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REVIEW ARTICLE

School Health Services in Edo State: The Benefits, Burden, Challenges and The Way Forward

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ABSTRACT

Background: Communicable and non-communicable diseases affect the child holistically, especially their education; as they lead to reduced school enrolment, school absenteeism, poor cognitive ability, physical and emotional impairment/disability and even dropping out from school. The establishment of school health services (SHS) promotes, protects and maintains the health of school children and teachers. The aim of this review was to highlight the benefits of school health services, the burden of ineffective SHS and the challenges against establishing a successful SHS in Edo State and make recommendations for improvement.

Discussion: The National School Health Policy (NSHPo) was launched in 2006 to aid and guide the implementation of the school health programme, which includes SHS. However, despite several years post-launch of the NSHPo, the state of SHS in Edo State is significantly and severely below set standards. These include amongst others: lack of sick bays or school-based health clinics, lack of health screening for school-aged children, teachers and food vendors, and lack of personnel.

Conclusion: In the near future, to achieve the set standard of SHS in the state, there is the need to improve awareness, knowledge and availability of the NSHPo to school heads/owners, the school teachers and students, their parents and the community. There is also an urgent need to review the NSHPo with redefinition and simplification of roles and collaborations of stakeholders, with specific focus on the Ministry of Health. The school community, including parents and the community should build a self-sustaining SHS and focus resources on SHS.

Keywords: School Health Services; National School Health Policy; Health Promoting Schools; Focusing Resources on School Health Services (FROSHS); Edo State.

INTRODUCTION

Infectious diseases, such as worm infestation, diarrhoea disease, pneumonia, skin infestation, tuberculosis, measles, rubella, and malaria are still the major causes of morbidity and mortality among preschoolers (3-5 years) and school-aged children (6-16 years).[1] The presence of fever, rash, malaise and other common features usually help parents and teachers in early recognition of these diseases; and thus an affected child is sent home or stays home for treatment hopefully for a few days. According to a survey done in Nigeria, in 2003, 95.6% of school-aged children who are absent from school, do so due to medical reasons.[2] The survey also reported that common health problems of school-aged children, which contribute to school-absenteeism include fever (56%), headache (43%), stomach ache (29%), cough / catarrh (38%) and malaria (40%).[2]

On the other hand, non-communicable/non-infectious diseases, such as malnutrition, oral diseases, mental health disorders, sickle cell anaemia, asthma, connective tissue diseases, skin disease, poor visual acuity, dental caries, cancers, diabetes mellitus, sexual abuse and other types of child abuse; usually go un-noticed by parents and the untrained teachers. According to WHO, non-communicable diseases make up 70% of deaths globally and 86% of these deaths occur in low- and middle-income countries.[3] These diseases can be described as "silent killers", but the damage they cause is indeed "loud". Data from the Federal Ministry of Health showed that 30% of school-aged children had low body mass index (BMI), 3% had skin rashes, about 20% do not have normal visual acuity, dental plaque was observed in more than 10% and about 19% of them do not have normal hearing.[2]

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Both communicable and non-communicable diseases affect the child holistically, especially their education; as they lead to reduced school enrolment, prolonged/repeated school absenteeism, poor cognitive ability, impaired learning ability of the child, physical and emotional impairment/disability and even dropping out from school. Therefore, the 'school-age' is a critical and focal point in a child's life, when they spend more time in school, where disease and poor health status can tilt them towards ineffective education. These diseases are largely preventable and curable if detected early and treatment commenced promptly.

In order to combat these menace, the World Health Organisation (WHO), taking advantage of the fact that children spend most part of their lives in school, launched the School Health Programme (SHP).[4] Historically, SHP has been in existence before the 19th century, though it has evolved over the years.[5] In 2000, The United Nations Educational, Scientific and Cultural Organization (UNESCO), United Nations Children's Fund (UNICEF) and WHO launched Focusing Resources on Effective School Health (FRESH) framework.[6] The FRESH framework aims at achieving the SDG 3: Ensuring healthy lives and promoting well-being for all ages and SDG 4 goal: Ensuring inclusive and equitable quality education and promoting lifelong learning opportunities for all; and focusing on building health promoting schools, where learning, living and working is healthy, thereby ensuring Education for all and Health for all.[2]

THE FRESH FRAMEWORK AND NATIONAL SCHOOL HEALTH POLICY IN NIGERIA

The FRESH framework has four components, school health services and nutrition is one of the pillars of the framework. Others are: forming a school health policy, heath education, and healthful school environment.

