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Research Article

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Posted Date: November 25th, 2026

DOI: https://doi.org/10.21203/rs.3.rs-11586939/v1

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Additional Declarations: No competing interests reported.

Healthcare-Seeking Decision-Making for Children Under Five Among Mothers Living with HIV in Ghana: A Phenomenological Study

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Abstract

Introduction: Mothers living with HIV and caring for children under five years remain at risk due to socio-economic, cultural, and health system-related challenges that significantly influence their decision-making regarding child healthcare. This study explores healthcare-seeking decision-making for children under five among mothers living with HIV in the Komenda-Edina-Eguafo-Abrem (KEEA) Municipality in the Central Region of Ghana, using the household decision-making pathways of care model as a conceptual framework to underpin the study.

Methods: The study adopted a phenomenological study design; 24 mothers living with HIV who have children under five years of age were purposively selected and interviewed using a semi-structured in-depth interview guide complemented with a pictorial guide. Interviews were conducted in accordance with the ethical guidelines approved by the Ghana Health Service Ethics Review Committee. The collected data were analysed thematically using NVivo.

Results: Mothers living with HIV demonstrated adequate knowledge of common childhood illnesses such as malaria. In terms of seeking child healthcare, more than half of them preferred home-based care and treatment from drug stores rather than formal health facilities/hospitals. These preferences were also influenced by stigma, financial constraints, distance to health facilities, and prolonged waiting times. Additionally, some mothers reported administering whatever medications were readily available to their children, whereas others discontinued treatment regimens prematurely.

Conclusion: The study highlights the need for the Ghana Health Service to implement interventions that address HIV-related stigma within healthcare settings, improve accessibility and affordability of child healthcare services, and strengthen public health education. Furthermore, empowering mothers living with HIV through targeted health education, adequate knowledge, and supportive systems may facilitate timely and appropriate healthcare-

seeking and informed decision-making for their children. These measures could improve child health and well-being in HIV-affected households.

Keywords: Decision-making, Healthcare, HIV, Mothers, Under-five children

Introduction

The health and well-being of children under five years are central to achieving global public health goals, particularly in the context of the United Nations Sustainable Development Goal (SDG 3), which aims to ensure healthy lives and promote well-being for all at all ages. Within this goal, target 3.2 seeks to reduce preventable deaths among newborns and children under five years burdened by infectious diseases such as HIV/AIDS. The World Health Organisation [1] estimates that approximately 1.3 million women living with HIV give birth each year, predominantly in sub-Saharan Africa. Despite significant global progress in the prevention of mother-to-child transmission (PMTCT) of HIV, many children remain at risk due to socio-economic, cultural, and health system-related barriers that shape maternal decision-making regarding healthcare access and utilisation [2]. The intersection between maternal HIV status and child healthcare decisions is thus a critical determinant of health outcomes, especially in low- and middle-income countries where healthcare resources are often constrained [3].

In low- and middle-income countries, the discourse on maternal health and HIV has evolved beyond biomedical concerns to encompass psychosocial, economic, cultural and gendered dimensions of care [3]. Studies from high-income countries demonstrate that informed decision-making among mothers living with HIV is often supported by integrated health systems, social protection mechanisms, and strong confidentiality policies [4]. Conversely, in many developing contexts, stigma, limited access to antiretroviral therapy (ART), and cultural norms around motherhood continue to influence women's autonomy and

health choices [5]. This disparity underscores the persistent global inequity in HIV care and child health outcomes.

Across Africa, where over two-thirds of the global HIV burden is concentrated, maternal decision-making in healthcare is deeply intertwined with socio-cultural values, religious beliefs, and community dynamics [6]. Evidence suggests that mothers living with HIV often navigate complex layers of stigma and discrimination while striving to ensure the well-being of their children [7]. In many African societies, decision-making about child healthcare extends beyond the individual mother to include partners, extended families, and community elders, which can either facilitate or constrain access to timely medical care [8]. Moreover, structural factors such as poverty, limited healthcare infrastructure, and gender inequalities exacerbate the vulnerability of HIV-positive mothers and their children [9]. Understanding how these factors interact within local contexts remains pivotal for designing effective interventions that promote equitable healthcare access and empower mothers as primary caregivers.

In Ghana, HIV continues to pose a public health challenge, despite commendable progress in prevention and treatment initiatives. According to the Ghana AIDS Commission [10], the national HIV prevalence stands at 1.7 per cent, with women disproportionately affected. The Central Region, where the Komenda-Edina-Eguafo-Abrem (KEEA) Municipality is located, reflects this national trend [10, 11]. Mothers living with HIV in this region often face multifaceted challenges—including social stigma, inadequate health information, and limited autonomy in healthcare decisions—that directly affect the health outcomes of their children [12]. Research has shown that decisions concerning infant feeding, immunisation, and ART adherence are often influenced by a blend of cultural expectations, health worker attitudes, and economic limitations [13]. Despite ongoing government and non-governmental organisation (NGO) efforts to strengthen prevention of mother-to-child

100 transmission (PMTCT) services, there remains a gap in understanding the lived experiences
101 and decision-making processes of mothers living with HIV at the municipal/community level
102 in the country.

