EVALUATION OF SCHOOL HEALTH SERVICES PRACTICES IIN PRIMARY SCHOOLS IN ANYIGBA METROPOLIS OF KOGI STATE, NIGERIA

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ABSTRACT

The School Health Service (SHS) is a crucial component of the School Health program, ensuring children's health and wellbeing to maximize their educational benefits. However, SHS in Nigeria has been suboptimal. This study aimed to assess the availability and practices of SHS in primary schools in Anyigba metropolis, where data is scarce. Using a descriptive cross-sectional survey design, 58 respondents were sampled. The findings revealed poor SHS practices in primary schools, with none meeting the minimum acceptable score. Private schools performed better than public schools in providing and practicing SHS. The study recommends employing health personnel and making pre-entry medical screening compulsory for school admission to improve SHS in Anyigba metropolis. This will help ensure children's health and wellbeing, ultimately enhancing their educational experiences.

Keywords: Evaluation, school health services, practice, primary schools

Introduction

Globally, the number of children enrolment in school has increased significantly over the past decade (Amanchukwu & Ololube, 2015). In many homes across the world, children start to attend school from as early as five to six months of life because mothers have to wean early so as to return to workplace (Sanni et al., 2022). Furthermore, the number of children reaching school age has increased. Estimated to be about 18% and 25% of the world's and Nigeria's population respectively and this figure is increasing (Kuponiyi & Amoran, 2016). Though, parents are in the best position to discover any health problem with the child, but today most parents have little time for their children, spending most of their time at work or commuting to and from work, leaving their children in the care of schools for longer hours each day (Sanni et al., 2022). Therefore, having effective school-based health services cannot be overemphasized.

School health services is one of the components of the school health programme. It refer to the healthcare delivery system that is operational within a school or college. These services aim

at promoting and maintaining the health of school children so as to give them a good start in life. In addition, school health services is to help children at school to remain healthy so as to obtain optimal benefit from their education as the proper implementation will also help in the attainment of Sustainable Developmental Goals (SDG), that are related to education and health. Effective school health services facilitate early detection and diagnosis of diseases, whereby prompt intervention ultimately reduces school age morbidity and mortality (Sanni et al., 2022; Kuponiyi & Amoran, 2016; Oyinlade et al., 2014).

School health services deal with health appraisals, control of communicable diseases, record keeping and supervision of the health of school children and personnel. It is the aspect that concerns itself with the evaluating the health of an individual objectively. Health appraisals afford the school authorities the opportunity to detect signs and symptoms of common diseases as well as signs of emotional disturbances that could impede the learning activities of children. School health services are both preventative and curative services and it helps in providing information to parents and school personnel on the health status of school children. It also provides advisory and counseling services for the school, community and parents. It include pre-entry medical screening, routine health screening/examination, school health records, sick bay, first aid and referral services. Others services rendered include health observation (which involves physical inspection of the physiology and behaviours of children), health examination (screening tests and medical diagnosis) and health records (keeping of records of the health histories of children (Kuponiyi & Amoran, 2016).

A national study conducted by Federal Ministry of Education in collaboration with the World Health Organization (WHO) on the quality of school health services provided in schools across Nigeria was found to be generally poor (Sanni et al., 2022; Toma et al., 2014). There is a dearth of school health clinics in Nigeria and where they exist, the services are not comprehensive enough or not organized to meet the needs of the pupils (Kuponiyi & Amoran, 2016). Researches also shown that primary school children were not provided with basic health examinations thus baseline health information about them was absent. There is also a lack of routine medical examination which would have picked up deviations from normal which make early referrals impossible and children vulnerable to preventable diseases (Kuponiyi & Amoran, 2016; Olatunya et al., 2015). Various studies both from the Southern and Northern region of Nigeria has revealed

an unsatisfactory provision and implementation of school health services (Dania & Adebayo, 2019; Toma et al., 2014; Ademokun et al., 2014). Presently, there is no published studies on the status of school health services kin Kogi State in general and Anyigba metropolis in particular. This study therefore, aimed to evaluate the practice implementation of health services in primary schools in Anyigba metropolis and to find out the differences in the practice of school health services between private and public primary schools in Anyigba metropolis of Kogi State, Nigeria.

