DOI: 103126/JNPS.V4113

Original Article

An Assessment of the School Health Services Among Primary Schools in Ido/Osi LGA of Ekiti State, Nigeria

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Article History
Received on - 2023 Apr 15
Accepted on - 2023 Oct 16

Keywords:
Ekiti State; nigeria; primary schools; school health service

Online Access

DOI: https://doi.org/10.60086/jnps540

Abstract

Introduction: School Health Service (SHS) connotes the preventive and curative health services to pupils and other members of the school community. Its purpose is to help children achieve the maximum health possible for them to obtain full benefits from their education through early detection and treatment of diseases that could impinge their health and learning. This study aimed at ascertaining the state of the school health services in Ido / Osi Local Government Area (LGA), of Ekiti Sate, Nigeria.

Methods: Sixty-seven schools comprising 19 private and 48 public primary schools were surveyed. They were inspected for the availability of the components of the SHS and evaluated using the SHS evaluation scale. Data were analyzed using SPSS version 25.0.

Results: None of the schools had a doctor or a trained first aider. Only 4.5% of the schools had a nurse. First aid boxes were present in most of the schools with 65.7% (84.2% of private vs 58.3% of public) having essential materials and drugs in their first aid boxes. Children with communicable diseases were sent home by most of the schools (98.5%). 95.8% public schools benefitted from the Federal Government home grown school feeding programme which was lacking in the private schools. Only two private (10.5%) and one public (2.0%) schools attained the minimum acceptable score on SHS respectively.

Conclusions: The state of SHS in Ido / Osi is poor. Stakeholders must provide the needed money, materials and manpower to achieve an effective SHS in the area.

Introduction

School Health Service (SHS) focuses on preventive and curative health services to pupils and staff.[1] Its purpose is to help children achieve the maximum health possible for them to obtain full benefits from their education. It is a cost-effective way of meeting the health needs of children.[2] The actors involved in SHS included but are not limited to Medical Doctors, School Nurses, Health Educators, Environmental Health Officers, School Guidance and Counsellors, Community Health Workers, Dieticians, Nutritionists, Food Vendors, School Teachers and Social Workers.[1]

Early detection and diagnosis of diseases with prompt referral to specialist is made possible by an effective SHS. Also, a part of the daily nutritional needs of

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pupils is met by an effective, well-funded SHS. In January 2019 the government of Ekiti State in a bid to improve SHS keyed into the Federal Government's Home-Grown School Feeding Programme (HGSFP) to feed pupils in primary one to primary three.[3] Prior to this, Federal Government of Nigeria had formulated the National School Health Policy (NSHP).[1] However, the implementation of this policy and the practice of SHS has been found to be very poor in most Nigeria studies with varying suboptimal levels of implementation.[4-7]

This study was aimed at evaluating the state of SHS in Ido / Osi Local Government Area (LGA) in order to generate data on the status of SHS in the LGA, and assess the compliance with the various Government programmes geared toward the implementation of SHS in the LGA. This will allow stakeholders to implement appropriate interventions to remedy areas of identified deficiency given the Government's interest at improving school health.

Methods

A cross-sectional descriptive study was carried out among public and private primary schools in Ido / Osi LGA, in Ekiti State, Nigeria. The State had six tertiary educational institutions which served the educational needs of the populace. Also located in the State were three teaching hospitals that served the health needs of the population and also served as an easy referral centre to the PHCs and other health facilities within and outside the state. There were 17 Primary Health Centres (PHC) in Ido / Osi LGA. There were 52 public and 20 private primary schools in the LGA. Estimated sample size for the study was 67 schools using the formula for prevalence. Using a public to private ratio of 2.6:1, 48 public and 19 private schools were surveyed. Ethical approval was obtained from the State Ministry of Education and the State Universal Basic Education Board and consent was obtained from the school administrators. The SHP evaluation scale by Anderson and Cresswell[8] was used to record information and score each school. The study instrument had been adapted for local use and validated by Alex-Hart et al[9] and Olatunya et al.[4,10-13] The maximum obtainable score for SHS is 45 while the minimum acceptable score is 19. Schools with less than the minimum acceptable score were taken to have performed poorly. Data obtained was analysed using IBM SPSS statistics (version 25).[14] Continuous data not normally distributed were reported as median and Interquartile range (IQR) while normally distributed continuous data were described using mean and standard deviation. Other analyses were performed using proportions, percentages, independent sample t-test, and Pearson's chi-squared (x^2) tests with Yate's correction as applicable. P-value of less than 0.05 was accepted as statistically significant.

Results

There were 697 teachers and 9,480 pupils in the schools with a male to female pupil ratio of 1:1.02. The ratio of teachers to pupils was 1:16 in public schools and 1:10 in private schools. Table 1 shows the provision of health care providers in the studied schools. Table 2 depicts the health appraisal and availability of treatment facilities and care of emergency situation in the studied schools. Table 3 represents the measures to control communicable diseases, record keeping and available nutritional services in the schools. Tables 4 and 5 illustrate the performance of the schools on SHS.