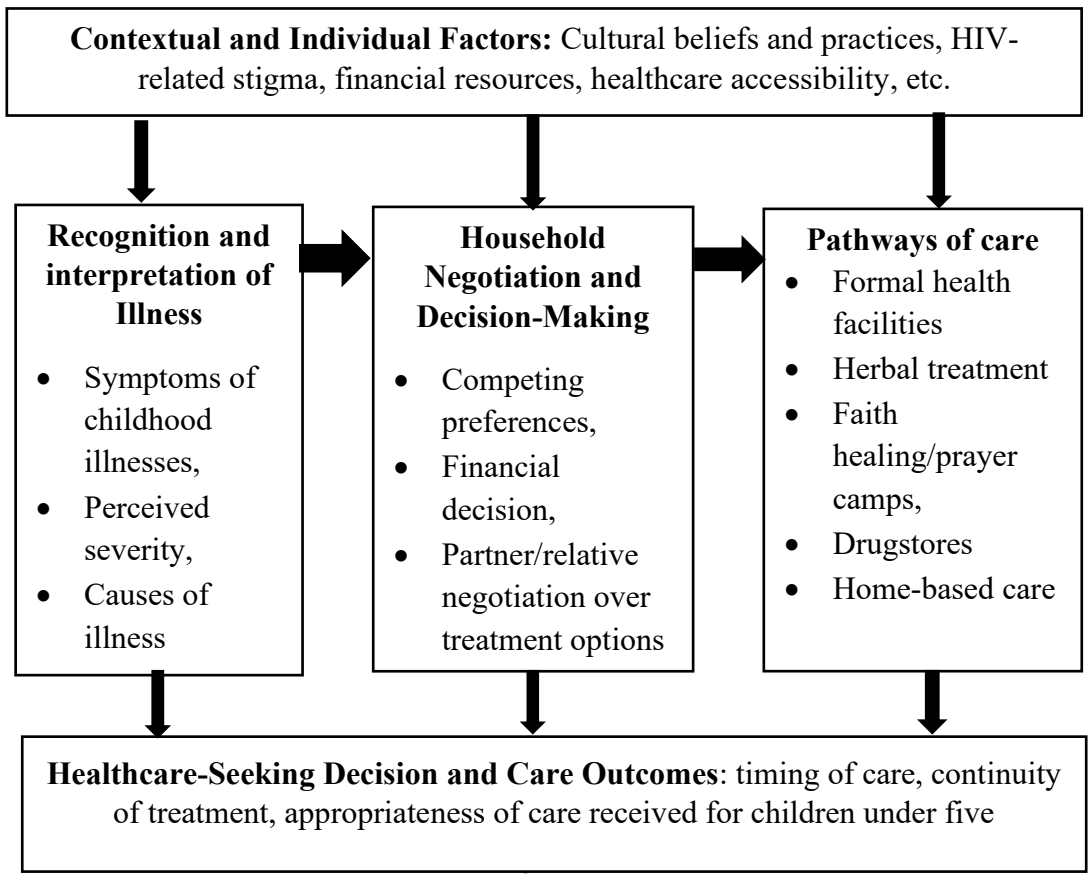
103 This study, therefore, seeks to explore the decision-making dynamics surrounding
104 healthcare-seeking for children under five among mothers living with HIV in the Komenda-
105 Edina-Eguafo-Abrem (KEEA) Municipality in the Central Region of Ghana. By interrogating
106 mothers living with HIV about the following questions: how do mother living with HIV know
107 and identify common childhood illnesses, how they seek child healthcare, decision-making
108 regarding the choice of child healthcare, how they provide medication for the sick child, and
109 factors influencing their decision-making in the HIV-affected household can contribute to the
110 discourse on maternal health, HIV, and child well-being in sub-Saharan Africa, particularly
111 Ghana and highlight pathways for promoting inclusive, pragmatic, and sustainable child
112 healthcare for the population at risk.

113 **Conceptual Framework**

114 This study is guided by an adapted version of the Household Decision-Making and
115 Pathways of Care Model developed by Colvin et al. [35]. The model provides a conceptual
116 basis for examining how households recognise childhood illness, negotiate responses, and
117 navigate different sources of healthcare [35]. For the present study, the framework (Figure 1)
118 is adapted to explore healthcare-seeking decision-making among mothers living with HIV who
119 care for children under five in a Ghanaian setting. The framework comprises three interrelated
120 processes: recognition and interpretation of childhood illness, household negotiation and
121 decision-making, and pathways of care. Recognition and interpretation involve mothers'
122 identification of symptoms and perceptions of illness severity. Household negotiation concerns
123 the influence of maternal autonomy, partners, relatives, household power relations, and
124 available resources on decisions about treatment. Pathways of care encompass the different

sources of treatment accessed by mothers, including home-based remedies, community or traditional providers, and formal health facilities [35].

The framework also considers contextual influences that may shape these processes, including HIV-related stigma, financial constraints, cultural beliefs, previous healthcare experiences, and the accessibility of health services. These factors are incorporated as study-specific analytical considerations rather than assumed determinants [35]. The framework recognises that healthcare-seeking and care outcomes may be non-linear, with mothers revisiting decisions, changing providers, or interrupting and resuming treatment as their children's conditions evolve [35]. The adapted framework provides a basis for exploring how mothers living with HIV interpret childhood illness, negotiate treatment decisions, and navigate healthcare options within their household and wider social and health-system contexts. It also guides the analysis of study participants' accounts and helps to identify the circumstances that facilitate or constrain timely and appropriate healthcare-seeking for children under five.



150

151 ***Figure 1***: Conceptual framework: Household Decision-Making and Pathways of Care Model
152 adapted from Colvin et al. (2013)

153 # Methods

154 This qualitative study was guided by the Consolidated Criteria for Reporting Qualitative
155 Research [14]. (See Appendix A).

156 **Study Design**

157 This qualitative study adopted a phenomenological study design. This study design was
158 used because it postulates that reality is socially constructed and that the individual's
159 interaction with her experiences and environment involves the perception, knowledge and
160 reality of a phenomenon [16, 17]. The reason for employing this design lies in the study's aim
161 to describe the experiences, values, emotions and meanings that mothers living with HIV attach
162 to the decision-making regarding child healthcare. To elicit individual subjective experiences,
163 this study design was appropriate, allowing for an in-depth understanding of their maternal
164 decision-making and child healthcare experience. Consequently, this design provided the
165 necessary approach and understanding to gather pertinent information on healthcare-seeking
166 decision-making for children under five among mothers living with HIV in selected
167 communities in Ghana.

