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STATUS OF SCHOOL HEALTH SERVICES AVAILABILITY FOR SECONDARY SCHOOL STUDENTS AND STAFF IN ENUGU STATE: FOCUS ON SCHOOL RELATED FACTORS

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Abstract

The study determined status of school health services availability for secondary school students and staff in Enugu State, Nigeria. Cross-sectional survey research design was used for the study. This study was conducted in Enugu State, Nigeria. The population for the study comprised 80 secondary schools in Enugu State. The multi-stage sampling procedure was employed. School Health Services Availability Checklist was validated and used for data collection. Frequencies, percentages and chi-square statistics were used for data analysis. The findings revealed that overall available school health services in Enugu State secondary schools were below WHO standard cut-off mark of 50 per cent (43.5%). There were significant differences on availability of school health services based on status of school health committee (χ^2=22.087, p=.001). Based on the findings, recommendations were made, among which included that non-governmental organisations, corporate organisations, and concerned individuals should form alliance with Enugu State government and work towards making school health services available to all members of school population.

Keywords: Available, school, health services, school factors, secondary schools

Introduction

School health services are a critical yet unevenly provided component of secondary education systems worldwide. Defined as formally organized health care delivered in or through schools to promote, protect, and manage students' physical and mental health, these services can encompass preventive care, treatment of acute and chronic conditions, mental health support, sexual and reproductive health, and health education (Jansen et al., 2019; Levinson et al., 2019). Global mapping indicates that some form of school health service exists in at least 102 countries, but many programs are underfunded, poorly implemented, and limited in scope**,** raising concerns about equity and effectiveness (Levinson et al., 2019; Philipo & Ntawigaya, 2025). Evidence consistently links adequate school health provision with improved educational outcomes. Access to school nursing, routine health services, and disease-specific education is associated with better control of chronic conditions, fewer absences, and higher academic achievement among students with asthma and other chronic health conditions (Leroy et al., 2017). Efficient school health programmes have also been shown to support attendance, reduce early school leaving, and contribute to broader child survival and development goals, particularly in low- and middle-income settings where schools may be the primary point of health access for disadvantaged children (Davis et al., 2024).

Despite this potential, studies from Africa, Europe, and high-income countries highlight substantial gaps in availability and comprehensiveness **(**Katangolo-Nakashwa &

Mfidi, 2025; Ochoa-Aviles et al., 2017). Also, paucity of data on school health services in Enugu State is a major concern because it hampers efforts to understand the status of school health services (Bisi-Onyemaechi et al., 2017). Rural and public secondary schools often provide only basic services such as first aid and vaccination, with little or no access to mental health counselling, routine screening, or fitness assessments (Philipo & Ntawigaya, 2025; Oladeji, 2024). Human and material resource shortages, weak collaboration between health and education sectors, and limited stakeholder awareness constrain implementation of comprehensive school health programmes (Jansen et al., 2019; Katangolo-Nakashwa & Mfidi, 2025).

In many contexts, adolescents face high burdens of mental health problems and sexual and reproductive health risks, yet school-based responses remain fragmented, inconsistently evaluated, and often misaligned with students' expressed needs (Lai et al., 2022; Mbatha et al., 2025). Systematic reviews show that while specific school-based interventions (e.g., anxiety prevention, asthma education, vision screening) can be effective, there is a lack of evidence and guidance on which packages of services should routinely be available in secondary schools (Levinson et al., 2019). Against this backdrop, assessing the availability of school health services in secondary schools is essential for identifying service gaps, informing policy and resource allocation, and ensuring that schools fulfil their role as accessible platforms for promoting adolescent health and educational success (Philipo & Ntawigaya, 2025; Leroy et al., 2017).

School health services' is a core component of school health programme. School health services are the preventive and curative services provided for promotion of the health of secondary school students and staff (Federal Ministry of Education [FME], 2006). School health services is a major channel of the school health programme that caters for the health of the secondary school students and staff. Contextually, school health services refer to all activities organised in the schools that are targeted at the prevention, promotion, rehabilitation, and maintenance of health status of secondary school students and staff through the coordination of members of the school health team. The need for school health services cannot be over-emphasised. The main purpose of the school health services is to help students at school to achieve the maximum health possible for them to obtain full benefit from their education (FME, 2006). The services aimed at promoting and maintaining the health of schooling adolescents so as to give them a good start in life. In addition, the school health services seek to enable secondary school students' benefit optimally from their school learning experiences. School health services provide safe and effective management of health problems, often for students with limited access to health care (Leroy et al., 2017). These services are rendered to secondary school students and staff through different components.

