Original Article

PREDICTORS OF THE KNOWLEDGE, PERCEPTION AND PRACTICE OF THE SCHOOL HEALTH PROGRAMME AMONG PRIMARY SCHOOL TEACHERS IN IKENNE LOCAL GOVERNMENT AREA, OGUN STATE, NIGERIA

Okoro NE,[1]*Okafor CE,[1] Onugha BO,[1] Chuks-Ihionu M,[1] Agomuo CN,[1] Adefala NO,[1] Omotosho AY,[1] Osinaike AO,[1] Odiari OA,[2] Nwankwo NV[2]

[1]Department of Community Medicine, Benjamin Carson (Sr) College of Health and Medical Sciences, Babcock University, Ilishan-Remo, Ogun State, Nigeria.

[2]Department of Community Medicine, Babcock University Teaching Hospital, Ilishan-Remo, Ogun State, Nigeria.

***Corresponding Author:** Dr. Nnamdi Emmanuel Okoro, drneco@yahoo.com

Abstract

Background: The School Health Programme (SHP) was established to ensure the good health of school children and staff. Teachers are essential to the implementation of the SHP.

Objective: This study aimed to assess the knowledge, perception and practice of the SHP, and the associated factors and predictors among primary school teachers in Ikenne Local Government Area (LGA), Ogun State, Nigeria.

Materials and Methods: It was a descriptive, cross-sectional study among 220 teachers selected from 20 primary schools. The research instrument was a pretested, self-administered questionnaire. Data were analysed using SPSS version 25. Univariate analysis was used to present the knowledge, perception, and practice of the SHP; bivariate analysis (Chi-Square test) was used for associations, while logistic regression was used for predictors; p-values less than 0.05 were considered as statistically significant.

Results: Overall, 67.3% of the teachers had a good knowledge of the SHP, while 44.1% and 34.5% had a good perception and a good practice of the SHP respectively. Gender (p=0.003) and perception (p<0.001) were significantly associated with the perception and practice of the SHP respectively. The years of teaching experience (AOR=3.095, 95% CI=1.226-7.812, p=0.017), gender (AOR=2.926, 95% CI=1.381-6.202, p=0.005) and perception (AOR=0.233, 95% CI=0.121-0.449, p<0.001) were significant predictors of the knowledge, perception and practice of the SHP respectively.

Conclusion: The knowledge of the SHP was above average, but the perception and practice were below average. Adequate SHP training and reorientation are needed for teachers, as well as adequate SHP infrastructure in primary schools in Ikenne LGA.

Keywords: Knowledge, perception, practice, school health program, primary school teachers, predictors.

Cite this article: Okoro NE, Okafor CE, Onugha BO, Chuks-Ihionu M, Agomuo CN, Adefala NO, et al. Predictors of the Knowledge, Perception and Practice of the School Health Programme among Primary School Teachers in Ikenne Local Government Area, Ogun State, Nigeria. Niger Delta J Med Med Res. 2026;5(2):53–62.

INTRODUCTION

School health is an organized coalescence of activities put in place to ensure promotion, maintenance and improvement of the physical, mental and social well-being of school children and school personnel while in school [1]. It ensures that school-age children (6 – 12 years) [2]; and school staff are healthy while academic activities are going on in schools [1]. By extension, the school health program is also designed to improve the health of the families of school children and school personnel, as well

as the members of the community where the school is located [3].

The School Health Program (SHP) has undergone some evolutions over time starting from the Traditional School Health Program (TSHP) in the early 1900s [4], to the Comprehensive School Health Program (CSHP) in the 1980s [4], to the Focusing Resources on Effective School Health (FRESH) program in April, 1990 [5]. The FRESH program was launched in Dakar, Senegal, and was founded by the WHO, UNICEF, UNESCO and the World Bank [5]. The key components of the FRESH program include: health-related school policies, adequate water, sanitation and hygiene in a healthful school environment, skill-based health education, school health services, and nutrition services [5].

In Nigeria, the Federal Ministry of Education formulated the National School Health Policy in November 2006 to regulate the implementation of the school health program in Nigeria [6]. The school health policy of Nigeria in line with the FRESH model focused on five components of the school health program and they are the school health services, healthful school environment, school feeding services, skill-based health education, and the school, home and community relationships [6].

