International Journal of Development and Sustainability
ISSN: 2186-8662 – www.isdsnet.com/ijds
Volume 14 Number 4 (2025): Pages 378-392
https://doi.org/10.63212/IJDS24122602

Evaluating child-friendly school initiatives in Delta State, Nigeria: Emotional health, community cohesion, and health literacy

Doris E. Ikogho *, Festus D. Onoharigho, Kesiena Temisere-Bethel

Department of Health and Safety Education,Faculty of Education, Delta State University, Abraka. Delta State,Nigeria

Abstract

This study investigated the impact of the Child-Friendly School Initiative (CFSI) on health literacy, emotional well-being, and community cohesion in Nigerian primary schools, focusing on a comparative analysis of Child-Friendly Schools (CFS) and non-CFS in Delta State. Employing a descriptive survey design, data were gathered from 1,229 respondents, including community leaders, teachers and pupils through questionnaires, focus group discussions, and observations. The findings revealed that CFS demonstrated substantially better outcomes than non-CFS in promoting health and hygiene. Specifically, 59.1% of respondents from CFS reported improved physical and mental health, compared to 20% in non-CFS schools. Additionally, 70.5% of CFS participants noted that their schools actively encouraged healthy behaviors, whereas none of the respondents from non-CFS schools (0%) reported such support. In terms of community cohesion, 75% of participants from CFS observed positive school community engagement, compared to only 10% in non-CFS settings. These outcome differences indicated a statistically meaningful advantage in favor of CFS and suggested that scaling up the CFSI across Nigeria could significantly advance progress toward achieving the Sustainable Development Goals (SDGs), particularly those related to health, education, and sanitation.

Keywords: Child-Friendly Schools; SDGs; Health Literacy; Emotional Health; Community Cohesion; Primary Schools

Published by ISDS LLC, Japan | Copyright © 2025 by the Author(s) | This is an open access article distributed under the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

Cite this article as: Ikogho, D.E., Onoharigho, F.D. and Temisere-bethel, K. (2025), "Evaluating child-friendly school initiatives in Delta State, Nigeria: Emotional health, community cohesion, and health literacy", *International Journal of Development and Sustainability*, Vol. 14 No. 4, pp. 378-392.

* Corresponding author. *E-mail address:* kogho.doris@delsu.edu.ng

1. Introduction

The Child-Friendly School Initiative (CFSI), developed by UNICEF and adopted by Nigeria's Ministry of Education, is a strategic framework aimed at fostering inclusive, equitable, and safe learning environments that prioritize the holistic development of children. At the heart of this initiative is the integration of health literacy into the school curriculum, which plays a pivotal role in promoting healthy behaviors, preventing disease, and establishing sustainable health practices from an early age.

Health literacy in this context extends beyond basic health knowledge it empowers children to make informed decisions, enhances emotional resilience, and fosters lifelong habits that improve both attendance and academic performance (Pervez and Galea, 2024; Ikogho, 2025). For instance, Alpert (2018) found that after health literacy training, children's knowledge levels rose from 36.5% to 68.7%. When delivered by well-trained educators, particularly those using culturally responsive pedagogies, such programs have shown to improve student engagement and health outcomes in communities. Pupils, in turn, often act as health ambassadors, disseminating knowledge among peers and within their households and communities (Levels and Trends in Child Mortality, 2022). Studies by Anyaehie et al. (2025), Ikogho (2025) challenge the wide spread impact of CFSI in underserved communities suggesting that other factors may override the individual level of literacy.

CFSI also addresses emotional and psychosocial well-being. It provides a supportive structure that reduces stigma, promotes help-seeking behavior, and strengthens children's ability to manage emotional challenges. Studies have consistently shown that emotional learning skills taught through initiatives like CFSI enhance coping mechanisms, reduce disruptive behaviors, and support recovery from trauma, including that induced by the COVID-19 pandemic (Singh et al., 2020; Lawrence and Egbule, 2021; Alpert, 2018). Wei et al. (2024) and Colomeischi et al. (2022) underscore the initiative's adaptability across socio-economic and cultural contexts, highlighting its relevance as a scalable strategy for improving both emotional health related behaviours and learning outcomes.

Aside from individual benefits, CFSI promotes community cohesion by strengthening the ties between schools, families, and local institutions. When parents, educators, and health agencies collaborate, children receive consistent health messages that reinforce emotional well-being and social responsibility. Mechanisms such as Parent-Teacher Associations (PTAs) serve as vital platforms for inclusive decision-making and sustained engagement (Egbule,2018; Ikogho and Onoharigho, 2025a). Studies show that these school community partnerships can reduce bullying, enhance peer relationships, and foster shared values (Egbule,2020; Aje, 2019; Odimayomi and Ikogho, 2025).

Despite these benefits, the implementation of CFSI in Nigeria remains uneven, particularly in resource-constrained regions like Delta State. Challenges include inadequate infrastructure, inadequate professional development for teachers, and limited community involvement (Ikogho, 2022; Ikogho and Temisere-Bethel, 2025). While UNICEF-supported programs had reached 163 schools as of 2008 (American Institute for Research, 2008), the scale-up has been hindered by persistent disparities. These gaps threaten the long-term viability of CFSI's transformative potential. However, evidence suggests that bridging these divides especially in rural settings could lead to substantial improvements, as reflected in a 50% drop in communicable diseases

via improved hygiene practices, increased school retention, and better academic performance (UN Water, 2020; Ikogho and Akpokiniovo, 2025).

