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ORIGINAL ARTICLE

Quality of implementation of the school health program in a rural district of Oyo State, Nigeria: a public-private comparison

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Abstract

Background There is abundant evidence that the first and only School Health Policy (SHPo) in Nigeria was adopted in 2006, but no study has since evaluated the quality of implementation (QoI) in government and privately funded schools. This study was conducted to evaluate the QoI of the School Health Program (SHP) in public and private primary schools of a rural Local Government Area in Oyo State using the SHPo framework as a guide.

Subjects and methods A comparative-descriptive cross-sectional design was chosen. A two-stage sampling technique was used to select 46 primary schools in a rural area: 30 public and 16 private. An observational checklist was used to assess the five domains of the SHP, namely: School Health Services (SHS), Skills Based Health Education (SBHE), School Feeding Services (SFS), Healthful School Environment (HSE) and School, Home and Community Relationship (SHCR), as listed in the Nigerian SHPo framework. QoI was assessed by exploring the availability, suitability and functionality of basic provisions for SHP implementation.

Results The majority of schools (90% public; 87.5% private) had first-aid boxes, but they had no contents in 23.3% of public and 68.8% of private schools. In only one private school was evidence of periodic medical inspection. A school meal service was present in 93.3% of public and 18.8% of private schools. Only one private school practiced medical screening. Some had gender-sensitive toilets (81.3% private; 33.3% public). None of the schools had evidence of pre-employment medical and routine screening for non-communicable diseases for staff. Overall, around 50% of schools had poor QoI of the SHP (63.3% public; 25.0% private).

Conclusion QoI of the SHP in selected rural public and private primary schools was generally poor, but with better quality in private than public schools.

Keywords Quality of implementation · School health program · Rural public/private schools · School health policy framework · Nigeria

Background

The School Health Program (SHP) is a combination of various activities in the school environment intended for the promotion of the health and development of the pupils, teaching and non-teaching staff as well as their family members (Federal Ministry of Education 2006). In Nigeria, it aims to improve the learning outcomes of children in these domains:

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School Health Services (SHS), Skills Based Health Education (SBHE), School Feeding Services (SFS), Healthful School Environment (HSE) and School, Home and Community Relationship (SHCR) (Federal Ministry of Education 2006; Ezekwesili 2006). In low- and middle-income countries where poor health care services and literacy rates prevail, a functional and effective SHP will improve child survival and provide the basis for achieving education for all (Abodunrin et al. 2014). The school then presents a platform where healthy habits are taught to and practiced by pupils under the guidance of their teachers. A community with a healthy child population and that engages in healthy practices represents a future with healthy adults with minimal disease risk (Odeyemi and Chukwu 2015).

The national Nigerian School Health Policy (SHPo) came into existence in 2006 and represents a legal framework for the implementation of the SHP in the country (Federal Ministry of Education 2006). Prior to the formulation and adoption of the SHPo, an assessment of Nigerian schools (early child care centers, primary and secondary schools, and non-formal education centers) conducted by the Federal Ministry of Health (FMOH) and Federal Ministry of Education in conjunction with the World Health Organization (WHO) revealed that 75% of schools lacked ventilated pit latrines, 54% lacked pipe-borne water or bore holes and 33% were reported to be unclean (Federal Ministry of Education 2006). In the health services domain, only 14% of head teachers indicated that pre-employment medical examinations were compulsory in their schools with just a few (17%) schools engaging school nurses, while 80% of schools had first-aid boxes (Federal Ministry of Education 2006). Screening of food handlers was not practiced in about four-fifth of schools (Federal Ministry of Education 2006). These findings portray the abysmal state of national school health due to the low performance of the SHP and were the rationale behind the adoption of the Nigerian SHP in 2006. However, for several years after this, no study was conducted to evaluate the implementation of the SHP using the policy framework as a guide. The earliest study on the evaluation of the SHP was conducted in Oyo State and revealed poor QoI as essential items for effective school service delivery were either inadequate or totally lacking (Adebayo and Owoaje 2016). However, the study did not utilize the SHPo framework as a guide, and private schools were excluded.