Teachers are pivotal to the implementation of the school health program in Nigeria and other countries considering that school children spend 6 – 8 hours per day (on work days) in school. Hence, adequate knowledge, good attitude and adequate practice of the school health program are required among teachers for the successful implementation of the program and the realization of its laudable objectives.

Studies have shown various levels of knowledge, attitude and practice of the school health program among primary school teachers. A study done among primary school teachers in Myanmar showed that 62.9% had good knowledge of the SHP, 57.7% had a positive attitude towards the SHP, while 52.6% had good practice of the SHP [7]. Also, another study done in India reported that 22% of the teachers had good knowledge of the SHP, while 11% had good practice of the SHP [8].

A study carried out in south-south region of Nigeria revealed that none of the teachers had adequate knowledge of the SHP; although they all had a favourable attitude towards the SHP [9]. A similar study in southwest Nigeria reported that 16.3% of the teachers had good knowledge of the SHP, but majority (98.5%) of them had a good attitude towards the SHP [10]. Also, a study in southwest Nigeria revealed that only 15.4% of teachers had adequate knowledge of the SHP [11], while another study in the same location reported that 24% of the teachers had good knowledge of the SHP [12].

However, a related study in southeast Nigeria reported that 63.7% of the teachers had good knowledge of the SHP, 38.7% had a positive attitude towards the SHP, and 46.9% had good practice of the SHP [13]; while another study in Abuja, Nigeria reported that 99.2% of the teachers had good knowledge of the SHP, while 83.3% has a positive attitude towards the SHP [14]. In the same vein, a study in northwest Nigeria reported that 51.8% of the teachers had a good knowledge of the SHP [15].

School-age children make up about 23% of the population of Nigeria [6], and spend about one-quarter to one-third (6 – 8 hours) of their day in school [16]. These represent a significant amount of time spent in school by a significant part of the country's population. Considering the important role played by teachers in the implementation of the SHP, they need adequate knowledge and a positive perception to facilitate adequate practice of the SHP.

This study aimed to assess the knowledge, perception and practice of the SHP, as well as the associated factors and predictors among primary school teachers in Ikenne Local Government Area (LGA), Ogun State, Nigeria. This findings from study will add to the literature on the involvement of teachers in the SHP in primary schools in Nigeria, as well as help in proffering recommendations that will improve the participation of primary school teachers in the SHP in Nigeria.

MATERIALS AND METHODS

Study Area: This study was done in Ikenne LGA, Ogun State, Nigeria.

Study Design: It was a descriptive, cross-sectional study, data collected between January and February 2025.

Study Population: The study population were primary school teachers in Ikenne LGA, Ogun State, Nigeria.

Teachers who had taught for at least six months were included in the study, while teachers who were absent during data collection (January to February 2025) were excluded from the study.

Sample Size Determination: The sample size was determined using the Cochran formula which is $n = z^2pq/d^2$; in which:

n = least sample size;

z = standard normal deviate set at 1.96, which conforms to a 95% confidence level;

p = proportion or prevalence of a characteristic or variable of interest from a related study;

q =1 – p;

d= Margin of error, which is set at 0.05.

A study done in southwest Nigeria reported that 14.3% (0.143) of primary school teachers in a local government area had good knowledge of the SHP [10]. This proportion was used for the calculation and gave a sample size of 189. A 10% non-response rate was added which increased the sample size to 210. However, the final sample size used for the study was 220.

Sampling Technique: A two-stage sampling technique was used to enlist participants, thus:

In the first stage, a list of all registered primary schools in Ikenne LGA was gotten from the Local Government Education Authority (25 public and 30 private schools making a total of 55 schools). Then, ten public and ten private primary schools (making a total of twenty schools) were selected via simple random sampling by balloting.

In the second stage, eleven teachers in each school were selected via simple random sampling by balloting to participate in the study.

Research Instrument: A purpose-developed, self-administered questionnaire was utilized for the collection of data in this study. The questionnaire consisted of four sections which included the socio-demographic information of the participants, the knowledge of the school health programme, the perception of the school health programme, as well as the practice of the school health programme respectively. The questionnaire was pretested at Bethany Elementary School, Sagamu LGA, Ogun State. The pretest gave insight on the clarity of the questionnaire, as well as its ability to answer the objectives of the study. The questionnaire was then adjusted based on the observations made from the pre-test.