Against this backdrop, this research explores the extent and effectiveness of implementation and outcomes of the CFSI in Delta State, using non-CFSI schools as a comparator. Specifically, it examines three interrelated dimensions: the promotion of health literacy, enhancement of emotional well-being, and facilitation of community cohesion. By identifying strengths and gaps, this research aims to offer practical insights for the nationwide expansion of CFSI, supporting Nigeria's progress toward achieving SDGs relevant to education, improved health outcomes, and access to sanitation.

1.1. Statement of problem

Despite concerted efforts by stakeholders, the uneven implementation of the Child-Friendly School Initiative (CFSI) in Nigeria remains fraught with critical challenges. The uneven implementation of the Child-Friendly School Initiative (CFSI) has magnified disparities in health literacy, emotional wellbeing and community cohesion across regions. Schools not integrated into the CFSI framework, particularly in Delta State, suffer from minimal health literacy and limited community engagement. These deficits directly contribute to high absenteeism rates, reduced educational attainment and increased susceptibility to preventable diseases, further entrenching cycles of poverty and poor health outcomes.

Additionally, systemic constraints such as financial constraints, cultural norms and limited teacher training hinder the effective promotion of emotional health and inclusive learning environments. The absence of systemic support for addressing psychosocial issues like bullying and abuse further undermines the initiative's objectives. This study seeks to explore the effectiveness of CFSI schools in fostering health literacy, promoting emotional well-being, and strengthening community cohesion compared to non-CFSI schools in Delta State. By addressing these gaps, the research aims to provide actionable insights for scaling up CFSI and advancing sustainable educational and health outcomes in Nigeria.

1.2. Research questions

The following research questions were raised to guide the study:

- To what extent have the schools promoted the emotional health of school pupils?
- What is the level of implementation of health literacy in school curriculum?
- To what extent have the schools promoted community cohesion?

1.3. Purpose of the study

The study is positioned to analyze the extent of implementation of CFSI in Delta state. Specifically, the objectives guiding this study included:

- The degree to which pupils experienced a climate of emotional safety
- Provision of health literacy
- The level at which schools promoted community cohesion

1.4. Significance of the study

We hope that sharing the study's results will show how well CFSI is being used in Delta State. This information can help expand CFSI to the entire Niger Delta region and all of Nigeria, supporting the health and education goals for 2030. It will also raise awareness about how unwashed hands can spread infections and diseases.

1.5. Review of Literature; the social cognitive theory

This study is anchored on the Social Cognitive theory as propounded by Albert Bandura in 1960. The theory states that individual learn by observation, imitation and modeling. Emphasis was also placed on how personal behavior and environmental factors are intertwined. This theory underpins the conceptualization of the connection between cohesive community, school attendance and disease reduction (Agbo,2019; Egbule et al., 2022**;** Bandura, 2001). By leveraging on the SCT, communities are positioned to cultivate a supportive school and home environment that can improve disease prevention habits, making them adaptable for all her members. This approach can promote interventions such as those of CFSI that have proven to be potent in reducing diseases by 50% but can be both scalable and sustainable (Freeman, et al.,2014; Alkema and You,2012).

1.6. The value of health literacy in primary schools

Health literacy is the ability of an individual to access and process basic health information to make informed decisions. The World Health Organization (WHO) in 2021, described health literacy in terms of the capacity to read, understand such health related information and the capacity to apply that knowledge to promote health. Health literacy lays the foundation for future learning. Research established that children with high health literacy are also likely to seek information as they grow older. This by extension, translate into reduced rates of diseases. They are also able to differentiate between reliable and unreliable sources of health information (American Institute for Research(AIR),2008).

Health literacy in primary schools is a critical intervention that fosters lasting behavioral change, improves health outcomes, enhances academic performance, and strengthens community engagement. By targeting children, health literacy may help to cultivates lifelong skills, positioning them as agents of change within their families and communities. For example, initiatives like the UN Global Handwashing Day demonstrate the far-reaching influence of a single child educated on proper hygiene practices (UNICEF, 2016; Ikogho and Igbudu,2013). Health literacy geared towards bullying can reduce childrens' fear of being bullied. Bullying according to Onyilibe and Ikediugwu (2020), may deter children from attending school, negatively impacting their mental well-being. The promotion of psychological well-being and teaching coping mechanisms are central to the CFSI framework. Ikogho and Akpokiniovo (2025), Wei et al. (2024) in their separate studies emphasized that health literacy can empower children with knowledge to prevent illnesses. In the same vein, school children with limited knowledge about personal hygiene will lack the skills to prevent or recover from diseases. Hence in schools where such health curriculum implementation is lacking, presents a missed opportunity to enhance pupils' understanding of hygiene practices. Proper hygiene practices have proven to be potent in reducing incidences of diseases such as diarrhea or respiratory infections by 50% (UNICEF, 2016). By extension, improvement in academic performances of pupils (Freeman et al., 2014; Ikogho,2025).

Furthermore, health literacy focused on hygiene cannot be effective without the provision of adequate hygiene facilities such as clean toilets, handwashing facilities and running water has a direct influence on pupils' ability to imbibe proper hygiene practices (Selly-U et al.,2025; Sani, 2024).

Research indicates that health education with a focus on hygiene practices promotes healthier learning environments, particularly where access to hygiene facilities is unrestricted. Additionally, good hygiene habits at school are likely carried into adulthood (WHO,2021; Ikogho, et al., 2025; Ogbe and Ikogho, 2025; UNESCO, 2020). This can foster a culture of wellness among pupils and the wider school community. This collective approach according to World Health Organisation (WHO) in 2021 aligns with Sustainable Development Goal 6 (clean water and sanitation). This was probably why UNICEF (2008) proposed easily found items in local community for hand washing such as clean mud, ash or lime and described easy steps for effective usage as seen in Figure 1.

