

Integration of School Health Services in Kinshasa: Evaluating Structural Barriers, Cultural Factors, and Stakeholder Experiences

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ABSTRACT

Introduction

School health services are recognized as an essential strategy for improving students' health and educational outcomes; however, little is known about how educational stakeholders and students perceive their integration within primary and secondary schools in the Democratic Republic of the Congo (DRC).

Purpose

This study explored the perceptions of educational stakeholders and the experiences of students regarding the integration of school health services in Kinshasa.

Methods

A descriptive qualitative study was conducted across selected primary and secondary schools in Kinshasa to reflect diverse educational contexts. Ten teachers/educational staff members and 27 students participated in semi-structured individual interviews. Data were analyzed using Braun and Clarke's inductive thematic analysis, guided by Bronfenbrenner's social ecological framework.

Results

Teachers considered the integration of school health services essential for students' well-being and academic success but identified major barriers, including inadequate funding, limited equipment, insufficient human resources, and the absence of a clear institutional framework. Students expressed generally positive perceptions while highlighting challenges related to service accessibility, shortages of health materials, and the need to modernize school infrastructure. Cultural beliefs influenced service utilization only in isolated situations. Both participant groups emphasized the critical role of government commitment, stronger school-family partnerships, and improved communication in ensuring effective implementation.

Conclusion

The findings underscore the need to strengthen teacher capacity, adapt school health interventions to the local sociocultural context, and establish structured collaboration among schools, families, and health professionals. An inclusive and context-sensitive approach could improve the acceptability, effectiveness, and sustainability of school health services, thereby contributing to better educational outcomes and greater health equity in the DRC.

INTRODUCTION

Schools are increasingly recognized as strategic settings for improving the health and well-being of children and adolescents while supporting their academic achievement. The World Health Organization (WHO) and the United Nations Educational, Scientific and Cultural Organization (UNESCO) emphasize that comprehensive school health programs contribute to disease prevention, mental health promotion, healthy behaviors, and educational equity by integrating health services, health education, and supportive school environments (UNESCO, 2023; WHO, 2021; WHO & UNESCO, 2021). Similarly, UNICEF (2023) highlights that accessible school health services are essential for reducing health inequalities and ensuring that children reach their full developmental and learning potential.

The Health Promoting Schools framework advocates a whole-school approach in which education, health systems, families, and communities collaborate to create environments that foster physical, mental, and social well-being (WHO, 2021; WHO & UNESCO, 2021). Evidence from low- and middle-income countries demonstrates that integrated school health services improve vaccination coverage, nutritional status, early identification of health problems, psychosocial support, and school attendance while reducing preventable illnesses and risky behaviors (Bundy et al., 2018; WHO, 2021). Despite these documented benefits, the implementation of school health programs remains uneven because of limited financial resources, inadequate infrastructure, shortages of trained personnel, and weak coordination between the education and health sectors (Mundele, 2023; UNICEF, 2023).

In sub-Saharan Africa, school health programs are further influenced by socioeconomic conditions, cultural beliefs, and community perceptions of illness and healthcare. Studies have shown that families often combine biomedical care with traditional or spiritual practices, which may influence the acceptance and utilization of health services delivered in schools (Kiyombo et al., 2021; Malanda, 2021; UNESCO, 2023; UNICEF, 2023). In addition, insufficient communication among schools, families, and healthcare providers may reduce the effectiveness and sustainability of school-based interventions (Nlandu, 2022).

In the Democratic Republic of the Congo (DRC), children and adolescents continue to face a high burden of communicable diseases, nutritional disorders, mental health challenges, and limited access to preventive healthcare (Mbadu, 2023; World Bank, 2020). These challenges underscore the importance of strengthening

school health services as part of a comprehensive strategy to improve child health and educational outcomes. However, despite increasing policy interest in school health (Ministry of National Education, DRC, 2020), empirical evidence on how educational stakeholders and students perceive the integration of these services remains scarce. Existing studies have primarily focused on program implementation or health outcomes, providing limited insight into the lived experiences, expectations, and sociocultural factors that influence the acceptability and utilization of school health services.