Samuel and Nwimo (2012) listed eight components of school health services to include health appraisal; health counselling and interpretation; prevention and control of communicable diseases; health supervision, care of the exceptional child and correction of remediable defects; health promotion services for school personnel, water and sanitation services; care of emergency illness and injuries; and maintenance of health records. This study adopted Samuel and Nwimo's (2012) components of school health services with slight modification. Water and sanitation practice was removed because it belongs to healthful school living, which is another component of school health programme. However, other components under study are comprehensive and encompass all the elements of school health services that are obtainable in Nigeria.

Status refers to state or condition of things. This study is poised to determine the status of school health services based on its availability of equipment, facilities and human resources in Enugu State secondary schools. Understanding the status of school health services will engender sound policy making and adequate service delivery. United Nations Children's Fund (2017) opined that reliable information about adolescents' situations is significant to the improvement of their lives and vital to realising their rights. In this study, status refers to the condition of school health services in terms of its availability in Enugu State secondary schools.

School health services are put into operation based on the available resources in the various schools. The term availability implies that something is physically present, easily obtainable, and ready for use. It refers to the quality of being at hand and ready for use. School health services encompass emergency care and first aid services, as well as other services that require immediate response to affected persons. Availability therefore, becomes pertinent so as to increase the chances of quality school health service delivery. Service availability refers to the physical presence of the delivery of services, including health infrastructure, and quality health personnel (World Health Organisation [WHO], 2015). The implication of this definition by WHO is that for a service (school health service) to be available, the structure, equipment, other materials and the service providers must be in place. In this study, availability refers to the presence of school health services that are accessible by students and staff of secondary schools in Enugu State. Availability of school health services in secondary schools may be influenced by certain variables which are referred to as school factors in this study.

School factors are those characteristics that are expected to influence school system, especially the school health services. Oredein (2016) listed five school factors that affect school health services, which include school: size, ownership, type, structure, and location. These school factors are deemed essential regarding school health services availability. This study considered factors such as school ownership, education zones, school type, age of the school, and status of school health committee. The purpose of the study was to determine status of school health services availability for secondary schools in Enugu State, Nigeria. Specifically, the study determined the available school health services in secondary schools in Enugu State based on: school ownership; school type; status of school health committee; and education zone.

Research Questions

The following research questions guided the study.

1. What are the available school health services in secondary schools in Enugu State?
2. What are the available school health services in secondary schools in Enugu State based on school ownership?
3. What are the available school health services in secondary schools in Enugu State based on school type?
4. What are the available school health services in secondary schools in Enugu State based on status of school health committee?
5. What are the available school health services in secondary schools in Enugu State based on education zone?

Hypotheses

The following null hypotheses have been formulated for the study and were tested at .05 level of significance.

1. There is no significant difference in responses on available school health services in secondary schools in Enugu State based on school ownership.

2. There is no significant difference in responses on available school health services in secondary schools in Enugu State based on school type.
3. There is no significant difference in responses on available school health services in secondary schools in Enugu State based on status of school health committee.
4. There is no significant difference in responses on available school health services in secondary schools in Enugu State based on education zone.

Methods

A cross-sectional survey design was used for the study. Cross-sectional survey studies are based on observations that take place in different groups at one time. This study was conducted in Enugu State, Nigeria. The inhabitants of this area are mainly, school children, civil servants, traders, artisans and farmers. There are many educational institutions located in virtually all the localities. The presence of these educational institutions encourage people of the area to be concerned in the activities going on in the schools within the area, especially learning and protecting the health status of the secondary school students. Enugu State secondary schools are managed by Enugu State Ministry of Education. These schools are grouped into six education zones.