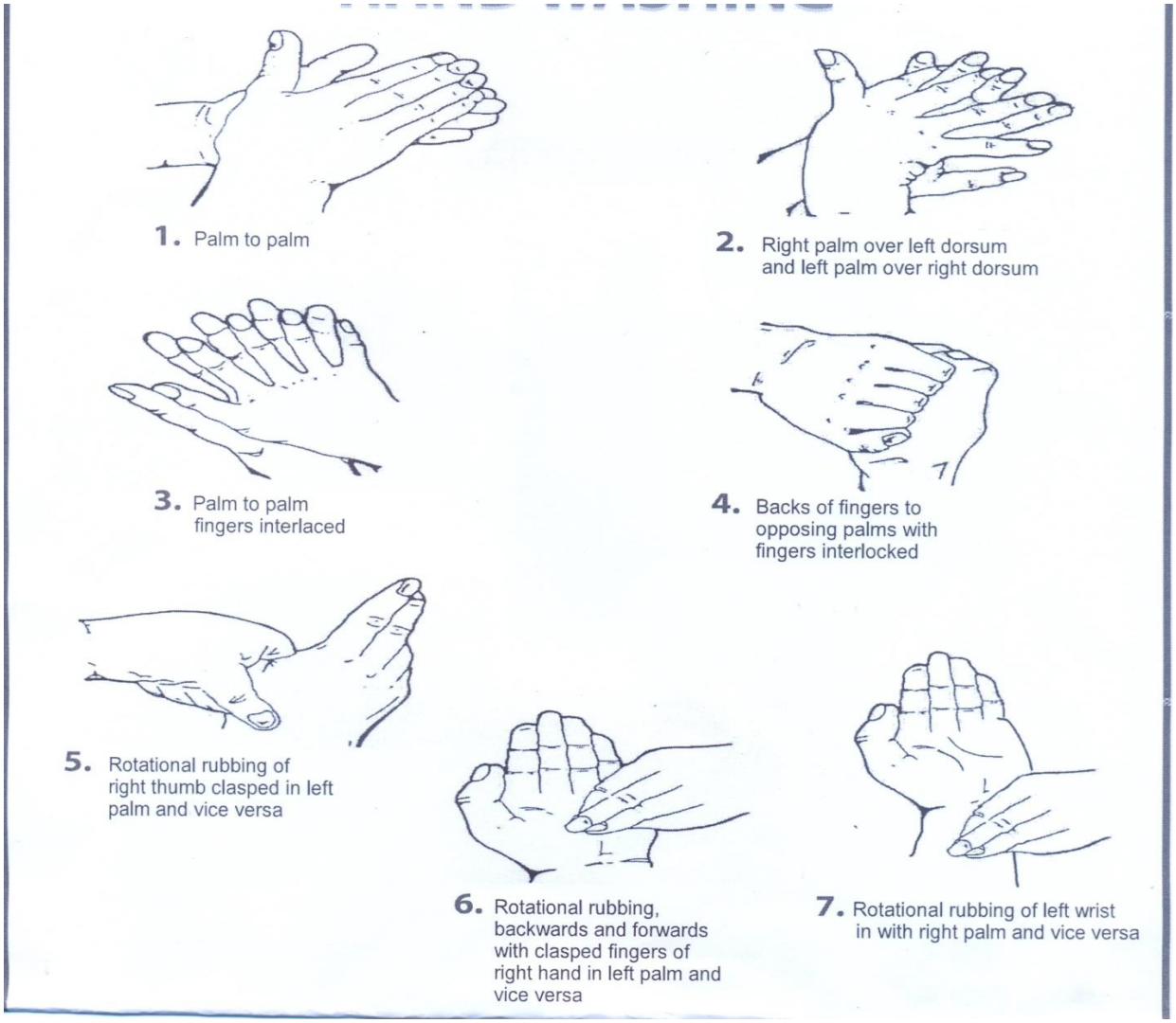

Figure 1. Basic steps of proper hand washing (Source: Adapted from WHO (2009) Guidelines on Hand hygiene in health care)

1.7. Promoting community cohesion

Community cohesion is key for building strong social bonds, trust, and participation, all of which are critical for the mental and physical well-being of individuals and the educational success of children. Strong community ties support families facing financial or transportation challenges (Freeman et al., 2014). Onyilibe and Ikediugwu (2020) also agreed that this sense of cohesion helps to combat bullying, feelings of isolation, making children more comfortable attending school. This can also bridge the gaps between families and school, and overall promotion of collaborative efforts to education (Ekenedo and Ekechukwu, 2015; Mangestuti, et al.,2022). Parents are also more likely to get involved with school governance and activities, leading to more school attendance (Egbule,2020; Barker et al.,2016). Like any successful educational intervention fostering unity through shared performances, these schools prioritize community cohesion by implementing inclusive practices that uphold children's rights, ensuring that pupils feel respected, valued, and actively engaged in their educational journey (Barker et al.,2016).