This knowledge gap is particularly important in Kinshasa, the largest urban center in the DRC, where rapid population growth, educational diversity, socioeconomic inequalities, and cultural pluralism create unique opportunities and challenges for implementing school health programs (Mbadu, 2023). As the country's political and educational hub, Kinshasa brings together schools serving populations with diverse social and cultural backgrounds, making it an appropriate setting for exploring stakeholder perceptions and students' experiences regarding school health service integration.

Addressing this gap is essential for informing evidence-based policies and developing context-sensitive strategies that strengthen collaboration among schools, families, health professionals, and government institutions. Understanding the perspectives of those directly involved can contribute to improving the acceptability, accessibility, and sustainability of school health services while promoting students' well-being and educational success.

Study Objective

The objective of this study was to explore the perceptions of educational stakeholders and the experiences of students regarding the integration of school health services in primary and secondary schools in Kinshasa, Democratic Republic of the Congo. Specifically, the study sought to identify perceived facilitators and barriers, examine the cultural, social, and organizational factors influencing service acceptability and utilization, and generate evidence to inform policies and interventions aimed at strengthening school health programs.

METHODS

Study Design

This study employed a descriptive qualitative design, which is particularly appropriate for exploring participants' perceptions, experiences, and meanings related to the integration of school health services in educational settings. The descriptive qualitative approach allows for a comprehensive understanding of participants'

viewpoints while remaining close to their own accounts without imposing highly interpretative theoretical assumptions. The study was designed and reported in accordance with the Consolidated Criteria for Reporting Qualitative Research (COREQ) guidelines.

Study Setting and Period

The study was conducted in six primary and secondary educational institutions located in Kinshasa, Democratic Republic of the Congo, between October 22, 2025, and January 22, 2026. The participating schools included both public and private institutions, purposely selected to capture a wide range of educational contexts, organizational characteristics, and sociocultural environments representative of the urban reality of Kinshasa. Kinshasa was selected because it is the largest educational and administrative center in the country, characterized by considerable cultural diversity, socioeconomic disparities, and heterogeneous access to health and educational services.

Participants and Sampling Strategy

A purposive sampling strategy was employed to recruit participants who could provide rich and relevant information about the phenomenon under investigation. Participants included teachers, educational staff members, and students who had direct experience with or exposure to school health services.

The inclusion criteria were:

- a) Active membership in the selected school community;
- b) Direct experience with or exposure to school health services;
- c) Ability to communicate effectively in French;
- d) Willingness to provide written informed consent (or assent for minors); and
- e) Employment or enrollment in the institution for at least 6 months.

The exclusion criteria included:

- a) Refusal to participate or provide informed consent;
- b) Inability to communicate effectively during the interview;
- c) Less than 6 months of employment or school attendance in the institution; and
- d) Withdrawal from the study at any stage.

A total of 37 participants were interviewed, including 10 educational staff members (8 teachers and 2 school nurses)

and 27 students representing different educational levels and school contexts. Sample size was determined according to the principle of data saturation, whereby participant recruitment ceased when no new themes or meaningful information emerged from successive interviews.

Recruitment Procedures

Participants were recruited through individual invitations conducted by trained research investigators after obtaining authorization from school administrations. Investigators explained the objectives of the study, eligibility criteria, confidentiality measures, and participants' rights before requesting voluntary participation.

Individuals who agreed to participate signed a written informed consent form prior to data collection. For students who were minors, parental or legal guardian authorization was obtained in accordance with institutional ethical requirements alongside participant assent.