168 **Study setting and population**

169 The study was conducted in the Komenda-Edina-Eguafo-Abrem (KEEA) Municipality
170 in the Central Region of Ghana. The KEEA Municipality is one of the 261 Metropolitan
171 Municipalities and District Assemblies (MMDAs) in Ghana and forms part of the twenty-two
172 MMDAs in the Central Region of Ghana. The KEEA Municipality has a total population of
173 166,017, with 80570 males and 85,447 females [18]. Focusing on females aged 15-49, the data
174 indicate a significant representation within this demographic.

Four communities were selected for this study. The selected communities comprised two urban communities (Elmina and Komenda) and two rural communities (Kissi and Abrem-Agona). These four communities were selected because they have health facilities where mothers living with HIV go for their ART services (see Figure 2). In terms of HIV prevalence, the Komenda-Edina-Eguafo-Abrem (KEEA) Municipality has consistently ranked among the top municipalities in Ghana's Central Region for reported HIV cases between 2010 and 2024. In 2010, the Elmina Urban Health Centre in the KEEA Municipality recorded 209 HIV cases. By 2021, the Central Region reported a total of 18,127 individuals living with HIV, with KEEA ranking second only to Upper Denkyira East Municipality in terms of infection rates [19].

The situation worsened in 2022, with the number of people living with HIV in the region rising to 24,046, while KEEA remained one of the municipalities with the highest infection burdens [18, 19]. In 2024, the region witnessed a significant increase in new infections, recording 3,803 new HIV cases—a 45.3 per cent rise from the 2,168 cases reported in 2023. These figures highlight a concerning upward trend in HIV prevalence across the region, with KEEA consistently identified as a hotspot. Notably, a significant proportion of these cases were detected among pregnant women who underwent HIV testing as part of the mother-to-child transmission (MTCT) prevention programme in local health facilities [19-21].

The target population for this study comprised mothers living with HIV with children under the age of five who were receiving antiretroviral therapy (ART) at four selected health facilities within the KEEA Municipality—namely, Elmina Polyclinic, Komenda Health Centre, Kissi Health Centre, and Abrem-Agona Health Centre (Figure, 2). These facilities were purposefully selected due to their provision of ART services to HIV-positive patients, making them appropriate sites for identifying eligible participants. The mothers targeted through these facilities provided rich and relevant data aligned with the objective of the study.

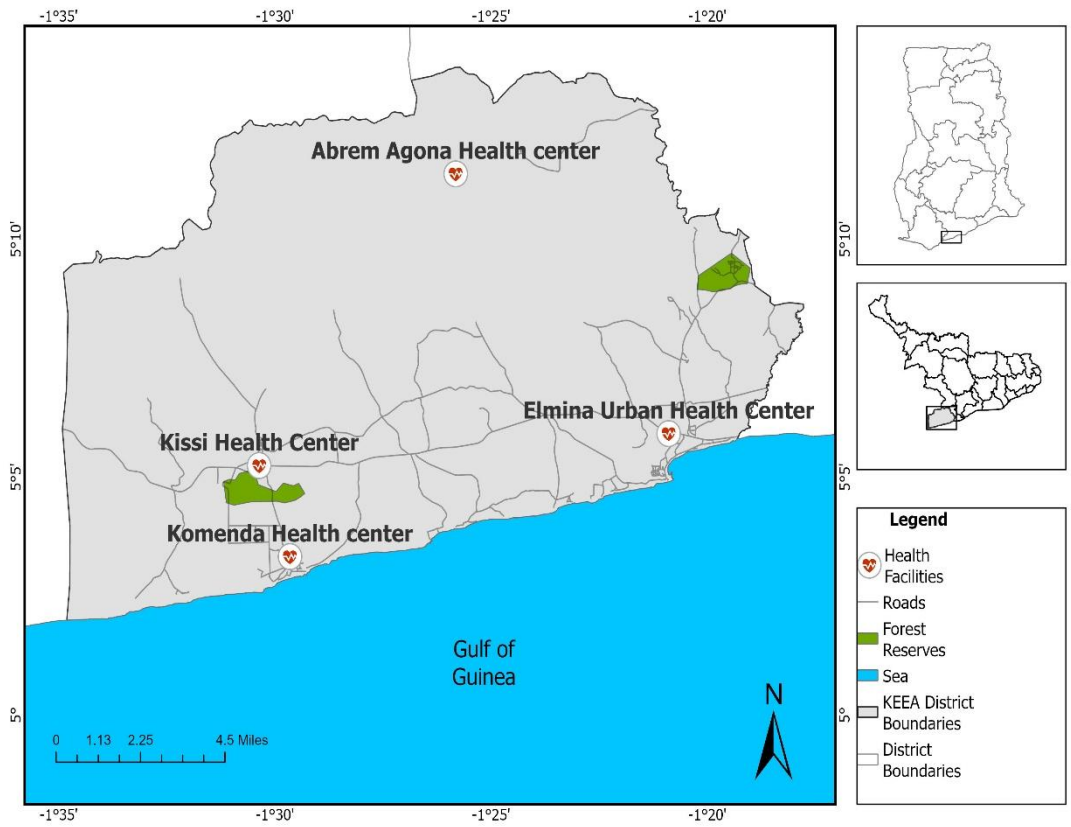


Figure 2: Map of the study area

Source: Geographic Information System and Remote Sensing (GIS), University of Cape Coast, (2024)

Sampling procedure

This study employed purposive sampling, a non-probability sampling technique commonly used in qualitative research to deliberately select participants who are most knowledgeable and experienced with the phenomenon under investigation [22, 23]. In the context of this study, purposive sampling was appropriate because it enabled the researcher to identify and engage mothers living with HIV with children under five years who were receiving ART services in selected health facilities within the KEEA Municipality. These participants were deemed information-rich and capable of providing deep insights into their decision-making and child healthcare practices.