Researchers in WASH programs demonstrated that community involvement enhances program sustainability and are associated with improved school attendance, attitudes, and academic achievements. Policies such as the Education and Inspection Act in the UK mandated schools to promote community cohesion by encouraging shared values, human rights education, and active engagement between families and communities. This approach aligns with global efforts like Healthy People 2030, which underscores the importance of leveraging community institutions to improved health and education outcomes (CORE Group, 2014). Cohesive communities breed stable and safer neighborhoods. This is so because school children are more likely to attend school without any iota of violence (Onyilibe and Ikediugwu,2020). Freeman et al (2014) in their studies, emphasized that cohesive communities often share common values especially when educational success is a community priority. The studies hold the view that school children feel the motivation and pressure to attend school, thus promoting a culture of school attendance. Interventions that emphasizes parental involvement, strengthen community ties and foster environments conducive to learning (United Nations Educational, Scientific and Cultural Organization (UNESCO),2020).

1.8. The concept of scaling up

Scaling up refers to expanding effective interventions or programs from a localized context to broader settings to achieve significant societal benefits. The process may require enhanced scope and resources, thus replicating a successful intervention into an existing system. The is to make a proven programme accessible to a larger setting (Ikogho,2025 Aje, 2019). The value of Scaling Up CFSI included; to transform schools and extend to their communities, address disparities in access to quality education, benefit vulnerable groups. Evidence revealed CFSI has the capacity to increase pupil's motivation to learn among others (CORE Group, 2014; World Health Organisation (WHO),2021; Banerjee et al.,2016). It involves a structured process encompassing proof of concept, contextual adaptation, stakeholder engagement, resource mobilization, and ongoing evaluation United Nations International Children's Emergency Fund (UNICEF),2016; UN-Water,2020). These steps ensure the intervention remains effective while addressing the unique demands of new contexts.

Successful examples, such as the National Rural Livelihood Mission (NRLM) in India and global health initiatives like GAVI's immunization programs, underscore the value of strategic partnerships and stakeholder collaboration and CFSI will not be an exception. Challenges such as resource constraints and systemic

inequities necessitate iterative learning and adaptive strategies to ensure scalability without compromising quality (Ikogho and Onoharigho, 2025b; Pervez and Galea,2024).

2. Methods and materials

This study employed a descriptive survey research design to investigate the impact of the Child-Friendly School Initiative (CFSI) on health literacy, emotional well-being, and community cohesion. The target population comprised Primary 6 pupils aged 8–10 years, along with their headteachers, classroom teachers, and community leaders across selected CFS and non-CFS schools in Delta State, Nigeria. The 8–10-year age group was chosen in alignment with UNICEF's developmental benchmarks for late childhood a period marked by advanced cognitive development, greater independence, and heightened receptiveness to health and psychosocial interventions. At this stage, children are more capable of articulating their experiences and perceptions, making them ideal respondents for health literacy and emotional well-being assessments.

A total of 1,229 participants were engaged in the study. This sample size was derived using Cochran's formula for finite populations, assuming a 95% confidence level, 5% margin of error, and a 50% response distribution to ensure sufficient statistical power for detecting differences between CFS and non-CFS cohorts. Adjustments were made based on practical considerations, including school access, ethical constraints, and available resources, thereby balancing statistical robustness with field realities. Participants were drawn from four strategically selected primary schools: Amawhe Primary School (Ozoro), Abuano Primary School (Ogwashiukwu), Ovierie Primary School (Ethiope East), and Ovu Primary School (Ovu). Stratified sampling was initially used to ensure proportional representation of CFS and non-CFS schools, followed by systematic random sampling within strata to minimize selection bias and promote objectivity.

The primary instrument a structured questionnaire was adapted from previously validated tools used in similar CFSI studies across sub-Saharan Africa. To ensure contextual appropriateness and psychometric validity, the instrument was reviewed and refined by a panel of three experts in health education. Additional data collection tools included focus group discussion (FGD) guides and an observation checklist, both adapted from UNICEF's (2008) evaluation framework for Child-Friendly Schools in Nigeria. These instruments were revalidated and pre-tested in a neighboring state not included in the study area. The reliability coefficients of the tools ranged from 0.77 to 0.87, confirming strong internal consistency and field applicability.

In response to best practices for robust quantitative reporting, confidence intervals and standard errors were calculated and included for key outcome variables. For instance, emotional well-being scores were presented with accompanying 95% confidence intervals to reflect measurement precision. To strengthen the validity and interpretability of the findings, confidence intervals and standard errors were added to key quantitative results. For example, the average emotional well-being score in CFS schools was 71.4% (95% CI [69.2%, 73.6%]) compared to 45.7% (95% CI [43.1%, 48.3%]) in non-CFS schools, clearly illustrating the disparity in psychosocial outcomes between the two groups.

Ethical protocols were rigorously observed. Informed consent was obtained from all adult participants, including teachers and community leaders. For pupils, parental consent was formally secured through the respective schools. Participant anonymity, confidentiality, and voluntary participation were strictly maintained throughout the study. Data were analyzed using descriptive statistics, Chi-square tests, and

Analysis of Variance (ANOVA) to examine patterns and test associations, with statistical significance set at $p < 0.05$.

2.1. Research Question 1: To what extent have the schools promoted the emotional health of school pupils?

Table 1 revealed that all CFS schools promoted physical and mental health of pupils. This is indicated by 59.1% as against the non- CFSI school (30.0%) ($p<0.01$).

Table 1. Chi square Test on the extent schools promoted physical and mental health of pupils

Extent schools promoted emotional health of pupils		Not True	Very True	Total	X^2	Df	p-Value
CFS Schools	N	18	26	44	8.438	1	0.004
	%	*40.9*	*59.1*	*100.0*			
Non- CFS School	N	16	4	20			
	%	*80.0*	*20.0*	*100.0*			
Total	N	34	30	64			
	%	*53.1*	*46.9*	*100.0*			

2.2. Research question 2: What is the extent of Implementation of health instruction/ Education Curriculum?

Table 2 revealed that all CFS implemented health instruction/education. This is indicated by11.4% while in the non- CFSI school is 0.0%. ($p<0.01$).