Data Collection

Data were collected through individual semi-structured interviews conducted in French in private locations within the participating schools to ensure confidentiality and encourage open discussion. The interview guide was developed following an extensive review of international and regional literature on school health services and school health promotion (*Centers for Disease Control and Prevention, 2022; WHO, 2021, 2022*). It was subsequently reviewed by experts in nursing sciences, public health, and qualitative research to ensure content validity.

Before the main study, the guide was pilot-tested with 10 participants (5 teachers and 5 students) who were not included in the final analysis. The pilot study assessed the clarity, relevance, sequencing, and comprehensibility of the interview questions, leading to minor wording adjustments.

The final interview guide explored six thematic domains:

- i. Perceptions of school health services;
- ii. Experiences with service utilization;
- iii. Perceived facilitators and barriers;
- iv. Cultural and social representations influencing health behaviors;
- v. Expectations regarding schools and public authorities; and
- vi. Recommendations for improving school health services.

Interviews lasted approximately 30 to 60 minutes, were audio-recorded with participants' consent, and were subsequently transcribed verbatim.

Data Analysis

Data analysis followed the six-step inductive thematic analysis framework proposed by Braun and Clarke (2006).

The analytical process included:

- a) Repeated reading and familiarization with the transcripts;
- b) Generation of initial codes;
- c) Identification of categories and units of meaning;
- d) Construction and refinement of overarching themes;
- e) Review and validation of thematic consistency across interviews; and
- f) Interpretation of findings using Bronfenbrenner's (1979) Social Ecological Theory and contemporary school health promotion frameworks.

Coding was performed manually by two independent researchers and subsequently verified using ATLAS.ti software to enhance coding consistency and organization of the thematic structure. Discrepancies between coders were discussed until consensus was achieved, thereby improving analytical rigor and reducing subjective interpretation.

Trustworthiness and Scientific Rigor

Several strategies were implemented to ensure the credibility, dependability, confirmability, and transferability of the findings. Credibility was strengthened through data source triangulation, involving teachers, educational staff, and students, as well as member checking, whereby participants reviewed and confirmed the interpretation of their statements.

Dependability was enhanced through peer debriefing, during which two qualitative researchers independently reviewed coding decisions and thematic interpretations. Confirmability was supported by maintaining detailed documentation of coding decisions and analytical procedures throughout the research process.

Transferability was facilitated by providing comprehensive descriptions of the study context, participant characteristics, recruitment procedures, and analytical methods, enabling readers to assess the applicability of the findings to similar educational settings. Data saturation, triangulation, dual coding, and

participant validation collectively contributed to the methodological rigor of the study.

Ethical Considerations

Following the completion of the required academic procedures, the research protocol was submitted to the Bioethics Committee of the Institut Supérieur des Techniques Médicales de Kinshasa (ISTM-Kinshasa) for ethical review. The study received ethical approval under Reference No. 22/CBE/ISTM/KIN/RDC/PMBBL/2025, issued on November 1, 2025. The research complied with the ethical principles outlined in the Belmont Report (National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research, 1979) and the Declaration of Helsinki (World Medical Association, 2013).

All participants received detailed information regarding the objectives of the study, confidentiality procedures, voluntary participation, and their right to withdraw at any time without penalty. Written informed consent was obtained before each interview. Participants' identities were anonymized using identification codes (E01–E10 for educational staff and S01–S27 [coded locally as EI1–EI27] for students), and all collected data were securely stored and used exclusively for research purposes.

RESULTS

Teachers' Perceptions and Experiences Regarding the Integration of School Health Services

Sociodemographic Characteristics of the Interviewed Educational Staff

The sociodemographic characteristics of the 10 participating educational staff members were analyzed across sex, age, level of education, marital status, professional function, and school institution. The age of participants ranged from 25 to 60 years (M=44.1 years). Educational levels were high, with eight participants holding a Bachelor's degree or higher and two holding diplomas in nursing sciences. Table 1 summarizes these demographic details.