Measurement of the Outcome Variables: The measured outcome variables were the knowledge, perception and practice of the SHP among the teachers thus:

1. One mark was allocated to each correct option on questions used to assess the knowledge among participants. The sum of the marks of each participant was determined and the highest attainable mark was twelve (12). Then, the score of six was used as the cut-off to determine good knowledge (six and above), while poor knowledge were scores below six.
2. The perception of the SHP was measured using a 5-point Likert scale (strongly disagree to strongly agree), with scores of 1 – 5, and was scored such that the highest score was allocated to the most appropriate option. The highest attainable score was 50; so, scores from 25 and above were categorized as good perception, while scores below 25 were categorized as poor perception.
3. The practice of SHP was also measured on a 5-point Likert scale (never to always), with scores of 0 – 4, and was scored such that the highest score was allocated to the most appropriate option. The highest attainable score was 32; so, scores from 16 and above were categorized as good practice, while scores below 16 were categorized as poor practice.

Ethical Considerations: Ethical approval for this study was obtained from Babcock University Health Research Ethics Committee (Approval Number: BUHREC 660/24). Participation was voluntary, with strict maintenance of the anonymity of the participants and confidentiality of their responses. The participants were also at liberty to opt out of the study at any time without any penalty.

Limitations of the Study: This study was a cross-sectional study; hence, the temporality between independent and dependent variables may not be established. Also, the generalizability of this study may be limited as it was done in only one LGA. In addition, there may have been some social desirability bias among the participants, which was mitigated by explaining to them that the study was entirely for research, as well as assuring them of the anonymity of their identities and the confidentiality of their responses.

RESULTS

Most of the participants were between 30 – 39 years and female, had post-secondary education, had taught for more than 10 years, were married, Yoruba and Christians. Half of the teachers taught in public and private schools each (Table 1).

Table 1: Sociodemographic Characteristics of Participants

Characteristics	Frequency (n = 220)	Percent (%)
Age in years (Mean = 32.5 ± 7.5)		
19 – 29	82	37.3
30 – 39	101	45.9
40 – 49	31	14.1
50 – 59	6	2.7
Gender		
Male	42	19.1
Female	178	80.9
Highest Educational Qualification		
Secondary	33	15.0
Post-Secondary	187	85.0
Years of Teaching Experience		
Less than one year	16	7.3
1 – 2 years	32	14.5
3 – 5 years	58	26.4
5 – 10 years	43	19.5
More than 10 years	71	32.3
Marital Status		
Single	62	28.2
Married	151	68.6
Separated	1	0.5
Widowed	6	2.7
Tribe		
Yoruba	172	78.2
Igbo	40	18.2
Hausa	2	0.9
Others	6	2.7
Religion		
Christianity	201	91.4
Islam	18	8.2
African Traditional Religion	1	0.4
Type of School		
Public	110	50.0
Private	110	50.0

Tabel 2 shows the knowledge, perception and practice of the SHP among the participants. In terms of knowledge, all the participants were aware of the SHP of the government. However, 72.7% and 67.7% knew the objectives and components of the SHP respectively; 59.1% had attended workshops and seminars on the SHP, while 66.4% were familiar with SHP policy and guidelines.

In terms of perception, 85.5% and 75.0% of the participants strongly agreed that the SHP is important, and teachers should be involved in the SHP respectively. However, only 30% strongly agreed that the SHP is effective, while 17.3% strongly agreed that they were satisfied with the SHP.

In terms of practice, 42.3% of the respondents said they always participated in the health education of the pupils, 32.3 said they always participated in ensuring that the school environment remains healthful, 30.9% said they always participated in the physical education (sports) activities of the pupils, while 15.9% said they always participated in providing health services to the pupils.

Table 3 shows that 67.3% of the participants had good knowledge, 44.1% had good perception, while 34.5% had good practice of the SHP.