Additionally, purposive sampling aligns with phenomenological study design, which emphasises the exploration of lived experiences from the perspective of individuals who have directly encountered the phenomenon of interest [22]. It allowed for the selection of mothers who could meaningfully reflect on their daily childcare routines, health-related decisions, and socio-cultural contexts affecting their experiences as HIV-positive caregivers. By targeting participants from four health facilities that provide ART services—Elmina Polyclinic, Komenda, Kissi, and Abrem-Agona Health Centres—the study ensured that the selected sample was contextually relevant and capable of addressing the research questions effectively. The combination of purposive criteria and health facility selection thus ensured data richness and contextual relevance.

In the initial phase, participant records were reviewed to identify mothers living with HIV who met the study's inclusion criteria. A total of 79 mothers receiving ART were initially identified across the four selected facilities. These mothers had given birth between 2019 and 2023, thus ensuring that their children were under the age of five at the time of the study. The use of this four-year period was to minimise recall bias and ensure the relevance of the experiences shared. All mothers identified had initiated ART and were actively engaged with the health facilities. In collaboration with facility focal persons (FPs), the researcher contacted eligible participants to schedule interviews. A timetable was developed to coordinate convenient dates and times for each participant. Private rooms within the facilities were made available for the interviews. Of the 24 participants who eventually took part in the study, a few opted for interviews at their homes.

Participants who preferred to be interviewed in their homes were followed, and home-based interviews were conducted at their place of convenience. This was carried out following all the ethical standards and with the assistance of the designated facility FPs. Before the home visits, participants were fully informed about the study and voluntarily scheduled their

preferred date and time for the interview. The researcher, accompanied by the FP responsible for providing ART and home-based care, conducted the interviews. Efforts were made to protect participant confidentiality and minimise any risk of social harm or stigmatisation. In addition, the researcher shared the same cultural background as the participants—speaking the same language (Fante/Mfantse dialect) and being familiar with local customs and community dynamics. This cultural affinity facilitated rapport-building and ensured culturally sensitive engagement. Strict precautions were taken to ensure that participants' HIV status was not disclosed to anyone in their communities.

Furthermore, participants were assured of their privacy and were briefed thoroughly on the study's purpose, procedures, and confidentiality protections. COVID-19 safety protocols, as outlined by the Ghana Health Service (GHS), were strictly observed. Informed consent was obtained from all participants before data collection. A clinical psychologist working in one of the facilities in the region and the FP played a crucial role in preparing participants emotionally and mentally, ensuring that the interviews were conducted respectfully and sensitively, with minimal or no distress to the participants, as outlined in the GHS information sheet.

Number of participants

The number of participants for a qualitative study has been conceptualised differently in the growing body of literature. Hagaman and Wutich [24] conceptualised that a larger sample size for a qualitative study spanning from 20 to 40 participants may be relevant to reach data saturation. Ritchie et al. [25] opined that researchers conducting individual interviews should not conduct over 50 interviews so that the researcher can manage the complexity of the data or analytic task. Based on these isolated recommendations, the researcher decided on the number of participants to effectively manage the data.

The decision regarding the number of participants for this study was guided by several factors, including participants' availability, reachability, willingness to participate voluntarily,

and adherence to the principles of data saturation [26]. In total, twenty-four (24) mothers living with HIV participated in the study (see Table 1). These participants were selected from the four ART-providing health facilities in the Municipality. Data saturation was determined after 24 in-depth interviews were conducted. The researcher carefully listened to each of the recorded interviews, reviewed each interview transcript, and compared them iteratively with previous transcripts. It was observed that no new themes, insights, or significant information were emerging from subsequent interviews. Again, considering the probes attached to the questions, indicated that saturation had been reached [26]. The determination of sample sufficiency was further guided by Marshal et al. [26], who suggested that theoretical saturation in qualitative research—particularly in phenomenological studies—typically occurs between 10 and 30 interviews. Hence, a total of 24 participants was deemed sufficient for achieving the study's objectives.

Data collection

Prior to data collection, introductory letters were obtained from the Department of Population and Health (University of Cape Coast), along with an official ethical clearance letter from the Ghana Health Service Ethics and Review Committee (GHS-ERC). These documents were submitted in advance to the KEEA Municipal Health Directorate to seek formal permission from the heads of selected health facilities. This procedural step was essential to ensure institutional approval and support for conducting research within the facilities.

To facilitate effective data collection, a preliminary reconnaissance survey and field guide were conducted in June 2024, when ethical approval was obtained. The purpose of this initial engagement was twofold: first, to familiarise the investigator with the research setting, and second, to obtain guidance from key gatekeepers and stakeholders. Given the sensitive nature of the study and its focus on a vulnerable population— mothers living with HIV—this

phase was critical for building rapport and trust with relevant health officials and the nurses or focal persons (FPs) involved in HIV care provision.

The reconnaissance process enabled the FPs to offer strategic guidance for accessing participants, establishing rapport, and handling potential ethical concerns. Through these engagements, the researcher gained important insights into participant dynamics and the most suitable methods for approaching and engaging them. Following these preparatory steps, the researcher developed a data collection timetable in collaboration with the FPs and proceeded with the main phase of fieldwork.

The actual data collection/fieldwork spanned 21 days (three weeks). Appointments were scheduled individually with each participant, and reminders were issued a day or two in advance of the interviews. Data collection was primarily conducted by the researcher, with assistance from nurses providing ART and home-based care to mothers living with HIV. In addition, a licensed clinical psychologist was engaged as part of the research team. This professional provided emotional support and psychological assessment, ensuring that participants were in a suitable state of mind and mitigating any potential emotional distress during the interview process.

