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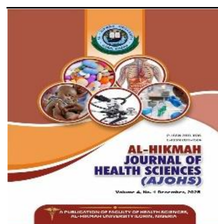

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Original Article

Knowledge, Practice, and Factors Influencing School-Based Health Programme Behaviours Among Secondary School Girls in Iludun-Oro, Kwara State, Nigeria

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ABSTRACT

Background: School-Based Health Programmes (SBHPs) support the physical, mental, and social well-being of Nigerian schoolchildren, yet evidence on their effectiveness for sustained behaviour change remains limited

Objective: To assess the knowledge, practices, and factors influencing SBHPs health-related behaviours among secondary school girls in Iludun-Oro, Kwara State.

Methods: A descriptive cross-sectional study was conducted among 152 students selected using Fischer's formula with finite population correction Data were collected using a structured, self-administered questionnaire with established test-retest reliability. Ethical approval was obtained from the University of Ilorin. Analysis used SPSS 20 with descriptive statistics and Chi-square ($p < 0.05$).

Results: Most respondents (79.6%) had heard of SBHPs, and 91.4% recognized their role in disease prevention. Dental hygiene (100.0%) and handwashing (98.0%) were the most consistently practised behaviours, while mental health management (34.2%) and substance abuse prevention (23.0%) showed markedly lower engagement. Key influencing factors were parents/guardians (96.7%), teachers (94.1%), facility availability (92.1%), and cultural or religious beliefs (93.5%). Significant associations were found between SBHP knowledge and handwashing ($\chi^2 = 49.632$, $p < 0.001$), avoidance of drug misuse ($\chi^2 = 10.956$, $p = 0.012$), and dental hygiene ($\chi^2 = 23.160$, $p < 0.001$).

Conclusion: Students showed strong hygiene practices but limited engagement with mental health and substance abuse components, highlighting the need for more culturally sensitive, comprehensive SBHP.

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Introduction

School-Based Health Programmes (SBHPs) are structured initiatives that promote and protect the health of school-aged children through health education, preventive services, nutrition, and psychosocial support (WHO, 2021). Schools offer sustained access to children aged 5–17 years, who spend about six hours daily in these settings during critical developmental periods (UNICEF, 2021; UNESCO, 2023). Globally, SBHPs improve health literacy, reduce communicable diseases, and foster lifelong healthy behaviours (Benes *et al*., 2020). Programmes incorporating routine health check-ups, physical activity, and balanced nutrition enhance attendance, academic performance, and long-term disease prevention (WHO, 2018; WHO, 2021). SBHPs are especially important in low-resource settings where children have limited access to healthcare (Bohaligah *et al*., 2025).

In Nigeria, SBHPs are guided by the National School Health Policy, yet evidence on their behavioural impact—particularly among adolescent girls—remains limited. Girls face unique challenges, including menstrual hygiene, nutritional deficiencies, and mental health burdens (Ayele *et al.*, 2025; Alarcó-Rosales *et al*., 2021). This study examines SBHP-related knowledge, practices, and influencing factors among girls in Iludun-Oro.

This study assessed knowledge, practices, and factors influencing health behaviours promoted by School-Based Health Programmes among secondary school girls in Iludun-Oro, Kwara State. Objectives were to evaluate SBHP knowledge, measure health behaviour practices, identify programme exposure, examine influencing factors, and determine associations between SBHP knowledge and health behaviours.

Methods

Study Design

A descriptive cross-sectional survey design was used to assess health knowledge and behaviours at a single point in time. The study was conducted at Iludun-Oro Anglican Girls' College, Kwara State, which has 250 students from JSS1 to SSS3 and a documented history of SBHP participation. A sample of 152 students was determined using Fischer's formula with finite population correction. Convenience sampling recruited available consenting students, excluding teachers and absentees. Although this limits generalizability, it ensured representation across class levels. All questionnaires were completed and returned, resulting in a 100% response rate due to supervised on-site administration.

Data were collected using a structured, self-administered English questionnaire covering socio-demographics, SBHP knowledge, programme exposure, health behaviour practices, and influencing factors. Reliability was confirmed through a test-retest with 20 teachers. Ethical approval was obtained from the University of Ilorin Ethics Committee, prior to data collection, although no formal approval number was issued at the time, and informed consent, anonymity, and confidentiality were strictly maintained.

Data Analysis

Data were analysed using SPSS version 20. Descriptive statistics summarised responses, while Chi-square tests assessed associations between SBHP knowledge and specific health behaviours at $\alpha = 0.05$.

Results

Socio-demographic Characteristics

The majority of respondents (75.7%) were aged 13–15 years, reflecting early-to-mid adolescence. JSS 3 students were most represented (32.2%), and 78.9% identified as Christian. Yoruba students constituted 82.9% of the sample, consistent with the school's catchment area.

