Journal of Community Medicine and Primary Health Care. 33 (2) 19-34
https://dx.doi.org/10.4314/jcmphc.v33i2.2

JOURNAL OF COMMUNITY MEDICINE AND PRIMARY HEALTH CARE

ORIGINAL ARTICLE

Exploring the views of Heads of Schools on School Health Services in Public Primary Schools in Enugu Metropolis, Nigeria: A Qualitative Study

Agu CI[1,2], Ossai EN[2], Ndu AC[1,3], Eze II[2], Agu IC[1], Ugwunweze IJ[1,2], Ugwu GO[4]

[1]Institute of Public Health, College of Medicine, University of Nigeria Enugu-Campus, Enugu, Nigeria.
[2]Department of Community Medicine, Alex-Ekwueme Federal University Teaching Hospital, Abakaliki, Ebonyi Nigeria.
[3]Department of Community Medicine, College of Medicine, University of Nigeria, Nsukka, Nigeria.
[4]Department of Obstetrics and Gynaecology, College of Medicine, University of Nigeria, Enugu Campus, Nigeria.

Keywords

Public Primary Schools; School Health Service; Enugu metropolis; Nigeria

ABSTRACT

Background: School health services offer a great opportunity for many children to access primary health care, especially in developing countries. This study assessed the status of health services in public primary schools in Enugu Metropolis, Enugu State, Nigeria from the perspectives of the school heads.

Methods: This was a qualitative study conducted among 24 public primary school head masters/mistresses in the three Local Government Areas making up Enugu metropolis. They were purposively selected from the 117 public primary schools in the metropolis. Data were collected through the use of Key Informant Interview (KII) guide, and analyzed using thematic approach.

Results: Only one of the participants knew about the school health policy, while others expressed surprise at its existence. All the schools had a first aid box, but most of the boxes were not sufficiently stocked. None of the schools had a trained first aider. De-worming was carried out once in a while in all the schools. Majority of the schools did not document health services provided. The schools rarely referred pupils to health facilities as needed, but rather informed parents if their children became ill while in school.

Conclusion: The implementation of health services in public primary schools in Enugu Metropolis leaves much to be desired. Health services, including health appraisal were generally poor. Basic resources necessary for school health services were lacking in the schools. There is need for stakeholders to take urgent steps in order to redress the situation.

Correspondence to:
Chibuike Innocent Agu
Email: aguchibuike14@yahoo.com
Phone number: 08036957505

INTRODUCTION

School children are faced with highly prevalent conditions such as micronutrient deficiencies, common parasitic infections, poor vision, poor hearing, and other disabilities which can have adverse effects on their development, cognition, as well as their school attendance and educational achievement.[1,2] In many

developing countries, including Nigeria, mortality is high among infants and early childhood.[3,4] Thus, school children are survivors of high childhood mortality, with many of them still bearing the sequelae of the diseases responsible for the deaths of other children.[5] Also, the environmental conditions which predisposed preschool age groups to high mortality still abound, with a lot of school children being exposed to them.[5] Additionally, exposure to communicable diseases is highest during school years which are the first opportunity for many of the school children to mix with children from other families.[6] School children are vulnerable to several hazards such as physical, emotional and biological hazards as a result of reduced immunity, immaturity of organs and functions, as well as rapid growth and development.[7]

School health services are a very common model of service provision in both high, middle and low-income countries.[8] Schools provide a good setting for bringing health services to a large population of children, as most of them pass through primary school.[9] For example, in Nigeria, up to 61 percent of children between the ages of 6 - 11 years regularly attend primary school.[8] Equally important is the fact that children spend much of their day within school environments and may, thus, have access to health services provided within the school.[10] Interestingly, the school may be the only opportunity for some of the children to benefit from health care service, especially, those from indigent homes.[6] School health services (SHS) are, therefore, strategically positioned to contribute to the health and development of school children.