Table 1:
Sociodemographic Characteristics of Educational Staff Members (N=10)

Code	Sex	Age (years)	Level of Education	Marital Status	Function	Institution
E01	Female	28	Bachelor's in Biology	Degree Single	Teacher	Providence High School
E02	Male	48	Bachelor's in French	Degree Married	Teacher	Saint-Georges College
E03	Male	58	Bachelor's in Pedagogy	Degree Married	Teacher	Bolingani High School
E04	Male	60	Bachelor's in Pedagogy	Degree Married	Teacher	Basangani School
E05	Male	48	Bachelor's	Degree Married	Teacher	Saint-Georges

Code	Sex	Age (years)	Level of Education		Marital Status	Function	Institution
			in French				College
E06	Female	30	Bachelor's in Pedagogy	Degree	Single	Teacher	Alingwa College
E07	Male	25	Bachelor's in Biology	Degree	Single	Teacher	Our Lady of Fatima Institute
E08	Male	57	Bachelor's in Pedagogy	Degree	Married	Teacher	Bakandja Institute
E09	Female	52	Graduate in Nursing Sciences	Diploma	Married	Nurse	Bolingani School Complex
E10	Female	35	Graduate in Nursing Sciences	Diploma	Married	Nurse	Bolingani School Complex

Thematic Findings from Educational Staff

The thematic analysis of interviews with the 10 educational staff members generated several sub-themes organized into three overarching thematic domains: (a) perceived value of school health services, (b) barriers to implementation, and (c) strategies for strengthening school health services.

Theme 1:
Perceived Value of School Health Services

Definition and Usefulness (n=6/10): Six participants defined school health services as permanent institutional units responsible for providing first aid, basic care, disease prevention, and triage for students and staff.

"The school health service is a permanent service at school to take care of cases, students who may fall ill." (E02)

"It is a team that takes care of learners' health status regarding certain endemic diseases..." (E08)

Importance of School Health Services (n=9/10): Almost all participants considered school health services indispensable for protecting student well-being and maintaining classroom continuity.

"The health service in a school institution is very important because problems can arise at any time." (E01)

"If he is in good health, he will study well." (E04)

Satisfaction with Existing Services (n=8/10): Eight participants reported positive interactions with existing school health structures, noting friendly reception and immediate relief.

"I was satisfied; the first care allowed me to continue my teaching normally." (E01)

"I was well received, they even examined me... without having to pay." (E02)

Theme 2:

Barriers to the Integration of School Health Services

Structural and Organizational Difficulties (n=10/10): All educational staff identified insufficient financial resources, shortages of medicines and essential equipment, small clinical space, and low staffing levels as primary barriers.

"The major difficulty is first of all financial means." (E01)

"Existing services suffer from a lack of office space and equipment." (E04)

Accessibility of Services (n=6/10): Six participants noted that while physical accessibility within the school was optimal, functional accessibility was often compromised by resource limits.

"Access is not difficult, but it sometimes depends on the center's capacity." (E06)

Institutional Commitment (n=6/10): Six participants recognized that school administrative boards generally favored health integration, though operational execution was constrained by budgets.

"School authorities are committed; it is among the school's projects." (E07)

Influence of Cultural and Religious Beliefs (n=8/10): Eight participants stated that cultural or religious beliefs rarely impeded emergency first aid, although isolated instances of treatment refusal (e.g., blood transfusions) occurred.

"At school, there are no constraints for first aid." (E01)

"We have already had cases where the family wants to stop treatment for spiritual reasons." (E03)

Theme 3:
Strategies for Strengthening School Health Services

Suggested Improvements (n=10/10): All respondents advocated for improved financing, dedicated medical buildings, additional beds, and better medication stocks.

"Expand the space, add beds, and more medicines." (E05)

Expected Role of the State (n=10/10): Every participant stressed that government ministries must establish enforceable regulatory frameworks, perform periodic inspections, and allocate direct funding.