The population for the study comprised all 664 secondary schools (Ministry of Education, Enugu State, 2017). The sample size for this study was 80 secondary schools drawn using multi-stage sampling procedure. The first stage involved drawing five education zones out of the six education zones in Enugu State using simple random sampling technique of balloting with replacement. The second stage involved drawing two LGAs (one urban and one rural local government area each) from the drawn education zones using simple random sampling technique of balloting with replacement. Five education zones have three local government areas each, while one education zone has two local government areas with all the zones having at least one rural and one urban local government areas. This sampling gave a total of ten local government areas (5 urban and 5 rural) out of the 17 local government areas. The third stage involved stratification of secondary schools from each sampled local government area into private and public schools, and drawing four schools each from the private and public secondary schools using purposive sampling technique. This yielded eighty secondary schools in all. The reason for purposive sampling was to allow the researcher to consider school types and age of school during selection.

A 50-item School Health Service Availability Checklist (SHSAC) was used to collect data on availability of school health services in the drawn schools. The SHSAC consist of sections A and B. Section A contained five items that elicited data on school factors, while Section B contained 45 items that elicited data on school health services availability. The response options were “Available”, and “Not available”. The face validity of the research instruments was established by giving the drafted copies of the SHSAC accompanied with the purpose of the study with its specific objectives, the corresponding research questions, and the null hypotheses to seven validators. Five of the validators were from the Department of Human Kinetics and Health Education, University of Nigeria, Nsukka; one was from the Department of Science Education (Measurement & Evaluation Unit), and one was from Enugu State Ministry of Education (a Zonal Lead Evaluator with M.Ed in Public Health Education). The experts critically examined the appropriateness of the instruments’ items, their coverage of the objectives of the study, and suitability of language of items. Their constructive criticisms, corrections and suggestions were used to modify and improve the instruments before they were used for the present study.

At every school, the researcher met with the school principal for proper introductions. Letter from the Department of Human Kinetics and Health Education, permission letter to use the facility for field work, ethical clearance certificate, and identity card were presented to the principal or whoever that is in-charge in the sampled schools. The principals (or proprietors as in some private schools) directed the researcher to the class teachers and students. The researcher utilised the services of four trained research assistants. The SHSAC recorded 100 per cent return rate and were used for data analysis.

The information from copies of the checklist were coded and analyzed using Internal Business Machine Statistical Package for Social Sciences (IBM SPSS) version 23 for windows. The research questions were answered using frequencies and percentages, while the hypotheses were tested using chi-square test of independence. The criterion for deciding availability of school health services was based on a World Health Organisation (1997) international standard cut-off point of 50 per cent. A percentage less than 50 per cent was considered unavailable and percentages of 50 per cent and above were considered available. All the hypotheses were tested at 0.05 level of significance and appropriate degrees of freedom. The null hypotheses were rejected when the probability value (*P* value) was less than the alpha level, but where the ρ value is greater than the alpha value, the null hypotheses were not rejected.

Results

Table 1: **Percentage Analysis of the School health services Available in Secondary Schools in Enugu State (n =80)**

S/n	**School health services**	**Available**		**Not Available**	
		f	**%**	**f**	**%**
1	Health Appraisal Services	22	27.5	58	72.5
2	Emergency Care and First Aid Services	22	27.5	58	72.5
3	Health Counselling and Interpretations	29	36.3	51	63.8
4	Health Supervision, Care of Exceptional Children and Correction of Remediable Defects	61	76.8	19	23.8
5	Prevention of Communicable Diseases	27	33.8	53	66.3
6	Health Promotion Services for Staff	57	71.3	23	28.8
7	Maintenance of Health Records	25	31.3	55	68.8
	Cluster %		**43.5**		**56.5**

Table 1 shows that the cluster percentage of available school health services in secondary schools in Enugu State is 43.5 per cent. Health supervision, care of exceptional children and correction of remediable defects was the highest (76.8%) available school health service followed by health promotion services for staff (71.3%). Health appraisal services (27.5%) and emergency care and first aid services (27.5%) were the least available school health services in Enugu State secondary schools.