A study in Jos by Toma et al. (2015) reported that variation existed between private and public schools in an urban area, influenced by a range of factors such as the presence of professionals and availability of funds among others (Toma et al. 2015). Therefore, the present study was conducted to assess and compare the QoI of the SHP between public and private primary schools in a rural community in Oyo State based on the SHPo framework and using an observational checklist to provide evidence of best practices and other required interventions.

Methods

A comparative-descriptive cross-sectional design was used in a rural community in Oyo State. Oyo State has 33 Local Government Areas (LGAs): 12 urban, 12 rural and 9 semi-urban. One of the rural LGAs was purposively chosen because of its affiliation with the training of medical students and resident doctors of the College of Medicine, University of Ibadan, and University College Hospital, Ibadan, Nigeria. A simple random sampling technique was used to pick 46 primary schools in this district. The sampling frame of all private and primary schools in the LGA was obtained from the State Universal Basic Education Board (SUBEB), and allocation proportional to size was done to select 30 public and 16 private primary schools from the LGA with a random number generator. An observational checklist was used to assess the five SHP domains in the schools from the Nigerian SHPo perspective, namely, SHS, HSE, SBHE, SFS and SHCR (Ezekwesili 2006). A researcher and trained research assistants administered the checklist in the schools, accompanied by the head teacher and School Health Officer. Data were entered, cleaned and analyzed using SPSS version 23. Analyzed data were presented as proportions, means and standard deviations as appropriate using frequency tables. QoI was assessed by exploring the availability, suitability and functionality of basic facilities/commodities/equipment/infrastructure as found necessary for the five components of the SHP implementation as listed in the SHPo:

1. SHS: (a) availability of personnel, (b) a sick bay, (c) a first-aid box and its contents and (d) treatment facilities for emergency care.
2. HSE: (a) presence of perimeter fencing, (b) proper waste disposal facilities, (c) provision of clean and gender-sensitive toilets and (d) availability of drinking water.
3. SBHE: (a) scope of the health education curriculum, (b) availability of trained teachers and (c) time allotted to teach it.
4. SFS: (a) provision of school meals, (b) availability of a school meal timetable, (c) periodic medical screening of food vendors and (d) evidence of deworming pupils.
5. SHCR: (a) availability of parent/teacher's forum minutes of meetings, (b) periodic home visits to students by teachers and (c) organization of open days.

Components on the observational checklist were scored '1' for each available item and '0' when items were absent. The minimum and maximum obtainable score for QoI of the SHP was between 0 and 33 points (SHS, 0–8; HSE, 0–12; SBHE, 0–6; SFS, 0–4; SHCR, 0–3). Scores of < 40%, 40–49% and ≥ 50% were rated as poor, fair and good, respectively (Adebayo and Owoaje 2016) (Appendix Tables 1). Bias was minimized by not informing the schools prior to the visit. Ethical

approval was obtained from the Oyo State Ethical Review Committee. Advocacy visits were paid to the headmasters of selected schools in the Ibarapa Central Local Government Area during which the intention and aims of the study were communicated and support assured.

Summary of the scoring and rating for the QoI of SHP

Components of School Health Program	Maximum obtainable score	Poor (< 40%)	Fair (40–49%)	Good (≥ 50%)
School Health Services	8	< 3	3–4	5–8
Healthy School Environment	12	< 5	5–6	7–12
Skills Based Health Education	6	< 2	2–3	4–6
School Feeding Services	4	< 1	1–2	3–4
School, Home and Community Relationship	3	< 1	1	2–3
School Health Program (overall)	33	< 12	12–16	17–33