School health services consist of pre-entry medical screening, routine health screening/examination, school health records, sick bay, first aid, referrals, advisory and counseling services for the school community and parents.[11] They constitute a very important component of the health system, and can be very cost-effective in maintaining or improving the health of the school community. It is in recognition of the role of school health services and other components of School Health Programme (SHP) that the Federal Government of Nigeria came up with a School Health Policy in 2006 [11] and its implementation guideline[12] thereafter, to serve as standards for the implementation of SHP in Nigerian schools.

However, since the launch of the School Health Programme guideline in 2007,[12] not much has been done to assess the level of compliance with its implementation in schools, [13] and the policy has not been reviewed after coming on board. Moreover, headmasters/mistress are placed in a good position, as the administrative heads of their schools, to play a vital role in the effective implementation of SHS, and other aspects of the school health programmes. In the light of this, the importance of their views on the status of its implementation cannot be overemphasized. This study, was designed to appraise school health services in Enugu metropolis, Enugu State, Nigeria from the perspectives of heads of public primary schools. It therefore explored the opinions and perceptions of the headmasters and headmistresses in the study area. This would generate evidence which policy makers, education and health planners in the state will find useful.

METHODOLOGY

Study design and area: The study was a cross-sectional qualitative study which explored the perspectives of heads of public primary schools on school health services. The study was conducted between August and October 2020 in Enugu State, one of the five states in the southeast geo-political zone of Nigeria. The state shares borders with Abia and Imo States to the south, Ebonyi State to the east, Benue State to the northeast, Kogi State to the northwest and Anambra State to the west. Its population is estimated to be approximately 4,973,522 people based on the 2006 national census, and a growth of 3%.[14,15,16] It is home of the Igbo people and few Idoma/Igala people in Ette (Igbo-Eze North) of Enugu State. It is made up of seventeen Local Government Areas (LGAs). Enugu Metropolis, on the other hand, has an estimated population of 773,000 people based on the same census.[17] It consists of parts of Enugu East, Enugu North and Enugu South LGAs. There are 153 public primary schools in the three LGAs, out of which 117 are located in the urban area.

Study participants: The study participants comprised of administrative heads of the 24 selected public primary schools in Enugu metropolis, Enugu State, Nigeria. All headmasters or head mistresses of selected public primary schools in the urban area of the three LGAs making up Enugu metropolis were included in the study. However, heads of public primary

schools who had not worked in that capacity for up to one month were excluded from the study as this was considered enough period for them to know about the state of their school health services.

Sampling technique: The number of public primary schools in Enugu urban was 117, consisting of 27 in Enugu south, 36 in Enugu East and 54 in Enugu North. The schools studied were proportionally selected in the ratio of 6: 7: 11 public primary schools respectively, making a total of 24 public primary schools.[13, 18] Heads of 24 public primary schools were purposively selected and interviewed.

Study instrument: Data were collected using key informant interview (KII) guide, which was pretested in two public primary schools located in the capital city of Ebonyi State. The KII guide was developed by the researcher from the review of relevant literature[13,19] and National School Health Policy.[11] Questions were in sections covering different areas including availability of health centre, first aid box and first aiders, pre-entry or routine medical screening/examination, deworming and handling epidemics.

Data collection method: Data collection was carried out between August and October 2020 by the researcher and with the help of trained research assistants. Appointments were arranged with the participants by the researcher for the interviews. Interviews were tape-recorded with the permission of the individual participant. Notes were also taken during the interviews**.** Each interview was conducted in venues that were convenient for the participants such as participant's office. The use of face mask, social distancing and other Nigeria Centre for Disease Control (NCDC) guideline on COVID-19 prevention[20] were strictly adhered to. All interviews were done in English language, and lasted about 45 minutes for each session.

Data analysis: Tape-recorded interviews were transcribed verbatim after carefully listening to the tapes. For quality assurance purposes, the scripts were compared with the written notes for completeness and accuracy. Then, each script was checked against the audiotape by an independent reviewer. In order to verify the quality of translations, tapes were doubly transcribed after which both scripts were checked for similarity, and then differences were reconciled by the transcribers. Coding of transcripts was done based on emergent themes. Five

themes emerged from the study and they included headmasters/headmistresses' awareness of the national school health policy, treatment facilities and health personnel, health appraisal services, records keeping and control of communicable diseases.