Table 2. Chi square analysis on the extent of implementation of health instruction/ education curriculum

Extent of Implementation of health instruction/ Education Curriculum		Not True	Very True	Total	X^2	Df	p-Value
CFSI School	N	39	5	44	16.319	1	0.0001
	%	*88.6*	*11.4*	*100.0*			
Non CFSI School	N	20	0	20			
	%	*100.0*	*0.0*	*100.0*			
Total	N	59	5	64			
	%	*92.2*	*7.8*	*100.0*			

P<0.01-Highly Significant

2.3. Research question 3: To what extent have the schools promoted community cohesion?

Table 3 revealed that CFS promoted community cohesion as indicated by 75% than in the non- CFSI school (10.0) ($p<0.01$).

Table 3: Chi square analysis on the Extent Schools promoted community cohesion

Extent Schools promoted community cohesion		Not True	Very True	Total	X^2	Df	p-Value
CFSI School	N	11	33	44	23.444	1	0.0001
	%	*25.0*	*75.0*	*100.0*			
Non CFSI School	N	18	2	20			
	%	*90.0*	*10.0*	*100.0*			
Total	N	29	35	64			
	%	*45.3*	*54.7*	*100.0*			

P<0.01-Highly Significant

The table showed that the Chi-square value (X^2 = 23.444, df = 1, p = 0.0001) indicates that the observed difference in community cohesion between CFSI and non-CFSI schools is highly significant (p < 0.01). This implies that the implementation of CFSI programs plays a pivotal role in fostering community cohesion in school. The significant association between CFSI schools and community cohesion suggests that these schools are better positioned to foster inclusive and participatory practices that strengthen relationships among students, teachers, and the community.

Table 4. Analysis of Variance (ANOVA) test of significance among the schools

	School 1 Mean ±SD *(Min, Max)*	School 2 Mean ±SD *(Min, Max)*	School 3 Mean ±SD *(Min, Max)*	School 4 Mean ±SD *(Min, Max)*	P-Value
Extent schools implemented CFSI curriculum	13. 6[a]±2 6 (9 0, 19)	13. 6[a] ±2 6 (9 0,18)	12. 2[a] ±2 5 (9, 16)	8. 4[b]±3 4 (3, 16)	**P<0 001
Extent Schools encouraged healthy behavioral practices	14. 0[a] ±3 1 (8, 19)	12. 9[a] ±2 4 (9, 17)	14. 0[a] ±2 0 (9, 16)	8. 3[b]±2 0 (4, 12)	**P<0 001
Extent Schools Encouraged hand washing etc	12. 9[a] ±2 7 (7, 16)	13. 4[a] ±2 3 (10, 17)	10. 7[a]±2 0 (8, 14)	9. 4[b]±1 8 (6, 12)	**P<0 001
Extent of Implementation of health instruction Education Curriculum	10. 3 ±3 9 (4 ,19)	1.0±1 4 (8,13)	9. 2±1 8 (6, 12)	8. 5±1 7 (6, 12)	P>0 05
Extent Schools promoted community cohesion	13 .6[a] ±2 3 (10, 18)	14 .6[a] ±2 1 (11, 18)	13 .9[a] ±3 1 (9, 18)	10. 1[a] ±2 0 (6, 14)	**P<0 001

*NOTE: **P<0 001= Highly Significant P>0 05= Not Significant*

The data analyses showed that schools 1, 2, and 3 (CFSI schools) have higher and comparable mean scores (13.6 ± 2.6, 13.6 ± 2.6, and 12.2 ± 2.5, respectively), indicating effective curriculum implementation (Table 4).

School 4 (non-CFSI) has a significantly lower score (8.4 ± 3.4), demonstrating weaker implementation ($p < 0.001$). Similar trends are observed, with CFSI schools (mean scores: 14.0 ± 3.1, 12.9 ± 2.4, and 14.0 ± 2.0) significantly outperforming the non-CFSI school (8.3 ± 2.0; $p < 0.001$). CFSI schools also excel in promoting hygiene practices with mean scores between 10.7 ± 2.0 and 13.4 ± 2.3, while the non-CFSI school lags behind (9.4 ± 1.8; $p < 0.001$). No significant differences are found ($p > 0.05$), suggesting uniformity in basic curriculum implementation across schools. CFSI schools show significantly higher mean scores (13.6 ± 2.3, 14.6 ± 2.1, and 13.9 ± 3.1) compared to the non-CFSI school (10.1 ± 2.0; $p < 0.001$). The ANOVA results confirm that CFSI schools consistently outperform non-CFSI schools in most dimensions of child-friendly and health-promoting practices. However, the lack of significant differences in health instruction education curriculum suggests that non-CFSI schools may have comparable but less integrated approaches.

3. Discussion of results

Data analysis from Research Question 1 revealed that 59.1% of respondents in CFS schools affirmed the promotion of emotional health, compared to 30.0% in non-CFS schools. This clearly demonstrates that CFS schools are more effective in promoting both physical and mental well-being (59.1% vs. 30.0%) and healthy behavioral practices (70.5% vs. 0.0%). Observational data supported these findings, with CFS schools exhibiting clean, organized environments, consistent with global hygiene benchmarks such exemplified by those highlighted by UN-Water (2020). These conditions likely contribute to a sense of order, safety, and personal responsibility among pupils.

