

# Quality of Implementation of the School Health Program in Oyo State, South-West Nigeria: A Rural-Urban Comparative Survey

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**Abstract Background:** The implementation of the School Health Program (SHP) is core to the realization of the goal of National Policy on Education. Despite the formulation and adoption of the National School Health Policy (NSHPo) in Nigeria in 2006, no study has been conducted to evaluate the quality of its implementation. This study was carried out to appraise the quality of implementation of the program in public primary schools in rural and urban Local Government Areas (LGAs) of Oyo State, Nigeria. **Methodology:** The study utilized a comparative cross-sectional design. A two-stage sampling technique was used to select 49 public primary schools; 26 rural and 23 urban, from two selected LGAs. Observational checklist (OC) was used to assess the SHP in the selected rural and urban schools from the LGAs. The checklist comprised of 4 sections; the school administrative information and implementation items for each of the three main components of the SHP as listed below i.e. School Health Services (SHS), School Health Education (SHE) and Healthful School Environment (HSE). The overall quality of implementation was measured by assessing the availability, appropriateness and functionality of basic health, sanitation and education facilities on a 79-point scale (SHS-21, SHE-10, HSE-48). Scores of <40%, 40-49% and  $\geq 50\%$  were categorized as poor, fair and good quality of implementation of the SHP respectively. Data were analyzed using SPSS version 22. **Results:** All the schools in both the urban and rural public primary schools had functional Parent Teacher Association. Neither the rural nor the urban public primary schools had trained first aiders, school health assistants or school health nurses. Even though most (87.8%) of the schools had first aid boxes (rural-100% versus urban-73.9%), 56.5% and 23.1% of the first aid boxes in the urban and rural public schools contained nothing. Only 8.7% of the urban schools had a sick bay. None of the public primary schools in both the rural and urban locations had major communicable health problems, HIV/AIDS education and use and abuse of drugs in their health instruction curriculum. Majority of the schools in the rural locations (88.5%) had sources of water supply compared with 10 (43.5%) of the schools in urban LGAs. Some (38.8%) of the schools had refuse bins located either on the corridors or at the corners of the classrooms. Higher proportions of schools in the urban areas (27.8%) had dustbins compared with (20.7%) of the rural schools. Overall, (59.2%) schools had poor quality of implementation of the SHP (rural-65.4% versus urban- 52.2%). **Conclusion:** The study revealed poor quality of implementation of the school health program in the selected rural and urban public primary schools in Oyo State as various essential equipment/items for effective school service delivery were either inadequate or lacking. There is a need for concerted efforts to improve/upgrade the standard of the program in both rural and urban public primary schools in the State.

**Keywords:** quality of implementation, school health program, rural-urban public primary school

**Cite This Article:** Ayodeji Matthew Adebayo, and Eme T. Owoaje, "Quality of Implementation of the School Health Program in Oyo State, South-West Nigeria: A Rural-Urban Comparative Survey." *American Journal of Educational Research*, vol. 4, no. 4 (2016): 307-313. doi: 10.12691/education-4-4-3.

## 1. Introduction

School Health Program [SHP] is the combination of procedures and activities designed to protect and promote the well-being of the school population (pupils/students and school personnel). The main objectives of the SHP are to obtain a rapid and sustained improvement in the health of school children; to ensure that children from pre-school age to adolescence are in optimum health at all times, so

that they can attain their physical and intellectual potentials, as well as receive maximum moral and emotional benefits from health providers, teachers and the school environment [1]. The promotion of the health of school populace is a critical step towards quality achievement in education [2]. This means that implementation of the SHP is core to the realization of the goal of National Policy on Education [2]. The objectives of the SHP can only be achieved through implementation of procedures and activities organized in the components

of the SHP. According to the National School Health Policy (NSHPo) in Nigeria, the components of SHP include school health services (SHS), healthful school environment (HSE), skilled-based health education (SBHE), school feeding services (SFS) and school, home and community relationship (SHCR) [2].