Ethical considerations: Ethical approval for the study was obtained from the Health Research and Ethics Committee of the University of Nigeria Teaching Hospital Ituku-Ozalla, Enugu, with approval number NHREC/05/01/2008B-FWA00002458-IRB00002323. A written permission was obtained from the Enugu State Universal Basic Education Board (ESUBEB). Informed written consent was obtained from the participating school heads. Participation was voluntary and interviews were conducted with utmost privacy. Codes were used on the forms and interview recordings instead of names to ensure confidentiality.

RESULTS

Participants' profile

Twenty-four heads of public primary schools participated in the study with most of them being females (23). All had tertiary level of education, and have all served as the head master/mistress in their various schools for more than one year.

Awareness of the National School Health Policy

Almost all the participants in the study were not aware of the existence of the National School Health Policy. They were even surprised at the existence of the policy. One of the participants made known his thoughts this way:

"I don't know about school health policy. We don't know about it, maybe you can explain to me about it." (SHES02, Headmaster, 52 years)

Only one of the participants indicated that he had heard of the policy through a friend about one year prior to the study. He also made it known that he had not seen the policy document. He expressed himself with the following quote:

"I heard about the policy sometime last year when a friend visited me in my office. He complained about the state of school health programme in primary schools and in the process, he mentioned the school health policy. That was how I heard about it, but I have not seen the document." (SHES02, Headmaster, 52 years)

The same participant used the opportunity of the interview to plead with the agencies

of government to ensure that the policy was made available to the heads of the various schools. His mind was further expressed this way;

"…The Federal Ministry of Education should ensure that the policy document is made available to the states and that all schools have access to the document." (SHES02, Headmaster, 52 years)

Treatment facilities and health personnel

The current study showed that none of the schools had a school health centre within the school. Also, none of the schools had a sick bay or a health personnel. A participant had this to say:

"We don't have a sick bay, not to talk of a health centre in the school (laughs). *You won't expect to get a health center in any primary school in this part of the world. May be elsewhere, but not here…"* (SHEN09, Headmistress, 57 years)

Owing to the non-availability of a sick bay in the school, when a pupil falls sick, some of the schools sent such a pupil home or called their parents on phone to come and take them home. These are some comments from the participants:

When a child is sick, we send the person home. If we have paracetamol (an analgesic) we give; we don't go beyond paracetamol or we call an adult to escort the person home, so that the parents will cater for the sick child." (SHEN01, Headmistress, 49 years)

The variants of this approach by the head teachers were expressed by the participants:

"It depends on the nature of the sickness or illness. If we take the child to the hospital, we will call the attention of the parents immediately, that's why we normally keep their phone numbers." (SHES06, Headmistress, 53 years)

"*Yes, we have all their phone numbers, (the parents) once a child is sick, we take them to the health center and then call the parents to meet us there and pick their child*." (SHEN04, Headmistress, 60 years)

One school reported that they patronize a nearby pharmacy shop when a pupil becomes ill while in school. The head teacher expressed his thoughts this way:

"When a child becomes ill while at school, we take the child to a nearby pharmacy. After treatment, the child may return to the school or go home to stay with the parents." (SHES01, Headmistress, 51 years)

Concerning the availability of first aid box and a trained first aider, all the schools reported having a first aid box, but none had a trained first aider. Two schools had

teachers that were in charge of first aid box, but those teachers did not have any form of training on first aid. Also, most first aid boxes in the schools were not well-stocked. A female participant described the situation this way:

"…*We have a first aid box but the items that are supposed to be there are not all there. In fact, most of the items are not there, so if a child has injury, we can't do much to help him/her.*" (SHEE03, Headmistress, 57 years)

As part of school health service, de-worming took place in all the schools, but not on a regular, three-monthly basis as stipulated in the implementation guidelines of National school health programme. A participant had this to say:

"Deworming of our school children is done occasionally by the health officials of the Local Government health center through the help of some Non-governmental Organizations (NGOs)." (SHEN07, Headmistress, 54 years)

