

Perceived Effect Of School Medical Care On Pupils' Academic Performance In Selected Public Primary Schools In Ijebu North-East LGA, Ogun State

¹Omotoyosi Idris

¹ Sikiru Adetona College of Education, Science, and Technology, Nigeria

Abstract

This study examines the perceived impact of school medical care on pupils' academic performance in selected public primary schools in Ijebu North-East Local Government Area (LGA), Ogun State. It seeks to understand how the availability of basic health care in schools, such as first aid and nursing presence, relates to pupils' academic outcomes. As healthcare becomes increasingly recognized as a factor in educational achievement, this study aims to evaluate the significance of school-based medical support and the importance pupils place on their health.

Keywords: School health care, Academic performance, Public primary schools, Well-being Ijebu North-East; Educational outcomes.

1.0 Introduction

Over time, it has become evident that several factors beyond the school's control influence students' academic performance, either directly or indirectly. One such factor is student health. According to Haas (2006), education and health are closely linked aspects of child development. Health problems create distractions, disruptions, and barriers that can hinder learning. Experts have long emphasized that children in good health learn more quickly and effectively than those dealing with health challenges. Given their daily contact with students, schools are often seen as ideal environments for delivering health services, which, in turn, can support academic goals. Since educational inequalities often reflect health disparities, addressing health inequities may also reduce educational gaps (Crosnoe, 2006).

Guo, Wade, and Keller (2008) argue that students' physical, mental, and social health significantly influence educational outcomes. Children who are malnourished, physically challenged, abused, exposed to drugs, or dealing with family issues

often struggle to learn. The CDC (2010) also highlights the mutual reinforcement between health and education, noting that students in good health perform better academically. Tyson (1999) further points out that physical and mental health issues can lead to absenteeism, poor concentration, destructive behavior, and increased dropout rates, key barriers to educational attainment. Therefore, addressing health-related challenges is crucial for any meaningful education reform.

A school clinic is a medical facility that offers basic treatment and referrals for students when needed. These clinics help protect the health of students and those around them. As Crosnoe and Robert (2006) observe, health concerns can place students at a disadvantage in learning. School-based clinics, therefore, provide a practical means of promoting student well-being and academic success. The Federal Ministry of Health (2009) notes that school health services encourage collaboration between school, home, and community; promote health consciousness; and

build the capacity of students and staff for health promotion.

Sherwood-Samuel (2016) argues that school-based clinics enable students to access healthcare while remaining in school. Research shows that students who utilize these services experience better attendance, improved health, and stronger academic outcomes. For such results to be sustained, qualified personnel such as nurses and their assistants must be available throughout the school day.

Academic performance refers to the extent to which a student has achieved set educational goals, typically assessed through examinations and continuous assessments. Given the documented link between health and learning, this study seeks to examine the perceived effect of school medical care on pupils' academic performance in selected public primary schools in Ijebu North-East LGA, Ogun State.

The health status of pupils is as critical as their academic standing. Without good health, students cannot attend school regularly or engage effectively. While schools are expected to offer at least basic healthcare such as first aid, many public schools lack functional clinics. As Franklin and Gerlach (2006) note, while access to clinical care in schools is effective for monitoring children's health needs, implementing it broadly has been limited by funding constraints. Consequently, only a small percentage of pupils in public schools have access to in-school health services.

Students face various health risks in the school environment, including injuries, illness, and psychological issues. These can be addressed through school clinic services, which typically provide first aid, health education, protection, promotion, prevention, emergency services, and counselling. Despite the essential role school clinics can play, the incidence of preventable conditions such as diarrhoea, the common cold, injuries, and malaria remains high in schools. These could be better managed with school-based medical care and trained school nurses.

This study, therefore, aims to determine the perceived effect of school medical care on the

academic performance of pupils in public primary schools in Ijebu North-East LGA, Ogun State. Specifically, the research questions are:

1. What is the available medical care in public primary schools in Ijebu North-East?
2. What is the level at which public primary school pupils attach importance to healthcare?
3. To what extent can school medical care affect the academic performance of public primary school pupils in Ijebu North-East?
4. What strategies can be employed by public primary schools to improve school medical care?

2.0 Research Hypotheses

The following null hypotheses are formulated for the study:

H₀₁: There is no significant relationship between school medical care and academic performance.