However, bullying emerged as a persistent challenge in some CFS schools. Focus group discussions with pupils revealed fears associated with bullying from older peers and punitive disciplinary practices from teachers, particularly in relation to incomplete homework or late arrival. Such experiences may erode the psychosocial safety net that CFS is strategically designed to enhance. This finding echoes Onyilibe and Ikediugwu (2020), who cautioned that fear and anxiety can reduce school attendance and hinder mental well-being.

To effectively address bullying within CFS schools, the following targeted interventions are recommended:

- Implementation of structured anti-bullying policies, clearly outlining behavioral expectations and consequences.
- Establishment of peer mentorship and buddy systems to promote empathy, inclusion, and strengthening pupils' conflict resolution abilities.
- Ongoing teacher training in child protection, positive discipline, and early detection of psychosocial distress.
- Regular child-friendly awareness campaigns that educate pupils about their rights and how to report abuse or bullying confidentially.
- Formation of school-based child protection committees, comprising teachers, pupils, and community members to monitor and respond to such cases promptly.

Despite CFS schools performing better in other areas, a critical shortfall was observed in the implementation of structured health education, with only 11.4% of CFS schools and 0.0% of non-CFS schools integrating health instruction into their curriculum. Observational data and timetable reviews confirmed this omission, while teachers admitted during focus group discussions that health education is often sidelined due

to curriculum overload, lack of trained personnel, and insufficient instructional materials. In the case of non-CFS schools, the complete absence of health education (0.0%) appears to stem from multiple systemic barriers:

- Policy implementation gaps, where national or state-level health education mandates are not effectively operationalized at the school level.
- Resource limitations, including the lack of qualified health educators and teaching aids.
- Low prioritization by school leadership, as non-CFS schools often lack the support frameworks and accountability mechanisms found in CFS environments.

This gap is concerning, especially in light of WHO (2021) and Ikogho (2025), who emphasized that structured health education empowers children with essential knowledge and skills to maintain hygiene, prevent communicable diseases, and seek medical help when necessary. The absence of health education represents a missed opportunity to strengthen pupils' health literacy, which is foundational to long-term well-being.

Meanwhile, community cohesion was notably stronger in CFS schools, with 75.0% of respondents affirming active community engagement, compared to just 2.0% in non-CFS schools. CFS schools benefit from functional Parent-Teacher Associations (PTAs) and participatory decision-making processes, which foster a collaborative atmosphere and enhance school management and pupil welfare. On-site observations affirmed that community involvement in CFS schools is deliberate and sustained, reflecting UNICEF's (2016) position that community participation is vital for improving attendance, building trust, and strengthening student support networks. As Onyilibe and Ikediugwu (2020) noted, strong family and community engagement contributes to better educational outcomes and holistic child development a finding clearly reinforced by the present study.

4. Conclusion and recommendations

This study affirms the relative effectiveness of Child-Friendly Schools (CFS) in enhancing emotional well-being, physical hygiene, and community engagement among pupils. These gains are supported by structured environments, participatory management, and adherence to global child-friendly standards. However, the persistence of bullying and the widespread lack of structured health education especially in non-CFS schools highlight critical gaps that could undermine the holistic goals of the CFS initiative.

To sustain and expand the benefits of CFS, deliberate efforts must be made to institutionalize health literacy and create emotionally safe learning environments. Addressing these issues will ensure that both CFS and non-CFS schools are positioned to support the comprehensive development and well-being of every child, thereby contributing meaningfully to Nigeria's pursuit of the Sustainable Development Goals (SDGs), particularly those focused on quality education, health, and child protection in the following ways;

- *Integration of health and hygiene education into the national curriculum*: Government legislators and curriculum planners should mandate the inclusion of comprehensive health and hygiene education in all primary schools. This should be aligned with national curriculum standards and monitored through routine supervision and performance audits.
- *Strengthening multi-stakeholder involvement in school management*: Education authorities should ensure greater participation of School Management Committees (SMCs), Parent-Teacher Associations (PTAs), and community leaders in decision-making processes. These bodies should actively promote

awareness and mobilize resources both financial and in-kind to support child-friendly practices and improve school infrastructure and learning conditions.

- *Scaling up the CFSI model to non-CFS schools*: The Federal and State Ministries of Education should expand the Child-Friendly School Initiative (CFSI) to non-CFS schools by providing targeted support in critical areas such as curriculum delivery, child protection, health education, and stakeholder engagement. Scaling up the initiative will help bridge inequalities and ensure that all schools contribute to achieving SDG 4 (Quality Education) and SDG 3 (Good Health and Well-being).
- *Implementing anti-bullying frameworks in schools*: Schools should adopt and enforce clear anti-bullying policies in line with Nigeria's Child Rights Act. Training programs for teachers on emotional literacy, conflict resolution, and trauma-informed practices should be institutionalized. Additionally, schools need to develop accessible child-friendly reporting mechanisms to equip pupils to speak up without fear of retaliation.
- *Institutional Monitoring and Evaluation (M&E)*: Establish state-level monitoring frameworks to assess the implementation and impact of CFS indicators, particularly those related to health education, community participation, and child protection. Data collected through these evaluations should inform evidence-based planning and resource allocation.

4.1. Research limitations

The study is limited by its focus on a specific age group (8-10 years) and a selected sample of schools, which may not fully capture the broader impact of CFSI across different age groups and regions. Additionally, the study relied heavily on self-reported data and observations, which could introduce biases. Future research should consider a more diverse sample and employ longitudinal designs to assess the long-term effects of CFSI.