In Nigeria, the state of SHP and school health services has been poor; being almost non-existent; with no legal framework for implementtation. In 2003, a National Study of School Health System in Nigeria done in collaboration with WHO showed the poor health status of school-aged children and the poor state of school health services.[2] Thus, following the introduction of FRESH in 2000 and for the purpose of ensuring Education for all (EFA) and building Health promoting schools, Nigeria launched her National School Health Policy (NSHPo) in 2006.[2] The policy adopted a 5-component model, which consist of: Skill based health education (SBHE); Healthful school environment (HSE); School, home and community relationship (SHCR); School feeding services (SFS); School health services (SHS).[2]

Healthful school environment refers to the physical, biological and psychological or mental milieu in which the school population lives, learn and work. Skill based health education involves imbibing in the learners and teachers not just knowledge, but attitude and skills needed towards health promotion and disease prevention. School, home and community relationship involves improving communication between the school, home and community with the aim to enhancing the health of the school population and the community as a whole.[2] Unlike the FRESH framework, where school feeding services is embedded in School health services, in the NSHPo, SFS was separated as an independent component of SHP. SFS involves provision of, at least, one adequate meal a day to school children; adequate sanitation and hygiene practices, including routine medical examination and vaccination of food handlers.

SCHOOL HEALTH SERVICES (SHS)

School health service is the big pillar of the SHP and involves providing preventive and curative services for the promotion of the health status of students and staff.[2] It also involves pre-entry and pre-employment school health screening/examination for students and teachers respectively; routine and periodic examination/screening; setting up school health clinics or sick bay for first aid and treatment of minor ailment and injuries; setting up specialist clinic, which could be school-based or school-linked for referral and routine care of children (including those with special needs for example dental, hearing, visual, adolescent health care, sickle cell anaemia, autism, attention deficit hypersensitivity disorder (ADHD), asthma, physically challenged, etc.). Control of communicable diseases through immunization, hand hygiene, and deworming is also a part of school health services. Mental health services is a core component of adolescent health care, thus it takes a centre stage in school health services in adolescents. Advisory and counselling services for the school, community and parents are very needful, as they allow parents/caregivers to understand the SHS, its benefits and characteristics needed in promoting the health of the learners and the teachers towards building a health promoting school.[2] Staff needed for the actualization of these services in schools include: nurses, medical doctors, guidance counselors, psychologists, psychiatrist, dentist, optometrists, health edu-cators, environmental health officers, commu-nity health workers, dieticians, nutritionists, school teachers and social workers.[2]

THE ROLE AND IMPACT OF SCHOOL HEALTH SERVICES IN BUILDING HEALTH PROMOTING SCHOOLS

According to WHO, a health promoting school is "one that is constantly strengthening its capacity as a healthy setting for living, learning

and working".[2,7] School health services provide the bedrock for establishing most of the characteristics needed to build a health promoting school, which include: striving to improve the health of learners, personnel and the community; influencing health related knowledge, attitude, values, beliefs, skills, and behaviours. Preventing leading causes of death, disease and disabilities in the school community, such as malaria, water borne diseases, infections, drug and alcohol abuse, human immune deficiency virus (HIV) and acquired immuno-deficiency disease (AIDS), injuries, and malnutrition are also major roles of SHS towards building health promoting schools.[2] Thus, the availability of viable school health services in a school is an important determinant in recognizing a school as a health promoting school.