Results

Table 1 shows the distribution of schools by the availability and contents of their first-aid boxes. A total of 41 (89.1%) of the schools had first-aid boxes: 90% of the public schools and 87.5% of private schools. About one-fifth (23.3%) of public schools had contents in their first-aid box compared with over two-thirds (68.8%) of private schools. At least half of all schools had plasters, paracetamol and antiseptic solutions in their first-aid boxes (50%, 52.2 and 56.5%, respectively), with the private schools having higher proportions of 63.5%, 87.5 and 75%, respectively. Only one school (2.2%) had evidence of performance of periodic first-aid box inspections, and this school was a private one. Seven schools (15.2% of all schools) had handwashing facilities, of which six (37.5%) were private schools and one (3.3%) a public school. Only two (4.3%) private schools had a sick bay. Two schools (4.3%) had health staff (3.3% public; 6.3% private). Evidence of referral services was apparent in three (6.5%) schools, all of which were private (Table 2).

Table 3 shows that 31 (67.4%) rural schools provided school meal services—28 (93.3%) of public schools compared with three (18.8%) of their private counterparts. Only one school (private) had evidence of health screening for food vendors. Medical examination of food vendors was conducted yearly in 14 schools (30.4%), whereas the remaining schools did not conduct any screening. This was largely carried out in public schools (13/43.3%) compared with one (6.3%) private school. A school meal timetable was present in seven (15.2%) schools, six (20%) public and one (6.3%) private. None of the rural schools, whether public or private, had evidence of pre-employment medical screening of staff or routine screening for non-communicable diseases among staff members.

Half of all schools (50%) had gender-sensitive toilets. More private schools (13/81.3%) had gender-sensitive toilets than public schools (10/33.3%). A higher proportion of all schools (30; 65.2%) had separate toilets for teachers [private schools: 13 (81.3%), public schools 17 (56.7%)]. Overall, the number of schools with adequately maintained toilet facilities

Table 1 Availability and contents of first-aid boxes

First-aid box and contents	Public *N* = 30 Present n (%)	Private *N* = 16 Present n (%)	Total *N* = 46 Present n (%)
Availability of first-aid box	27 (90.0)	14 (87.5)	41 (89.1)
Contents	7 (23.3)	11 (68.8)	18 (39.1)
Emergency facilities			
Antibiotic ointment	11 (36.7)	5 (31.3)	16 (34.8)
Plasters	13 (43.3)	10 (62.5)	23 (50.0)
Antiseptic solution	14 (46.7)	12 (75.0)	26 (56.5)
Thermometer	2 (6.7)	6 (37.5)	8 (17.4)
Paracetamol	10 (33.3)	14 (87.5)	24 (52.2)
Scissors	1 (3.3)	9 (56.3)	10 (21.7)
Ibuprofen	1 (3.3)	2 (12.5)	3 (6.5)
Hydrocortisone	0 (0.0)	1 (6.3)	1 (2.2)
Oral rehydration solution	0 (0.0)	3 (18.8)	3 (6.5)
Antihistamine	2 (6.7)	3 (18.8)	5 (10.9)
Latex gloves	0 (0.0)	10 (62.5)	10 (21.7)

Table 2 School Health Services (SHS)

Variable	Public N = 30 n (%)	Private N = 16 n (%)	Total N = 46 n (%)
Periodic medical inspections			
Yes	0 (0.0)	1 (6.3)	1 (2.2)
No	30 (100)	15 (93.8)	45 (97.8)
Handwashing facilities			
Yes	1 (3.3)	6 (37.5)	7 (15.2)
No	29 (96.7)	10 (62.5)	39 (84.8)
Sick bay			
Yes	0 (0.0)	2 (12.5)	2 (4.3)
No	30 (100)	14 (87.5)	44 (95.7)
Health staff			
Yes	1 (3.3)	1 (6.3)	2 (4.3)
No	29 (96.7)	15 (93.8)	44 (95.7)
Referral services			
Yes	0 (0.0)	3 (18.8)	3 (6.5)
No	30 (100)	13 (81.2)	43 (93.5)

Table 3 School Feeding Services (SFS)