2.1 Literature Review for School-Based Health

Children need good health to learn effectively, and education, in turn, promotes health (FME, 2006). Schools expose students to physical, mental, and emotional risks, and the school health program addresses this through counselling, first aid, and emergency services. School health services aim to maintain student well-being, allowing them to gain the most from education while also supporting the health of staff and the wider school community (FME, 2006).

These services, delivered by health professionals and teachers, include early detection and treatment of illnesses, disease prevention, and referrals. Teachers observe students' hygiene and development regularly, checking for signs of illness and tracking growth through height and weight measurements. Schools are expected to provide basic health facilities, first aid kits, and access to counselling services. A healthy student is more attentive and capable of learning, and

school health services help reduce learning disruptions caused by illness.

2.2 Historical Background of the School Health Programme

School health services began in Europe, with school meals in Bavaria (1790) and student medical exams in the UK by 1908. In the U.S., daily nurse inspections began in 1890. Over time, the emphasis shifted from contagion control to broader health support. In Nigeria, Dr. Oluwole initiated school health in 1929. Despite efforts, including the National School Health Policy (2006) and national implementation guidelines (2007), Nigeria still faces challenges in consistent execution. Section 8 of the National Policy on Education (2013) mandates school health facilities, meals, and sanitation, but many schools still lack these essential services.

2.3 Benefits of School-Based Health Clinics

SBHCs offer on-site health services to pre-K–12 students, especially in low-income areas, often run by health departments or local hospitals (Keeton et al., 2012). They provide treatment for chronic conditions, mental health issues, and preventive care, integrating well with the school environment. These services improve access to healthcare, boost vaccination rates, and support student wellness factors in both academic and social development (Knopf et al., 2016). The FRESH framework launched in 2000, and the National School Health Policy emphasizes the role of schools in delivering these services to enhance student outcomes (FME, 2006a).

Having treatment options on campus improves access, particularly for working families. Basic care includes treatment for mild conditions using first aid kits, while more advanced setups include sickbays and partnerships for specialized services like vision and hearing care.

Teachers, parents, and the wider community all play roles in promoting student health. Family involvement reinforces healthy behaviours and supports student success. School visits and

community engagement strengthen mutual understanding and shared goals. Partnerships can provide resources and facilities when schools cannot, while schools also contribute to broader community health. Effective communication and collaboration among all stakeholders are crucial for a successful school health program (FME, 2006).

3.0 Health and Learning

Given the strong connection between health and learning, addressing one without the other is rarely effective. Effective education must consider the often unmet and interconnected health needs that impact school achievement (Council of Chief State School Officers, 1991). Children need to build a strong sense of self, critical thinking, emotional security, and a sense of belonging from an early age. While formal education lays a solid intellectual foundation, external factors, such as home life and social pressures, significantly influence academic success (Koppich & Kirst, 1993).

Chinn's (1973) study revealed that health challenges are closely tied to academic performance. Students with untreated health issues scored lower on assessments, especially those from single-parent or low-income families. This emphasizes the need for school involvement in preventive care, nutrition, and health education. Emotional and social indicators also affect classroom performance (Brown et al., 1985).

Educators recognize that academic performance is shaped by various factors, including health. School-based health centres (SBHCs) provide a coordinated approach to supporting both health and learning (Basch, 2011; Brindis, 2005). Research by Walker et al. (2010) found that students who accessed mental health services through SBHCs saw academic gains, while other studies showed improved school attachment, better grades, and increased college readiness among SBHC users (Strolin-Goltzman et al., 2014; Bersamin et al., 2016). Foy and Hahn (2009) noted fewer absences and improved results when students had access to on-site clinics, and Soleimanpour et al. (2010) reported that over half of the students said SBHCs improved their

attendance, stress management, and academic effort.

Academic performance remains the central way to assess students' development, intellectual, emotional, and social, throughout their educational journey. It reflects not only cognitive skills but also how well schools and systems meet students' broader developmental needs. Parenting style and school leadership attitudes toward academics and extracurriculars also influence performance (Schibeci & Riley, 1986).

Integrating health into education is not optional; it is essential. Students thrive academically when they are healthy, supported, and engaged, and SBHCs offer an effective model to promote both well-being and learning success.