The need for the NSHPo became imperative when National School Health Association (NSHA) and development partners such as the World Health Organization (WHO), Japan International Cooperation Agency (JICA), United Nations Children's Fund (UNICEF), as well as other stakeholders like the Ministries of Health and Environment, noted the lack of standards to guide SHP in Nigeria. A rapid assessment of the school health system conducted before the formulation of NSHPo in Nigeria in 2006, by the World Health Organisation in collaboration with the Federal Ministry of Health (FMOH) and Federal Ministry of Education (FMOE), revealed that health care services and sanitation facilities in schools were sub-optimal [2]. In the national survey, 86% of head teachers did not know that pre-admission medical examination should be made compulsory in their schools. Screening of food handlers was done in only 17% of schools. A high proportion (83%) of the schools did not have school nurses and only 6% have linkages with government designated clinics which they referred to when they had cases beyond their control. Most of the schools had inadequate environmental health facilities. Only 25% of the schools had ventilated pit latrine and 46% had pipe-borne water or bore hole [2]. The findings reflected a gross neglect of SHP in the country before 2006.

These findings led to the formulation and adoption of the NSHPo in 2006 with the aim of promoting the health of learners to achieve the goals of Education for All (EFA).

The mission statement states

“to put in place adequate facilities, resources and programs in order to guarantee physical, mental and social well-being, and the safety and security of the school community which will promote learning outcomes of the child”.

The implementation guidelines on the national school health program (NSHP) was developed alongside NSHPo. However, since the formulation and adoption of the NSHPo and guidelines, no study has been conducted to evaluate the quality of its implementation in Nigeria.

The Oyo State SHP was formally launched on 28<sup>th</sup> March, 2001 with the vision of establishing a preventive health services for all school children that will ensure their maximum physical and mental health development with particular focus on communicable; non-communicable diseases and nutrition. A SHP committee was also inaugurated to operate/supervise the program. The committee was expected to conduct regular health visits to schools for inspection and routine training of teachers and 33 local government SHP Officers in order to take charge and sustain SHP in schools and LGAs. The committee was also expected to introduce and recommend standardized first aid boxes in all schools, design a referral form for sick pupils and encourage provision of hygienic, adequate and nutritious meals for the pupils. In addition, the committee was expected to conduct regular monitoring and supervision of the above listed activities to ensure that the set goals of the government were achieved. These

functions were meant to be carried out in collaboration with health-related governmental and non-governmental organizations. The SHP started in Oyo State a few years before the adoption of the NSHPo in 2006. However, there was no document to show if there was a preliminary survey before the inauguration of the SHP in 2001 in the State. There was no published document to show if implementation in Oyo State was reviewed and re-aligned with the NSHPo adopted in 2006. This means that lack of policy guidelines as at when the program was inaugurated in 2001 in the State and when the NSHPo was adopted in 2006 has serious implications on the effective implementation of the program in the State. Other challenges with implementation in Oyo State include: the terms of reference for Oyo State school health committee were not exhaustive based on the 2006 NSHPo guidelines<sup>2</sup> and there was no published document to indicate whether an evaluation of the program had ever been conducted in the State using measurable school health implementation indicators. This has necessitated the need for this survey to evaluate/appraise the quality of implementation of the SHP, using observational checklist to assess the availability, appropriateness and functionality of basic health, sanitation and education facilities in public primary schools in both rural and urban LGAs in Oyo State.

## 2. Methodology

This study is part of a larger study to assess teachers' knowledge and role perception of the SHP and the quality of its implementation in Oyo State, South-west Nigeria. The study utilized a comparative descriptive cross-sectional design. A two-stage sampling technique was used to select 49 public primary schools, 26 rural and 23 urban, from selected two LGAs. The sampling frames of the rural and urban LGAs in Oyo State were constructed. There are 12 urban and 12 rural LGAs (Semi urban LGAs were excluded from the study since they are neither exclusively rural nor urban). One LGA each was selected from the urban and rural LGAs by balloting. The rural and urban LGAs selected were Ibarapa central and Ibadan Northwest respectively. The sampling frames of the public primary schools in the selected LGAs were constructed with information obtained from the State Universal Basic Education Board (SUBEB) and proportional sampling technique was used to select schools from the chosen rural and urban LGAs by balloting. There are fifty-two (52) rural and forty-five (45) urban public primary schools in the selected rural and urban LGAs respectively. Half (½) of the schools in each area were randomly selected by balloting giving a total of 26 and 23 schools from the rural and urban LGAs respectively.