Table 2: Percentage Analysis of the School health services Available in Secondary Schools in Enugu State based on School Ownership (n =80)

S/n	School health services	Private (n= 42)		Public (n= 38)	
		f	**%**	**f**	**%**
1	Health Appraisal Services	12	28.6	10	26.3
2	Emergency Care and First Aid Services	14	33.3	8	21.1
3	Health Counselling and Interpretation Services	19	45.2	10	26.3

4	Health Supervision, Care of Exceptional Children and Correction of Remediable Defects	9	21.4	10	26.3
5	Prevention of Communicable Diseases	19	45.2	8	21.1
6	Health Promotion Services for Staff	29	69.0	28	73.7
7	Maintenance of Health Records	10	23.8	15	39.5
	Cluster %		**38.1**		**33.5**

Table 2 shows that private secondary schools in Enugu State have more school health services (38.1%) than public secondary schools (33.5%) in the state, with both not meeting up to World Health Organisation's cut off mark of 50 per cent. The Table also shows that prevention of communicable diseases services in private schools is more than twice the same services in the public secondary schools in the State (Private = 45.2 > Public= 21.1).

Table 3: Percentage Analysis of the School health services Available in Secondary Schools in Enugu State based on School Type (n =80)

S/n	School health services	Boys Only (n= 20)		Girls Only (n= 20)		Co-educational (n= 40)	
		f	%	f	%	f	%
1	Health Appraisal Services	10	50.0	4	20.0	8	20.0
2	Emergency Care and First Aid Services	7	35.0	5	25. 0	10	25.0
3	Health Counselling and Interpretation Services	6	30.0	9	45.0	14	35.0
4	Services of Health Supervision, Care of Exceptional Children and Correction of Remediable Defects	4	20.0	7	35.0	8	20.0
5	Prevention of Communicable Diseases	9	45.0	4	20.0	14	35.0
6	Health Promotion Services for Staff	17	85.0	14	70.0	26	65.0
7	Maintenance of Health Records	7	35.0	8	40.0	10	25.0
	Cluster %		**40.0**		**25.0**		**17.5**

Table 3 shows that school health services available in secondary schools in Enugu State were most in boys' only schools (40.0%), followed by girls' only schools (25.0%), and least at co-educational schools (17.5%).

Table 4: Percentage Analysis of the School health services Available in Secondary Schools in Enugu State based on Status of School Committee (n =80)

S/n	School health services	Schools with Health Committee (n= 29)		Schools without Health Committee (n= 51)	
		f	%	f	%
1	Health Appraisal Services	18	62.1	4	7.8
2	Emergency Care and First Aid Services	12	41.4	10	19.6
3	Health Counselling and Interpretation Services	21	72.4	8	15.7
4	Services of Health Supervision, Care of	9	31.0	10	19.6

	Exceptional Children and Correction of Remediable Defects				
5	Prevention of Communicable Diseases	16	55.2	11	21.6
6	Health Promotion Services for Staff	24	82.8	33	64.7
7	Maintenance of Health Records	15	51.7	10	19.6
	Cluster %		**56.7**		**23.5**

Table 4 indicates that schools with health committee have more than half of the overall school health services (56.7%) while schools without school health committee grossly lack school health services (23.5%) on the overall scale.

Table 5: Percentage Analysis of the School health services Available in Secondary Schools in Enugu State based on Education Zone (n =80)

S/n	School health services	Agbani zone (n= 16)		Awgu zone (n= 16)		Enugu zone (n= 16)		Nsukka zone (n= 16)		Obollo-Afor zone (n= 16)	
		f	%	f	%	f	%	f	%	f	%
1	Health Appraisal Services	4	25.0	7	43.8	2	12.5	7	43.8	2	12.5
2	Emergency Care and First Aid Services	5	31.3	6	37.5	5	31.3	4	25.0	2	12.5
3	Health Counselling and Interpretation Services	3	18.8	12	75.0	5	31.3	7	43.8	2	12.5
4	Services of Health Supervision, Care of Exceptional Children and Correction of Remediable Defects	5	31.3	3	18.8	5	31.3	3	18.8	2	12.5
5	Prevention of Communicable Diseases	7	43.8	10	62.5	3	18.8	4	25.0	3	18.8
6	Health Promotion Services for Staff	11	68.8	12	75.0	14	87.5	8	50.0	12	75.0
7	Maintenance of Health Records	6	37.5	7	43.8	7	43.8	4	25.0	1	6.3
	Cluster %		**37.5**		**43.8**		**37.5**		**31.3**		**18.8**

Table 5 shows that school health services available in secondary schools in Enugu State were most in Awgu (43.8%) and least at Obollo-Afor education zone (18.8%). School health services in both Agbani and Enugu education zones are slightly above one-third (37.5%) while Nsukka education zone is slightly below one-third (31.3%).