3.1 Factors Affecting School-Based Medical Care

Like many other developing countries, the problem for Nigeria has never been that of policy development but that of implementation. Factors identified as militating against implementation of policies especially in Sub-Saharan Africa include: lack of coordination between the national and provincial departments; management problems in states ministries; and lack of capacity on the ground (Stack & Hlela, 2002); weaknesses in forecasting capacity, dependency on volatile and unpredictable aid flows, slow project execution, less stable political systems (Lledo & Poplawski-Ribeiro, 2011), bad governance and lack of political will (Federal Ministry of Health, 2011).

It is sad to observe that education is one sector that governments at all levels in Nigeria have continuously neglected. Even when international non-profit agencies like UNICEF have continued to show interest in developing education in Nigeria, the governments often times are unwilling to join resources in partnership with them. UNICEF, after helping Nigeria to develop the National School Health Policy, embarked on the training of desk officers and other relevant

personnel in the Ministry of Education and other line Ministries; develop sports in schools and distribute copies of the NSHP. In all these, governments at different levels have continued to default in making available their counterpart fund, thereby limiting the initiated school health programmes.

Lack of knowledge and skills among policy implementers in implementing the content of the policy is a major stumbling block in the effective implementation of the school health programme. Findings from research, as shown in previous discussions, reveal that few teachers and head teachers were aware of the existence of the school health programme; most of them do not possess knowledge about the school health programme and its components. Meanwhile, they are supposed to be the grassroots implementers of the programme. Various personnel in the relevant ministries who should play important roles in the implementation of the school health programme also lack the needed knowledge and skills in implementing the program.

4.0 Materials And Methods

This descriptive cross-sectional study was conducted to investigate the relationship between school medical care and academic performance among pupils in public primary schools of Ijebu North-East Local Government Area, Ogun State, Nigeria.

- i. **Study Design:** A Descriptive survey research design was employed to systematically assess teachers' perceptions of school-based healthcare and its influence on pupil academic outcomes. The survey method was selected due to its strength in capturing contemporary issues through quantitative data from structured questionnaires, allowing for statistical interpretation and hypothesis testing.
- ii. **Study Location:** The study was conducted in selected public primary schools within Ijebu North-East LGA of Ogun State, Nigeria. This location was chosen for its relevance to the study objectives and diversity in school environments. School names were

- anonymized using codes to ensure confidentiality.
- iii. **Study Duration:** November 2022 - March 2023
 - iv. **Target Population:** All teachers in the thirty-four (34) public primary schools within Ijebu North-East.LGA.
 - v. **Sampling and Sample Size:** A two-stage sampling technique was used. In Stage 1, five schools were purposively selected based on accessibility and geographical distribution. In Stage 2, ten teachers were randomly selected from each school, totaling 50 respondents. This sampling approach aligned with Aderemo's (1985) guidance that 30% of a large population provides sufficient representation. The schools included were:
 - Baptist Primary School, Ogbogbo (10 teachers)
 - Moslem Primary School, Ilese (10 teachers)
 - Epiphany Anglican Primary School, Erunwon (10 teachers)
 - Bethlehem Anglican Community Primary School, Odopotu (10 teachers)
 - Christ Church School, Odosenlu (10 teachers)

4.1 Inclusion Criteria:

- i. Public primary school teachers in Ijebu North-East LGA
- ii. Minimum of one year of teaching experience
- iii. Willingness to participate and provide informed consent

4.2 Exclusion Criteria:

- i. Non-teaching staff
- ii. Teachers from private schools
- iii. Teachers on leave during the study period

4.3 Procedure Methodology: The study adhered to established ethical guidelines throughout the research process. Written consent was obtained from school authorities and participating teachers after explaining the study's purpose and procedures. Confidentiality was maintained

through anonymous data collection, with no personal identifiers recorded on questionnaires. Participants were informed of their voluntary participation rights and freedom to withdraw at any stage. Data security was ensured through restricted access to completed questionnaires and secure electronic storage of digital records. These measures protected participants' rights while maintaining the integrity of the research process.

