environment respectively. All the schools had good implementation of skill based health education at the junior classes.

**Table 1. Level of implementation of the components of School Health Programme in schools**

Components	Schools		
	Poor N (%)	Fair N (%)	Good N (%)
Healthful School Environment	13(61.9%)	3(14.3%)	5(23.8%)
School Health Services	11(52.4%)	3(14.3%)	7(33.3%)
School Feeding Services	1(4.8%)	2(9.5%)	18(85.7%)
Skill Based Health Education	0(0.0%)	0(0.0%)	21(100.0%)

**Level of Implementation of Components of School Health Programme**



**Figure 1. Overall Level of implementation of School Health Programme**

### 3.2.1. Availability of facilities for the implementation of School Health Programme

As shown on Table 2, "Healthful school environment" was assessed based on the availability of refuse and sewage disposal, safe water supply and the sanitation of the school environment. Regarding source of water supply in schools, most of the schools 13 (62%) had wells as their source of water supply, only 7 (33%) had borehole and few 1 (5%) had pipe borne water. Concerning means of refuse disposal, majority of the schools 18 (86%) disposed of their refuse by burning; few 2 (10%) had incinerators while 1 (5%) had no means of refuse disposal. Regarding means of sewage disposal, 9 (43%) had the water system, 9 (43%) also used pit latrine system while 3 (14%) had no toilet facilities. All the schools had school sanitation committee to keep the school environments clean and tidy.

The presence of school clinic or sickbay, first aid box, presence of health personnel like medical officer of health, school health nurse, community health officers or community health extension workers, trained first aider and availability of school health committee was put into consideration when assessing the implementation of "school health services". Regarding the presence of sick bay, only few 2 (10%) had this facility while majority 19

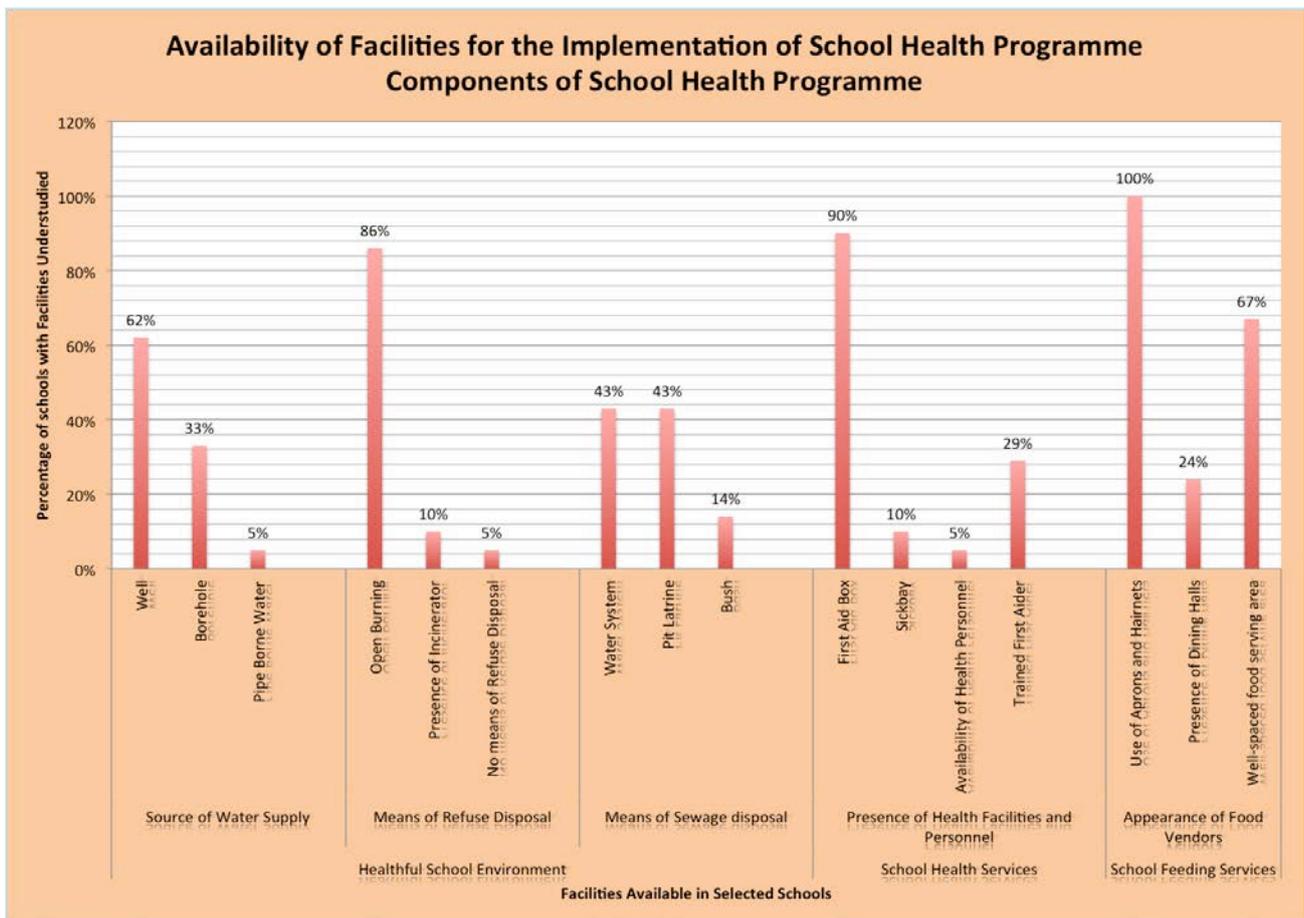
(90%) had first aid boxes. Concerning the availability of health personnel, only 1 (5%) of the schools had a school nurse, environmental health officer and community health officers. Few 6 (29%) of the schools have trained first aider while 1 (5%) had school health committee.