Observational checklist (OC) was used to assess the three basic components of SHP in the selected rural and urban schools. The checklist comprised of 4 sections; the school administrative information and basic implementation items of each of the three (3) components of SHP (SHS, SHE, HSE). The OC was administered by the researcher and trained research assistants. The School Health Officer (SHO) in each school conveyed the research team to the various areas in the school premises where the items were assessed. In a situation where the SHO was not available, the head teacher or his assistant

doubled in that regard. A checklist each was used to assess the forty-nine public primary schools comprising 26 rural and 23 urban. Data obtained were entered, cleaned and analyzed using the SPSS version 22. Findings were presented with frequency tables using proportions, mean and standard deviation as appropriate. Quality of implementation of the program was measured by assessing the availability, appropriateness and functionality of basic supplies for SHP implementation. Some of the items assessed for SHS were availability of personnel, first aid box and treatment facilities for emergency care. Time allotted for teaching and the scope of the health education curriculum were part of the parameters assessed under SHE. The items observed for HSE comprised of availability and source of drinking water, availability of refuse bin, functional sanitary refuse

and sewage disposal system, state and type of building structure, food service areas and maintenance of the school environment. Items on the observational checklist were given graded scores if both "presence" and level of "functionality" of the item were ascertained. e.g. 0-3, 4, 5 etc depending on the number of items in the question. For the graded scoring, 0 stood for the least appropriate and 4 for the most appropriate if the items were 5. On the other hand, one (1) point was awarded for each available item where the question only required a check for the "availability" of such item. The minimum and maximum obtainable scores for quality of implementation of the SHP was 0-79 points (SHS, 0-21; SHE, 0-10; HSE, 0-48). Scores of <40%, 40-49% and  $\geq$ 50% were rated as poor, fair and good quality of implementation respectively. (Table 1).

**Table 1. Summary of the scoring and rating for the quality of implementation of SHP**

Components of School Health Programme	Maximum Obtainable Score	Poor (< 40%)	Fair (40-49%)	Good ( $\geq$ 50%)
School Health Services	21	$\leq$ 8	9 – 11	12 – 21
School Health Education	10	< 4	4-5	6-10
Healthful School Environment	48	<19	19 – 24	25 – 48
<b>School Health Programme (Overall)</b>	<b>79</b>	<b>&lt;32</b>	<b>32 – 39</b>	<b>40 – 79</b>

Ethical approval was obtained from Oyo State Ethical Review Committee. Advocacy visits were paid to the head teachers of the selected schools during which the purpose and objectives of the study were discussed and their cooperation ascertained.

### 3. Results

Regarding availability of a school health committee, Parent-Teacher Association (PTA) and school health personnel in the selected schools, none of the rural public primary schools had a health committee; while only 1(4.3%) of the urban schools had a health committee. However, all the schools in both the urban and rural public primary schools had a functional PTA. Neither the rural nor the urban public primary schools had trained first aiders, school health assistants or school health nurses. Overall, 39 (79.6%) schools had school health officers; with a higher proportion 20 (87.0%) of urban public primary schools having school health officers compared to 19 (73.1%) of rural schools. Regarding availability of health educator/nutritionist, only 4 (17.4%) urban and no rural schools had school health educators.

Table 2 shows distribution of schools by their availability and contents of first aid boxes. A total of 43 (87.8%) schools had first aid boxes. All the 26 rural public primary schools had first aid boxes compared to 17 (73.9%) of the urban schools. About one-fifth, 6 (23.1%) of the rural public schools had no contents in their first aid boxes as against 13 (56.5%) of the urban schools. Overall, slightly over half of the schools had cotton wool, bandage and methylated spirit in their first aid boxes (55.1%, 51.0% and 51.0% respectively) in their first aid boxes. Less than half, 22 (44.9%) of the schools had record books for treatment. None of the schools in the rural or urban public primary schools had ambulances or telephone services. Only 2 (8.7%) of the urban schools had a sick bay compared to the rural schools where there was none.

**Table 2. Availability of first aid box and contents**

First aid box and contents	Rural N = 26 n (%)	Urban N = 23 n (%)	Total N = 49 n (%)
	Present	Present	Present
Availability of first aid box	26 (100)	17 (73.9)	43 (87.8)
Contents	6 (23.1)	13 (56.5)	19 (38.8)
<b>Emergency facilities</b>			
Bandage	16 (61.5)	9 (39.1)	25 (51.0)
Analgesics	16 (61.5)	5 (21.7)	21 (42.9)
Iodine	12 (46.2)	4 (17.4)	16 (32.7)
Anti- malaria	2 (7.7)	1 (4.3)	3 (6.1)
Scissors/blade	12 (46.2)	4 (17.4)	16 (32.7)
Slings/splints	1 (3.8)	2 (8.7)	3 (6.1)
Methylated Spirit	15 (57.7)	10 (43.5)	25(51.0)
Embrocation/liniment	11(42.3)	4(17.4)	15(30.6)
Plaster	16(61.5)	8(34.8)	24(49.0)
Cotton wool	17(65.4)	10(43.5)	27(55.1)
ORS sachets	4(15.4)	0(0)	4(8.2)
Cup and spoon	11(42.3)	2(8.7)	13(26.5)
Record book for treatment	16(61.5)	6(26.1)	22(44.9)