"There should be a ministerial decree to make integration of the service mandatory." (E03)

"The Ministry of Health should revive the school health department, supervision, and directives..." (E10)

School-Family Collaboration (n=5/10): Half of the participants underscored the value of maintaining an active communication triangle between the school, health personnel, and parents.

"The triangle collaboration between school-parents-health service works." (E01)

Students' Perceptions and Experiences Regarding the Integration of School Health Services

Sociodemographic Profile of the Interviewed Students
A total of 27 students participated in semi-structured interviews. Participant ages ranged from 14 to 17 years (M=15.7 years). All students were single, enrolled in secondary education streams (Literary, Scientific, Commercial, or Availability years), and represented various public and private institutions across Kinshasa. **Table 2** presents the complete sociodemographic profile of student participants.

Table 2:
Sociodemographic Profile of Student Participants (N=27)

Code	Sex	Age (years)	Level of Education / Academic Track	Marital Status	Institution
EI1	Female	15	2nd Literary Year	Single	Bolingani High School
EI2	Female	14	1st Availability Year	Single	Bolingani High School
EI3	Female	14	1st Literary Year	Single	Bolingani High School
EI4	Female	16	3rd Scientific Year (Pre-finalist)	Single	Our Lady of Fatima Institute
EI5	Male	17	3rd Scientific Year (Pre-finalist)	Single	Our Lady of Fatima Institute
EI6	Male	16	4th Scientific Year (Finalist)	Single	Our Lady of Fatima Institute
EI7	Female	16	3rd Scientific Year (Pre-finalist)	Single	Our Lady of Fatima Institute
EI8	Female	15	3rd Scientific Year (Pre-finalist)	Single	Our Lady of Fatima Institute
EI9	Male	16	4th Scientific Year (Finalist)	Single	Our Lady of Fatima Institute
EI10	Male	16	4th Scientific Year (Finalist)	Single	Our Lady of Fatima Institute
EI11	Male	16	4th Literary Year (Finalist)	Single	Our Lady of Congo College
EI12	Male	16	3rd Scientific Year (Pre-finalist)	Single	Our Lady of Congo College
EI13	Female	15	3rd Literary Year (Pre-finalist)	Single	Our Lady of Congo College
EI14	Female	14	1st Literary Year	Single	Our Lady of Congo College
EI15	Male	16	3rd Literary Year (Pre-finalist)	Single	Our Lady of Congo College
EI16	Male	17	3rd Literary Year (Pre-finalist)	Single	Our Lady of Congo College
EI17	Male	16	3rd Commercial Year (Pre-finalist)	Single	Our Lady of Congo College
EI18	Male	16	3rd Commercial Year	Single	Our Lady of Congo College

Code	Sex	Age (years)	Level of Education / Academic Track	Marital Status	Institution
EI19	Male	17	3rd Scientific Year (Pre-finalist)	Single	Our Lady of Congo College
EI20	Male	17	3rd Scientific Year (Pre-finalist)	Single	Our Lady of Congo College
EI21	Male	15	3rd Literary Year (Pre-finalist)	Single	Our Lady of Congo College
EI22	Female	16	3rd Scientific Year (Pre-finalist)	Single	Our Lady of Congo College
EI23	Male	16	3rd Scientific Year (Pre-finalist)	Single	Bakandja Institute
EI24	Male	16	3rd Scientific Year (Pre-finalist)	Single	Our Lady of Congo College
EI25	Female	16	3rd Scientific Year (Pre-finalist)	Single	Bolingani High School
EI26	Female	15	2nd Literary Year	Single	Bolingani High School
EI27	Female	16	4th Scientific Year (Finalist)	Single	Saint-Georges College

Thematic Findings from Students

The qualitative analysis of student responses yielded rich descriptions across three primary themes corresponding to those identified among staff.