Health appraisal services

None of the schools performed pre-entry or routine medical screening/examinations. However, all the schools conduct physical observation/ inspection of the pupils during morning assemblies, rather than periodic observation as recommended in the National school health policy implementation guideline. Some of the participants expressed their thoughts in these ways:

"Pre-entry screening is necessary but before you do such a thing, you yourself should know what to screen, as a teacher, I don't know what and what I should look out for." (SHES06, Headmistress, 53 years)

"Well, you know during the assembly, we used to inspect the children; their hairs, nails and the teeth. That is the much we can do. We do not do any form of screening." (SHEE04, Headmistress, 55 years)

One of the participants whose school carried out inspection of the pupils had this to say:

"On Mondays, I always ask the teachers to inspect the children, check their nails, palms, teeth and hairs. We check for any form of abnormalities. So, we do all these on the spot during the assembly every Monday." (SHEN11, Headmistress, 54 years)

Record keeping

Most of the schools kept no record of the school health services provided to the pupils. Only one school had records of the services provided. Some participants had these to say:

"As I told you before, we do not treat our children when they are sick except maybe giving such a person paracetamol, so there is nothing to record. We don't have records of any treatment or service." (SHEE01, Headmistress, 53 years)

"We are not doing much when it comes to school health services, so there are no records to keep." (SHEE07, Headmistress, 49 years)

The participant from the only school that kept school health records had this to say:

"We have a book in which we write all that we do when a child is given first aid. It is not much, but it contains the name, class of the pupil, health condition and the little treatment given." (SHEN04, Headmistress, 60 years)

Control of communicable diseases

None of the schools had routine immunization exercises, on their own, for their pupils. Two of the participants had these to say:

"The people coming from the health center will administer immunization *to the children. However, it is not given to everyone, it is only to those in primary one who are under-5 years of age."* (SHES03, Headmistress, 54 years)

"During national immunization exercise, the Local Government health department will inform us; they will give us covering paper and date. So, we wait for them especially for little children under five." (SHEN08, Headmistress, 51 years)

Some participants complained that some parents no longer give consent for their wards to be immunized following the controversy which surrounded monkey pox vaccination in the past. A female participant expressed her concern in this quote:

"Before now, we used to have immunization, but after that monkey pox episode, some parents began to reject all forms of immunization. So, if any of them come we ask them to go to the street so that they can meet parents of the school children one on one." (SHEE05, Headmistress, 53 years)

All the schools barred pupils who had infectious diseases during epidemics from coming to school until they recover. The reason for this action is to prevent contact with other pupils and avoid spread as the schools do not have facilities for isolation of such cases. Some of their responses are shown in the quotes below:

"I don't have a place to isolate them; (the pupils) the thing is that we warn those that have a disease like chicken pox, or any other infectious disease to stop coming to school." (SHES05, Headmistress, 57 years)

"When it comes to infectious diseases, we ask the children who have such diseases not to come to school. In the event that we find them out, we send such children home so as to protect the other children from such diseases." (SHEE07, Headmistress, 49 years)

DISCUSSION

For many school age children, school health services are the first and the most accessible point of contact with health services.[6,8] Moreover, over 2.3 billion school age children spend one third of their time in schools, thus making schools a unique setting to help children establish healthy lifestyles.[8] The importance of a functional SHS as a component of Primary Health Care in the development of children cannot be overstated. It is therefore disturbing that none of the schools in this study had a health personnel or sick bay, and none had a health service center within the school premises or within 15 minutes' walk (serving not more than 10 primary and secondary schools) as recommended in the national school programme implementation guideline.[17] Such centers should be easily accessible and designed to eliminate or diminish barriers to care for pupils and to participation by parents or guardians. They are expected to be able to identify, treat, and manage simple illnesses, injuries, infections and infestations.