Statement of the problem

The school has an obligation to establish a healthy environment, which will help the pupils maintain optimum fitness adequate for learning, teaching and maintains condition for healthy living, assure optimum health for individual and make intelligent decisions about personal, family, and community health (Olabimpe et al., 2022). The emphasis in school health services had changed from providing only health services for pupils in our schools to one that is educational in nature and seeks to counsel pupils and parents in securing their own health services. School health services are the health and related health procedures carried out by the health personnel, teachers and all others connected with school health in order to appraise, protect and promote the health of the pupils and school personnel.

Primary schools in Nigeria provide various levels of health services to the pupils the levels of services depends on many factors, like the State and Federal Laws, the commitment of the Ministry of Education, perception about the importance of health services and parental involvement (Abodunrin et al., 2014). Basic school health services, usually provided by school authorities through the health personnel's included health appraisal, screening for medical conditions, care of students with special health needs, assessment for acute and convergences conditions, administration of the first aid, provision of treatment facilities/content in first aid boxes care for emergency illness, control of communicable diseases, immunization, health education and promotion activities and maintenance of school health records.

Perhaps the negligence of the school health services by the school authorities is attributable to the poor supervision by the responsible ministries (Health and Education). Despite the effort of the government to improve the facilities of school health services, cases of infection remain high among pupils in primary schools. It is therefore not clear how adequate the health services in

Anyigba metropolis are. In view of this, the study therefore attempt to assess the health services provided in primary schools in Anyigba metropolis.

Hypothesis

$H0_1$: There is no significant difference in the practice of school health services between public and private primary schools in Anyigba metropolis of Kogi State.

Methodology

Research Design

This study was carried out in Anyigba metropolis between March to May, 2023. A cross-sectional descriptive research design was used for the study.

Population of the Study

The population for the study was made up of teachers and other school personnels from public (government) and private registered primary schools in Anyigba metropolis of Kogi State. There are 56 registered primary schools in Anyigba metropolis as at the time of this study. These comprised of 21 public (public) and 35 private primary schools.

Sample size Determination

A prevalence of 50% of both the public and private primary schools was used to estimate the sample size using the formula for comparative study which allowed for a precision of 5% at a 9.5% confidence interval (Sanni et al 2022).

$$\frac{\sqrt{P_1C_1\text{-}P_1+Z_B}\ \sqrt{P_2\ C_1\text{-}P_2}}{(P1\text{-}P2)^2}$$

Thus, a total sample size of 58 respondents (that is, the head teacher and a staff) were used from each of the selected schools.

Sampling Technique

A multi stage sampling procedure was used for the study;

Stage: 1 Stratified random sampling technique was used to group the primary schools into public and private schools.

Stages 2: Proportionate sampling was used to select the number of schools from each of the public and private schools. Half of the schools in each group were selected which resulted in the selection of 11 public and 18 private primary schools respectively.

Stage 3: To select samples from each sampled school, the head teacher and one staff were randomly selected, making a total number of 58 respondents.

Instrument for Data Collection

A self-structured questionnaire was designed for the study. The questionnaire consist of section A: Demographic data of the respondents and section B consist of questions that assess the various components of school health services such as health personnel, health appraisal, care of emergency, facilities and control of communicable diseases.

Method of Data Collection

The researchers with 5 research assistants recruited and trained in the correct use of questionnaire personally visited the selected schools to administer the questionnaire on the respondents. Questionnaire was collected on the spot after it has been filled.