Theme 1:
Perceived Value of School Health Services

Knowledge of the Service (n=27/27): All 27 students demonstrated clear awareness of their school infirmary or health point, defining it as a facility for receiving immediate care, first aid, and health advice without missing classes.

"It is where we go if we get sick or injured." (EI1)

"I learned what to do in case of an asthma attack thanks to the nurse." (EI7)

Importance Given to Services (n=22/27): Most students described the infirmary as a vital safety net that reduces personal stress and prevents minor illness from escalating.

"It is reassuring to know that there is always a nurse." (EI2)

"We feel protected at school with this service." (EI8)

Lived Experience (n=27/27): Students expressed broad satisfaction with the empathetic reception provided by nursing personnel.

"I was well received; the nurse calmed me down and gave me medicine for the pain." (EI1)

"They always explain what they are going to do before treating us." (EI3)

Perceived Benefits (n=27/27): All participants affirmed that school health availability reduced absenteeism and provided peace of mind to their parents.

"We miss fewer classes." (EI7)

"I feel safer, and so do my parents." (EI2)

Theme 2:

Barriers to the Integration of School Health Services

Difficulties Encountered (n=27/27): Students consistently highlighted physical and logistical shortcomings, including shortages of recovery beds, absence of wheelchairs for non-ambulatory students, narrow rooms, and multistory stairs that present mobility hurdles.

"When we are upstairs, it is difficult to go down if we are sick." (EI1)

"There are few beds, sometimes we have to wait." (EI2)

Access Factors (n=27/27): On-site proximity, free first-aid care, and walk-in availability were noted as primary facilitators of service utilization.

"It is free; we pay nothing to receive treatment." (EI2)

Influence of Beliefs (n=24/27): The majority noted that religious beliefs did not hinder day-to-day care, though specific religious stances (e.g., Jehovah's Witness doctrines regarding blood products) were recognized and respected.

"Beliefs do not prevent basic care." (EI9)

School-Family Collaboration (n=27/27): Students noted that infirmery staff consistently contacted guardians in cases requiring escalation or transport home.

"The nurses always call the family if it is serious." (EI2)

Theme 3:

Strategies for Strengthening School Health Services

Suggestions for Improvement (n=27/27): Students requested first-aid kits in individual classrooms, better resting gear (blankets/pillows), expansion of clinical space, and architectural modifications (e.g., ramps or elevators).

"There should be first aid kits in every classroom." (EI1)

"More beds and wheelchairs for those who have difficulty walking." (EI2)

Expected Role of the State (n=27/27): Students universally called upon public authorities to subsidize school health

supplies, deploy additional medical personnel, and inspect facilities regularly to ensure equal care quality across all schools.

"The State must help buy medicines for everyone." (EI1)

"The State must help poor schools have an infirmery." (EI4)

DISCUSSION

Interpretation of Teachers' Perceptions of School Health Service Integration

The findings of this study indicate that educational stakeholders perceive the integration of school health services as an essential component of students' well-being and academic success. Rather than viewing health services as an external burden, most participants considered them a complementary mechanism capable of creating a safer and more supportive learning environment. This finding reinforces the concept promoted by the World Health Organization, which recognizes schools as strategic settings for delivering integrated health promotion, disease prevention, and early intervention services to children and adolescents (WHO, 2021; WHO & UNESCO, 2021).

The positive perceptions expressed by teachers suggest a growing awareness of the interdependence between health and educational achievement. Previous international studies have demonstrated that students who benefit from comprehensive school health programs exhibit improved attendance, greater classroom engagement, better mental health outcomes, and enhanced academic performance (Bundy et al., 2018; WHO, 2021). The present study extends these observations to the Congolese context by demonstrating that educational professionals recognize the potential contribution of school health services despite significant implementation challenges.