School health services impact on the day-to-day operation of a school as it strengthens the school learner and teacher to fulfill their purpose in school. SHS promotes/ensures the optimal health of the child, prevents common diseases both in childhood and in adulthood, detects early deviation from normal state of health of the child, provides mental health, treats/cares for the ill/sick child, improves learning and cognitive ability because a healthy child learns better. SHS boosts school attendance, reduces school absenteeism and school drop-out rate, promotes learning and educational achievement of the child. In a study done in 2010 in United States of America (USA), involving 2,306 students; those who used the school-based health clinics had a significant increase in school attendance compared to non-users.[8] In addition, increases in grade-point average over time were observed for mental health users compared to non-users.[8] School-based health clinics (SBHC) is one of the characteristics of SHS. A SBHC is a student-focused health centre located in or adjacent to a school where students can receive integrated medical, dental and other specialized healthcare services.[9] Due to proximity to the classroom or school, there are many benefits of SBHCs. Students with mental health concerns, chronic conditions such as asthma, attention-deficit/hyperactivity disorder, and diabetes can be cared for in the school environment, without them missing school days, with input from teachers who know them well. School clinics can increase access to health care overall for children. School-based clinic visits are easier to fit into a busy schedule, which results in fewer absences from classes and in return prevent missed clinic appointments. Students may want to go to the clinic without their parent, thus, adolescents (especially emancipated adolescents) are more willing to access and receive health care, such as sexual health education and checks. A quasi-experimental longitudinal analysis done 2011 in USA, revealed that low to moderate School based health clinics (SBHC) use (0.125-2.5 visits per semester) was associated with a 33% reduction in dropout compared with non-SBHC users.[10] Another quasi-experimental research found out that SBHCs significantly reduced the number of early dismissals from school ($p = 0.013$) in comparison with students who received school nursing services alone.[11] Students not enrolled in an SBHC lost 3 times as much seat time as students enrolled in a SBHC, and race, gender, age, poverty status, and presence of a preexisting illness did not influence these findings.[11]

Studies have shown the positive impact of SHS on the mental health of school children. A review of the literature, revealed that SHS through school nurse interventions impacted positively on mental health and behaviour change of school children, with improved levels of stress and anxiety and behaviour change relating to lifestyle issues.[12]

School health services provide safe and effective management of chronic health conditions (CHC), especially for students with limited access to healthcare.[13] A systematic review of studies to assess the role of school health services in addressing children and adolescents with chronic health conditions (CHCs), such as asthma, food allergies, diabetes, seizure disorders, and poor oral health, showed that school health services improved health and academic outcomes in them.[13] In Edo State, a study done in 2014, showed that an increase in the availability of school health services can lead to a significant improvement in health habits of pupils and students.[14]

WHY SCHOOL?

The school reaches a large proportion of the populations (day-care, pre-school children, school aged and adolescents) that have poor access to preventive and promotive health services.[15] Globally, about 18% of the world´s populations attend school, and 25% of Nigeria's population are school aged.[15-16] According to the Demographic and Health Survey in Nigeria, in 2018, 61% of children aged 6-12 years attend school.[17] Through SHP, the Health sector has access to 95% of the nation's young people, aged 5-17 years for at least 6 hours a day, for up to 13 critical years of their social, psychological, physical, spiritual and intellectual development.[18]

SHS changes the narrative of adolescent health. Adolescents (10-19 years) suffer more from non-infectious diseases, such as: mental health problems, intentional or unintentional violence, the persistence of sexually transmitted infections, unplanned pregnancies and abortions, chronic clinical conditions (asthma, sickle cell anaemia, etc.), and an increase in

problems linked with substance misuse.[19-20] Through the various interventions provided by the school health services, focused health care services can be provided seamlessly for adolescents.

In addition, school-based health clinics save work hours for parents of children with chronic clinical conditions as they do not have to take time off work to attend clinics with their children. In the same way, when acute illnesses or emergencies occur in schools, parents no longer have to rush down from work to take their children to health facilities outside of the school community, thereby saving work hours and the risks of job and/or financial losses.

Globally, nations give a lot of attention to children aged 0-5 years, in combating infectious and congenital diseases. In Nigeria (specifically Edo State), free primary health care is provided to pregnant women and children aged less than five years.[21] Unfortunately, such services are not freely or readily available for children older than five years in the primary health care system. Thus, SHS is an important component of the overall health care delivery system of any country. It serves as a continuum of PHC and serves as a link to comprehensive health care through school-based health clinics.

THE STATE OF SCHOOL HEALTH SERVICES IN EDO STATE

In Nigeria, including Edo State, the state of school health services prior to the launch of the National School Health Policy was below standard.[2] A National survey done in 2003, showed that pre-entry medical examination was mandatory in 14% of schools; food handlers were screened only in 17% of schools, four-fifth of schools have first aid box, 17% of schools have school nurses, 6% of schools have linkages with government-designated school clinics or school based health clinics.[2] Since the NSHPo was launched in 2006, to the best knowledge of the author, there is no known documentation of when the NSHPo was adopted and implementtation commenced in the state. However, in recent years, some organisations and institution have played some roles in strengthening school health services in Edo State. Med-Vical International (a social enterprise that focuses on improving access to quality and affordable health products and services) and simHealth Africa (a national NGO) in collaboration with the Edo State Primary Healthcare Development Agency have implemented some components of school health services (school-based health screening for school children and staff, school health training for teachers and school administrators on first aid and prevention of common illnesses, upgrading and establishing sick bays). In addition, the Institute of Child Health, University of Benin has been involved in training of teachers (on first aid, treatment of common illnesses and disease prevention) and conducting school-based health outreach programmes. Despite the grand efforts of these organizations and institution, there is still a huge dearth of SHS in Edo State.