Before interviews began, participants were thoroughly briefed on the purpose of the study. Informed consent was obtained using Ghana Health Service–endorsed consent forms. Participants were asked to sign or thumbprint the forms, affirming their voluntary participation and understanding of the study's objectives. To encourage openness, the researcher reassured participants that the interviews were intended for academic purposes only and that confidentiality and anonymity would be strictly maintained. Data were collected using face-to-face, in-depth interviews (IDIs) complemented with a pictorial guide (see, Figure, 4,5 and 6), allowing participants to share their experiences of child healthcare. All the interviews were recorded and transcribed verbatim. This approach also enabled the researcher to probe further

for rich, detailed, and contextually grounded information, thereby enhancing data quality. Interviews were conducted in the local dialect—Fante (Mfantse)—and lasted between 45 and 75 minutes.

Trustworthiness

Trustworthiness served as a guiding criterion to help the researcher identify and manage potential biases and subjectivity throughout the data collection process, thereby ensuring the quality and integrity of the findings. According to Lincoln and Guba [27], trustworthiness is the degree to which the research process and outcomes are credible, dependable, confirmable, and transferable. These four criteria were used to assess the rigour and validity of the qualitative inquiry. In this study, credibility was ensured through prolonged engagement with participants, persistent observation, and careful data collection procedures. Member checking was also employed, whereby key points from each interview were summarised and verified with the participants to confirm the accuracy of interpretations. Transferability concerns the extent to which the findings of the study can be applied to other contexts. While qualitative research does not aim for broad generalisation, it is the responsibility of the researcher to provide a rich and detailed description of the research setting and participants. This allows readers and future researchers to assess the applicability of the findings to their own contexts [27].

Dependability requires the research process to be logical, systematic, and well documented, so that others can trace the procedures followed. In line with [28], this study ensured dependability by maintaining a detailed audit trail of the research design, data collection, and analysis processes, including the rationale for methodological decisions and participant selection criteria. To uphold confirmability, the researcher reflected critically on their role in the research process and ensured that interpretations were firmly grounded in the

data. The research process was further strengthened by engaging with key gatekeepers and institutional authorities, observing ethical protocols, and adhering to a clear and transparent study protocol. Trustworthiness was established by faithfully capturing the experiences of participants in an ethical, fair, and methodical manner [22, 27]. This study employed robust methodological procedures, engaged with stakeholders throughout the research process—all of which contributed to the overall trustworthiness of the findings.

Data analyses

The data processing and analysis were done in two stages: data management using software and thematic presentation using a systematic, qualitative-oriented text analysis framework. Initially, the data were analysed with the aid of QSR NVivo 15 qualitative software (see Appendix B). All audio-recorded interviews were transcribed, and field notes were typed in Microsoft Word, then uploaded into the software for coding. This facilitated the creation of both parent and child nodes (codes), allowing issues to be categorised into main and sub-themes. Thematically, the data were summarised, organised, and described to illustrate key ideas and perspectives emerging from participants' narratives following [28].

In the second phase, a Systematic Qualitative-Oriented Text Analysis Framework (SQOTAF) was employed to support a manual, interpretive approach to the data. This approach was used alongside NVivo to allow the researcher to develop a deeper, intuitive understanding of participants' experiences, emotions, and contextual realities—elements that may not be fully captured through software coding alone. The combined use of NVivo and SQOTAF enabled both systematic data management and a nuanced interpretation of meanings. NVivo was used to run queries and apply a numeric coding scheme, tagging each participant's data and identifying key issues. Codes were numerically labelled for ease of identification and organisation. This process aligns with the 'analyst-constructed typologies' method, where data were systematically coded to determine the total number of relevant themes during analysis.

Specifically, a numeric coding strategy was used to classify participant quotes under emerging sub-themes. For example, code '1' childhood illness, '2' signs and symptoms, '3' medications, and so forth. These classifications generated smaller sub-issues under the broader themes (see Figure 3).

Through analyst-constructed typologies, about 175 quotations were extracted from participants' narratives, of which 38 were deemed most salient and used following a critical review. To maintain confidentiality, participants were assigned codes/IDs as pseudonyms (e.g., R_001_KEEA to R_024_KEEA) for referencing their quotes, which are presented in italics in the results section. Given that interviews were conducted face-to-face in the participants' native language, local interjections such as "hm," "hmm," "oh," "oo," and "em" were retained. Additionally, ellipses (…) and square brackets [ ] were used to indicate pauses, emphasis, and contextual clarifications. These linguistic features served to express participants' feelings, beliefs, concerns, and intentions more authentically, consistent with evidence from recent qualitative research [29].

Results

Background/Socio-demographic Characteristics of the Participants

A total of 24 mothers living with HIV of reproductive age (15–49 years) with children under five years were interviewed for the study, with half (12) aged between 25 and 29 years. Most participants (20) identified as Christians, and all were Akan and spoke Fante. In terms of education, about half (12) had completed primary school, while only a small proportion (two) had attained senior high school (SHS) education. Regarding place of residence, more than half (14) lived in urban areas. In terms of family and marital status, more than half (14) of the participants were in cohabiting relationships. While three had only one biological child, the majority (21) had more than one child. With respect to employment, about 10 of the mothers

were not working. Among those working, five were involved in petty trading, three were engaged in buying, smoking, and selling fish, and only two were seamstresses. (see Table 1).

Table 1: Background/Socio-demographic Characteristics of the Participants

Variables	Frequency/Percentage (N=24/100%)
Age (in complete years)	
20-24	4(16.67)
25-29	12(50.00)
30-34	6(25.00)
35-39	2(8.33)
Marital status	
Never married	4(16.67)
Cohabiting(ed)	14(58.33)
Married	4(16.67)
Divorced/Separated	1(4.17)
Widowed	1(4.17)
Educational level attained	
No education	6(25.00)
Primary	12(50.00)
Junior High School (JHS)	4(16.67)
Senior High School (SHS)	2(8.33)
Religion	

Christianity	20(83.33)
Islam	3(12.50)
Traditional	1(4.17)
Ethnicity	
Akan (Mfante)	24(100.00)
Current Occupation	
Not working	10(41.67)
Petty trader	5(20.83)
Fishmonger	3(12.50)
Farmer	4(16.67)
Seamstress	2(8.33)
Residence	
Rural/Peri-urban (farming area)	10(41.67)
Urban (fishing area)	14(58.33)
Number of Biological Children	
1	3(1m, 2f)* (12.50)
2 or more	21(7m,14f)* (87.50)