However, participants consistently identified structural barriers that limit the effective integration of these services. Insufficient financial resources, shortages of qualified health personnel, inadequate equipment, and the absence of formal coordination mechanisms between the education and health sectors emerged as the principal obstacles. Similar challenges have been reported in several low- and middle-income countries, where school health programs frequently suffer from fragmented governance and limited institutional investment (UNICEF, 2023). These findings suggest that improving school health services in the DRC requires systemic interventions rather than isolated school-level initiatives.

Another important finding concerns teachers' limited formal training in operational health promotion. Rather than indicating a lack of motivation, this result highlights an unmet need for professional development and clearer institutional guidelines. The WHO Global Standards for Health Promoting Schools emphasize that teachers should receive continuous training enabling them to recognize health problems, support health education activities, and collaborate effectively with healthcare professionals (Nlandu, 2022; WHO, 2021). Strengthening these competencies could improve interdisciplinary collaboration and facilitate the implementation of comprehensive school health programs.

The present findings also underscore the importance of collaboration among schools, families, and healthcare providers. Participants perceived parental engagement as an essential condition for successful program implementation and continuity of care beyond the school environment. This observation is consistent with the Health Promoting Schools framework, which identifies community participation and intersectoral collaboration as fundamental pillars of sustainable school health interventions (WHO, 2021; WHO & UNESCO, 2021).

Interpretation of Students' Experiences

Students generally expressed positive experiences regarding the presence of school health services and recognized their contribution to disease prevention, first aid, and health education. Their responses indicate that accessible health services within schools increase feelings of safety and encourage appropriate health-seeking behaviors among children and adolescents.

These findings align with international evidence demonstrating that school-based health services improve access to preventive care while reducing barriers associated with transportation costs, geographical distance, and limited availability of community health facilities (UNICEF, 2023). In many resource-constrained settings, schools represent the primary point of contact with organized health promotion activities, making them strategic platforms for achieving equitable access to essential health services.

Despite this overall positive perception, students identified operational limitations that reduce service quality. Reported shortages of medical equipment, irregular supplies, and inadequate clinical infrastructure reflect broader health system constraints observed across low- and middle-income contexts (Mbadu, 2023; UNICEF, 2023). Rather than questioning the intrinsic value of school health services, these concerns illustrate the gap between

students' expectations and the operational capacity of schools.

Confidentiality also emerged as an important consideration among secondary school adolescents. Concerns regarding peer judgment may discourage students from seeking assistance for sensitive issues such as reproductive health or mental well-being. Similar findings internationally have led UNESCO (2023) to advocate for adolescent-friendly school health environments that guarantee privacy, respect, and non-judgmental care.

Cultural and Organizational Factors

Contrary to assumptions frequently reported in rural health literature, cultural and spiritual beliefs did not emerge as a major barrier to the integration of school health services in this urban study. Although participants cited isolated cases where families preferred spiritual care or refused specific treatments (e.g., blood transfusions), these beliefs were not identified as the primary determinant of service utilization.

Instead, participants consistently emphasized organizational and structural constraints, including insufficient funding, shortages of qualified personnel, weak institutional coordination, and inadequate communication between schools and families. This finding indicates that practical and structural barriers exert a far greater influence on service delivery than cultural resistance in urban settings.

This interpretation aligns with public health research indicating that service availability, accessibility, quality, and institutional trust are stronger predictors of healthcare utilization than cultural beliefs alone, particularly in urban environments characterized by higher exposure to formal healthcare systems (Kiyombo et al., 2021; Malanda, 2021; WHO, 2021). Consequently, interventions designed to strengthen school health services in Kinshasa should prioritize governance, infrastructure development, workforce capacity, and supply chains rather than focusing exclusively on cultural dynamics.

The present findings are broadly consistent with the international literature supporting comprehensive school health programs (Bundy et al., 2018; WHO, 2021). However, this study contributes new qualitative evidence from the Democratic Republic of the Congo by demonstrating that educational stakeholders and students strongly endorse the integration of school health services despite existing operational hurdles.