Data was collected using a structured instrument titled *School Medical Care on Pupils' Academic Performance Questionnaire (SMCPAPQ)*. The tool had five sections:

- Section A: Demographic information
- Section B: Available medical care services in schools
- Section C: Pupils' perception of healthcare importance
- Section D: Comparison with standard medical care practices
- Section E: Perceived impact on academic performance

Responses were measured on a 4-point Likert scale (Strongly Agree to Strongly Disagree). The questionnaire was pretested with 20 teachers from non-participating schools, and reliability was confirmed with a Cronbach's Alpha of 0.78, exceeding the 0.50 threshold (Bennett, 2006). Data collection involved official permission letters, training of research assistants, and administration during staff meetings to optimize response rates.

5.0 Statistical Analysis:

Data were analyzed using SPSS Version 23. Descriptive statistics (frequency, percentage, mean, and standard deviation) summarized respondent characteristics and item responses. Inferential statistics included Pearson's Product-Moment Correlation (PPMC) to test the relationship between variables and independent samples t-tests for group comparisons. Significance was determined at $p < 0.05$.

5.1 Results Demographic Characteristics of Respondents

The study collected complete responses from 30 teachers across Ijebu North-East public primary

schools. As shown in Table 1, the majority were young professionals aged 25-35 years (66.7%,

n=20) with bachelor's degrees (83.3%, n=25) and 3-5 years teaching experience (46.7%, n=14).

Table 1: Percentage Distributions of Respondents' Demographic Profiles

S/N	Variables		Frequency	Percentage %
1	Age	<25 years	1	3.3
		25-35 years	20	66.7
		36 -45 years	6	20
		46-55 years	1	3.3
		>56 years	2	6.7
2	Years of Experience	<2 years	3	10.0
		3-5 years	14	46.7
		6-7 years	5	16.7
3	Highest Educational Qualification	NCE	2	6.7
		BSc/BA/Bed	25	83.3
		MSc/MA/Med	3	10.0

Source: Field work, 2022

Availability of School Medical Services

Table 2 presents frequency distributions of medical resources. While basic first aid boxes were available in most schools (80%, n=24) and 53.3% (n=16) had nurses, critical services

remained limited: only 30% (n=9) maintained sick bays, 36.7% (n=11) conducted immunizations, and merely 10% (n=3) performed routine health inspections. Emergency care (30%,

n=9) and referral systems (16.7%, n=5) were notably inadequate.

Table 2: Frequency count of available medical care

S/N	Variables	Yes (%)	No (%)
1	Nurse	16 (53.3)	14 (46.7)
2	Routine Inspection	3 (10.0)	27 (90.0)
3	Pre-entry screening	5 (16.7)	25 (83.3)
4	Medical Exam	2 (6.7)	28 (93.3)
5	Referrals	5 (16.7)	25 (83.3)
6	First aid box	24 (80.0)	6 (20.0)
7	Sick bay	9 (30.0)	21 (70.0)
8	Immunization	11 (36.7)	19 (63.3)
9	Care of emergency	9 (30.0)	21 (70.0)
10	Transport ailing pupils to clinic	3 (10.0)	27 (90.0)
11	Transport ailing pupils' home	3 (10.0)	27 (90.0)
12	Counseling	14 (46.7)	16 (53.3)

Field Survey, 2022

5.2 Pupils' Health Awareness and Practices

Analysis of health behaviors (Table 3) revealed moderate student engagement, with mean scores exceeding the 2.5 threshold for positive responses. Pupils demonstrated medication adherence (Mean=2.7, SD=.915) and voluntary sick bay use

(Mean=3.2, SD=.898), though pre-school hygiene practices scored lower (Mean=2.1, SD=.607). These findings suggest students recognize the health importance but require reinforcement of preventive habits.

Table 3: Mean Score, Standard Deviation, and Remarks on the level at which public primary school pupils attach importance to healthcare.

N	Items	Mean	SD	Remark
1	Most of the pupils take their bath before coming to school	2.1	.607	Disagreed
2	Most of the pupils brush their teeth before coming to school	2.5	.731	Agreed
3	The pupils eat healthy meals	2.7	.651	Agreed
4	Pupils go to the sickbay willingly without being forced to	3.2	.898	Agreed
5	Pupils use the medication given to them according to the instructions	2.7	.915	Agreed
6	Pupils take their health serious since it affects their participation in extra-curricular activities	3.0	.765	Agreed

Field Survey, 2022

5.3 Impact on Academic Performance

Table 4 demonstrates strong consensus that medical services enhance learning outcomes (all means >2.7). Key facilitators included: immediate treatment access (Mean=3.1, SD=.900),

environmental sanitation (Mean=3.5, SD=.937), and sick bay availability (Mean=3.2, SD=.874). Teachers particularly noted that health services reduced absenteeism (Mean=3.5, SD=.777), directly supporting academic continuity.