However, such is not the case as, most of the time, the schools only informed parents when their wards were ill, perhaps, due to the non-availability of school health service center. Hence, immediate notification of parents/ guardians is found most convenient among the schools when children have a health challenge while in school. In our study, all the participants reported that their schools notified parents once their wards took ill in school. This is similar to the report from a study at Nnewi, south-east Nigeria which also documented that all the schools informed parents when their wards were ill.[2] However, unlike the current study, the study carried out at Nnewi noted that some of the schools had a sick bay. [2]

All the schools in this study had first aid boxes, but most were not well stocked. A first aid box should have items, such as crepe bandage, plaster, cotton wool, scissors, analgesics/antipyretics, gauze rolls, gentian, glucose, antiseptic solution (Dettol), iodine, adhesive tape, literature regarding first-aid management, etc. The finding is consistent with what was reported in previous studies in Pakistan[21]

and other parts of the country, [22,23] but contrasts with a study in India, where only few schools had first aid boxes.[24] Without doubt, children are prone to injuries and accidents as a result of their tendency to be curious as well as their increased mobility and inexperience.[25] So, the need for the availability of well-equipped first aid boxes in primary schools should be a priority. Also, children spend a great part of their time in school during the day, hence the need for a well-stocked first aid boxes in the schools. Unfortunately, school health services are often ignored in developing countries,[26] with the result that first-aid care is compromised.[1]

In the same vein, none of the schools in this study had their teachers trained on first aid or emergency conditions. Few schools reported assigning the responsibility of manning a first aid box in their respective schools to a teacher even without being trained for the role. This deficiency in training is quite unacceptable as teachers care for pupils while in school, especially, during emergencies. This finding is comparable with that found in Oyo State south-west, Nigeria, where neither the rural nor urban public primary schools had a trained first aider, school health assistant or school health nurse.[27] In a related study in Rivers State, Nigeria, very few of the schools had trained first aid personnel.[28] However, this is different from what was found in Ibadan, south-west, Nigeria, over 30 years ago, that more than half of the schools studied had trained first aid personnel.[29] The disparity in findings may be an indication of the deterioration of education and health system in the country over the decades. This further lends credence to the position that school health services were better performed in public primary schools in the country in the last three decades, as reported in some studies in the past.[22,30]

Most of the schools in the current study only conducted routine inspection of hair, teeth, nails and skin of pupils by teachers. These are merely ritualistic activities that do not have the capacity to achieve the objective of early identification of children who require special attention, which should be a major reason for teacher's observation of school children.[12] This affirms the results from previous studies[31,32] and also, supports an earlier study in another part of Enugu, Nigeria, that the most common health appraisal was routine inspection by teachers.[33]

Additionally, none of the schools in the current study carried out pre-entry or

routine medical screening/examination for the pupils. This report is in contrast with what was obtained in developed countries, such as Britain.[34] It also varies with what was obtained in Abakaliki, south-east Nigeria in which few schools requested pre-entry medical examination from the pupils.[31] The difference observed, however, might be as a result of the fact that the study in Abakaliki was among both private and public schools, while the current study involved only public primary schools.

Furthermore, this study observed that school health records were was non-existent in almost all the schools as only one of the schools documented health services provided to pupils. This is consistent with the results of a previous study.[30] Also, the finding is similar to a study in south west, Nigeria, in which none of the schools recorded/documented health services given to pupils.[2] Equally, none of the schools in this study kept any record of cases of communicable diseases. This may be an indication of poor attitude to record keeping among primary school authorities. The usefulness of documentation in monitoring trends and patterns over time as well as providing information on drugs administration and adverse reactions cannot be overemphasized.

In accordance with the recommendations of the 2006 National School Health Policy document, all the schools participated in the provision of immunization services by allowing their pupils to take part in national immunization exercises. This is in line with findings from a study in another part of the country.[35] Our study also noted that some parents are becoming skeptical about national immunization exercises and have stopped giving consent for their children to be vaccinated, following a misinformation about monkey pox vaccine in a part of Nigeria recently. Parents' refusal to vaccinate their children based on poor information about vaccines, and immunization safety concerns was documented in past studies in other places, such as Romania[36] and Netherlands.[37] The finding, also, buttresses the observation that when trust in the public health officials who promote vaccination fails, there is decreased compliance with immunization schedules.[36] Such anti-vaccination stance by some parents puts the health of their children and others at risk of vaccine-preventable diseases, and increases the risk of outbreaks of diseases, such as measles, poliomyelitis, etc. Thus,

public health efforts at dispelling misconceptions and unfounded fears about immunization should be stepped up.