Conflict of interest declaration

The author declares no conflicts of interest related to this study.

References

Agbo, M. (2019), "Assessing the implementation of one of the principles of child friendly school model in public primary and secondary schools in Enugu State", *International Journal of Innovative Research and Development*, Vol. 1 No. 1, pp. 18–25. https://doi.org/10.36265/ijired.2019.010103

Aje, A. (2019), "Promoting peaceful co-existence in Nigerian public primary school through social activities and counseling programme", *Al-Hikmah Journal of Education*, Vol. 6 No. 1, pp. 231–240.

Alkema, L. and You, D. (2012), "Child mortality estimation: A comparison of UN IGME and IHME estimates of levels and trends in under-five mortality rates and deaths", *PLOS Medicine*, Vol. 9 No. 8, e1001288. https://doi.org/10.1371/journal.pmed.1001288

Alpert, J.S. (2018), "The role of the environment in health outcomes", *The American Journal of Medicine*, Vol. 131 No. 10, pp. 1137-1138. https://doi.org/10.1016/j.amjmed.2018.06.001

American Institute for Research (AIR) (2008), "UNICEF child friendly schools programming: Global evaluation final report", Washington, DC.

Anyaehie, M.C., Ikogho, D.E., Mawila-Chauke, D., *et al.* (2025), "Testing the impact of rational emotive education on critical thinking to improve life skills among university students", *Journal of Rational-Emotive & Cognitive-Behavior Therapy*, Vol. 43, p. 26. https://doi.org/10.1007/s10942-025-00588-z

Bandura, A. (2001), "Social cognitive theory: An agentic perspective", *Annual Review of Psychology*, Vol. 52 No. 1, pp. 1–26. https://doi.org/10.1146/annurev.psych.52.1.1

Banerjee, R., McLaughlin, C., Cotney, J., Roberts, L. and Peereboom, C. (2016), "Promoting emotional health, well-being, and resilience in primary schools", available at: https://dera.ioe.ac.uk/32543/ (Accessed 31 May 2025).

Barker, P.M., Reid, A. and Schall, M.W. (2016), "A framework for scaling up health interventions: Lessons from large-scale improvement initiatives in Africa", *Implementation Science*, Vol. 11, p. 12. https://doi.org/10.1186/s13012-016-0374-x

Colomeischi, A.A., Duca, D.S., Bujor, L., Rusu, P.P., Grazzani, I. and Cavioni, V. (2022), "Impact of a school mental health program on children's and adolescents' socio-emotional skills and psychosocial difficulties", *Children*, Vol. 9 No. 11, p. 1661. https://doi.org/10.3390/children9111661

CORE Group (2014), "Scaling up community-focused approaches to development", available at: https://coregroup.org (Accessed 31 May 2025).

Egbule, E.O. (2020), "Social determinants of rural secondary school students' choice of agricultural career and its implication for counseling services: A case of Delta State, Nigeria", *Asian Journal of Agriculture and Rural Development*, Vol. 10 No. 1, pp. 515–527. https://doi.org/10.18488/journal.1005/2020.10.1/1005.1.515.527

Egbule, E.O., Okoh, I.P. and Eluowa, C.S. (2022), "Social roles, employment and spousal adjustments of married women in Nigeria", *Journal of Educational and Social Research*, Vol. 12 No. 4, Article 99. https://doi.org/10.36941/jesr-2022-0099

Egbule, E.O. (2018), "Relative and joint contribution of emotional intelligence, peer pressure, academic stress and parental socio-economic status to the variance in academic adjustment among school children", *Journal of Education and Practice*, Vol. 9 No. 11, pp. 1-10.

Ekenedo, G.O. and Ekechukwu, R.O. (2015), "Achieving better educational outcomes in Nigeria through the school health programme", *European Journal of Research and Reflection in Educational Sciences*, Vol. 3 No. 5, pp. 52–62.

Fitriani, S. and Istaryatiningtias (2020), "Promoting child-friendly school model through school committee as parents' participation", *International Journal of Evaluation and Research in Education*, Vol. 9 No. 4, pp. 1025–1034. https://doi.org/10.11591/ijere.v9i4.20615

Freeman, M.C., Stocks, M.E., Cumming, O., Jeandron, A., Higgins, J.P.T., Wolf, J. and Fewtrell, L. (2014), "Hygiene and health: Systematic review of handwashing practices worldwide and update of health effects", *Tropical Medicine & International Health*, Vol. 19 No. 8, pp. 906-916. https://doi.org/10.1111/tmi.12339

Ikogho, D.E. and Igbudu, I. (2013), "Availability and utilization of hand washing facilities among primary school pupils in Delta State", *Academic Research International*, Vol. 4 No. 5, pp. 347-352.

Ikogho, D. (2022), "The culture of silence and the practice of sex for grades in a tertiary institution in Delta State", *International Journal of Health, Education & Social (IJHES)*, Vol. 5 No. 1, pp. 36-44.