Data Analysis

Data collected was sorted and analyzed using the SPSS version 20.0 statistical software frequency count, percentage and mean and standard deviation were used to analyzed the demographic data and the various components of school health services practiced by the schools. While inferential statistics of chi-square was used to test the difference between public (government) and private schools in the practice of school health services in their schools. Therefore, any means score of response that is 2.5 and above is positive or acceptable and any mean score of response less than 2.5 is negative and it is unacceptable.

Results

Table 1: Demographic data of respondents

Item	Variable	Frequency	Percentage (%)
Gender	Male	23	39.7
	Female	35	60.3
Age	12 – 30	25	43.1
	31 – 40	15	25.9
	41 – 50	10	17.2
	51 and above	08	138
Qualification	Masters Degree	02	03.4
	University Degree	27	46.6
	N.C.E	22	37.9
	O' level	07	12.1
Years spent in school	1 – 5	28	48.3
	6 – 10	15	25.8
	16 and above	03	5.2

Table 1 shows that out of 58 respondents, 23 (39.7%) where male while 35 (60.3%) were female. Most of the respondents 25 (43.1%) were between 21 – 30 years. Also, majority of the participants were university degree 27 (46.9%) and NCE 27 (37.9%) respectively while most of the respondents 28 (48.3%) have spent between 1 – 5 years in their respective schools.

Table 2: Mean scores of the respondents on health appraisal of pupils in primary schools in Anyigba metropolis

S/N	Items	Agree	Disagree	Mean	Std. Dev.
1.	Routine inspection by teachers	53 (91.4%)	05(8.6%)	3.84	0.83
2	Pre-entry screening test for growth defects handicaps and disabilities	02 (3.4%)	56 (96.6%)	1.06	1.89
3.	Periodic Medical Examination of staff and pupils	03(5.2%)	55(94.8%)	1.06	1.34
4.	Referrals of pupils and staff to health cenres/hospitals	17(29.3%)	41(70.7%)	2.24	1.78
5.	Supervision of health of the physically challenged	21(36.2%)	37(63.8%)	2.36	1.46
	Aggregate Mean			**2.11**	

Table 2 shows that most primary schools in Anyigba metropolis do not generally carried out health appraisal of pupils. This is reflected in the responses of respondents based on the mean scores where almost all items except item 1 are below the bench mark of 2.50. The only health appraisal carried out by the schools was routine inspection by teachers. About 91.4% of the schools practiced or carried out routine inspection of pupils teeth, finger nails and school uniform one to three time weekly. Periodic medical examination was carried out by 5.2% of the schools while only 3.4% requested for pre-entry medical screening test for pupils.

Table 3: Mean scores of respondents on health personnel in primary schools in Anyigba metropolis

S/N	Items	Agree	Disagree	Mean	Std. Dev.
1.	Availability of health assistant and trained first older	09(15.5%)	49(84.5%	1.07	1.89
2	Availability of Health Educator	15(25.9)	43(74.1%)	1.21	1.49
3.	Availability of Nurse/Midwife	0(00%)	58(100%)0	0.01	1.32
4.	Availability of Doctor	0(00%)	58(100%)	0.01	1.34
5.	Availability of Nutritionist	13(22.4%)	45(77.6%)	1.14	1.67
	Aggregate Mean			**0.69**	

Table 3 above revealed the respondents opinion on the health personnel present in the primary schools studied. The result shows that majority of schools had no health personnel. This clearly demonstrated by the low mean scores of all the items in the table with the aggregate mean score of 0.69. This implies that most of the school lack adequate health personnel.