Variable	Public N = 30 n (%)	Private N = 16 n (%)	Total N = 46 n (%)
School meal services			
Yes	28 (93.3)	3 (18.8)	31 (67.4)
No	2 (6.7)	13 (81.2)	15 (32.6)
School meal timetable			
Yes	6 (20.0)	1 (6.3)	7 (15.2)
No	24 (80.0)	15 (93.7)	39 (84.8)
Medical examination for school vendors			
None	17 (56.7)	15 (93.7)	32 (69.6)
Yearly	13 (43.3)	1 (6.3)	14 (30.4)
Evidence of medical screening for school vendors			
Yes	0 (0.0)	1 (6.3)	1 (2.2)
No	30 (100.0)	15 (93.7)	45 (97.8)

Table 4 Healthful School Environment (HSE)

Variable	Public N = 30 n (%)	Private N = 16 n (%)	Total N = 46 n (%)
Classroom ventilation			
Yes	26 (86.7)	16 (100.0)	42 (91.3)
No	4 (13.3)	0 (0.0)	4 (8.7)
Classroom lighting			
Adequate	30 (100.0)	16 (100.0)	46 (100.0)
Inadequate	0 (0.0)	0 (0.0)	0 (0.0)
Gender-sensitive toilets			
Yes	10 (33.3)	13 (81.3)	23 (50.0)
No	20 (66.7)	3 (18.7)	23 (50.0)
Separate toilet for teachers			
Yes	17 (56.7)	13 (81.3)	30 (65.2)
No	13 (43.3)	3 (18.7)	16 (34.8)
Adequately maintained toilet(s)			
Yes	5 (16.7)	11 (68.8)	16 (34.8)
No	25 (83.3)	5 (31.2)	30 (65.2)

was low at 16 or 34.8%. Eleven private schools had better toilet facilities (68.8%) than five public schools (16.7%). Seven (15.2%) schools had proper drainage systems, of which six (37.5%) were private schools and one (3.3%) a public school. Altogether, 11 schools (23.9%) had perimeter fencing, with a slightly higher proportion in private schools (five, 31.3%) than public schools (six, 20%). Eight schools (17.4%) had waste disposal facilities: three (18.8%) private and five (16.7%) public schools. The majority of rural schools (38/82.6%) were situated close to a hazard, namely 15 (93.8%) of private schools and 23 (76.7%) of public schools. Adequate furniture was present in 15 private schools (93.8%) compared with 19 public schools (63.3%). Thirty-one (67.4%) of the schools had compounds cleared of bushes and overgrown grasses, of which 12 (75%) were private schools and 19 (63.3%) public schools (Table 4 & 5).

Table 6 shows that 15.2% of schools had a trained counselor, five (31.3%) of which were private schools and two (6.7%) public schools. A minority of the schools, namely three (6.5%), had a counseling schedule and a record of the counseling provided. Two (12.5%) were private schools and one (3.3%) a public school. None of the rural schools, whether public or private, had evidence of pre-employment medical screening of staff or routine screening for non-communicable diseases among staff members.

Regarding the overall QoI of the SHP, the mean score was 12.2 ± 3.75 for all schools, with private schools having a higher mean score (14.4 ± 4.82) than public schools (11.0 ± 2.41). In total, 23 (50%) schools had a poor SHP standard (63.3% of public schools vs. 25% of private schools). The overall mean score of the QoI of SHS was 1.22 ± 0.76 for all schools. Private schools had a higher mean score (1.69 ± 1.02) than public schools (0.97 ± 0.41). However, QoI for SHS was poor in 44 (95.7%) of all schools (100% of public contrasted with 87.5% of private schools). The mean QoI score for HSE for all schools was 6.63 ± 2.28. Private schools had a higher mean score of 8.25 ± 1.98 compared with 5.77 ± 1.94 in public schools. Overall, 25 (54.45%) of all schools had a good QoI for HSE, with 81.3% private versus 40% public. The total mean score of the QoI of SBHE for all rural schools was 12.2 ± 3.75. Public schools had a slightly higher mean score of 2.30 ± 0.84 compared with 2.06 ± 1.48 in private schools. Overall, ten (21.7%) of all rural primary schools had a poor QoI of SBHE (37.5% private versus 13.3% public) (Table 7). The overall mean QoI of SFS was 0.89 ± 0.71 for all schools. Public primary schools had a higher mean score (1.17 ± 0.53) than private primary schools (0.38 ± 0.72). Overall, 14 (30.4%) schools had poor QoI of SFS, with a higher number of 12 (75%) private schools compared with two (6.7%) public schools. The mean QoI of SHCR for rural schools was 1.24 ± 0.90. Private schools had a higher mean score of 2.00 ± 0.89 compared with public schools, which had a score of 0.83 ± 0.59. However, QoI was poor in nine (19.6%) schools, with eight (26.7%) of them being in the public domain and one (6.3%) in the private domain (Table 7).