Table 2: Participants' Knowledge, Perception and Practice of the SHP (n = 220)

Knowledge					
Variable			**Yes (%)**	**No (%)**	
Awareness of the SHP by the government			220 (100.0)	0 (0.0)	
Knowledge of the objectives of the SHP			160 (72.7)	60 (27.3)	
Knowledge of the components of the SHP			149 (67.7)	71 (32.3)	
Participation in SHP workshops or seminars			130 (59.1)	90 (40.9)	
Familiarity with the SHP policy and guidelines			146 (66.4)	74 (33.6)	
Personal access to the SHP policy and guidelines			110 (50.0)	110 (50.0)	
Awareness of teachers' responsibilities in the SHP			146 (66.4)	74 (33.6)	
Knowledge of the health services in the SHP			136 (61.8)	84 (38.2)	
Knowledge of the nutrition guidelines			193 (87.7)	27 (12.3)	
Knowledge of emergencies in the SHP			168 (76.4)	51 (23.2)	
Knowledge of a healthful school environment			147 (66.8)	73 (33.2)	
Knowledge of the required SHP collaborations			125 (56.8)	95 (43.2)	
Perception					
Variable	**SA (%)**	**A (%)**	**N (%)**	**D (%)**	**SD (%)**
Importance of the SHP	188 (85.5)	6 (2.7)	15 (6.8)	9 (4.1)	2 (0.9)
Involvement of teachers	165 (75.0)	33 (15.0)	9 (4.1)	9 (4.1)	4 (1.8)
School's SHP is adequate	35 (15.9)	10 (4.5)	31 (14.1)	110 (50.0)	34 (15.5)
Effectiveness of the SHP	66 (30.0)	48 (21.8)	54 (24.5)	(11.4)	27 (12.3)
Satisfaction with the SHP	38 (17.3)	42 (19.1)	50 (22.7)	53 (24.1)	37 (16.8)
Satisfaction with training (n = 130)	16 (12.3)	19 (14.6)	33 (25.4)	36 (27.7)	26 (20.0)
Mental health addressed	20 (9.1)	29 (13.2)	78 (35.4)	44 ((20.0)	49 (22.3)
Better health due to SHP	56 (25.4)	60 (27.3)	36 (16.4)	40 (18.2)	28 (12.7)
The SHP is over-rated	8 (3.6)	17 (7.7)	34 (15.5)	73 (33.2)	88 (40.0)
Recommendation of SHP	30 (13.6)	154 (70.0)	23 (10.5)	10 (4.5)	3 (1.4)
Practice					
Variable (Participation)	**Always (%)**	**Often (%)**	**Sometimes (%)**	**Rarely (%)**	**Never (%)**
Healthful Environment	71 (32.3)	62 (28.2)	52 (23.6)	25 (11.4)	10 (4.5)
Health services for pupils	35 (15.9)	50 (22.7)	55 (25.0)	47 (21.4)	33 (15.0)
School Health Nutrition	43 (19.5)	91 (41.4)	67 (30.5)	11 (5.0)	8 (3.6)

Health Education	93 (42.3)	70 (31.8)	57 (25.9)	0 (0.0)	0 (0.0)
Physical Education	68 (30.9)	90 (40.9)	62 (28.2)	0 (0.0)	0 (0.0)
Counselling pupils	62 (28.2)	96 (43.6)	45 (20.5)	12 (5.5)	5 (2.2)
Health services for staff	10 (4.5)	16 (7.3)	44 (20.0)	86 (39.1)	64 (29.1)
Community collaboration	6 (2.7)	11 (5.0)	23 (10.5)	115 (52.3)	65 (29.5)

Table 3: Categories of Participants' Knowledge, Perception and Practice of the SHP

Variable	Frequency (n = 220)	Percent (%)
Knowledge		
Poor Knowledge	72	32.7
Good Knowledge	148	67.3
Perception		
Poor Perception	123	55.9
Good Perception	97	44.1
Practice		
Poor Practice	144	65.5
Good Practice	76	34.5

Table 4 shows that males had a higher percentage of good perception of the SHP than females, and gender was significantly associated with the perception of the SHP. Also, the respondents with a good perception of the SHP had a higher percentage of good practice of the SHP than the respondents with a poor perception of the SHP; and perception was significantly associated with the practice of the SHP.

Table 4: Factors Associated with Participants' Perception and Practice of the SHP

Variable	Poor (%)	Good (%)	Total (%)	χ^2	df	p-value
Perception						
Gender						
Male	15 (35.7)	27 (64.3)	42 (100.0)	8.588	1	0.003*
Female	108 (60.7)	70 (39.3)	178 (100.0)			
Total	123 (55.9)	97 (44.1)	220 (100.0)			
Practice						
Perception						
Poor Perception	96 (78.0)	27 (22.0)	123 (100.0)	19.569	1	< 0.001*
Good Practice	48 (49.5)	49 (50.5)	97 (100.0)			
Total	144 (65.5)	76 (34.5)	220 (100.0)			

*Significant.