Table 4: Mean Score, Standard deviation, and Remarks on the extent at which school medical care affects the academic performance of public primary school pupils in Ijebu North-East

N	Items	Mean	SD	Remark
1	Pupils have quick access to drugs for immediate treatment, which keeps them healthy for learning	3.1	.900	Agreed
2	Fumigation and regular cleaning of the environment is done from time to time to prevent disease.	3.5	.937	Agreed
3	Dust bins for refuse disposal are available at strategic locations in the school to keep the environment clean and safe for learning	2.7	1.149	Agreed
4	Sickbay is in the school for treating of ailing pupils, and in turn boosts pupils' performance	3.2	.874	Agreed
5	Sickbay is equipped with resources and equipment to facilitate first aid administration and treatment of minor illnesses	3.3	.980	Agreed
6	Learners come to school even when they are sick due to the capacity of the sickbay	3.5	.777	Agreed

Field Survey, 2022

5.4 Hypothesis Testing Results

The correlation analysis (Table 5) confirmed a statistically significant relationship between health prioritization and academic performance ($r=.499$, $p=.005$). With the calculated r-value

(.499) exceeding the critical value (.306) at 28 degrees of freedom, we reject the null hypothesis, concluding that health awareness significantly predicts school medical care's educational impact.

Table 7: Correlation Result of the importance attached to healthcare and school medical care impact on academic performance.

Status	Mean $\bar{x}$	SD	dF	Cal. r-value	Crit. value	r- p value	Remark
Importance attached to healthcare	2.7	.520					
	30		28	.499	.306	.005	Significant
School medical care and academic performance	3.2	.744					

Significant at $p < 0.05$

Field Survey, 2022

The findings of this study are summarized as follows:

- Most of the schools can provide basic medical needs such as first aid box, availability of nurse, among others most of the schools can provide basic medical needs such as first aid box, availability of nurse, among others.
- Most of the public primary school pupils in Ijebu North East LGA attach moderate importance to their healthcare.
- Availability of school medical care positively affects the academic performance of primary school pupils in Ijebu North East.
- There was a significant relationship between the importance attached to healthcare and

school medical care impact on academic performance.

6.0 Discussion

The findings of this study provide valuable insights into the perceived impact of school medical care on academic performance in public primary schools in Ijebu North-East LGA, Ogun State. The results align with existing literature while also revealing critical gaps in healthcare provision within Nigerian public primary schools.

While most schools had basic first aid boxes (80%) and over half had nurses (53.3%), more advanced medical services such as sick bays (30%), immunization programs (36.7%), and

emergency care (30%) were notably lacking. This supports the findings of Franklin and Gerlach (2006), who highlighted how public schools in developing countries often struggle with inadequate healthcare infrastructure due to funding constraints. The absence of routine health inspections (10%) and referral systems (16.7%) further reflects systemic weaknesses in preventive healthcare, echoing the Federal Ministry of Health's (2011) concern about policy implementation challenges in Nigeria.

Although some basic services exist, they fall short of the comprehensive school health programs envisioned by the National School Health Policy (2006). The lack of services such as pre-entry medical screenings (16.7%) and transportation for ailing pupils (10%) indicates that many schools are ill-equipped to manage emergencies or chronic health conditions, which can hinder pupils' attendance and engagement in school activities.

Pupils demonstrated moderate health awareness, particularly in taking prescribed medication (Mean=2.7) and voluntarily using sick bays where available (Mean=3.2). However, pre-school hygiene practices (Mean=2.1) were weak, pointing to the need for more focused health education. This supports Basch's (2011) argument that health literacy is essential for academic success, as students who are more aware of health risks are more likely to adopt preventive behaviors.

The moderate health awareness aligns with findings by Guo, Wade, and Keller (2008), which suggest health behaviors significantly influence learning outcomes. Yet, the relatively low scores in hygiene practices imply that schools and parents need to collaborate more closely to build healthy habits early, reinforcing the importance of integrating health education into the curriculum (FME, 2006a).