Discussion

This study was carried out to assess the QoI of the SHP in public and private rural primary schools in Oyo State, southwest Nigeria. Overall, there was poor realization of the SHP in

Table 5 Healthful School Environment (HSE) (continued)

Variable	Public N = 30 n (%)	Private N = 16 n (%)	Total N = 46 n (%)
Proper drainages			
Yes	1 (3.3)	6 (37.5)	7 (15.2)
No	29 (96.7)	10 (62.5)	39 (84.8)
Perimeter fencing			
Yes	6 (20.0)	5 (31.2)	11 (23.9)
No	24 (80.0)	11 (68.8)	35 (76.1)
Waste disposal facilities			
Yes	5 (16.7)	3 (18.8)	8 (17.4)
No	25 (83.3)	13 (81.2)	38 (82.6)
Potable water			
Yes	12 (40.0)	7 (43.8)	19 (41.3)
No	18 (60.0)	9 (56.2)	27 (58.7)
Proximity to a hazard			
Yes	23 (76.7)	15 (93.7)	38 (82.6)
No	7 (23.3)	1 (6.3)	8 (17.4)
Furniture			
Adequate	19 (63.3)	15 (93.7)	34 (73.9)
Inadequate	11 (36.7)	1 (6.3)	12 (26.1)
Free of bushes			
Yes	19 (63.3)	12 (75.0)	31 (67.4)
No	11 (36.7)	4 (25.0)	15 (32.6)

Table 6 Counseling services

Variable	Public N = 30 n (%)	Private N = 16 n (%)	Total N = 46 n (%)
Trained counselor			
Yes	2 (6.7)	5 (31.2)	7 (15.2)
No	28 (93.3)	11 (68.8)	39 (84.8)
Counseling schedule			
Yes	1 (3.3)	2 (12.5)	3 (6.5)
No	29 (96.7)	14 (87.5)	43 (93.5)
Record of counseling			
Yes	1 (3.3)	2 (12.5)	3 (6.5)
No	29 (96.7)	14 (87.5)	43 (93.5)

half of the selected schools in Oyo State. This is similar to the poor QoI of the SHP in 59.2% of rural and urban public primary schools found by Adebayo and Owoaje (2016), although their study did not assess private schools. A higher proportion of schools with deficient SHS was reported in a survey of public primary schools in an urban LGA in Anambra State where more than three-quarters had poor implementation (Osuorah et al. 2016). This could be because it assessed SHS alone, which is just one of the five components of the SHP. Findings from our study are contrary to those of Ademokun et al. (2014) in metropolitan Ibadan where about a third (28.6%) of schools had poor implementation of SHP. However, Ademokun et al.'s study was conducted among secondary schools, which may have better facilities and equipment because they are higher learning centers compared with primary schools. In addition, urban areas usually have better access to resources, which in turn ensures adequate SHP compliance. Also, secondary schools are under the purview of the Oyo State Ministry of Education, while primary schools are coordinated by SUBEB. The former might have better access to funding and other resources than the latter since the government attaches more relevance to secondary education.