A total of 33 (67.3%) public primary schools allotted two hours per week for health education while 14 (28.6%) schools did not have any period for health instruction. Higher proportions of the urban public schools, 19 (82.6%) allotted two hours per week for health education compared with 14 (53.8%) of their rural counterparts. On the other hand, higher proportions, 12 (46.2%) of rural public schools did not have any time allotted for health teaching compared with 2 (8.7%) of the urban public schools.

Concerning the scope of SHE as verified from the school curriculum, overall, majority of the schools, 46 (93.9%) had family living as the commonest content of the school health instruction curriculum. All the schools in the urban public primary schools had family living in their school health instruction curriculum while 23 (88.5%) of the rural schools had family living in their curriculum. None of the public primary schools in either the rural or

urban locations had major communicable health problems, HIV/AIDS education and use and abuse of drugs in their health instruction curriculum. Overall, 39 (79.6%) public primary schools had food and nutrition in their health

instruction curriculum. However, a higher proportion of schools in the urban locations, 22 (95.7%) had food and nutrition included in their school health instruction curriculum compared with 17 (65.4%) in rural locations (Table 3).

**Table 3. Contents of health instruction**

Variables	Rural N = 26 n (%)		Urban N = 23 n (%)		Total N= 49 n (%)	
	Present	Absent	Present	Absent	Present	Absent
Growth and development	0(0)	26(100)	12(52.2)	11(47.8)	12(24.5)	37(75.5)
Food & nutrition	17(65.4)	9(34.6)	22(95.7)	1(4.3)	39(79.6)	10(20.4)
Use of health services	17(65.4)	9(34.6)	22(95.7)	1(4.3)	39(79.6)	10(20.4)
Exercise, rest & sleep	6 (23.1)	20(76.9)	16(69.6)	7(30.4)	22(44.9)	27(55.1)
Major communicable health problems	0 (0)	26(100)	0(0)	23(100)	0(0)	49(100)
Use and abuse of drug	0 (0)	26(100)	0(0)	23(100)	0(0)	49(100)
Family living	23(88.5)	3(11.5)	23(100)	0(0)	46(93.9)	3(6.1)
Sex education	0 (0)	26(100)	1(4.3)	22(95.7)	1(2.0)	48(98.0)
AIDS education	0 (0)	26(100)	0(0)	23(100)	0(0)	49(100)
Safety education	2(7.7)	24(92.3)	5(21.7)	18(78.3)	7(14.3)	42(85.7)
First Aid	0(0)	26(100)	5(21.7)	18(78.3)	5(10.2)	44(89.8)

Table 4 shows availability of water supply. Overall, 33 (67.3%) of public primary schools had at least one source of water supply. However, majority 23 (88.5%) of schools in the rural areas had sources of water supply compared with 10 (43.5%) of the urban schools. Out of those with sources of water supply, more than half of the schools, 19 (57.6%) got their water supply from well. Among the schools that had well water, only 2 (4.1%) had features of a sanitary well (permanent bucket, parapet). Majority of the urban public primary schools 7 (70.0%) got their water supply from well water compared with 12 (52.2%) of the rural schools. However, none of the urban public school wells had features of a sanitary well compared with 2 (7.7%) of the wells in the rural schools. More schools in the rural areas 8 (34.8%) had bore-holes compared with 1 (10.0%) of schools in the urban areas.