Table 5 shows that years of teaching experience was a significant predictor of the knowledge of the SHP; gender was a significant predictor of the perception of the SHP; while perception was significant predictor of the practice of the SHP.

In terms of the knowledge of the SHP, using the respondents with more than 10 years of teaching experience as the reference, the respondents with 5 – 10 years of teaching experience had 3 times higher the odds of good knowledge of the SHP (AOR = 3.095, 95% CI = 1.226 – 7.812).

In terms of the perception of the SHP, using females as the reference, males had almost 3 times higher the odds of good perception of the SHP (AOR = 2.926, 95% CI = 1.381 – 6.202).

In terms of the practice of the SHP, using the respondents with good perception of the SHP as the reference, the respondents with poor perception of the SHP had 76.7% less the odds of good practice of the SHP (AOR = 0.233, 95% CI = 0.121 – 0.449).

Table 5: Predictors of Participants' Knowledge, Perception and Practice of the SHP

Variable	Adjusted Odds Ratio (AOR)	95% Confidence Interval (CI)		p-value
		Lower Limit	Upper Limit	
Knowledge				
Years of Teaching Experience				
> 10 years (reference)	1.000			
Less than one year	0.865	0.220	3.408	0.836
1 – 2 years	1.970	0.679	5.718	0.212
3 – 5 years	1.707	0.705	4.138	0.236
5 – 10 years	3.095	1.226	7.812	0.017*
Perception				
Gender				
Female (reference)	1.000			
Male	2.926	1.381	6.202	0.005*
Practice				
Perception				
Good Perception (reference)	1.000			
Poor Perception	0.233	0.121	0.449	< 0.001*

*Significant.

DISCUSSION

This study assessed the knowledge, perception and practice of the School Health Programme (SHP), as well as the associated factors and predictors among primary school teachers in Ikenne LGA, Ogun State, Nigeria.

All the teachers that participated in this study had heard about the SHP; so, there was adequate awareness about the program. However, the other aspects of their SHP knowledge assessment recorded various proportions. For instance, more than four-fifths of the participants knew about the nutrition guidelines in the SHP; while more than two-thirds knew the objectives and components of the SHP, and also had knowledge of a healthful school environment.

Also, about two-thirds of the participants knew the responsibility of teachers in the SHP and were familiar with the SHP policy and guidelines document in Nigeria; while less than two-thirds had knowledge of the health services to be rendered to pupils according to the SHP, and had attended a formal workshop or seminar on the SHP. Overall, more than two-thirds of the participants in this study had a good knowledge of the SHP.

These results reveal some gaps in the knowledge of the SHP among the teachers, and these gaps need to be addressed. Good knowledge of an activity is usually the starting point of a good perception and good practice of that activity, especially voluntarily. If primary school teachers are expected to have a good practice of the SHP, they need to be adequately equipped with the right knowledge to do the right things at the right time, in the right way, and at the right place.

The knowledge of the SHP in this study was similar to the SHP knowledge reported by a study in southeast Nigeria [13], but different from the SHP knowledge reported by a related study in southwest Nigeria [10]. The similarity may have resulted because both studies were Nigerian

studies, while the difference may have occurred due to varying levels of training and exposure on the SHP which the teachers had received so far.

With regards to the perception of the SHP, majority of the participants strongly agreed that the SHP is important, and teachers should be involved in the SHP. However, less than one-third strongly agreed that the SHP was effective, while less than one-fifth strongly agreed that the SHP in their school was adequate.

Similarly, less than one-fifth of the respondents that had participated in a training program on the SHP strongly agreed that they were satisfied with the training they got, while less than one-fifth of all the participants strongly agreed that they will recommend the SHP to their colleagues and other stakeholders. In addition, more than one-tenth of the participants strongly agreed that the SHP is over-rated; while overall, less than half of the participants had a good perception of the SHP.

It can be seen from this study that the level of good knowledge of the SHP among the participants did not necessarily translate into a commensurate level of good perception of the SHP. Perception is a strong motivator or driving force for the practice of an activity, utilization of a commodity or service or behavioural change. Hence, even if the knowledge of the SHP is good among the teachers, poor perception may adversely affect their practice of the SHP. This can be seen from their responses on the effectiveness of the SHP and the SHP being over-rated.