Although, it was also recommended in the 2006 National School Health Policy document, that there should be regular de-worming of students, this has not been effectively implemented, as it was indicated in this study that it took place once in a while. This corroborates the report by a similar study conducted in South West, Nigeria.[13] The finding is unfortunate as regular de-worming among this age group produces great returns in terms of reduced morbidity, improved growth and educational outcome.[38, 39] Likewise, only very few of the schools, in this study, referred pupils to health facilities when the need arose. The poor attitude to referral as exhibited by the schools can lead to delay in diagnosis and prompt management of cases before complications set in and thus, leaves the children vulnerable to preventable sicknesses and diseases.[40]

All the schools in the current study sent pupils with suspected communicable diseases, such as chicken pox, measles, whooping cough, etc., home. This was the only option left for them as none had any facility for taking care of such pupils. However, this has serious public health consequences as the teachers lack the skill and competence to make the right diagnoses, and may end up sending the wrong persons away from school while overlooking and keeping cases that may actually need to be isolated.[33] Different studies in the country reported varying levels of referrals among the primary schools. For instance, while this finding is in tandem with the report of the study at Abakaliki, [31] it is inconsistent with that of the study at Nnewi in which most of the schools reported referring their pupils to health facilities as necessary.[2]

Limitations of the study: The interpretation of the findings from this study may be limited by the fact that other stakeholder such as pupils who are end users of the school health services and policy makers who oversee its implementation were not included in the study

Conclusion: Generally, the implementation of health services in public primary schools in Enugu Metropolis leaves much to be desired. Health appraisal services were poor, and there was dearth of relevant facilities and personnel in the public primary schools. Referral services

to health facilities were also poor among the schools. Therefore, considering the importance of effective health services in health and education outcomes of individuals, it is imperative that governments and other stakeholders should take urgent steps to address the issues raised in this study and reverse the ugly trend. In that light, a teacher should be trained on first aid and basic emergency in each public primary school in the area. Also, efforts should be made to educate schools on the need to refer pupils to health facilities when required.

Implication for policymakers: There is need for the operationalisation of the national policy on school health programme in public primary schools in the state. Capacity building of designated teachers on first aid and basic emergency care should be undertaken by the government and its education and health agencies.

Implication for the schools: Each school should develop a policy on school health service which should be in line with the recommendations in the National School Health Programme, and should guide their practice of school health services.

Acknowledgements: We thank all the study participants for their willingness to take part in the research.

Availability of data and materials: The dataset used for this study is available and can be obtained from the corresponding author upon request.

Competing interests: The authors declare that there is no competing interest.

Funding: Authors declare that no external funding was received for this study.

Authors' contributions: CIA conceptualized the study. CIA, ENO and ACN designed the study. CIA, ICA, IIE and IJU took part in data collection. CIA, GOU and ENO performed data analysis. CIA drafted the first version of the manuscript, while all authors read, revised and approved the final version for submission.

REFERENCES

1. Hailegebriel T. Under-nutrition, intestinal parasitic infection and associated risk factors among selected primary school children in Bahir Dar, Ethiopia. BMC Infectious Diseases. 2018; 18(394): https://doi.org/10.1186/s12879-018-3306-3

2. Osuorah DIC, Ulasi OT, Ebenebe J, Onah KS, Ndu KI, Ekwochi U et al. The status of school health services: A comparative study of primary schools in a developing country. American Journal of Public Health Research. 2016; 4(2): 42-46. https://doi.org/10.12691/ajphr-4-2-1.

3. Adeboye MAN, Ojuawo A, Ernest SK, Fadeyi A, Salisu OT. Mortality pattern within twenty-four hours of emergency paediatric admission in a resource-poor nation's health facility. West African Journal of Medicine. 2011; 29(4): 249-252. https://doi.org/10.4314/wajm.v29i4.68245.