Public Health and Policy Implications

The findings of this study have direct implications for public health policy in the DRC. The positive perceptions expressed by both staff and students demonstrate that school health service expansion is socially acceptable and represents a viable model for improving adolescent health. From a policy perspective, the results highlight the necessity of strengthening intersectoral collaboration between the Ministry of National Education and the Ministry of Public Health. Formulating a comprehensive national school health framework with clear clinical protocols, standardized infrastructure guidelines, and dedicated funding channels is vital to bridge the gap between private and public institutions (Ministry of National Education, DRC, 2020; Mundeke, 2023).

Addressing personnel shortages requires structured workforce planning. Expanding professional development for teachers and school nurses will enhance early detection of childhood health issues and streamline clinical referrals. Investing in human resources for school health directly supports WHO recommendations to strengthen primary healthcare through community-based settings (WHO, 2022).

Furthermore, integrated school health services contribute directly toward achieving Universal Health Coverage (UHC) by extending preventive healthcare, health education, and early screening to youth regardless of socioeconomic background. Implementing the Health Promoting Schools framework (WHO & UNESCO, 2021) in urban DRC centers can simultaneously boost health equity and educational attainment.

Strengths and Limitations

This study has several notable strengths. It provides empirical qualitative data exploring both educational staff perceptions and student experiences regarding school health integration in the DRC. Including participants across multiple public and private secondary schools in Kinshasa ensured diverse perspectives across varied administrative contexts. Methodological rigor was maintained through data source triangulation, dual independent coding, member checking, peer debriefing, and adherence to COREQ reporting guidelines.

Several limitations should also be considered. First, the sample size (N=37), while adequate for qualitative saturation, limits statistical generalization. Second, the study was conducted exclusively in urban schools in Kinshasa; thus, transferability to rural settings—where infrastructure and healthcare access differ markedly—may be limited. Third, semi-structured interviews carry a risk of social desirability bias, as participants may share

favorable views of their institutions. Finally, purposive sampling may have introduced selection bias toward participants who were more vocal regarding health matters.

Future Research Directions

Future research should evaluate integrated school health models using longitudinal and mixed-methods designs to assess quantifiable health and academic outcomes. Comparative studies between rural and urban provinces are needed to identify region-specific obstacles. Additionally, incorporating the perspectives of parents, health system administrators, and national policymakers will provide broader insights into multisectoral governance and financial sustainability.

CONCLUSION

This qualitative study explored the perceptions of educational stakeholders and the experiences of students regarding the integration of school health services across primary and secondary schools in Kinshasa, Democratic Republic of the Congo. The findings demonstrate that both teachers and students view school health services as vital components of school safety, illness prevention, and educational continuity.

While acceptability and demand for school health services are exceptionally high, structural and organizational barriers—including lack of funding, missing medical supplies, constrained physical spaces, and limited intersectoral support—remain primary constraints. Cultural factors play only a secondary role in urban service utilization. Addressing these logistical barriers through national policy alignment, dedicated budget allocation, continuous staff training, and modernized school infrastructure will be essential for creating sustainable, equitable, and effective school health environments across the DRC.

Recommendations

- i. **Capacity Building:** Train teachers and school administrative personnel on health promotion, early symptom identification, and first-aid procedures within educational settings.
- ii. **Institutional Collaboration:** Establish structured communication frameworks between school boards, health facilities, and student families to ensure continuous care.
- iii. **Contextual Adaptation:** Tailor school health strategies to local urban and rural socioeconomic conditions, ensuring essential supplies are provided free of charge.

- iv. **Policy Enactment:** Develop and enforce mandatory national school health regulations issued jointly by the Ministries of Education and Public Health.
- v. **Infrastructure Modernization:** Allocate targeted capital funding to construct accessible, well-equipped, and confidential school infirmaries.
- vi. **Local Research:** Support continuous implementation research to track health outcomes and service efficiency across diverse Congolese provinces.

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