The perception of the SHP in this study was lower than the perception of the SHP in a related study done in southwest Nigeria [10]; higher than the perception of the SHP in a study in southeast Nigeria [13]; and also lower than the perception of the SHP reported by a study in Myanmar [7]. These may have resulted due to differences in the personal opinions of the teachers on the SHP, and the difference in the study area (Myanmar).

In terms of the practice of the SHP among the teachers, more than one-third always engaged in the health education of the pupils, while less than one-third always engaged in the physical education/sporting activities of the pupils. Worthy of note is the fact that all the teachers participated in the health and physical education of the pupils, probably because health education is a subject which they are supposed to teach the pupils, while physical education/sports is usually a weekly activity for the pupils in which their teachers are expected to coordinate and supervise them.

Also, less than one-third of the teachers always participated in ensuring a healthful school environment, as well as in the counselling the pupils; while less than one-quarter always engaged in the nutrition/feeding activities of the pupils. Overall, less than half (a little above one-third) of the teachers had good practice of the SHP. This low level of practice may have resulted because the responses of the teachers showed that most of them did not participate in the SHP activities as much or as regularly as they were expected to do.

The low SHP practice among the participants in this study may have also resulted from their poor perception of the SHP. This low level of the SHP practice among the teachers will adversely affect the adequate implementation of the SHP in primary schools in Ikenne LGA, as well as other locations in Nigeria, considering the pivotal role primary school teachers are expected to play in the implementation of the SHP.

The practice of the SHP in this study was similar to the practice of the SHP by a study in southwest Nigeria [17]; lower than the SHP practice in a study in southeast Nigeria [13]; and higher than the SHP practice in a study in India [8]. The similarity may have resulted due to the similar study locations, while the differences may have also resulted due to the different study location (India); or differences in the knowledge and perception of the SHP among the teachers, or differences in the school infrastructure available for the practice of the SHP.

Regarding the associated factors, gender was significantly associated with the perception of the SHP, while perception was significantly associated with the practice of the SHP. The male teachers had a better perception of the SHP than the female teachers. This may have resulted from the difference between the percentage of male and female teachers in this study (19.1% vs 80.9%), or from differences in their previous experiences in relation to the SHP. Also, teachers with a good perception of the SHP had better practice of the SHP than teachers with a poor perception of the SHP. This is expected as teachers with a

good perception of the SHP will be more motivated to engage in the practice of the SHP.

In terms of the predictors of the SHP among the teachers, the years of teaching experience was a significant predictor of the knowledge of the SHP, gender as a significant predictor of the perception of the SHP, while perception was a significant predictor of the practice of the SHP. Expectedly, the teachers that had 5 – 10 years of teaching experience had more odds of good knowledge of the SHP than teachers with less years of teaching experience.

Male teachers also had more odds of good SHP perception than female teachers, and this may have resulted because the male teachers also had a significantly better perception of the SHP than the female teachers at bivariate level. Similarly, teachers with a poor perception of the SHP had less odds of good practice of the SHP than teachers with a poor perception of the SHP. This may have also occurred because teachers with a good perception of the SHP had a significantly better practice of the SHP than the teachers with a poor perception of the SHP at bivariate level.

Acknowledgement: The authors acknowledge the teachers that participated in this study and the heads of the participating schools.

Funding: This study was funded by the authors.

Conflict of Interest: The authors declare no conflict of interest.

Authors' Contribution: ONE wrote the first draft of the manuscript; all the authors reviewed the first draft and the revised manuscript, and approved the final version.