Teachers strongly agreed that accessible medical care improves academic performance, especially by reducing absenteeism (Mean=3.5) and supporting a healthier learning environment (Mean=3.5). The presence of sick bays (Mean=3.2) and access to immediate treatment (Mean=3.1) were seen as key in sustaining

participation in school activities. This is consistent with the CDC's (2010) stance that healthy students perform better academically.

Findings are also in line with previous research (Bersamin et al., 2016; Soleimanpour et al., 2010), which reported that school-based health centers (SBHCs) improve attendance, concentration, and academic performance. A significant positive correlation ($r = .499$, $p = .005$) between prioritizing health and academic performance further confirms that investing in school healthcare services yields educational benefits alongside medical ones.

6.1 Conclusion

Being one of the major determinants of growth, the importance of good health cannot be underestimated, most especially in education. It is of utmost importance to be in a good state of health to be functional in school and concentrate on studies. The current study sought to determine the perceived effect of school medical care on pupils' academic performance in selected public primary schools in Ijebu North-East LGA, Ogun State. It was discovered that most of the schools have basic healthcare facilities. Also, the study demonstrated that school medical care has a positive relationship with academic performance. However, most of these schools lack the facilities needed to take care of their ailing pupils.

One major limitation of this research is that it focuses solely on public primary schools in Ijebu North-East Local Government Area, Ogun State. This choice was made to minimize the cost and logistical challenges that would come with covering a larger or more diverse area, especially as the study is being conducted by an individual researcher. Furthermore, narrowing the scope makes it possible to carry out a meaningful and manageable investigation within the limited time available for this academic programme.

6.2 Recommendations

Based on the findings of this study, the following recommendations are made:

1. Schools should develop a budget to cater to the basic medical needs of the learners and other members of the school community.
2. Teachers should encourage learners to take their health seriously, and it shouldn't serve as an impediment to concentrating in class.
3. The Parents-Teachers Association (PTA) should contribute to the development of the school through the provision of basic medical facilities and by continually providing the necessary supplies.
4. School leaders are encouraged to ensure that the available basic medical care facilities in their schools are functional.
5. The government should inject more funds into education so that schools will have the capacity to provide for their needs.
6. The inclusion of health education in the curriculum should be prioritized so that learners can take charge of their health and understand what to do when ailing.

References

American Association of School Administrators. (1990). America 2000 where school leaders stand. Arlington, VA: Sage.

Anderson, C.L., & Creswell, W. (1976). School health practice. St Louis, HO: CV Mosby Company.

Basch, C. E. (2011). Healthier students are better learners: A missing link in school reforms to close the achievement gap. Journal of School Health, 81(10), 593–598. <https://doi.org/10.1111/j.1746-1561.2011.00632.x>

Bello, A. and Ajayi, O. (2006). Guidelines for Writing Research, Theses and Dissertations. Jos: University Press Ltd

Bersamin, M., Garbers, S., Gold, M. A., Heitel, J., Martin, K., Fisher, D. A., & Santelli, J. (2016). Measuring success: Evaluation designs and approaches to assessing the impact of school-based health centers. Journal of Adolescent Health, 58(1), 3–10. <https://doi.org/10.1016/j.jadohealth.2015.09.018>

Bin, S., Fu, Z., & Qi, Z. (1990). People's Republic of China: Perspectives in school health. Journal of School Health. 60, 349-350.

Bradley, B. J., & Greene, A. C. (2013). Do health and education agencies in the United States share responsibility for academic achievement and health? A review of 25 years of evidence about the relationship of adolescents' academic achievement and health behaviors. The Journal of Adolescent Health: Official Publication of the Society for Adolescent Medicine, 52(5), 523–532. <https://doi.org/10.1016/j.jadohealth.2013.01.008>

Brindis, C. D. (2005). Moving upstream: The role of schools in improving population health. *Journal of Adolescent Health*, 37(4), 263–265. <https://doi.org/10.1016/j.jadohealth.2005.08.006>

Brown, J.O., Grubb, S.B., Wicker, T.E., & O'Tuel, F.S. (1985). Health variables and school achievement. *Journal of School Health*. 55, 21-23.

Carnegie Council on Adolescent Development's Task Force on Education of Young Adolescents. (1989). *Turning points; Preparing American youth for the 21st century*. Washington, DC: Carnegie Corporation.