Table 4: Mean scores of respondents on provision of treatment facilities/content in first Aid boxes in primary schools in Anyigba metropolis

S/N	Items	Agree	Disagree	Mean	Std. Dev.
1.	Availability of first Aid box	55(94.8%)	03(5.2%)	3.14	0.49
2	Availability of essential drugs and materials for first aid treatment (e.g wound dressing materials & analgesic)	18(31.0%)	40(69%)	1.37	1.74
3.	Sick bay/Health room/Clinic available in the school	05(8.6%)	53(91.4%	1.04	1.35
4.	Availability of school bus/Ambulance	07(12.1%)	51(87.9%)	1.12	1.64
5.	Availability of telephone services	54(93.1%)	04(6.9%)	3.06	0.57
	Aggregate Mean			**1.95**	

Treatment facilities available within the schools and the contents of the first aid boxes are shown in table 4 above. Majority of the schools 94.8% had first aid boxes of which 18% had essential drugs and medicaments in the boxes. 8.6% had sick bay, 12.1% had school buses/ambulance, and 93.1% had telephone services for health related calls. Also, the table shows an aggregate mean score of 1.95 which is lower than the bench mark of 2.50. Thus, the majority of the schools in Anyigba metropolis had no treatment facilities and content in the first aid boxes.

Table 5: Mean scores of respondents on care of emergency illness in primary schools in Anyigba metropolis

S/N	Items	Agree	Disagree	Mean	Std. Dev.
1.	First aid treatment usually given	35(60.3%)	23(39.7%)	2.64	0.94
2	Treatment given recorded or referral copy seen	04(6.9%)	54(93.1%)	0.43	1.68
3.	Notification of parent immediately	47(84.5%)	09(15.5%)	2.72	1.74
4.	Transport child to the nearest health post/clinic	2(3.4%)	5696.6%)	0.24	1.58
5.	Convey child home after treatment	16(27.6%)	42(72.4%)	1.36	1.47
	Aggregate Mean			**1.48**	

Table 5 shows the response to emergency illness care in Anyigba schools. Most schools (60.3%) administer first aid, 84.5% notify parents immediately, and only 27.6% send children home after treatment. Additionally, 93.1% of schools lack health records, 96.6% have no transfer provisions, and 6.9% have incomplete records. The mean score of 1.48 indicates that many schools lack adequate emergency illness care.

Table 6: Respondents response on control of Communicable diseases in primary schools in Anyigba metropolis

S/N	Items	Agree	Disagree	Mean	Std. Dev.
1.	Send affected pupils homes	56(96.5%)	2(3.5%)	3.43	0.68
2	Isolation of the affected pupils on a health room	02(3.5%)	56(96.5%)	0.36	1.84
3.	Immunization of pupils against infectious diseases	04(6.9%)	54(93.1%)	3.41	0.76
4.	Health talks/health counseling of pupils and parents	23(39.7%)	35(60.3%)	2.26	1.94
5.	School authority closes outbreak of communicable diseases	58(100%)	0(00%)	4.23	0.56
	Aggregate Mean			**2.74**	

Table 6 above illustrated the responses on the control of communicable diseases in primary schools in Anyigba metropolis. Based on the result, most schools (96.5%) sent affected pupils

home until recovery. Only 4% of the schools arranged for immunization of their school population during outbreaks of diseases, although health workers from the local government did visit the schools to vaccinate pupils on the National Immunization Days for specific diseases. Also, all schools authority closes schools during an outbreaks of communicable diseases in response to government directive. The aggregate mean score of the table shows 2.74 which is greater than the 2.5 bench mark. This implies that there is good proper control of communicable diseases in schools in Anyigba metropolis.

Table 7: Chi-square comparison of the practice of school health services between public and private primary schools in Anyigba metropolis

School type	***N***	***M***	***Std***	***df***	***X^2***	***p***
Public	22	2.36	1.58			
Private	36	3.24	0.92	1	3.48	.02

The result of the study as presented in table above shows the X^2-test analysis of the significant difference between the mean ratings of public and private primary schools in Anyigba metropolis on the practices of school health services. The result show that a X^2-value of 3.48 with a degree of freedom of 1 and a probability value of 0.02 was obtained. Since the probability value of 0.02 is less than 0.05 levels of significance, thus, the null hypothesis is rejected. This implies that there is significant difference in the practice of school health services between public and private primary schools in Anyigba metropolis of Kogi State, Nigeria.