“School feeding services” was assessed based on the appearance of the food vendors if they had on aprons and hair net, the food serving area be it spacious or not, where

students consumed their midday meals be it in the classrooms, open places or dinning halls. In all the schools 21 (100%), the food vendors were seen wearing aprons and covering their heads with nets. Only few schools 5 (24%) had dinning halls where students consumed their midday meals. Most schools 14 (67%) had well-spaced food serving areas, which were kept neat and clean (Table 2).

**Table 2. Availability of facilities for the implementation of School Health Programme**

	Facilities Available	Schools
Healthful School Environment	Source of Water Supply	N (%)
	Well	13 (62.0%)
	Borehole	7 (33.0%)
	Pipe Borne Water	1(5.0%)
	Means of Refuse Disposal	
	Open Burning	18(86.0%)
	Presence of incinerator	2 (10.0%)
	No means of refuse disposal	1 (5.0%)
	Means of sewage disposal	
	Water system	9 (43.0%)
	Pit latrine	9 (43.0%)
	Bush	3 (14.0%)
	School Health Services	Presence of health facilities and personnel
First aid boxes		19 (90.0%)
Sickbay		2 (10.0%)
Availability of health personnel (school nurse, environmental health officer)		1 (5.0%)
Trained first aider		6 (29.0%)
School Feeding Services	Appearance of food vendors	
	Use of aprons and hairnets	21 (100.0%)
	Presence of dinning halls	5 (24.0%)
	Well-spaced food serving area	14 (67.0%)



**Figure 2.** Availability of facilities for the implementation of School Health Programme

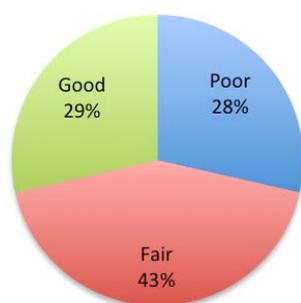
### 3.2.2. Overall level of implementation of the School Health Programme in schools

The level of implementation of school health programme was based on the level of implementation of all its components. As shown on Table 3, out of the 21 schools assessed, 6 (28.6%) schools had poorly implemented the components of the school health programme, 9 (42.9%) schools had fairly implemented the components of the school health programme, and 6 (28.6%) schools had good implementation of the components of the school health programme.

**Table 3. Overall Level of implementation of the School Health Programme in schools**

Overall Level of School Implementation		
	Number (N)	Percentage
Poor	6	28.6%
Fair	9	42.9%
Good	6	28.6%

### Overall Level of Implementation



**Figure 3.** Overall Implementation of Schools

### 3.3. Discussion

The reports from our study revealed that only 6 schools (28.6%) had good level of implementation. This is quite logical because of the poor awareness demonstrated by many of the schools. School officials generally showed a dismal level of awareness to the existence of the National School Health Policy and in the schools that the school health programme was implemented; it was based on the available environmental and health facilities with no guidelines on implementation as evidenced by the reports made by majority of the principals. Majority of the principals indicated lack of awareness of the National School Health Policy, and school health programme is being implemented in the schools based on the in-school and on the job training of the teachers.

Concerning the level of implementation of the components of the school health programme, school-feeding services was the only component claimed to be satisfactorily implemented by respondents in 85.7% of the schools. Positive effects of an effective school feeding programme that have been established [8] are very desirable and the school feeding programme is a component of the National School Health Policy that has several positive effects on the academic performance [20,21] and other important spheres of general well being [22].