Table 6: Chi-Square Analysis of the Availability of School health services based on School Ownership (N= 80)

School health services	School Ownership				χ^2 Value	df	ρ value	Decision
	Private (n=42)		Public (n= 38)					
	Available	Not Available	Available	Not Available				
	O(E)	O(E)	O(E)	O(E)				
School health services	12(10.5)	30(31.5)	8(9.5)	30(28.5)	.602	1	.438	Not Significant

$\rho > 0.05$ Not significant; O(E) = Observed frequency(Expected frequency)

Table 6 shows no significant difference in the availability of school health services based on school ownership (χ^2 = .602, ρ = .438) since the ρ value is greater than .05 level of significance at one degree of freedom. This implies that no difference existed between school ownership (private & public) and availability of school health services in Enugu State secondary schools.

Table 7: Chi-Square Analysis of the Availability of School health services based on School Type (N= 80)

School health services	School Type			χ^2 Value	df	ρ value	Decision
	Boys' only (n=20)	Girls' only (n=20)	Coedu-cational (n= 40)				
	Available	Available	Available				
	O(E)	O(E)	O(E)				
School health services	8(5.0)	5(5.0)	7(10.0)	3.600	2	.165	Not Significant

p > 0.05 Not significant; O(E) = Observed frequency (Expected frequency).

Table 7 indicates no significant difference in the availability of school health services based on school type (χ^2 = 3.600, ρ = .165) since the ρ value is greater than .05 level of significance at two degrees of freedom. This implies that no difference existed between school type (Boys' only, Girls' only & Coeducational) and availability of school health services in Enugu State secondary schools.

Table 8: Chi-Square Analysis of the Availability of School health services based on School Health Committee Status (N= 80)

School health services	Status of School Health Committee				χ^2 Value	df	ρ value	Decision
	With School Health Committee (n=29)		Wthout School Health Committee (n= 51)					
	Available	Not Available	Available	Not Available				
	O(E)	O(E)	O(E)	O(E)				
School health services	16(7.3)	13(21.8)	4(12.8)	47(38.3)	22.087	1	.001	Significant

p < 0.05 significant; O(E) = Observed frequency (Expected frequency)

Table 8 shows a significant difference in the availability of school health services based on status of school health committee and (χ^2 = 22.087, ρ = .001) since the ρ value is less than .05 level of significance at one degree of freedom. This implies that no difference existed in the availability of school health services based on status of school health committee (School Health Committee Available & School Health Committee Not Available) in Enugu State secondary schools.

Table 9: Chi-Square Analysis of the Availability of School health services based on Education Zones (N= 80)

School health services	Education Zones					χ^2 Value	df	*P*-Val	Decision
	Agbani (20)	Enugu (20)	Nsukka (20)	Awgu (20)	Obollo (20)				
	Available	Available	Available	Available	Available				

	O(E)	O(E)	O(E)	O(E)	O(E)				
School health services	3(4.0)	7(4.0)	2(4.0)	6(4.0)	2(4.0)	7.333	4	.119	Not Significant

$p > 0.05$ Not significant; O(E) = Observed frequency (Expected frequency)

Table 9 indicates no significant difference in the availability of school health services based on Enugu State education zones ($\chi^2 = 7.333$, $\rho = .119$) since the ρ value is greater than .05 level of significance at four degrees of freedom. This implies that no difference existed in the availability of school health services based on education zones (Agbani, Enugu, Nsukka, Awgu, & Obollo-Afor) in Enugu State secondary schools.