Knowledge of School-Based Health Programmes

Most respondents had heard of SBHPs (79.6%) and recognized their role in disease prevention (91.4%), nutrition and hygiene promotion (96.1%), and well-being (90.1%). Awareness of menstrual hygiene was highest at 98.0%.

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Table 1. Knowledge of School-Based Health Programmes Among Respondents (n = 152*)*

Knowledge Item	Yes (n)	Yes (%)	No (n)	No (%)
Have you ever heard about school-based health programmes?	121	79.6	31	20.4
Do you know that SBHPs help in preventing disease?	139	91.4	13	8.6
Do you understand the importance of regular medical check-ups in school?	129	84.9	23	15.1
Are you aware that SBHPs promote good nutrition and hygiene?	146	96.1	6	3.9
Do you believe that students who participate in SBHPs are healthier?	137	90.1	15	9.9
Do you know that handwashing is important in preventing disease spread?	144	94.7	8	5.3
Do you know that healthy eating habits promoted by SBHPs help manage weight?	131	86.2	21	13.8
Are you aware of the importance of cleanliness during menstruation?	149	98.0	3	2.0

Source: Field Survey, 2025.

Practice of Health Behaviours Promoted by SBHPs
Dental hygiene showed complete adherence (100.0% agree or strongly agree), followed by handwashing (98.0%) and environmental sanitation (97.4%). Lower adherence was observed for avoiding drug misuse (82.9%) and clinical visitation (80.2%). Menstrual hygiene practice was high (88.8%), despite showing no significant association with SBHP knowledge in hypothesis testing.

Table2. Practice of Health Behaviours Promoted by SBHPs Among Respondents (n = 152)

Health Behaviour	A (n)	A (%)	SA (n)	SA (%)	D (n)	D (%)	SD (n)	SD (%)
Hand washing (before and after meals)	88	57.9	61	40.1	2	1.3	1	0.7
Daily physical exercise	87	57.2	48	31.6	15	9.9	2	1.3
Strict menstrual hygiene and cleanliness	95	62.5	40	26.3	13	8.6	4	2.6
Daily consumption of fruits and vegetables	86	56.6	40	26.3	26	17.1	0	0.0
Avoiding drug misuse or abuse	75	49.3	51	33.6	26	17.1	0	0.0
Visiting school clinic when ill	82	53.9	40	26.3	26	17.1	4	2.6
Environmental sanitation and cleanliness	93	61.2	55	36.2	4	2.6	0	0.0
Washing of teeth (dental hygiene)	93	61.2	59	38.8	0	0.0	0	0.0
A = Agree; SA = Strongly Agree; D = Disagree; SD = Strongly Disagree								

Source: Field Survey, 2025.

Factors Influencing Practice of Health Behaviours
Parents/guardians (96.7% agree or strongly agree) and teachers (94.1%) were the strongest influences. Cultural/religious beliefs (93.5%), facility availability (92.1%) and Peer influence (85.6%) played a major role

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Table 3. Factors Influencing Health Behaviour Practice Among Respondents (n = 152)

Influencing Factor	A (n)	A (%)	SA (n)	SA (%)	D (n)	D (%)	SD (n)	SD (%)
Parents/Guardian	76	50.0	71	46.7	5	3.3	0	0.0
Teachers	90	59.2	53	34.9	7	4.6	2	1.3
Availability of facilities (water, toilets, waste bins)	86	56.6	54	35.5	10	6.6	2	1.3
Cultural or religious beliefs	103	67.8	39	25.7	10	6.6	0	0.0
Peer influence	91	59.9	39	25.7	18	11.8	4	2.6
Gender	62	40.8	67	44.1	17	11.2	6	3.9
Socio-economic background	69	45.4	61	40.1	14	9.2	8	5.3
Religion	66	43.4	64	42.1	16	10.5	6	3.9
A = Agree; SA = Strongly Agree; D = Disagree; SD = Strongly Disagree								

Source: Field Survey, 2025.

Test of Hypothesis

SBHP knowledge was significantly associated with five behaviours: handwashing, physical exercise, avoiding drug misuse, clinic visitation, and dental hygiene. No significant association was found for menstrual hygiene, fruit/vegetable intake, or environmental sanitation.

Table 4. Chi-Square Test Results: SBHP Knowledge and Health Behaviour Practice (n = 152)

Health Behaviour	χ^2	df	p-value	Decision
Handwashing (before and after meals)	49.632	3	< 0.001	Significant
Daily physical exercise	8.742	3	0.033	Significant
Strict menstrual hygiene and cleanliness	2.775	3	0.428	Not significant
Daily consumption of fruits and vegetables	0.559	2	0.756	Not significant
Avoiding drug misuse or abuse	10.956	2	0.012	Significant
Visiting the school clinic when ill	6.285	2	0.043	Significant
Environmental sanitation and cleanliness	6.462	3	0.091	Not significant
Washing of teeth (dental hygiene)	23.160	2	< 0.001	Significant
Significance level: $\alpha = 0.05$; N = 152. Independent variable: awareness of SBHPs (Yes/No).				