Only few studies on the knowledge, availability and practice of SHS in the state have been published.[22-25] In 2007, a study on the knowledge, attitude and practice of school health programme among head teachers of primary schools in Egor Local Government Area (LGA) of Edo State reported that none of the head teachers had adequate knowledge of SHP.[22] On the contrary, two studies done in 2020 and 2021 in the same LGA, reported that awareness of school health programme and SHS was high in Egor LGA, Edo State, with up to 57.6% of students having good knowledge of SHS and its benefits.[23-24] This disparity in report could be the time lapse between both studies, thus time may have improved the knowledge of SHP and SHS in Egor community. In addition, Egor LGA houses University of Benin and University of Benin Teaching Hospital, which are centres for research, learning and teaching; thereby dissemination of rightful information may have enhanced the knowledge of SHS in the LGA overtime.

The availability and utilization of SHS is poor in schools in Edo State, with the situation being worse in public schools compared to private schools; in 2007, a study done in Egor LGA reported that 39.4% private schools compared to 3.4% public schools had sick bay ($x2 = 11.11$; $p < 0.05$), while 20.2% private schools compared to 3.4% public schools screened food handlers/vendors ($x2 = 4.47$; $p < 0.05$).[22] Similarly, another study conducted in Oredo LGA in 2010 reported that significantly more public schools (91.9%) than private ones (52.0%) had no health personnel on their staff list ($X = 10.86$; $p \leq 0.001$); a sickbay was present in 36.0% of private schools and none in public schools.[25] Studies done in 2020 and 2021 demonstrated low availability of resources for SHS and poor utilization of SHS by school-aged children in schools located in Egor LGA: 25% of schools had sickbay, 35.7% had a school nurse, 87.5% of the schools had first aid box, none of the schools had an ambulance for conveying sick children, 3.6% carried out visual acuity and hearing tests on the students.[23-24]

Despite the launch of the NSHPo since 2006, continuing on this trajectory of poor availability and utilization of SHS by schools in Edo State is likely to derail the attainment of SDG 3 goal and SDG 4 goal in the state. In addition, building Health Promoting Schools and promoting Health of learners to achieve Education for All (EFA) and Health for All (HFA) may be far-fetched.

WHY THE SHORTFALL?

Lack of Awareness: The most important factor against the successful actualization of the full objectives of SHP and thus SHS is lack of awareness of the NSHPo, which is a substantial tool needed to guide the implementation of the SHP Nationwide. Med-Vical International and simHealth Africa observed that awareness and availability of the NSHPo document seem to be lacking in schools in Edo State. It is noteworthy that unavailability and lack of awareness of the NSHPo in schools is not peculiar to Edo State alone.[26-27] In 2016, in Ibadan, a study documented that only 35.5% of teachers had heard of NSHPo and only 5.6% had seen it, while a similar study done 2023 in Ondo State documented that none of the schools surveyed had the NSHPo document.[26-27]

Lack of Inter-Sectoral Collaboration: According to the NSHPo, for a successful implementation of the SHP, there should be good inter-sectoral collaboration with clearly defined roles of all collaborators. From observation by the author, there seems to be a slow initiation and poor coordination of these collaborations. With regards to SHS, The Ministry of Education is supposed to collaborate with the Ministry of Health. Although no known data or study have assessed the level and effectiveness of this collaboration between both Ministries, it is recommended that the synergy between both ministries needs to be activated and maintained for there to be successful SHS in schools.[28] In addition, the role of the Ministry of Health needs to be reemphasized and they need to be empowered to take up their roles in establishing SHS in schools in the state.

Lack of Health Care Personnel: The unavailability of trained Health care personnel to take up the role of school nurse, doctor, social worker, psychologist, psychiatrist, social worker, etc, has always been a challenge. The situation now is more precarious considering the ever increasing level of brain drain of healthcare workers in the country.