REFERENCES

1. American School Health Association. What is School Health? [Internet]. Cincinnati, Ohio, USA: ASHA; 2026 [cited 2026 Feb 3]. Available from: https://www.ashaweb.org/what-is-school-health/
2. University of Florida Health. Conditions and Treatments [Internet]. Gainesville, Florida; 2025 [cited 2026 Feb 16]. School-Age Children Development. Available from: https://ufhealth.org/conditions-and-treatments/school-age-children-development
3. World Health Organizaton. Adolescent and Young Health [Internet]. Geneva, Switzerland: WHO; 2026 [cited 2026 Feb 12]. School Health. Available from: https://www.who.int/teams/maternal-newborn-child-adolescent-health-and-ageing/adolescent-and-young-adult-health/school-health
4. Allensworth D, Wyche J, Lawson E, Nicholson L. The Evolution of School Health Programs. In: Defining a Comprehensive School Health Program [Internet]. Bethesda, Maryland, USA: National Academies Press (US); 1995 [cited 2026 Feb 16]. Available from: https://www.ncbi.nlm.nih.gov/books/NBK231148/
5. WHO, UNICEF, World Bank, UNESCO. Schools and Health [Internet]. Dakar, Senegal; 2000 [cited 2026 Feb 16]. Welcome to FRESH. Available from: https://schoolsandhealth.net/fresh.html
6. Dania O, Adebayo AM. School Health Program in Nigeria: A Review of Its Implementation for Policy Improvement. American Journal of Educational Research. 2019 Jul 17;7(7):499–508. doi:10.12691/education-7-7-10
7. Htun YM, Lwin KT, Oo NN, Soe K, Sein TT. Knowledge, attitude and reported practice of primary school teachers on specified school health activities in Danuphyu Township, Ayeyarwaddy Region, Myanmar. SE Asia J Pub Health. 2014 Jan 18;3(1):24–9. doi:10.3329/seajph.v3i1.17707
8. Gowri M, Jalal S. Knowledge and Practice of School Teachers on the Health Care of School Children. International Journal of Pharma and Bio Sciences. 2017 Jan 1;8(1):21–32.
9. Ofovwe GE, Ofili AN. Knowledge, Attitude and Practice of School Health Programme among Head Teachers of Primary Schools in Egor Local Government Area of Edo State, Nigeria. Annals of African Medicine. 2007 Sep;6(3):99–103. doi:10.4103/1596-3519.55726
10. Odeyemi K, Chukwu E. Knowledge, attitude and practice of school health among primary school teachers in Ogun State, Nigeria. Nigerian Journal of Paediatrics. 2015;42(4):340–5.

11. Adebayo AM, Onadeko MO. Knowledge of School Health Programme among Public Primary School Teachers in Oyo State, South-Western Nigeria: A Rural-Urban Comparative Study. African Journal of Reproductive Health [Internet]. 2017 Aug 17 [cited 2026 Mar 10];19(3). Available from: https://www.ajrh.info/index.php/ajrh/article/view/849

12. Bosede AO, Obembe TA, Adebayo AM. Knowledge of school teachers and the associating factors in the effective delivery of the school health programme in Nigeria. Pan Afr Med J. 2022 Sep 2;43(4):38–50. doi:10.11604/pamj.2022.43.4.30838

13. Prince Ezenwa Ndubueze Onyemachi, Igwe Franklin Emenike, Ibe U Ibe, Amarachukwu Faith Okafor, Obinna Prince Onyemachi. Assessment of knowledge, attitude, and practice of public primary school teachers on school health programme in Bende Local Government Area of Abia State, Nigeria. GSC Adv Res Rev. 2023 Aug 30;16(2):083–93. doi:10.30574/gscarr.2023.16.2.0335

14. Uchechukwu CC, Yalma RM. Knowledge, Attitude and Practice of School Health Programme among Primary School Teachers in Gwagwalada Area Council, Abuja Nigeria. Journal of Emerging Technologies and Innovative Research. 2021 Apr;8(4):25–35.

15. Abubakar AU, Oche OM, Awosan KJ, Raji IA, Abdullahi AM, Kaoje AU. Knowledge of School Health Programme among Public Primary School Teachers in Sokoto Metropolis, Northwestern Nigeria. Journal of Community Medicine & Primary Health Care. 2021 Mar 1;33(1):128–39. doi:10.4314/jcmphc.v33i1.11

16. Kraft MA, Novicoff S. Time in School: A Conceptual Framework, Synthesis of the Causal Research, and Empirical Exploration. Am Educ Res J. 2024 May 30;61(4):724–66. doi:10.3102/00028312241251857 PubMed PMID: 40842848; PubMed Central PMCID: PMC12366744.

17. Adebayo AM, Makinde GI, Omode PK. Teachers' Training and Involvement in School Health Programme in Oyo State, Southwest Nigeria. Archives of basic and applied medicine. 2018 Feb 18;6(1):9–15. PubMed PMID: 29911693.