4. Yaya S, Bishwajit G, Shah V. Wealth, education and urban-rural inequality and maternal healthcare service usage in Malawi. BMJ Global Health. 2016; 1(2): https://doi.org/10.1136/bmjgh-2016-000085.

5. Adetokunbo OL, Herbert MG. Short Textbook of Public Health Medicine for the Tropics. 4th Edition. CRC Press, 2003; 332-402.

6. Obionu CN. Primary Health Care for Developing Countries. 2nd Edition. Enugu. Ezu books publisher, 2007; 242-243.

7. World Health Organization. World Health Organization's information series on school health document 2. [Internet]. [cited 2020 Sep 24]. Available from: https://www.who.int/school_youth_health/media/en/physical_sch_environment.pdf

8. World Health Organization. WHO | School health services [Internet]. [cited 2020 Sep 24]. Available from: https://www.who.int/maternal_child_adolescent/adolescence/school-health-services/en/

9. United Nations Childrens Fund. Education | UNICEF Nigeria (Internet). (cited 2020 Oct 1). Available from: https://www.unicef.org/nigeria/education

10. Akaba SR, Lederman SA, Moore B. Textbook of obesity: Biological, psychological and cultural influences (Internet). (cited 2020 Oct 14). Available from: https://www.amazon.com/Textbook-Obesity-Biological-Psychological-Influences-ebook/dp/B007NUQHFW

11. Federal Ministry of Education, Nigeria. National School Health Policy. Federal Ministry of Education, Abuja, Nigeria. 2006

12. Federal Ministry of Education. Implementation Guidelines on National School Health Programme. Federal Ministry of Education, Abuja, Nigeria. 2006; 1-36.

13. Ademokun OM, Kayode OO, Taiwo AO. A qualitative study on status of implementation of school health programme in South Western Nigeria: Implications for healthy living of school age children in developing countries. American Journal of Educational Research. 2014 Nov 17; 2(11): 1076-1087. https://doi.org/10.12691/education-2-11-12

14. Enugu (State, Nigeria) - Population Statistics, Charts, Map and Location (Internet). (cited 2020 Jan 11). Available from: https://www.citypopulation.de/php/nigeria-admin.php?adm1id=NGA014

15. Onunkwo AA. Application of Geographic Information System (GIS) in residential land capability index mapping of a developing country. A case study of Enugu State, Southern Nigeria. Global Journal of Geological Sciences. 2012; 10(1): 99-109

16. National Bureau of Statistics (NBS). Demograghic statistics bulletin. 2017; 1-26 [Internet]. [cited 2021 Apr 2]. Available from: http//nigerianstat.gov.ng/

17. Enugu, Nigeria Population (2020) - Population Stat (Internet). (cited 2020 Jan 12). Available from: https://populationstat.com/nigeria/e

nugu

18. Uzochukwu BSC, Ossai EN, Okeke CC, Ndu AC, Onwujekwe OE. Malaria knowledge and treatment practices in Enugu State, Nigeria: A qualitative study. International Journal of Health Policy and Management. 2018; 10(10): 1-8. https://doi.org/10.15171/ijhpm.2018.41

19. Idehen CO, Oshodin OG. Factors affecting health instruction in secondary schools in Edo State, Nigeria. Ethno-Medicine. 2008; 2(1): 61-66. https://doi.org/10.1080/09735070.2008.11886317

20. Nigeria Center for Disease Control. NCDC Coronavirus COVID-19 Microsite [Internet]. [cited 2021 Apr 2]. Available from: https://covid19.ncdc.gov.ng/guideline/

21. Qureshi FM, Khalid N, Nigah-e-Mumtaz S, Assad T, Noreen K. First aid facilities in the school settings: Are schools able to manage adequately? Pakistan Journal of Medical Sciences. 2018; 34(2): 272-276. https://doi.org/10.12669/pjms.342.14766

22. Kuponiyi, OT, Amoran, OE, Kuponiyi O. School health services and its practice among public and private primary schools in Western Nigeria. BMC Research Notes. 2016; 9(1): 203. https://doi.org/10.1186/s13104-016-2006-6

23. Asiabaka IP, Mbakwem J. Assessment of facility needs of government primary schools in Imo State, Nigeria: Some neglected areas. New York Science Journal. 2008; 22-29

24. Sunil Kumar D, Kulkarni P, Srinivas N, Prakash B, Hugara S, Ashok NC. Perception and practices regarding first-aid among school teachers in Mysore. National Journal of Community Medicine. 2013; 4(2): 349-352.