Sadly, implementation of successful feeding programmes in Nigeria has been documented to be poor

and ineffective [23] except for the 'Home Grown School Feeding and Health Programme' in Osun State Home Grown School Feeding and Health Programme (OSHGSFHP) that continues to represent a model of good practice amongst other school feeding initiatives in Nigeria [24]. Contrary to our findings, school feeding programmes in other sub-Saharan countries have recorded significant progress in this regard. For instance, the Ghana School Feeding Programme (GSFP) that started on a pilot base in September 2005 with just ten schools had been able to feed 713,590 children in all the beneficiary schools nationwide by the end of first quarter of the year 2011 [25].

Though it was stated in the 2006 National School Health Policy that the Federal Government should be responsible for the provision of midday meals to students, this study revealed that such has not been implemented in Oyo state. Official school feeding programs have been largely through the help of food vendors that are regulated by the State Ministry of Health; a finding corroborated by Ofovwe and Ofili (2007) which showed that students in 50% of schools brought their meals from home while 32% and 42% of the schools had their students obtain midday meals from mobile and permanent food vendors respectively [16]. However, food vendors according to our participants were only permitted to sell midday meals to students after undergoing series of tests at the Jericho Health Office before obtaining certifications to sell food. These tests are conducted yearly and the certificates issued to the food vendors are renewed every year also, with delegates sent from the Ministry of Health to check the level of compliance of the food vendors at least once in a month. The food vendors are required to serve compulsorily in blue uniforms with aprons and head covers. Inspection of certificates by principals of schools is mandatory before food vendors are granted permission or employment to provide mid-day meals to students.

Even though, there is an operational regulation concerning safety and ensuring minimum quality standards as regards food vendors in public schools, previous studies have shown that food vendors still exhibit quite a number of health hazards in Nigeria [26] and also constitute very significant sources of food contamination especially to school children [27]. The possibility of a sustained contamination with intestinal parasites in food handlers despite medical certification [28] reiterates the urgency and need for Federal Government taking up the sole responsibility for the provision of midday meals to students in schools as stipulated in the National School Health Policy. Furthermore, in this study, students' consumption of midday meals in open places in majority of schools raises very important sanitation and health concerns; it was only in few schools that dining rooms were made available.

The implementation of healthful school environment was assessed putting into consideration the availability or presence of facilities that are basic to its implementation and that are conducive to optimal physical, mental and emotional health, safety of the pupils amongst all members of staff and students [2]. These facilities include means of refuse and sewage disposal, safe water supply and the sanitation of the school environment. Our study found out that most of the schools 13 (62%) had wells as their source of water supply while only few had borehole

and pipe borne water. Concerning means of refuse disposal, majority of the schools 18 (86%) disposed of their refuse by burning thereby constituting a form of environmental pollution. Only few schools (43%) had the water system with regards to sewage disposal, while the rest did not have proper means of sewage disposal. This indicates that most schools did not have adequate environmental facilities that will make the environment healthful, thereby exposing the students and teachers to various health hazards such as helminthiasis that has been documented to be significantly increased in schools with poor sanitary conditions [7]. The findings of this study agreed with the assessment carried out in Togo, which evaluated the condition of the sanitary facilities in schools and revealed that only 30% of the primary schools had latrines and open field defecation was practised in schools without latrines. Few (26%) of the schools had access to drinking water (piped, spring, well, or hand pump) and in many schools waste was not properly disposed (UNICEF, 1995).

Findings from our study corroborate other studies that existent facilities present now depict a deterioration of what facilities existed before. Ofovwé and Ofili (2007) carried out in Edo state, Nigeria, revealed that 27.7% of the schools surveyed had no toilet facilities, 33.3% had pit latrines while 40% had water closets and only 25.6% had hand washing facilities and few sick bays [16]. Schools that had good toilet facilities reported that the old students association of the schools constructed their toilet facilities while others were as a result of support from the Ministry of Education.

Implementation of school health services was assessed based on the presence of school clinic or sickbay, first aid box, presence of health personnel (for instance, medical officer of health, school health nurse, health educator, nutritionist, community health officers or community health extension workers, trained first aider), school health officer and availability of school health committee. Findings from our study revealed that most of the schools did not have a school health committee in place. For those schools that claimed to have a school health committee in place, the committee was made up of teachers and students who were also members of the Red Cross Society of Nigeria with only 2 (10%) having a school clinic which had in attendance the local government matron, community health officer or an environmental health officer. Most of the schools (90%) have first aid boxes for the treatment of minor injuries and ailments, which were usually, administered by non-trained first aiders except in few schools 6 (29%), whose students and teachers were members of the Red Cross Society of Nigeria and had been trained to administer the first aid treatment.