**Table 4. Availability and source of water supply**

Variables	Rural N = 26 n (%)	Urban N = 23 n (%)	Total N = 49 n (%)
<b>Water supply</b>			
Available	23 (88.5)	10 (43.5)	33 (67.3)
Not available	3 (11.5)	13 (56.5)	16 (32.7)
<b>Source of water</b>	<b>N=23</b>	<b>N=10</b>	<b>N=33</b>
Bore-hole	8 (34.8)	1 (10.0)	9 (27.3)
Well	12 (52.2)	7 (70.0)	19 (57.6)
Nearby stream	3 (13.0)	2 (20.0)	5 (15.1)
<b>Sanitary well water supply</b>	<b>N=12</b>	<b>N=7</b>	<b>N=19</b>
Present	2 (7.7)	0 (0)	2 (4.1)
Absent	9 (92.3)	23 (100)	47 (95.9)

Availability of refuse and sewage disposal system is as shown in Table 5. A total of 19 (38.8%) schools had refuse bins either located on the corridors or at the corners of the classrooms. Higher proportions 11 (27.8%) of schools in the urban areas had dustbins compared with 8 (20.7%) of the rural schools. An overwhelming majority of the public primary schools 46 (93.9%) used an open dumping system of refuse disposal. All the urban schools had open dumping system out of which only 1 (4.3%) had evidence of recent burning of refuse. On the other hand, 23 (88.5%) of the rural schools had open refuse dumping sites out of which 6 (23.1%) showed evidence of recent burning. A total of 29 (59.2%) schools did not have any form of sanitary sewage disposal system. Majority 19

(73.1%) of the rural public schools defecated in the bush as against 10 (43.5%) of the urban schools. None of the rural schools had water closet for sewage disposal. Most of the public primary schools had toilet-pupil ratio of 1: 90 and above. While all the rural public primary schools that had toilets had toilet-pupil ratio of 1: 90 and above, slightly above half 7 (53.8%) of the urban schools that had toilets had the same ratio. Only 1 (7.7%) of the urban schools had toilet-pupil ratio of 1:31-45.

**Table 5. Availability of refuse and sewage disposal system**

Refuse bins N = 49	Rural n (%)	Urban n (%)	Total n (%)
Present	8 (20.7)	11 (27.8)	19 (38.7)
Absent	18 (69.2)	12 (52.2)	30 (61.2)
<b>Refuse disposal</b>			
Pit burning	3 (11.5)	0 (0)	3 (6.1)
Open dumping	23 (88.5)	23 (100)	46 (93.9)
<b>Evidence of burning</b> N = 46			
Yes	6 (23.1)	1 (4.3)	7 (14.3)
No	17 (65.4)	22 (95.7)	39 (79.6)
<b>Sewage disposal system</b>			
Water closet	0 (0)	4 (17.4)	4 (8.2)
Pit trench	7 (26.9)	9 (39.1)	16 (32.7)
Bush	19 (73.1)	10 (43.5)	29 (59.2)
<b>Toilet-pupil ratio</b> N = 20			
1:31-45	0 (0)	1 (7.7)	1 (5.0)
1:46-60	0 (0)	2 (15.4)	2 (10.0)
1:61-90	0 (0)	3 (23.1)	3 (15.0)
1:90 and above	7 (100.0)	7 (53.8)	14 (70.0)

Table 6 shows the availability of safety measures in the schools. Overall, 24 (49.0%) had school fences out of which more than half, 14 (58.3%) had a complete fence. However, majority 19 (82.6%) of the urban public schools had fences, 10 (52.6%) of which were complete. In comparison, 5 (19.2%) of the rural public schools had fences, 4 (80.0%) of which were complete. Only 4 (17.4%) of the urban public schools had either fire extinguishers/buckets of sand for emergency fire outbreak, while none of the schools in the rural areas had any. A total of 23 (46.9%) schools had gates at their entrances. At the urban public primary schools, 20 (87.0 %) had gates while at the rural public primary schools, only 3 (11.5%) had gates.

Table 6. Availability of safety measures in schools

Safety Measure	Rural N=26 n (%)	Urban N=23 n (%)	Total N=49 n (%)
<b>School fence</b>			
Available	5 (19.2)	19 (82.6)	24 (49.0)
Not available	21 (80.8)	4 (17.4)	25 (51.0)
<b>State of the fence</b> N = 24			
Complete	4 (80.0)	10 (52.6)	14 (58.3)
Not complete	1 (20.0)	9 (47.4)	10 (41.7)
<b>Availability of fire extinguisher</b>			
Present	0 (0.0)	4 (17.4)	4 (8.2)
Absent	26 (100.0)	19 (82.4)	45 (91.8)
<b>Gate</b>			
Present	3 (11.5)	20 (87.0)	23 (46.9)
Absent	23 (88.5)	3 (13.0)	26 (53.1)