There was a higher QoI for the SHP in private rural schools compared with public schools in this study. This was evidenced by the higher availability of first-aid box contents, sick bays, handwashing facilities, potable water, refuse disposal facilities, adequately maintained gender-sensitive toilets and counseling schedules with a trained advisor. The HSE, SHCR and SHS scores in particular reflect a higher QoI in private rural schools. This finding is consistent with the results of other similar studies (Abodunrin et al. 2014; Toma et al. 2015; Osuorah et al. 2016) and could be due to the low level of funding that has been committed to the aging public schools in the past, leading to the progressive collapse of the infrastructure in a society where a maintenance culture is not upheld by government establishments. Recently established private primary schools, on the other hand, have owners who routinely monitor the infrastructure and aim to provide better services, with financial gain as the motivating factor.

The QoI of SHS was poor overall, although private schools had a better QoI than public schools, as evidenced by more private schools having sick bays, handwashing facilities, medical items in their first-aid boxes, and records of treatment and referral facilities compared with public schools. This could be attributed to the fact that private schools are owned by businessmen and women whose primary aim is to make a profit by offering an educational environment with good facilities for pupils, which persuades parents in the upper socioeconomic class to enroll and sponsor their wards in such schools. In public schools, on the other hand, the government funds the school and also pays teachers' salaries, and the quality of SHS does not affect the enrollment of wards from the lower socioeconomic class or alter the teachers' salaries. Kuponiyi et al. (2016) in his study of SHS in private and public primary schools in Ogun State reported similar findings of a higher QoI of SHS in private than in public primary schools. They attributed this to the fact that private schools have better access to funding than public schools and that such private schools use business models to attract clientele. In Nnewi North LGA of Anambra State, Nigeria, Osuorah et al. similarly reported that the QoI of SHS was higher in private than public schools

Table 7 Aggregate scores of QoI of the School Health Program (SHP)

Variable	Public N = 30 n (%)	Private N = 16 n (%)	Total N = 46 n (%)
Overall QoI of School Health Program (SHP)			
Good	0 (0.0)	4 (25.0)	4 (8.7)
Fair	11 (36.7)	8 (50.0)	19 (41.3)
Poor	19 (63.3)	4 (25.0)	23 (50.0)
Mean	11.0 ± 2.41	14.4 ± 4.82	12.2 ± 3.75
Overall QoI of School Health Services (SHS)			
Good	0 (0.0)	0 (0.0)	0 (0.0)
Fair	0 (0.0)	2 (12.5)	2 (4.3)
Poor	30 (100.0)	14 (87.5)	44 (95.7)
Mean	0.97 ± 0.41	1.69 ± 1.02	1.22 ± 0.76
Overall QoI of School Feeding Services (SFS)			
Good	0 (0.0)	0 (0.0)	0 (0.0)
Fair	28 (93.3)	4 (25.0)	32 (69.6)
Poor	2 (6.7)	12 (75.0)	14 (30.4)
Mean	1.17 ± 0.53	0.38 ± 0.72	0.89 ± 0.71
Overall QoI of Healthful School Environment (HSE)			
Good	12 (40.0)	13 (81.2)	25 (54.4)
Fair	11 (36.7)	2 (12.5)	13 (28.3)
Poor	7 (23.3)	1 (6.3)	8 (17.3)
Mean	5.77 ± 1.94	8.25 ± 1.98	6.63 ± 2.28
Overall QoI of School, Home and Community Relationship (SHCR)			
Good	3 (10.0)	12 (75.0)	15 (32.6)
Fair	19 (63.3)	3 (18.7)	22 (47.8)
Poor	8 (26.7)	1 (6.3)	9 (19.6)
Mean	0.83 ± 0.59	2.00 ± 0.89	1.24 ± 0.90
Overall QoI of Skills Based Health Education (SBHE)			
Good	1 (3.3)	3 (18.8)	4 (8.7)
Fair	25 (83.4)	7 (43.8)	32 (69.6)
Poor	4 (13.3)	6 (37.4)	10 (21.7)
Mean	2.30 ± 0.84	2.06 ± 1.48	12.2 ± 3.75

(Osuorah et al. 2016). He attributed this to the better funding enjoyed by private schools. Oyinlade et al. (2015), in a study evaluating SHS in both public and private (primary and secondary) schools in Ogun State, reported that 96.2% of private primary schools had poor implementation of SHS. This was ascribed to the low level of teachers' health knowledge and the absence of parent/teacher associations and school health committees (Oyinlade et al. 2015). The contrasting outcomes seen here could be explained by the fact that Oyinlade's study evaluated both primary and secondary schools, whereas our study only evaluated primary schools. The use of different criteria for assessment could also be responsible for the conclusion of poor implementation of SHS in private schools in Oyinlade's study.