25. Lumsden K. Accidents and child development: Guidelines for practitioners. Nursing children and young people. 2013; 20(10): 1-10. https://doi.org/10.7748/ncyp2013.03.25.2.12.s11

26. Alsamghan A, AL-Shahrani FM, Al-Shahrani F. Primary school teachers' knowledge about first-aid. Semantic Scholar. 2015; 83(1): 541-547

27. Adebayo AM, Onadeko MO. Knowledge of school health programme among public primary school teachers in Oyo State, South-West Nigeria: A rural-urban comparative study. African Journal of Reproductive Health. 2015; 19(3): 55-60.

28. Akani NS. School health programme in primary schools: Effect of a short-term training of head teachers on implementation in Obio-Akpor LGA, Rivers State. A dissertation submitted to the National Postgraduate Medical College of Nigeria in partial fulfillment for the award of the Part II Fellowship of the College. 1996

29. Oduntan SO. The health of Nigerian children of school age (6-15 years) 1: Design of the study, general appearance, heights and weights, nutritional status and haematalogical findings. Annals of Tropical Medicine and Parasitology. 1974; 68(2): 129-143. https://doi.org/10.1080/00034983.1974.11686932

30. Fajewonyomi, B; Afolabi J. The status of health services and needs of nursery school children: A case study of nursery schools in Ile-Ife, Osun State, Nigeria. Nigerian School Health Journal. 1993; 8: 62-67

31. Ezeonu C, Akani N. Evaluating school health appraisal scheme in primary

schools within Abakaliki metropolis, Ebonyi State, Nigeria. Ebonyi Medical Journal. 2011; 9(2): 69-72. https://doi.org/10.4314/ebomed.v9i2.71684

32. Toma BO, Oyebode T, Toma GIO, Agaba E. School health services in primary schools in Jos, Nigeria. Journal of Medical and Dental Sciencies. 2015; 14(3): 11-17. https://doi.org/10.9790/0853-14331117

33. Bisi-Onyemaechi AI, Akani AN, Ikefuna AN, Tagbo BN, Chinawa JM, Chikani UN. School health services in Enugu East, Nigeria: perspectives from a resource poor setting. Healthcare in low-resource settings. 2017; 9(1): https://doi.org/10.4081/hls.2017.6357.

34. Whitmore K, Bax M. The school entry medical examination. Archives of Disease in Childhood. 1986; 61: 807-817.

35. Olatunya O. School health services in Nigeria: A sleeping giant? African Journal of Health Sciences. 2015; 28(1): 127-141

36. Carmen LB. Parents' refusal to vaccinate their children: An increasing social phenomenon which threatens public health. Procedia - Social and Behavioral Sciences.2014; 149: 84-91. https://doi.org/10.1016/j.sbspro.2014.08.165.

37. Rondy M, van Lier A, van de Kassteele J, Rust L, de Melker H. Determinants for HPV vaccine uptake in the Netherlands: A multi-level study. Vaccine. 2010; 28(9): 2070-2075. https://doi.org/10.1016/j.vaccine.2009.12.042.

38. The Partnership for child development. Better health, nutrition and education for the school-aged child. Transactions of the Royal Society of Tropical Medicine and Hygiene. 1997; 91(1):1-2. https://doi.org/10.1016/S0035-9203(97)90370-9

39. Odu NN, Akujobi CO, Maxwell SN, Nte AR. Impact of mass deworming of school children in rural communities in Rivers State, Nigeria: Option for programme sustainability. Acta Parasitologica Globalis. 2011; 2(2): 20-24

40. Ojugo AI. Status of health appraisal services for primary school children in Edo State Nigeria. International Electronic Journal of Health Education.2005; 8: 146-152.