Regarding availability of facilities in schools and cleanliness of the environment by location, a total of 43 (87.8%) the schools had food service areas; 21 (91.3%) at the urban schools and 22 (84.6%) at the rural schools. Overall, 37 (75.5%) of the public primary schools had sport fields, 22 (84.6%) at the rural and 15 (65.2%) at the urban schools. However, only 20 (40.8%) had sport facilities, 15 (57.7%) of the rural schools and 5 (21.7%) at the urban schools. Overall, 38 (77.6%) of the schools had clean environment, 13 (26.5%) had clean classrooms and 9 (18.4%) schools had clean toilet. At the urban schools, 19 (82.6%) had clean environment and 5 (21.7%) had clean toilet while at the rural public schools, 19 (73.1%) had clean environment and 4 (15.4%) had clean toilets. Slightly higher proportions of the rural schools 7 (26.9%) had clean classrooms compared with 6 (26.1%) of the urban schools (Table 7).

Table 7. Availability facilities in schools and cleanliness of the environment by location

Variables	Rural N = 26 n (%)		Urban N = 23 n (%)		Total N = 49 n (%)	
	Present	Absent	Present	Absent	Present	Absent
Food service area	22 (84.6)	4 (15.5)	21 (91.3)	2 (8.7)	43 (87.8)	6 (12.2)
Sport field	22 (84.6)	4 (15.4)	15 (65.2)	8 (34.8)	37 (75.5)	12 (24.5)
Sport facilities	15 (57.7)	11 (42.3)	5 (21.7)	18 (78.3)	20 (40.8)	29 (59.2)
Clean environment	19 (73.1)	7 (26.9)	19 (82.6)	4 (17.4)	38 (77.6)	11 (22.4)
Clean toilet	4 (15.4)	22 (84.6)	5 (21.7)	18 (78.3)	9 (18.4)	40 (81.6)
Clean classrooms	7 (26.9)	19 (73.1)	6 (26.1)	17 (73.9)	13 (26.5)	36 (73.5)

#### 4. Composite Ratings of the Quality of Implementation of the SHP

Table 8 shows the rating for the quality of implementation of the SHP and its components.

Table 8. Aggregate score of the quality of implementation of the SHP

Overall score of the quality of implementation of SHP			
Variables	Rural N = 26 n (%)	Urban N = 23 n (%)	Total N = 46 n (%)
Good	0 (0.0)	2 (8.7)	2 (4.1)
Fair	9 (34.6)	9 (39.1)	18 (36.7)
Poor	17 (65.4)	12 (52.2)	29 (59.2)
Mean	26.54±7.3	28.17±10.1	27.3±8.6
Overall rating of the quality of implementation of the school health services			
Good	4 (15.4)	5 (13.0)	7 (14.0)
Fair	11 (42.3)	6 (26.1)	17 (34.7)
Poor	11 (42.3)	14 (60.9)	25 (51.0)
Mean	7.35±3.8	5.30±4.4	6.39±4.2
Overall rating of the quality of implementation of the school health education			
Good	1 (3.8)	12 (52.2)	13 (26.5)
Fair	11 (42.3)	7 (30.4)	18 (36.7)
Poor	14 (53.8)	4 (17.4)	18 (36.7)
Mean	2.69±1.5	4.43±0.9	3.51±1.5
Overall rating of the quality of implementation of the healthful school environment			
Good	4 (15.4)	5 (21.7)	9 (18.4)
Fair	3 (11.5)	7 (30.4)	10 (20.4)
Poor	19 (73.1)	11 (48.7)	30 (61.2)
Mean	16.50±5.9	18.43±7.7	17.41±1.5

#### Overall quality of implementation of the SHP

The overall mean score of quality of implementation of the SHP was 27.3 ± 8.6. The urban public primary schools had a higher mean score compared with the rural schools

(28.17 ± 10.1 versus 26.54 ± 7.3). Overall, 29 (59.2%) of the schools had poor standard of SHP (17, 65.4% rural versus 12, 52.2% urban).

#### School health services (SHS)

The Overall mean score of the implementation of SHS was 6.39 ± 4.2 for all the schools. The rural public primary schools had a higher mean quality of implementation of SHS compared to their urban counterparts. (7.35 ± 3.8 versus 5.30 ± 4.5). Overall, slightly more than half 25 (51.0%) had poor quality of implementation of SHS (11, 42.3% rural; 14, 60.9% urban).