Centers for Disease Control and Prevention. (2020). Health equity considerations and racial and ethnic minority groups. Accessed October 21, 2022, <https://www.cdc.gov/coronavirus/2019-ncov/need-extraprecautions/racial-ethnic-minorities.html>

Centers for Disease Control and Prevention. (2010). Youth risk behavior surveillance and United States. *MMWR Surveill Summ* 2010, 59, 1e42.

Chinn, P. (1973). A relationship between health and school problems: A nursing assessment. *The Journal of School Health*. 43, 83-91.

Committee on Government Operations. (1994). *Health care: 127 School-based health clinics can expand access for children*. (GAO-HEHS-95-35). House of Representatives.

Council of Chief of State of School Officers. (1991). *Beyond the health room*. Washington: Author.

Crosnoe, N.& Robert, B. (2006). Health and the education of children from racial/ethnic minority and immigrant families. *Journal of Health and Social Behavior* 47(1): 77-93

Dryfoos, J.G. (1993). Schools as places for health, mental health, and social services. *Teachers College Record*. 94(3), 540-567.

Dunkle, M. (1990). Asking the right questions about school health programs: A commentary. *Journal of School Health*, 60, 147-148.

Elders, J.M. (1992). School-based clinics to the rescue. *The School Administrator*. 49(8). 16-21.

Elders, J.M. (1993). Schools and health: A natural partnership. *Journal of School Health*. 63, 312-315.

Farquhar, J. D., & Rowley, J. (2009). Convenience: A services perspective. *Marketing Theory*, 9, 425–438.

Federal Ministry of Education. Nigeria School Health Policy [Online]. Available from: https://www.unicef.org/nigeria/NG_resources_schoolhealthpolicy.pdf [Accessed Oct 29, 2022]

Franklin, C., & Gerlach, B. (2006). One hundred years of linking schools with communities: Current models and opportunities. *School Social Work Journal, Special Issue*, 44–62.

Geierstanger, Sara Peterson, Gorette Amaral, Mona Mansour, & Susan Russell Walters. 2004. "School-Based Health Centers and Academic Performance: Research, Challenges, and Recommendations." *Journal of School Health* 74(9): 347-352.

Glasner-Moller, N., Greiser, E., Korte, W., & Ndakorerwa, G.R, (1990). Federal Republic of Germany: Perceptions in school health. *Journal of School Health*. 60, 324-329.

Governor's TennCare Roundtable (1995). Report to the policy advisory committee on TennCare. Nashville: Author.

Guo, J. J., Wade, T. J., & Keller, K. N. (2008). Impact of school-based health centers on students with mental health problems. *Public Health Reports*, 123(6), 768–780. <https://doi.org/10.1177/003335490812300613>

Haas, S.A. (2006). "Health Selection and the Process of Social Stratification: The Effect of Childhood Health on Socioeconomic Attainment." *Journal of Health and Social Behavior* 47, 339-354.

Health Education Consortium: American Association of Colleges for Teacher Education, The American Academy of Pediatrics, The Maternal and Child Health Bureau, 6 the U.S. Department for Health and Human Services. (1990).

Ihemeje, J.C., Umeh, J. C. & Ogbanje, C.E. (2011). Thesis Writing and Defence. Onitsha: Printing

Information please almanac, atlas, and yearbook. (1995). Boston, MA: Houghton Mifflin.

Institute for Health-Systems Research. (1988). Health for all: The health care system in the Federal Republic of Germany. Bonn, Germany: Author.

Kahne, J., & Kelley, C. (1993). Assessing the coordination of children's services: Dilemmas facing program administrators, evaluators, and policy makers.

Kalet, A.L., Juszczak, L., Pastore, D., Fierman, A.H., Soren, K., Cohall, A. & Volel, C. (2007). Medical training in school-based health centers: A collaboration among five medical schools. *Academic Medicine*, 82(5), 458-64.

Keeton, V., Soleimanpour, S., & Brindis, C. D. (2012). School-based health centers in an era of health care reform: Building on history. *Current Problems in Pediatric and Adolescent Health Care*, 42(6), 132–156

Knopf, J., Finnie, R., Peng, Y., Hahn, R., Truman, B. I., Vernon-Smiley, M., Johnson, V. C., Johnson, R. L., Fielding, J. E., Muntaner, C., Hunt, P. C., Jones, C. P., Fullilove, M. T., & the Community Preventive Services Task Force.