Table 1: Distribution of trained first aiders, functional PTA, extracurricular activities, school health committee and health personnel

Variable	Private school	Public school	Total	$\chi 2$	p-value
	N = 19(%)	N = 48 (%)	N = 67(%)		
School health committee	3 (15.8)	23 (47.9)	26 (38.8)	23.53	0.0001*
Trained first aider	0 (0.0)	0 (0.0)	0(0.0)		
Functional PTA	18 (94.7)	47 (97.9)	65 (97.0)	1.332	0.248
Extra-curriculum activities	17 (89.5)	38 (79.2)	55 (82.1)	4.619	0.032*
Health personnel					
Health assistant	2 (10.5)	0 (0.0)	2 (3.0)	9.620^{Y}	0.001*
Nutritionist	0 (0.0)	0 (0.0)	0 (0.0)		
Nurse	2 (10.5)	1 (2.1)	3 (4.5)	4.344^{Y}	0.037*
Doctor	0 (0.0)	0 (0.0)	0 (0.0)		

PTA: Parent-Teacher Association

Table 2: Health appraisal and availability of treatment facilities and care of emergency situation

Variables	Private	Public	Total	χ2	p-value
	N = 19 (%)	N = 48 (%)	N = 67 (%)		
Treatment facilities					
First aid box	17 (89.5)	48 (100.0)	65 (97.0)	10.53	0.001*
Essential drugs and materials	16 (84.2)	28 (58.3)	44 (65.7)	16.42	0.001*
Sick bay	2 (10.5)	1 (2.1)	3 (4.5)	5.26[Y]	0.021*
School bus	10 (52.6)	1 (2.1)	11 (16.4)	62.70[Y]	0.001*
Telephone services	19 (100.0)	48 (100.0)	67 (100.0)		
Care of emergency illness					
First aid treatment usually given	17 (89.5)	45 (93.8)	62 (92.5)	1.087	0.297
Treatment given recorded	7 (36.8)	15 (31.3)	22 (32.8)	0.802	0.370
Notification of parents	16 (84.2)	42 (87.5)	58 (86.6)	0.664	0.415
Transport child to nearest health post	17 (89.5)	34 (70.8)	51 (76.1)	11.50	0.001*
Convey child home after treatment	5 (26.3)	26 (54.2)	31 (46.3)	16.33	0.001*
Health appraisal					
Routine inspection	19 (100.0)	48 (100.0)	67 (100.0)		
Pre-entry medical screening	0 (0.0)	0 (0.0)	0 (0.0)		
Periodic medical examination for staff and pupils	0 (0.0)	0 (0.0)	0 (0.0)		
Referrals to health Centre/hospitals	15 (78.9)	47 (97.9)	62 (92.5)	17.74	< 0.0001*

Table 3: Control of communicable disease, record keeping and available nutritional services

Variable	Private	Public	Total	χ2	p-value
	N = 19 (%)	N = 48 (%)	N = 67 (%)		
Control of communicable disease					
Health talk on communicable disease	0 (0.0)	0 (0.0)	0 (0.0)		
Send child with communicable disease home	19 (100.0)	47 (97.9)	66 (98.5)	2.020	0.155
Isolate / Quarantine in health room	0 (0.0)	0 (0.0)	0 (0.0)		
Immunization	0 (0.0)	0 (0.0)	0 (0.0)		
Record keeping					
Available but not cumulative	4 (21.1)	0 (0.0)	4 (6.0)	21.28[Y]	0.001*
Records cumulative but not transferable	2 (10.5)	0 (0.0)	2 (3.0)	8.526[Y]	0.003*
Records cumulative and transferable	1 (5.3)	0 (0.0)	1 (1.5)	3.282	0.070
Nutritional services					
School farm available	6 (31.6)	12 (25.0)	18 (26.9)	1.202	0.272
Nutrition demonstration classes	0 (0.0)	0 (0.0)	0(0.0)		
School meals	1 (5.2)	46 (95.8)	48 (70.1)	165.6	0.001*
Nutrition supplement	0 (0.0)	0 (0.0)	0 (0.0)		

Table 4: Performance of the schools on SHS

Variable	Private school	Public school	Total	χ2	p-value
	N =19 (%)	N = 48 (%)	N = 67 (%)		
School health service					
Good	2 (10.5)	1 (2.1)	3 (4.5)	5.265[Y]	0.021*
Poor	17 (89.5)	47 (97.9)	64 (95.5)		

Table 5: Mean and range of scores

Variable	Private school	Public school	t	p-value
Health care service				
Mean ± SD	11.84 ± 4.76	12.81 ± 2.45	-1.099	0.276
Range	7 – 20	8 – 22		