#### School health education (SHE)

Overall, mean quality of implementation of SHE was 3.51 ± 1.54. The urban public primary schools demonstrated a higher mean quality of implementation of SHI, with a mean score of 4.43 ± 0.9 compared with a mean score of 2.69 ± 1.54 for the rural schools. However, the quality of implementation of SHI was generally poor in 18 (36.7%) of the schools (14, 53.8% rural; 4, 17.4% urban).

#### Healthful school environment (HSE)

Overall, the mean score of the quality of implementation of SHE was 17.4 ± 1.54. The mean score (18.4 ± 7.8) of the quality of implementation of SHE in urban public primary schools was higher than 16.5 ± 5.9 of that of rural public schools. Overall, 30 (61.2%) of the schools had poor quality of implementation of the HSE (19, 73.1% rural versus 11, 47.8% urban).

## 5. Discussion

This study was carried out to assess the quality of implementation of SHP in rural and urban public primary school in Oyo State, South-west Nigeria.

This study revealed gross inadequacies in the participation of vital stakeholders in the administration of the SHS as documented from the observational checklist. Although none of the selected public primary schools observed in both the rural and urban LGAs had a school health committee, all of them had a functional PTA, possibly because they did not see or understand the purpose of having the former but had gained from the existence of the latter. Some might even see a school health committee as a duplication of the function of the PTA. It is not impossible for the school authority to accord more importance to the PTA since it indirectly relates with money matters like school fees, development levels and building of structures. The success of the SHP is dependent on the effectiveness of the school health team/committee. This team should be made up of qualified health and allied personnel. The school health committee should comprise the principal or the head teacher, the school health and physical educator/school health officer, school nurse, school health officer, student representative, PTA representative, community representative, nutritionist and health counselors [3].

In the same vein, neither the rural nor urban public primary schools had trained first aider, school health assistant nor school health nurse. Fajewonyomi [4] opined that school health services in Nigeria have solely been limited to administering first aid to injured students in schools. Consideration is not given to other relevant aspects of the SHP for which the expertise of a number of other professionals are needed. The overall effect of this problem has been the poor health status of the school children which is often characterized by a high rate of absenteeism due to ill health in the school population. Poor political will and the fact that important stakeholders are not aware of their role in the SHP might also be responsible for these inadequacies. Ademuwagun and Oduntan [5] agreed that the success of the SHP depends on the personnel involved in providing health services to the students and staff.

The SHP should be conducted jointly by the Ministries of Health and Education, but the stakeholders in the State are often not aware of their stake in the SHP vis-a-vis their non-challant attitude to its implementation. It also depends on the importance these Ministries attach to the WHO definition of health as the state of complete physical, social and mental well of the individual, family and community, in this regard the school population. The Ministry of Health should be responsible for the medical, dental and nursing services while the health instruction should be left for the Ministry of Education [4]. Even though availability of first aid boxes in the schools was high, more than half of the schools in the urban areas had empty boxes with no first aid materials in them. This corroborated the study by Akinteye in his appraisal of SHP in public secondary schools in Ibadan, Nigeria [6].

Although none of the schools allotted 3 hours per week as directed by the National Education Research Council's recommendation [7], a higher proportion of the urban public primary schools allotted two hours per week compared to the rural public schools. This study supported the review of public primary school teachers for health teaching in Anambra State where 79% of students reported school health education was awarded one period per week. Another study by Eke of 105 schools in

Anambra State documented that 51.4% of the schools gave partial or no recognition to school health instruction in the curriculum and that 39% of the schools allotted full time to it while majority of the schools allotted partial or no time [8]. This shows that school health instruction has not been accorded the utmost priority in the health education curriculum. A study conducted by Connel et al on social education evaluation in USA reported that more hours were needed to improve attitudes than to enhance health knowledge and practices [9]. The classroom teacher is expected to teach health as in the curriculum area like Mathematics and Social Studies [10]. Inadequate training in SHP during their school days may be responsible for avoiding more hours for health instruction. A study by Kolbe showed that less than 20% of teachers had the required training in school health [11].

Despite the development of a new curriculum for SHE comprising of personal and dental hygiene, food and nutrition, safety, first aid, HIV/AIDS, communicable diseases and sex education by National Education Research Council's recommendation (NERDC) [12], what was being mostly taught in primary schools was family living/home economics, with little disparity by location. None of the public primary schools in both the rural and urban schools had major communicable diseases, HIV/AIDS education and use and abuse of drugs in their health instruction. Less than half of the urban public schools had sex education. This study agreed with the review of the status of teacher preparation for health teaching in primary schools among teacher training institutions in Anambra State where Agusiege [7] noted that no institution complied with the NERDC [12] of three periods per week of health teaching in primary schools. The application of good health education in school depends on the knowledge, skills and attitudes the teachers acquired during their training.