Discussion of Findings

The importance of a good and functional school health services as a component of school health programme in the overall development of children cannot be over emphasized. School health services are helpful in providing information for monitoring, evaluating, improving and maintaining the health of school children. Effective school health services facilitate early detection and diagnosis with prompt intervention in order to prevent mortality and reduce morbidity (Kuponiyi & Amoran 2016).

Firstly, with regards to health appraisal practiced by the schools in Anyigba metropolis, routine inspection of the pupils (nails, skin, teeth, hair and clothes) by teachers at least 1 or 3 times weekly was the commonest form of health appraisal done in the study. This finding is similar to

previous studies conducted in Nigeria (Sanni et al., 2022; Kuponiyi & Amoran 2016; Kolbe, 2019; Ezeonu & Akani, 2010). This, unlike caring for the sick children, requires no training or skills and without much effort teachers were able to carry out the activity, perhaps, the reason for its high rate in these studies. This would encourage inculcation of good personal hygiene, in addition to early detection of apparent illness (like skin diseases), in school children. Pre-entry medical screening and periodic medical examination of staff and pupils were not commonly practiced by schools in Anyigba metropolis. The finding of this study is in line with several studies in Nigeria who has reported similar findings (Sanni et al., 2022; Kuponiyi & Amoran 2016; Oyinlade et al., 2014; Kolbe, 2019). In fact, none of the schools in Anyigba metropolis made pre-entry medical screening a compulsory admission prerequisite. This, flexibility on the screening policy by schools could have been premised on the government policy of allowing all Nigerian children assess to Universal Basic Education (U.B.E). This non practiced of pre-entry medical screening and periodic medical examination suggest that most handicaps and disabilities would be discovered much latter and at a time when they might have become permanent and irreversible. As regards supervision of health of the physically challenged, this appraisal was inadequately carried out in the study area, as only 36.2% of surveyed schools practiced this; similar to the findings in Zimbabwe and other parts of Nigeria (Sanni et al., 2022). These were, however, contrary to the situation in Spain, where in a region, up to 70% of schools were actively involved in the health needs of deaf pupils, thereby making schools fulfill the quality of being a health-promoting setting (Muno-baell et al., 2008).

Secondly, this study showed that all schools in Anyigba metropolis lack health personnel. None of the schools had a doctor or nurse, and only a few had any health personnel, mainly trained first aiders (15.5%), health educators (25.9%), and nutritionists (22.4%). This shortage of health personnel has been reported in various studies conducted in Nigeria (Sanni, Airede, Anigilaje, & Offiong, 2022; Kuponiyi & Amoran, 2016; Oyinlade, Ogunkunle, & Olanrewaju, 2014; Kolbe, 2019). This suggests that there has been no significant improvement in the supply of health personnel to schools over the last 20 years. The figures from this study contrast sharply with a 1972 study in Ibadan, which found that about two-thirds of schools had a trained first aider (Kuponiyi & Amoran, 2016). This implies a steady deterioration in school health services over the past five decades, as noted by some authors (Sanni et al., 2022; Olatunya, Oseni, Olaleye, Akani, & Olgelami, 2015; Dania & Adebayo, 2019; Kolbe, 2019). In contrast, in the United States, over 82% of public schools employ school nurses, with 63% having full-time nurses (Sanni et al., 2022;

Olabimpe et al., 2022). This difference may reflect the disparity in resources between developed and developing countries. Health personnel play a crucial role in implementing and coordinating school health services (Kolbe, 2019). Their absence may negatively impact other aspects of school health services.