Discussion

The purpose of the current study was to determine the status of school health services availability in Enugu State secondary schools. Results in table 1 revealed that in overall, available school health services in secondary schools in Enugu State were below WHO standard cut-off mark of 50 per cent (43.5%). This finding was striking and disturbing because it implies that the health of our secondary school staff and students are not well protected. Suboptimal availability of school health services as found out in this study lends credence to many local and international reports (Baltag et al., 2015; Bisi-Onyemaechi et al., 2018). Health appraisal services and emergency care and first aid services were the least available school health services in Enugu State secondary schools. This finding was in tandem with reports of Ani (2012) which averred that the status of routine oral health appraisal services for pupils in primary schools in Enugu State was low. This shows that practice of routine inspection should be encouraged, as it could curb the spread of diseases such as scabies and fungal skin infections, amongst others. The performance of the other health appraisals was, however, low.

Private secondary schools in Enugu State have more school health services than public secondary schools (33.5%) in the state, with both not meeting up to World Health Organisation's cut off mark of 50 per cent (Table 2). This finding was expected because literature are agog with findings that lend credence to it. Private schools were shown to be better equipped with sick bay compared with public schools (Adebayo et al., 2019; Kuponiyi et al., 2016). More so, my experience with school system shows that majority of public schools are 'no man's land'. The school administrators, staff and students are lackadaisical and nonchalant about the progress of the school especially when it comes to school health programmes. This high level of irresponsibility and carelessness exist because some of the staff in public schools have their own private schools that are constantly competing with the public schools. Corruption and bad attitude to work has led to siphoning and embezzlement of funds meant for school health services in the schools. Schools were observed to be poorly equipped to manage these unforeseen situations as a proof of the fact that the government and school administrators have low perception of susceptibility and severity (Chabo & Ejemot-Nwadiaro, 2019).

Health appraisals, emergency care and first aid services, and health counselling and interpretation services were all below WHO's cut-off mark of 50 per cent and more available in private schools. Chabo and Ejemot-Nwadiaro (2019) is in consonance with the debate that public schools suffer higher brunt of poor availability of school health services in secondary schools when compared with private schools. School health services was reported to be poor with very few schools engaging in pre-enrolment and periodic medical examinations (Osuorah et al., 2016; Bisi-Onyemaechi et al., 2017; Abdulkadir &

Abdulkadir, 2017), first aid box was reported in most schools albeit inadequate content with no school clinic or sick bay in most schools (Dania & Adebayo, 2019; Adebayo et al., 2019).

Schools with health committee have more than half of the overall school health services while schools without school health committee grossly lack school health services on the overall scale (Table 5). There was significant difference between status of school health committee and availability of school health services in Enugu State secondary schools (Table 8). This finding was expected and it satisfied the researchers' premonitions about importance of school health committee in secondary schools. These findings acceded to works of Ademokun et al. (2014) who conducted a qualitative study on status of implementation of school health programme in south western Nigeria and found out that only one-third of the schools implement school health services. Therefore, constituting school health committee in secondary schools in Enugu State is pertinent to enhancement of school health services availability, provision, implementation and utilisation.

School health services available in secondary schools in Enugu State were most in Awgu and least at Obollo-Afor education zone. School health services in both Agbani and Enugu education zones are slightly above one-third while Nsukka education zone was slightly below one-third (Table 5). This implies that none of the education zone attained WHO's standard cut-off mark of 50 per cent. This finding was debasing and calls for urgent redress. This report lends credence to some literature assertions that the opportunity provided by pre enrolment and periodic medical examination for screening services was being missed across the country (Dania & Adebayo, 2019) irrespective of the states or educational zones. Lack of medical records in schools was also a huge gap in school health services. The school health services require urgent attention as all its components essential for health promotion and maintenance were suboptimal.

Conclusions

School health services were reported to be low, and were below the World Health Organisation's standard cut-off mark of 50 per cent in Enugu State. Private schools have more school health services than public schools, though both were low. Boys' only schools took lead when matched with other school types. Only schools with health committee met WHO's standard cut-off on the overall school health services, while schools without school health committee grossly lacked school health services.

Recommendations

On the basis of the findings, discussions and conclusions in this study, the following recommendations were made:

1. School administrators (both government and privately owned) should take stock of the available school health services and forward to the Head, School health services unit, Enugu State.
2. State Ministries of Health and Education should provide and implement the school health services in Enugu State secondary schools.

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