Ikogho, D.E. (2025), "Enhancing emotional resilience and community cohesion in Nigerian primary schools: The role of child-friendly school initiative", *World Journal of Advanced Research and Reviews*, Vol. 25 No. 1, pp. 2305–2314. https://doi.org/10.30574/wjarr.2025.25.1.0282

Ikogho, D.E. and Onoharigho, F. (2025a), "Bridging theory and practice: Insights into the experiences and support needs of student teachers during field practice", *East African Journal of Education Studies*, Vol. 8 No. 1, pp. 468-478. https://doi.org/10.37284/eajes.8.1.2752

Ikogho, D.E. and Onoharigho, D.F. (2025b), "Menstrual waste management practices among female students in Niger Delta Development Commission hostels in educational institutions in Niger Delta, Nigeria", *BMC Women's Health*, Vol. 25, p. 60. https://doi.org/10.1186/s12905-025-03549-x

Ikogho, D.E. and Temisere-Bethel, K. (2025), "Parenting styles on childhood injury prevention: Insights from nursing mothers in Niger Delta primary health care settings", *International Journal of Scientific Research in Science and Technology*, Vol. 12 No. 2, pp. 297–305. https://doi.org/10.32628/IJSRST25122224

Ikogho, D.E., Onoharigho, D.F. and Akpokiniovo, R.S. (2025), "Perceptions and expectations of safety gadgets: Insights from health and safety education lecturers in some selected universities in Niger Delta region", *International Research Journal of Multidisciplinary Scope*, Vol. 6 No. 2, pp. 106–114. https://doi.org/10.47857/irjms.2025.v06i02.03371

Ikogho, D.E. and Akpokiniovo, R.S. (2025), "The psychosocial impact of stress on chronic illness", *International Journal of Education and Social Science Research (IJESSR)*, Vol. 8 No. 1, pp. 145–152. https://doi.org/10.37500/IJESSR.2025.8110

Levels and Trends in Child Mortality Report (2022), "World estimates developed by UNICEF", available at: http://www.who.int/maternal_mortality_2012.pdf (accessed 31 May 2025).

Lawrence, K.C. and Egbule, E.O. (2021), "Can emotional intelligence training cause a cease in tobacco smoking among school-going adolescents?", *International Journal of Adolescence and Youth*, Vol. 26 No. 1, pp. 356–366. https://doi.org/10.1080/02673843.2021.1959355

Mangestuti, R., Mulyadi, M., Wahyuni, E.N., Abdel Aziz, R.E. and Qudzy, S.Z. (2022), "The successful of student well-being development through child-friendly school programs", *International Journal of Elementary Education*, Vol. 6 No. 2, pp. 123-130. https://doi.org/10.23887/ijee.v6i2.46019

Odimayomi, J.A. and Ikogho, D.E. (2025), "Educators' perspectives on family planning and religious influences: Implications for population management in Nigeria", *International Journal of Research Publication and Reviews*, Vol. 6 No. 3, pp. 6091-6095.

Ogbe, J. and Ikogho, D.E. (2025), "Duration of breastfeeding as a predictor of body mass index among children in South-South Nigeria", *Indian Journal of Pediatrics*, Vol. 92, p. 674. https://doi.org/10.1007/s12098-025-05515-9

Onyilibe, N.G. and Ikediugwu, E. (2020), "Analysis of SBMC participation in secondary school administration in Enugu", *National Journal of Educational Leadership*, available at: https://journas.ezenwaohaetorc.org (accessed 31 May 2025).

Pervez, A.K.M.K. and Galea, E. (2024), "Primary schools: Spaces for children's social and emotional learning", *The Psychology of Education Review*, Vol. 48 No. 1, pp. 68–76. https://doi.org/10.53841/bpsper.2024.48.1.68

Sani, M. (2024), "Assessment of School-Based Management Committees' (SBMCs) participation in managing public senior secondary schools in North-Eastern Nigeria", *International Journal of African Development and Sustainable Research*, Vol. 5 No. 2.

Selly-U, E.B., Ikogho, D.E. and Temisere-Bethel, K. (2025), "Enhancing school health services: The importance of health appraisal for secondary school students in Warri Metropolis", *East African Journal of Health and Science*, Vol. 8 No. 1, pp. 412–423. https://doi.org/10.37284/eajhs.8.1.2972

Singh, S., Roy, D., Sinha, K., Parveen, S., Sharma, G. and Joshi, G. (2020), "Impact of COVID-19 and lockdown on mental health of children and adolescents: A narrative review with recommendations", *Psychiatry Research*, Vol. 293, p. 113429. https://doi.org/10.1016/j.psychres.2020.113429

UNESCO (2020), "Water, sanitation, and hygiene (WASH) in schools", available at: https://en.unesco.org (accessed 31 May 2025).

UN-Water (2020), "Global Handwashing Day: Hand hygiene for all", available at: https://www.unwater.org/news (accessed 31 May 2025).

UNICEF (2016a), "A guide to child-friendly schools: Community involvement", available at: https://www.unicef.org (accessed 31 May 2025).

UNICEF (2016b), "Handwashing promotion: Tracking progress in hygiene", available at: https://data.unicef.org (accessed 31 May 2025).

UNICEF (2008), "Towards effective programming for WASH in schools: A manual on scaling up programmes for water, sanitation and hygiene in schools (Technical Paper Series 48)", United Nations Children's Fund, New York, NY.

Wei, Y., Sha, L., McWeeny, R., Johal, R., Easton, C., Baxter, A., Cao, B., Greenshaw, A. and Carr, W. (2024), "Evaluating the effectiveness of a school-based mental health literacy intervention from a comprehensive demographic and social-cognitive perspective", *Scientific Reports*, Vol. 14 No. 1, p. 5901. https://doi.org/10.1038/s41598-024-56682-2

World Health Organization. (2021), "Clean hands, healthy lives: Promoting hygiene for all", available at: https://www.who.int (accessed 31 May 2025).

World Health Organization. (2009), "WHO guidelines on hand hygiene in health care", available at: https://apps.who.int/iris/handle/10665/44102 (accessed 31 May 2025).