The treatment facilities available in this study for onsite illnesses included first aid boxes. The presence of first aid boxes in 94.8% of the schools is similar to reports by Kolbe (2019) and Oyinlade et al. (2014). However, most schools lacked well-stocked first aid boxes, similar to findings by Kolbe (2019) and Abodunrin, Adeoye, Adeomi, and Osundina (2014), contrasting with Sanni et al. (2022) and Kuponiyi and Amoran (2016). The main contents of the first aid boxes were wound dressing materials and analgesics, but none had suturing materials. This finding is consistent with Sanni et al. (2022), Qureshi et al. (2018), and Kansal, Baliga, Mallapur, and Katti (2015), reflecting the need for dressing materials and analgesics due to common school injuries.

Regarding sickbay health rooms, 8.6% of schools had them, and 12.1% had a school bus/ambulance for emergencies. Similar findings were reported by Sanni et al. (2022), Kuponiyi and Amoran (2016), Oyinlade et al. (2014), and Kansal et al. (2015). In contrast, a study in Nnewi reported 69.9% of schools with sickbays (Qureshi et al., 2018). Sickbays are essential for observing ill pupils, and their absence undermines adequate care (Qureshi et al., 2018). Lack of transportation can delay medical intervention, highlighting the poor state of school health services in Anyigba metropolis. Availability of telephone services for health-related calls was generally good, similar to reports by Kuponiyi and Amoran (2016) and Kolbe (2019).

Most schools in this study administered first aid treatment, aligning with Kolbe (2019). However, most schools did not keep detailed or transferable records of treatment, consistent with Oyinlade et al. (2014) and Kolbe (2019), unlike schools in Belgaum, India, where all schools kept health records (Sanni et al., 2022; Bisi-Onyemaechi et al., 2017). Poor record-keeping may result from ignorance or inadequate health personnel. Proper record-keeping is crucial for epidemiological surveys and health care evaluations.

Control of communicable diseases was generally managed by sending affected children home until recovery, similar to practices reported by Sanni et al. (2022), Oyinlade et al. (2014), and Toma, Oyebode, Toma, and Agaba (2014). Immunization services were arranged by 6.9% of

schools, contrasting with high-income countries where most children receive vaccinations in schools (Vandelaer & Olaniran, 2015). This discrepancy may reflect Nigeria's non-adoption of WHO's school-based immunization recommendations (Mohlabi, Van Aswegen, & Mokoena, 2010). The lack of school-based immunization may result in missed vaccines for children, underscoring the need for improved school health services.

Overall, the practice of school health services in Anyigba metropolis was poor, with no schools meeting the minimum acceptable score of 19 for SHS (Sanni et al., 2022; Kuponiyi & Amoran, 2016; Oyinlade et al., 2014; Olatunya et al., 2015; Dania & Adebayo, 2019). This differs from a previous study where SHS met the minimum score (Kolbe, 2019), suggesting inadequate school-based health services.

Finally, private schools performed better than public schools, similar to findings in other developing countries (Kuponiyi & Amoran, 2016; Olatunya et al., 2015; Dania & Adebayo, 2019; Bisi-Onyemaechi et al., 2017). This may be due to private schools' profit-driven focus on quality services, unlike public schools, which may suffer from poor funding.

Conclusion

The study concludes that the practice of the various components of school health services was poor and are inadequate in the study areal. The health care personnel available in these schools were inadequate. Routine inspection by teachers was the commonest form of health appraisal. There are also inadequate treatment facilities in the studied schools. However, private schools performed generally better than public schools and the difference was statistically significant.

Recommendation

The following recommendations were made based on the findings of the current study. Firstly, there is need to strengthen the various components of school health services in order to optimize the health of school children in the locality. Secondly, there is need for each school to employ health personnel or train at least one staff in first aid to cater for the health of the school children. Thirdly, pre-entry medical screening must become an admission requirement into primary schools in Anyigba metropolis so as to facilitate early detection of diseases or disabilities and institute prompt medical intervention as appropriate. Regular doctor’s visit to school to perform periodic medical examination of staff and pupils is recommended. Also, there is need for

provision of school health facilities including first aid boxes stocked with essential drugs and materials for first aid treatment, and sickbay or health room.

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