There was good QoI of HSE, with higher quality in private schools than in public schools since more private schools reported adequate classroom ventilation, availability of gender-sensitive toilets and separate toilets for teachers. Other observed elements in the private schools included adequately maintained toilets, availability of sanitary waste disposal facilities, proper drainage and perimeter fencing. This is contrary to findings from Ademokun et al. (2014) in selected Ibadan metropolitan secondary schools, where most schools did not have adequate facilities to make the environment healthy. However, this study was conducted in public secondary schools, where inadequate funding is a major challenge. Although not specifically stated in the study, the location of the selected urban schools could also explain the inadequacy of the facilities in Ademokun's study as the selected LGAs have a mix of low-, medium- and high-density areas.

The overall QoI of SFS was poor in 30.4% of both public and private schools. This was shown by the low rate of provision of school meal services, low rate of health screening for food vendors and poor availability of school meal timetables. The provision of school meal services and the availability of school meal timetables were higher in public schools compared with private schools. This is probably because the parents of children in private schools usually provided breakfast for their wards before they went to school and also packed some lunch, snacks and water for them. A study of public secondary schools in Ibadan revealed satisfactory QoI of SFS in 85.7% of schools surveyed (Ademokun et al. 2014). This could be attributed to school food vendors who were regulated by the Oyo State Ministry of Health. In addition to this ministerial involvement, the Teaching Service Commission is an established system that recruits and produces trained teachers, conducts on-the-job training and provides supportive supervision from the Local Inspector of Education, which is an attribute that private primary schools lack.

In general, the higher QoI of the SHP observed in private compared with public schools may be suggestive of better knowledge and utilization of the SHPo document since the design of the observational checklist was based on the policy framework. However, further study is required to assess SHPo documentation availability and use in both private and public schools in Oyo State.

Conclusion This study discovered poor QoI of the SHP in selected rural public and private primary schools in Oyo State, with the availability and functionality of school health facilities and infrastructure being better in private than public schools. Elements deemed important for efficient realization of the SHP were missing in most schools, especially in the public schools, which might in turn explain the poorer implementation of the SHPo in public primary schools.

Recommendations There is a need to review the availability of the SHPo in schools, assess teachers' knowledge and

perception of the SHPo and its framework, and revise the SHP where required. The government needs to make a concerted effort in the supervision, monitoring and evaluation of the SHP for optimal implementation in Oyo State. The government and other relevant stakeholders should also direct effort toward increasing funding for public primary schools. School authorities should give due consideration to pre-entrance medical screening and periodic medical checks for pupils and pre-employment medical examinations for staff in both public and private schools in the study area. Recruitment and use of trained counselors would also contribute to the quality of students produced by elementary schools.

The state government should enforce SHPo implementation before private primary schools are allowed to open. Regarding public schools, the government should solicit the support of philanthropists to help provide the required facilities. In addition, there could be fruitful partnerships with other sectors like the health sector to help with medical screening of pupils and staff.

Funding The study was self-sponsored.

Compliance with ethical standards

Conflict of interest Ayodeji Adebayo declares that he has no conflict of interest. Olutoyin Sekoni declares that she has no conflict of interest. Obioma Uchendu declares that he has no conflict of interest. Oludoyinmola Ojifinni declares that she has no conflict of interest. Akinwumi Akindele declares that he has no conflict of interest. Oluwaseun Adediran declares that he has no conflict of interest.

Ethical approval All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki Declaration and its later amendments or comparable ethical standards.

Informed consent Informed consent was obtained from the principal of each school.

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