392 *m=male, *f=female. Sources: fieldwork (2024)

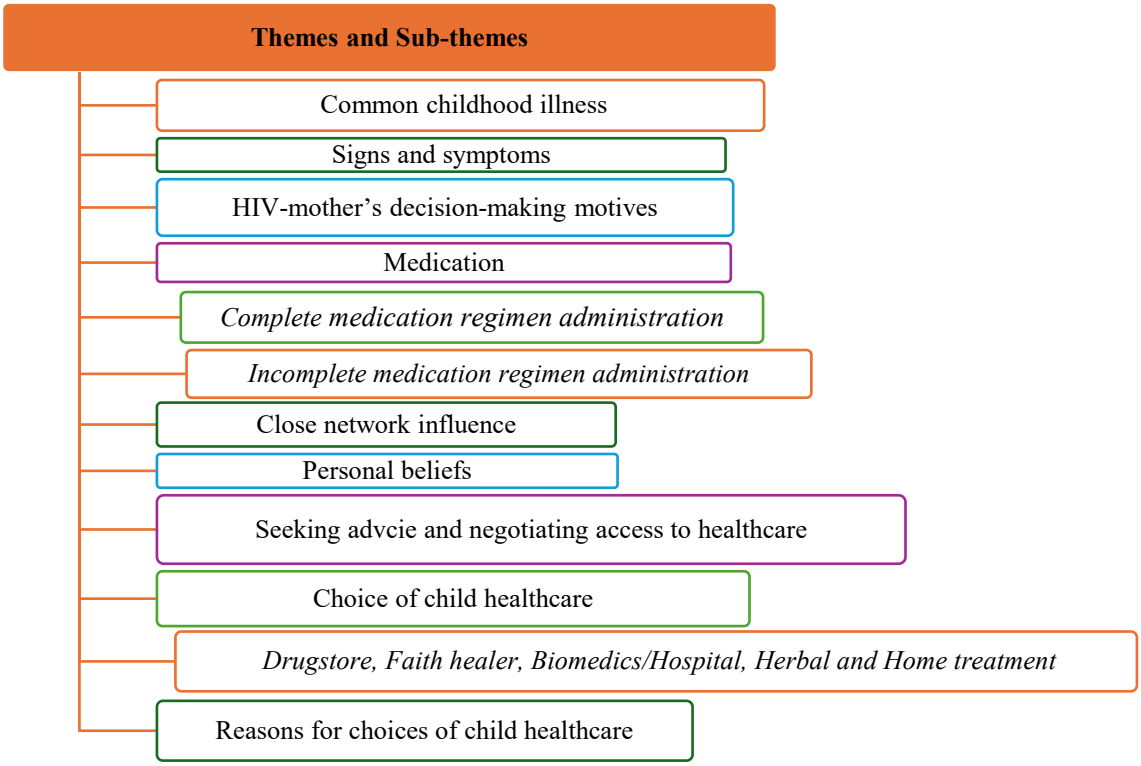


***Figure 3*: SQOTA framework presenting categorisation of issues/themes.**

About twelve sub-themes emerged from the data. These themes comprised: common childhood illness, sign and symptoms, mother's decision-making motives, medication (complete and incomplete medication regimen administration), close relative's influence, personal beliefs, seeking advice and negotiating access to healthcare, choice of child healthcare (drugstore, hospital, faith healer/prayer camps, home care/treatment) and reasons for choices of child healthcare.

Common Childhood Illnesses

The prevalence of common childhood illnesses and their symptoms among children under five born to mothers living with HIV is a significant concern in the KEEA Municipality, as these children face additional health challenges linked to their mothers' health status. Mothers living with HIV often lack the knowledge and resources necessary to identify and prevent common childhood illnesses. Providing accurate, accessible information about these illnesses, their symptoms, and associated risk factors could empower them to make informed decisions and

take appropriate measures to safeguard their children's health [30, 31]. In this study, a considerable number of childhood illnesses were reported, including malaria, fever, headache, cold, cholera, diarrhoea, and convulsions. Among these, malaria emerged as the most common illness in the KEEA Municipality, a point clearly reflected in the experiences shared by participants:

"[…] with all my children including the last baby have experienced malaria before and not once or twice […], malaria is a common illness here, and it does not attack my children only, but it also attacks other children in my neighbourhood and even if you go to the hospital most mothers complain that their children have had malaria, so any little signs and symptom of malaria I see it and get medication for them [my children] as quick as possible …" R_001_KEEA

Another participant living in the slum area in the fishing communities corroborated:

"…Ooo! I can say that my child gets malaria more than any other childhood sickness […] malaria is very common here…" R_005_KEEA

Another participant further added:

"…anytime my children get sick… then its malaria…malaria often attacks them…"" R_017_KEEA