Lack of Political will and Funding: A study, assessing the constraints against the full realization of the SHP in Edo State, revealed that lack of knowledge, lack of support from Government, lack of material, lack of supervision, insufficient personnel, and inappropriate funding were constraints against full realization of SHP.[23] According to the NSHPo, the government takes the lead in funding school health services, through budgetary allocation, while other donor agencies and philanthropists follow. However, there seems to be no indication that the government has set the pace for other funding agencies or bodies. Moreso, the role of the school in funding sustainable SHS was underestimated and totally ignored in the policy document. Consequently, there seem to be a sea of problems fighting against the establishment of the sustainable SHS in schools. The pressing question remains: is there hope for the future of SHS in the state? And if there is, what new approach should we use?

THE WAY FORWARD

Ownership and Awareness: First and foremost, the NSHPo document should be adopted and domiciled in every school in Edo State. In fact, the true home of this document should be the school and the school community. On the contrary, currently, it is domiciled in the archives of the Ministry of Education. Furthermore, the knowledge of this document should not end with the school head or owners but should be disseminated to school teachers, students, their parents and the community. Therefore, the true ownership of the NSHPo should be the school heads, teachers, school-aged children, parents and the community. Furthermore, this document together with the benefit of SHS should be effectively disseminated through the various social media handles to parents and school-aged children who are the benefactors of the SHS. Improving their awareness of this document will increase their acceptance and demand of SHS, which will push for availability and then utilization of SHS in schools. Studies done in 2007 in Edo State and 2019 in Ogun State, documented a positive attitude (98% and 96% respectively) of the school population towards the SHP.[22,29] Thus, knowledge of teachers should be optimized in order to harness their strength in implementing NSHPo and in establishing SHS in every school.[22,29]

Review the NSHPo and Implementation: Ironically, the NSHPo is a guide that should ensure the successful implementation of the SHP and establishment of SHS; however, after 18 years of launching the NSHPo, the situation of SHS in the country and Edo State has not changed significantly. Thus, there may be need to go back to the drawing board to review this policy. Redefinition and simplification of roles and collaborations should be done. The Federal Ministry of Health (FMoH) needs to be repositioned as the key implementers of the SHS.

School and Community Participation: Instead of emphasizing on inter-sectoral collaboration mainly, there is need to re-focus on school and community collaborations. This implies that school heads, teachers, parents, students and community should build a self-sustaining SHS, through forming effective School based Health Committee.

Health systems collaboration and partnership: Accredited health care facilities should partner with schools in providing SHS.

The role of the Edo State Primary Health Care Development Agency (EDSPHCDA) should not be underestimated, as primary health care (PHC) centres are strategically located in LGA and within communities; and are equipped with resources (especially health care personnel) to provide basic treatment of common ailment, health promotive and disease prevention services. Thus, PHC centres in close proximity to schools should be co-opted by the EDSPHCDA into providing SHS, through deworming, routine immunization, and food supplementation exercises. Unlike most state owned public hospitals, federal government-owned and privately-owned hospitals are financially independent and can successful link up with designated schools through the school health committee to provide sustainable SHS. Individual Specialists (ENT, paediatricians, dentists, opthalmologist, optometrists) in partnership with other health care workers (HCWs), organisations, hospitals, can adopt a school and build a sustainable SHS. An exemplary model has been set by Med-Vical International and simHealth Africa; these organisations are collaborating with schools, parents of school-aged children, hospitals, specialists (paedodontists, optometrist, ophthalmologist, ear/nose and throat surgeons and paediatricians, etc.) and the community to scale up and establish sustainable SHS in schools in Edo state.

Focusing resources on school health services (FROSHS): Establishment of a sustainable SHS in a state or country forms the bedrock for a well co-ordinated and successful SHP. FROSCHS has been the focal point for Med-Vical International and simHealth Africa in reawakening SHS and thus SHP in schools in Edo State. FROSHS will go a long way to achieving the objectives of the SHP and NSHPo.

CONCLUSION

The benefits of school health services among school children and teachers cannot be overemphasized. However, the state of SHS in Edo State is significantly and severely below set standards, despite the launch of the NSHPo. To achieve the set standard of SHS in the state there is the need to adopt new approaches, which include improve awareness, knowledge and availability of the NSHPo to school heads/owners, the school teachers and school-aged children, their parents and the community. There is also an urgent need to review the NSHPo with redefinition and simplification of roles and collaborations of stakeholders, with specific focus on the Ministry of Health, who is the key implementer of the SHS. School heads, teachers, parents, school-aged children and community should build a self-sustaining SHS. Schools should partner with other health care facilities, specialists and other organizations in proximity to schools in building a sustainable SHS by using FROSHS.

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