Discussion

This study revealed the poor SHS state in Ido / Osi LGA of Ekiti State, Southwest Nigeria as only 4.5% of the schools, studied attained the minimum acceptable score on SHS. This finding is similar to previous Nigeran studies thus reflecting the parlous state of SHS implementation in Nigeria.[4,5,7,8]

The National School Health Policy recommends School-Based Health Committee in schools whose aim is to ensure that School Health Programme (SHP) is incorporated into whole school development, disseminate relevant health information to the communities and report to the LGA Implementation Committee on SHP.[1] However, only 38.8% of the schools surveyed had a school health committee. This finding is a shade better than 9.5%, 0% and 12.5% reported by Ogaji, Akani and Olatunya et al respectively.[4,15,16] This is at variance with the situation in the USA where 100% was recorded.[17] The relative lack of a school health committee may derive from the lack of such committee in the Local Government which is against the recommendation of the Federal Government.[1]

The high presence of functional PTA at 97% is commendable. This finding is similar to that reported by other studies.[4,18] However, the high availability of PTA in this study, seems not to have positively impacted the performance in the SHS implementation in the study location. The reason for this is not clear, but may be due to lack of proper collaboration between the administrative heads and parents or the nonchalant attitude of either.

Furthermore, the general lack of school health personnel at only 9.5% is similar to the finding of 9.4% by Olatunya et al, but better than 0% recorded by Alex- Hart et al.[4,9] However, this is below the national average of 17% recorded in a Federal Government survey and 36.4% recorded by Toma et al.[1,7] Nevertheless, these findings are at variance with the situation in the USA.[17] With the dearth of health personnel, pupils are at risk of having their minor ailments untreated timely. Some of the illnesses may progress to developing complications with debilitations that could lead to school absenteeism.[4,19]

All the schools conducted a routine inspection of the pupils during the assembly period at least once or twice weekly. The areas inspected included school uniforms, nails, teeth and hair. This finding is commendable and similar to findings in similar studies.[4,9,20] The complete lack of pre-entry medical examination for pupils is worrisome and is similar to a previous report in Rivers State.[9] However, Olatunya et al recorded 7.8% which is slightly better than the findings in this study.[4] This is however lower than the national average of 14%.[1] Similarly, no school in the study location carried out periodic medical exams for staff and pupils. Lack of health appraisals delay the early identification of health problems like hearing and visual impairments and many other disease conditions.[4, 21-24] To solve this problem, health teachers / class teachers could be trained to identify common ailments among school children. This model has been previously recommended both locally and internationally.[4,25,26]

The finding of first aid boxes in most of the schools is commendable. More than half of the schools have essential drugs and materials. The proportion of schools in this study with first aid box is higher than several other researches.[4,18,27] Nevertheless, empty boxes were more commonly seen in public schools. The reason for this observation is not clear but it may be due to lack of provisions for the restocking of drugs and materials.

Less than five percent of schools had a health room. This proportion is lower than other similar studies conducted in the past.[4,18,27,28] These Nigerian studies are at variance with the 87.9% recorded in the USA.[29] The unavailability of health rooms may be due to lack of regular follow-up by the relevant Government agencies to emphasize standards.

Majority of the schools send pupils with a communicable disease home. This practice was noted by other authors also.[4,7,9,18]No school routinely immunized children. A similar finding was noted in Ilesha, but better in Jos where the proportion of schools that immunize pupils was 80.3%.[4,7] This finding is against the tenets of the NSHP where SHS is intended

to be used to remedy all health deficits noticed among the school children.[1] Few private schools had health records that were not properly kept which were noted in the past too.[4,9,20,30]

Most of the public schools benefitted from the Government's Home-Grown School Feeding programme. This is similar to the finding of Olatunya et al, but in contrast to what was noted by Oyinlade et al where school meals were available in all the schools but they were not free.[4-6] Few public schools were yet to benefit from the HGSF due to failure on the part of the Government to credit the account of the food vendors. This raises the need for proper monitoring of the implementation of this policy.

This study showed that the status of SHS as practiced in primary schools in Ido / Osi LGA of Ekiti State was poor, substantiated by several other studies in the past.[4,5,7] It is recommended that all pupils should undergo pre-entry school examinations and periodic visits of doctors for medical examination of staff and pupils should be instituted. All schools should have a sickbay manned by a trained nurse. Also, first aid materials should be made available in the schools in case of emergencies. Regular and adequate funding of free school meals in all public schools everyday would enable every child have at least one balanced meal daily. All schools must have a well-constituted and functional school health committee.

Conclusions

The state of SHS in Ido/Osi LGA is poor and in all, there was no difference in the implementation between the private schools and public schools. Major steps should be taken from the stake holders in this regard.

Funding Sources: None

Conflict of Interest: None

Acknowledgement We acknowledge the cooperation of the teachers and pupils in the schools

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