Signs and Symptoms of Childhood Illness

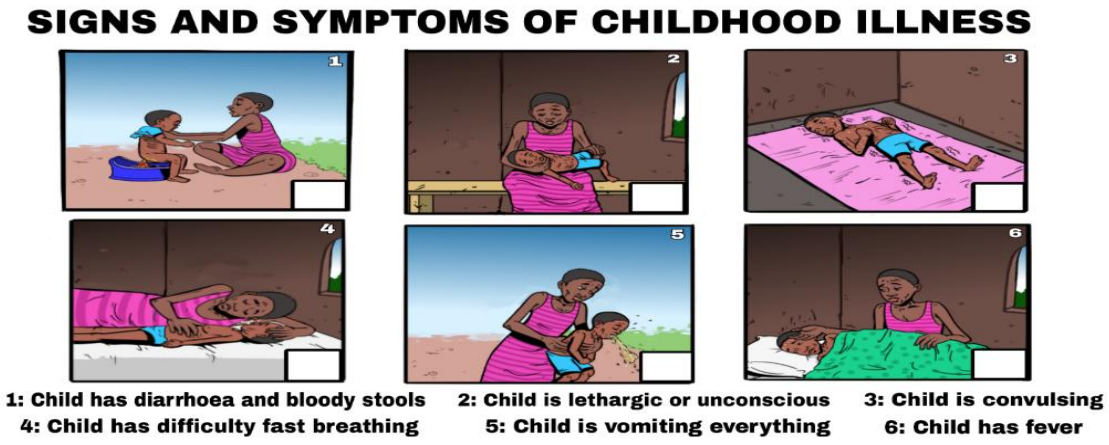


Figure 4: pictorial guide showing signs and symptoms of childhood illness

The study uses the pictorial guide to illustrate the signs and symptoms of childhood illnesses while highlighting the importance of early detection and management/treatment. Participants were asked to respond to the question by choosing from the pictorial guide (Figure 4) to supplement their descriptions of childhood illnesses and respective signs and symptoms. These included: bloody stool, lethargy, convulsions, difficulty in breathing, vomiting, fever, and malaria. This is what one of the participants had to say:

"[…] as a mother, I sometimes notice more than one sign or symptom…my child is too young and cannot speak too well to say or describe which part of the body is paining her, so some of the easiest ways to know that my child is sick is that the body temperature changes, you start observing that the child's body is becoming hot, it will be followed by series of coughs with difficulty in breathing like catarrh or flu [pointing at picture in the pictorial guide # 4]…" R_005_KEEA

Another participant corroborated:

"*... I notice phlegm coming from the nose…when sick.... the child can start vomiting or throwing up* [pointed at picture #5 in the pictorial guide] ... *In fact, as a mother, you can see many signs and symptoms …"* R_0011_KEEA

Some of the participants indicated that they knew the signs and symptoms of malaria, which is a common childhood illness in the community in which they lived. This is what one participant had to say:

"It has always been like normal things to see about my child- the signs and symptoms…yellowing eyes, hot body, difficulty breathing..., have always been associated with malaria, so I don't often seek child healthcare[treatment] at the hospital because I already have information or knowledge about the medication for malaria, so I buy it[medicine] from the drug store and manage to treat some of the common sicknesses unless it is serious that I

visit a clinic or health facility for medical care…[pointed at all pictures in the pictorial guide]*"* R_010_KEEA

One of the participants, who did not know any signs and symptoms of convulsions and was not aware of her child's convulsions, but experienced it for the first time, described how it happened. She narrated:

"*Ermm hm […] I have witnessed convulsions once, and it was so serious, and I pray that none of the children should experience that anymore[...] It was one late afternoon around 3-4 pm. I had finished cooking, so I was going to pick him up because I knew he was asleep then, but I was shocked when I saw him lying down stiff like a dead body [...]* [pointing at picture #2 and #3 in the pictorial guide] R_014_KEEA

Medication

A pictorial guide was used to help the participant reflect on medication regimen administration. Regarding the child's medication, two main themes emerged: complete medication regimen administration and incomplete regimen administration.



***Figure 5*:** pictorial guide showing child medication

Complete Medication Regimen Administration

The study observed that some participants who had children infected with HIV made a conscious effort to ensure that they followed the medication guidance from the healthcare

providers. Studies have indicated that the use of medications among children born to mothers living with HIV should be encouraged despite the negative arguments against it, as it reduces the risk of mother-to-child transmission of HIV and improves the health outcomes of both the mother and child [31-34]. Medications can improve the health outcomes of both the mother and child, as they can help suppress the viral load in the mother and increase her immunity while also improving the child's growth and development [32]. Complete medications can help prevent childhood illnesses and manage recurring sicknesses, leading to better health outcomes for the children. Some of the participants mentioned that they gave medication to their children when they saw any signs or symptoms of disease, apart from those infected children who were already on regular or continuous medication regimens. Some participants described how and when they gave medication whenever the child was sick. Some of them mentioned that they consistently completed their child's medication as per the pictorial guide (figure 5). This was evident:

"Hmm! [she sighed] … My child gets sick very often, so I don't play with my child's medication […] I make sure I give all the prescribed medicine to my child till the last dose… [pointed at pictorial guide # 1]*"* R_006_KEEA

Another participant corroborated:

"…I make sure I give all the medicine prescribed by the doctor to her…" [pointed at pictorial guide # 1]*"* R_002_KEEA

Incomplete Medication Regimen Administration

Administration of incomplete medication in children living with either HIV positive or HIV-negative status can lead to the development of drug resistance, which can limit the efficacy of future treatments. Early diagnosis and treatment of HIV in children can significantly reduce the risk of newborn and infant/child morbidity and mortality, as well as improve their health and well-being. However, more than half (16) of the participants mentioned that even though

they knew that they had to complete the child's medication, they sometimes forgot, especially when they perceived that the child is/was well. This also made them stop giving their children medication until they noticed another sign of sickness/illness. This was expressed by one of the participants:

"…it's not always, but sometimes I stop [discontinue] my child's medication, particularly when I feel [observe] that my child is well…too much medication is not good, even as a mother I get tired [sometimes] taking medicine … pointed at # 2 in the pictorial guide]" R_012_KEEA

To buttress this assertion, another participant related:

"Ermm! Hm! Sincerely, I don't give complete medication, particularly with medicines that are syrups […] I sometimes forget when the medicines are many, so I stopped at a point in time when I noticed that my child was well, and because of that, I have a lot of [unfinished] medicines on my table… R_0021_KEEA