The implementation of skill based health education was assessed based on the number of periods allotted for school health instruction and the scope of the health education curriculum. The study showed that in most of the schools, physical and health education as a subject is taught only at junior classes, and the time allotted for its teaching in majority of the schools was 3 hours per week. The subject under which health related topics are taught at senior classes is Biology. Furthermore, there was no health education teacher assigned for senior classes but only for the junior classes. This is in contrast to what was specified in the 2006 National School Health Policy

document, that health education should be taught as a subject at both junior and senior classes. This might be due to poor awareness of the 2006 National School Health Policy in schools and lack of directives from the Ministry of Education as to what should be done and put in place. The situation was similar with a study on the implementation of school health programme in United States, which revealed 71% of high school students surveyed, did not attend a daily physical education class, and 44% were not even enrolled in a physical education class [29].

With regards to implementation of school home and community relationship (the fifth component of the school health programme) was assessed using key informant interview conducted with the principals. It was assessed by asking the principals questions on how often the parents pay visits to school, if they have a functional PTA committee and how many times the meeting takes place in a term, if the teachers and school nurses pay visit to the homes of the students. It could be deduced from what was reported by majority of the principals, that they all have functional PTA meetings which holds at least once or twice in a term and when the need arises with quite a number of principals attesting to the immense contribution of parents to; the repair of damaged structures in the school and also the stocking of the first aid boxes; paying regular visits to schools. According to majority of the principals, teachers do not pay visits to the homes of the students except they fall sick or commit grievous offences. These findings depicts a bit of cordial relationship between the schools and homes.

School and community relationship, which is represented by the manner in which school and community members in the school environs relate with one another, was assessed by asking principals if the community members are in anyway involved with the promotion of the health programme in the schools and if the community members are being mobilised towards participating in the implementation of the school health programme. Most of the principals attested that community members are not in any way involved in the promotion of the school health programme because of the general belief that the schools are government owned. Principals also stated that no mobilization had been instituted because of inability to foretell governmental predispositions towards the mobilization. The lack of cordial relationship between the community members and the school could be attributed to the poor awareness of the 2006 National School Health Policy, which actually favours and promotes community mobilization in its policy.

This finding of our study concerning this relationship, however, contradicts with the study conducted in Lesotho where communities were involved in the installation of latrines with significant contributions in terms of free labour and cash contributions that were solicited through parent-teacher associations, local chiefs and councilors and Roman Catholic Church [30].

Seemingly distal factors that influence health of students are also recommended and advocated for to be included in subsequent national school policies. Rather than treating schools merely as sites for health education, school environment (SE) interventions that take a socio-ecological approach where health is understood to be

influenced not only by individual characteristics but also the wider social, cultural and economic context are highly advocated and recommended [12].

The execution of our study despite its strengths also had some limitations. A major limitation of this study was that the influence of our researchers (lack of anonymity) could have promoted false responses from the participants. However, requesting visual confirmation of some materials to buttress facts helped to minimize this considerably, where applicable.

Initial resistance and limited cooperation from the teachers in the selected schools was surmounted through advocacy visits to and permission from appropriate authorities. There could be possibility of under-reporting and incorrect responses by both principals and teachers for fear of being implicated and/or reprimanded.

### 3.4. Conclusion and Policy Implications

A National Study of the School Health System in Nigeria carried out in 2001 demonstrated that only 17% of schools have school nurses [15]. Sadly, 6 years after the formulation of the National Health School Policy, state of the school health system has not recorded any strides with regards to much development. The implementation of the school health programme according to the guidelines stated in the National School Health Policy document is important because the programme is one of the strategies for the achievement of Health for All (HFA) declaration; education and health related Millennium Development Goals [18]. More so, the health of young people is strongly linked to their academic success, and likewise vice versa [31,32]. Several initiatives have been proposed to improve school health services. One of the prominent such is the FRESH initiative [33] that promotes a combination of activities in four core areas:

- School health policies
- Water, sanitation and the environment
- Skills based health education
- School-based health and nutrition services

Nevertheless, 3 supporting strategies are advocated for in this paper to foster and improve on implementation of school health policy if any desirable progress is to be achieved:

- Effective partnerships between the education and health sectors
- Strengthening of long-lasting and sustainable community partnerships through inclusions of community role models in the implementation of school programs and committees would help communities in embracing school health and its policies better.
- Strict regulation enforcing policies with regular monitoring and evaluation is recommended in schools with an involvement of stakeholders that should be ensured at every stage emphasizing the importance and self-awareness of their roles in school health programme.

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### Conflict of Interests

Authors have declared that there are no competing interests.

### Authors' Contributions

The work was carried in collaboration between all authors. Authors KOO and KA conceptualized and developed the research questions; reviewed existing literature and designed the methodology. Author KA collected the data and ran preliminary analysis and report. Authors TAO wrote the first manuscript while authors TAO and KOO proofread and approved the final manuscript.

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