Koppich, J., & Kirst, M. (1993). Editors introduction. *Education and Urban Society*, 25(2). 123-128.

Lavin, A., Shapiro, G., & Weill, K. (1992). Creating and agenda for school-based health promotion: A review of 25 selected reports. *Journal of School Health*. 62, 212-228.

Logan, D. E., & Curran, J. A. (2005). Adolescent chronic pain problems in the school setting: Exploring the experiences and beliefs of selected school personnel through focus group methodology. *Journal of Adolescent Health*, 37(4), 281–288. <https://doi.org/10.1016/j.jadohealth.2004.11.134>

Lovato, C.Y., Allensworth, D.D., & Chan, F.A. (1989), School health in America: An assessment of state policies to protect and improve the health of students. American School Health Association.

Mutter, G.W., Ashworth, C., & Cameron, H. (1990). Canada: Perspectives in school health. *Journal of School Health*. 60, 308-312.

Nader, P.R. (1990). The concept of comprehensive in the design and implementation of school health programs. *Journal of School Health*. 60, 133-137.

National Heart, Lung, and Blood Institute, National Asthma 133 Education Program Expert Panel Report. (1991).

Newman, L., & Buka, S.L. (1990). Every child a learner: Reducing risk learning impairment during pregnancy and infancy. Denver, CO: Education Commission of the States.

Novello, A. C. (1991). Healthy children ready to learn: The surgeon generals initiative for children. *Journal of School Health*, 61, 359-360.

Nutbeam, D.F. (1989). *Health for all young people in Wales*. Health Promotion Authority for Wales: Cardiff.

Richardson, J. W. (2007). *Building bridges between school-based health clinics and schools*. *Journal of School Health*, 77(7), 337–343.

Rick, P. (2014). *Three Types of Survey Research When to Use Them, and How They Can Benefit Survey*. Research-use-can-benefit-organization.

Riley, R.W., & Shalala, D.E. (1994). *Joint statement on school health*. *Journal of School Health*. 64, 135-136.

Schorr, D. (1970). *Don't get sick in America*. New York: Aurora.

Schorr, L.B., & Schorr, D. (1989). *Within our reach: Breaking the cycle of disadvantage*. New York: Doubleday.

Sherwood-Samuel, C. E. (2016). *Exploring Relationships Between School-based Health Clinics and Academic Performance in Elementary School-aged Children*. Seton Hall University Dissertations and Theses (ETDs). 2149.

Soleimanpour, S., Geierstanger, S. P., Kaller, S., McCarter, V., & Brindis, C. D. (2010). *The Role of School Health Centers in Health Care Access and Client Outcomes*. *American Journal of Public Health*, 100(9), 1597–1603. <http://doi.org/10.2105/AJPH.2009.186833>

Stone, E.J., & Perry, C.L. (1990). *United States: Perspectives in school health*. *Journal of School Health*, 60, 363-369.

Strolin-Goltzman, J., Sisselman, A., Melekis, K., & Auerbach, C. (2014). *Understanding the Relationship between School-Based Health Center Use, School Connection, and Academic Performance*. *Health & Social Work*, 39(2), 83–91. <http://doi.org/10.1093/hsw/hlu018>

Sullivan, C. (1992). *Education. Bridging the gap: An education primer for health professionals*. National Health/ Education Consortium. Washington, DC.

U.S. Bureau of Census. (1995). *Statistical Abstract of the United States (115th ed.)*. Washington: Author.

Walker, S. C., Kerns, S.E.U., Lyon, A.R., Bruns, E.J., & Cosgrove, T.J. (2009). *Impact of school-based health center use on academic outcomes*. *Journal of Adolescent Health*, 46(3), 1-7.

Watanabe, K., Mori, C., Haneda, N., Grunbaum, J.A., & LaBarthe, D. (1990). Japan: Perspectives in school health. *Journal of School Health*, 60, 330-336.

Williams, J., & Noguera, P. (2010). Poor schools? Or poor kids? *Education Next*.

Yale, L., & Venkatesh, A. (1985). Toward the construct of convenience in consumer research [Proceedings]. Association for Consumer Research.