Source: Field Survey, 2025

Discussion

Findings from the study show that students demonstrated strong awareness of School-Based Health Programmes (SBHPs). Most respondents (79.6%) had heard of SBHPs, and nearly all recognized their importance for disease prevention (91.4%), hygiene promotion (96.1%), and overall well-being. These results align with global evidence indicating that school-based health education significantly enhances students' understanding of health-related behaviours (Benes *et al*., 2020). Similarly, Zhong *et al*. (2022) reported that structured school health programmes improve adolescent awareness of hygiene, nutrition, and preventive health measures. Awareness of menstrual hygiene was particularly high (98.0%), reflecting the effectiveness of gender-specific health education in girls' schools, consistent with findings by Ayele *et al*. (2025).

Despite these strengths, notable knowledge gaps emerged in mental health management and substance abuse prevention, where participation rates were only 34.2% and 23.0%, respectively. These gaps mirror broader patterns across sub-Saharan Africa, where school health curricula often prioritize hygiene and nutrition while underemphasizing mental health and substance use (Alarcó-Rosales *et al*., 2021). Contributing factors likely include limited teacher training on sensitive topics, persistent community stigma surrounding mental health and drug use, and inadequate resource allocation to non-visible health issues compared to sanitation and nutrition.

Students' reported practices generally reflected their high levels of knowledge, particularly in hygiene-related behaviours. Dental hygiene showed complete adherence (100%), while handwashing (98.0%) and environmental sanitation (97.4%) were nearly universal. These rates surpass those documented in comparable West African contexts, where infrastructural and social barriers often hinder the translation of knowledge into practice (Okoroafor *et al*., 2023). The strong performance in this study may be attributed to the school's long-standing exposure to SBHPs and the reinforcing environment of an all-girls'

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institution. The findings also align with Khairuddin *et al*. (2025), who demonstrated that participation in school health programmes significantly improves hygiene and physical health practices.

However, discrepancies between knowledge and practice were evident in several areas. No significant association was found between SBHP knowledge and menstrual hygiene ($\chi^2 = 2.775$, $p = 0.428$), fruit and vegetable consumption ($\chi^2 = 0.559$, $p = 0.756$), or environmental sanitation ($\chi^2 = 6.462$, $p = 0.091$). These results suggest that awareness alone does not guarantee behavioural adoption. Structural and contextual barriers—such as limited access to menstrual hygiene products, affordability of nutritious foods, and inconsistent sanitation infrastructure—likely mediate these behaviours independently of knowledge. This pattern aligns with broader health behaviour theories emphasizing that perceived barriers, environmental constraints, and social norms significantly shape adolescent health practices (*Stok et al*., 2015; Alves *et al*., 2023).

Multiple socio-ecological factors influenced students' health behaviours. Parents and guardians were the most influential (96.7%), followed by teachers (94.1%). These findings echo Sudiatmika et al. (2019), who highlighted the central role of adult mentors in shaping adolescent health habits. Cultural and religious beliefs (93.5%) also played a major role, demonstrating the powerful influence of community norms. Peer influence (85.6%) and facility availability (92.1%) further underscore the importance of social and physical environments in enabling or constraining health practices.

Conclusion

Secondary school girls in Iludun-Oro demonstrated strong knowledge and practice of basic hygiene behaviours promoted by SBHPs. However, gaps in mental health and substance abuse engagement persist. Behaviour is shaped by parental influence, teacher guidance, cultural norms, and facility availability. Strengthening SBHPs to include culturally responsive, well-resourced mental health and substance use components is essential for achieving holistic adolescent health outcomes in Nigeria.

Recommendations

Based on the findings of this study, the following evidence-linked recommendations are proposed:

i. Government and policymakers should expand the National School Health Policy to include the integration of mental health education and substance abuse prevention as core, adequately funded SBHP components.

ii. School administrators and teachers should have training programmes strengthened with emphasis on sensitive, stigma-free health communication and delivery of psychological support services.

iii. School health nurses and other healthcare professionals should assume an active, visible role within school health systems through health screenings, counselling, referrals, and engaging families in health promotion activities.

iv. Communities and families should be structurally engaged as partners in SBHP delivery through parent-teacher sessions and community-level health promotion activities that reinforce messages at home.

Strengths and Limitations

This study offers rare evidence on SBHP outcomes in a semi-urban Nigerian girls' school, but has limitations. Convenience sampling restricts generalizability, self-reports risk bias, and the cross-sectional, single-school design limits causal inference and institutional comparison. Future research should use multi-site, longitudinal designs with objective behavioural measures.

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