This study found that most of the schools in the selected LGAs had poor rating of the quality of implementation of the HSE, especially in the rural areas. This finding is similar to the findings of an appraisal study of the SHP in public secondary schools in Ibadan metropolis where it was documented that refuse disposal in schools was inadequate as refuse was often littered around the premises and classrooms. It was discovered that open dumping was used while few used burning or incarceration method. The study also supported the report of Aklitar that in the urban areas of Ibadan, Nigeria, less than 1% of the households have toilet and basic sanitation facilities. It also supported a pilot survey [13] of 14 countries in 1995 which showed that primary schools in some of the developing countries have inadequate sanitation facilities. The average number of users is often higher than 50 students per toilet in the city schools. None of the 14 countries had increased the number of school toilets by more than 8% since 1990, suggesting that they are barely managing to keep up with the rise in student populations. A study conducted among head teachers of primary schools in one Local Government Area of Edo State revealed that 27.7% of the schools surveyed had no toilet facilities [14].

Majority of the schools lacked adequate and portable water. Few schools had taps or bore-holes, while majority depended on well water and others from a nearby stream. This study also corroborated the finding of Akinteye<sup>6</sup>

where water supplies to schools were from different sources. Lack of portable water in schools can force the students to take unhygienic water which may increase the episode of water borne diseases. Studies have been documented that improved water supply and sanitation reduced child diarrhea [15,16]. Water should be available in the schools for hand-washing of the children. Water is also necessary for the cleaning of toilets.

Adequate sanitation is fundamental to improving living standards. In its absence, diarrhea and other illnesses prevail, leading to high death rates and forcing families to spend their savings on medical care. Inadequate sanitation and water in schools also affect students attendance as many students' absenteeism from school is always due to ill health. Inadequate sanitation and water in schools jeopardizes not only students' health but also their attendance. Girls in particular are likely to be kept out of school if there are no sanitation facilities [17]. A study conducted by UNICEF in 1994 and 1998 in Bangladesh showed that provision of water and sanitation facilities in schools increased girls' attendance by 15%. Interaction with family and demand for sanitation facilities at home were seen in 80% of children where those practices were acquired at school.<sup>18</sup> Government officials from 6 different countries in sub-Saharan Africa gave situation reports on water and sanitation at home and in schools at the Water and Sanitation workshop in October 2000 in Burkina Faso.<sup>18</sup> For most of the countries, the assessments showed lower coverage in schools of water and latrines compared to the general population and low state of usage and maintenance. In Cote d'Ivoire, for example, 62% in rural areas had water and 40% in the capital Abidjan had sanitation. In schools, only 30% had water and 32% latrines. According to a survey in the Yopougon area of Cote d'Ivoire, 62% of water closets (WCs) do not work and there is about one WC/latrine per 381 students (suggested 1/40 girls and 1/80 boys) and one urinal per 892 students (suggested 1/50) [18]. Thus, these poor sanitary standards appear to be widespread in the developing world and may be associated with a poverty mentality, inadequate funding and misplaced priorities.

## 6. Conclusion

This study has provided base line information regarding the quality of implementation of the SHP in Oyo State, southwestern Nigeria since such information was not currently available. It revealed poor quality of implementation of the SHP in the selected rural and urban public primary schools in Oyo State as various essential equipment/items for effective school service delivery were either lacking or inadequate.

## 7. Policy Implications

The poor quality of implementation of the SHP in the Oyo State is a reflection of major challenges in the implementation of the NSHPo guidelines in 2006. There is a need to review the availability and functionality of the NSHPo in public primary schools in the State. The commitment of the stakeholders especially the State Government and State Universal Basic Education Board

should be explored. These review processes may serve as necessary pre-requisites for the improvement and upgrading of the standard of program in both rural and urban public primary schools in the State. Each school should institute a school health team comprising of the principal/head teacher, school physical/health educator or school health counselor, school nurse, school health officer, student (health prefect), parents' representative and community representative, nutritionist. School health instruction school be accorded topmost priority in the primary school curriculum. Sex and HIV/AIDS education should also be included in the school health education curriculum.

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