Mother's decision-making motives

The choices mothers living with HIV make concerning sources of child healthcare are usually indirectly coupled with several personal reasons due to their perceived stigmatisation and discrimination. Also, 'how' (the motives) and 'why' (the choice of care) were the major issues that influenced their decision-making. Some of the participants, regardless of the distance, cost, and waiting time at the hospital, still had the motive that their children would get well when taken to the hospital because they believed doctors knew better. Also, it was revealed that some of the decisions were made based on the love that mothers living with HIV had for their children. This also influenced their decision when seeking health/medical care for their children. One of the participants who followed schedules and attended follow-up appointments based on the love motive for the child had this to say:

"…Hmm, whether I like it or not, I have to go to the hospital…my child's regular sickness is getting over me [tired of], sometimes I feel like my child is going to die, but I love my child, I

do my best to ensure my child gets better […]. Because of her sickness, I have to wait all the time and follow appointments for treatment […]. I know it's the doctor who can help my child to survive" R_011_KEEA

Personal beliefs

According to Colvin et al. [35], personal beliefs toward healthcare can influence the health-seeking behaviour of caregivers and their decisions. In this study, some of the participants indicated that they utilised traditional medicine or home remedies, while a few had trusted and believed in prayer camps/faith healers due to the kind of sickness observed by the mother and the resources (income) available at the time of the child's condition. Additionally, some of the participants preferred prayer camps or faith healers because they trusted in God and consulted pastors more than biomedics/hospitals when it came to some childhood illnesses, such as convulsions. It emerged in this study that the accessibility of healthcare facilities had a direct influence on the decision-making process. Some of the participants indicated that their choices of seeking child healthcare were dependent on the belief (faith and trust) in prayer camps or faith healers. One of the participants had this to say:

"[…] *I have faith and trust in God, so whenever my child is sick, I first decide to take my child to my pastor…before any other thing…* [pointed at #3; prayer camp/faith healer in the pictorial guide]*"* R_007_KEEA

Another participant who also believed that a child's sickness should be critical before seeking child healthcare mentioned:

"[…] It is when the sickness is critical that I will decide to take my sick child to the hospital [pointing at pictorial guide # 1] *…"* R_002_KEEA

Some of the participants associated their decision-making with the cost of seeking healthcare. The fear of unaffordable medical bills and transportation prevented some of them from seeking healthcare for their children. This is what one participant had to say:

"…Sometimes I fear taking my child to the hospital because it is costly […] and even if I take my child there, by the time I return home from the hospital, the money that I would have used to buy food for myself and my baby for some days will be gone within the little time spent there so very often than not I decide to get medication from drugstores around and save some money down…" R_0015_KEEA

Some participants had to escape healthcare providers sometimes due to delays or long waiting times. This was mentioned:

"…I spend a lot of time at the hospital anytime I take my child there [long waiting delay, like 3 hours]. The nurse seemed so busy that I had to sit for a very long time without any attention. Some of them even got angry the moment I tried to tell them that I have been here for a long time…" R_023_KEEA

Some of them revealed that they were more stressed and reluctant to visit health facilities due to some attitudes of nurses/ or healthcare professionals. This is what one participant had to say:

"[…] The same nurses who know our condition and that of our children are the same people who give us more stress and talk back at us [insult]… I remember one time a nurse who knew my condition was passing by and I approached her that I have been here for a long time...she entered the room and started saying if I can't exercise patience, I can take the child home to die…she [the nurse] does not lose anything [she sighed] …" R_019_KEEA

Close network influence

Issues concerning decision-making on preferred source/choice of seeking child healthcare were associated with a close network (family, partners, and friends). It was also revealed that money or financial assistance from partners and family influenced the choice of child healthcare. Also, the faith or trust they had developed in a particular source of healthcare influenced their decision. One of the participants, who was cohabiting and not working (see

Table 1), mentioned that she considered the money available to her before choosing a particular healthcare when the child was ill or sick, if she did not get support from her partner/baby father: *"Ooh…, I consider the money my partner gives, and He also decides on where to go, either to the drug store around here or go to the hospital…so I will say my partner determines where to go [seeking child healthcare] whenever the child is/was sick …"* R_003_KEEA

Another participant shared a similar view*:*

*"…Usually, it is the father of my child [partner] who decides where to seek childcare unless he's not around when the child is sick…Then I can decide as a mother," R*_010_KEEA

In the same vein, one of the participants indicated how the mother influenced her decision regarding when and where to approach her child's illness:

"...not all the time, but sometimes even when I am ready to take the child to the hospital, my mother tells me not to rush to the hospital and try local herbs first, especially if the child has a fever […]. I feel I must listen to her because she raised many children and believes she knows what is best…she believes in herbal medicine, so she likes to recommend it to her children…" R_011_KEEA

Seeking advice and negotiating access to healthcare

Their study highlighted various contextual and individual factors that determine caregiving and illness treatment options that are consistent with the findings observed in the present study. Some of the participants actively sought advice from healthcare professionals, peers, family, and partners and navigated accessing care due to financial constraints. This is what some of the participants said:

"...I would have to wait for my partner to decide on where I should seek treatment for our child…this is because if I take decision alone, He might decide not to take care of bills or he might also think I'm using that to take money from him because we don't stay together in the same house…" -R_004_KEEA

Another participant who is separated due to her condition relied only on the nurse who provides home care support to decide when to seek child healthcare:

"...I seek advice from the nurse who provides home care support for me and asks me to seek child healthcare ... even if I don't have money, she directs me on what I should do to make my child feel better..." R_0012_KEEA

To corroborate this, one of the participants who had monetary issues and a misunderstanding with her partner due to her condition narrated how she had to negotiate with the child's father before seeking child healthcare:

"...Honestly, seeking child healthcare at the hospital is difficult for me, [...], sometimes negotiating with the child's father before I seek healthcare for the child brings a lot of misunderstandings/problems because of monetary issues..." R_008_KEEA

Choice of Child Healthcare

In line with the healthcare utilisation model [37], the perspective of the participant regarding choice of child healthcare connotes five domains (see Figure 6) of seeking healthcare for their children when ill. These are hospitals, herbal or traditional treatment, faith healing/prayer camps, drugstores and home treatment.

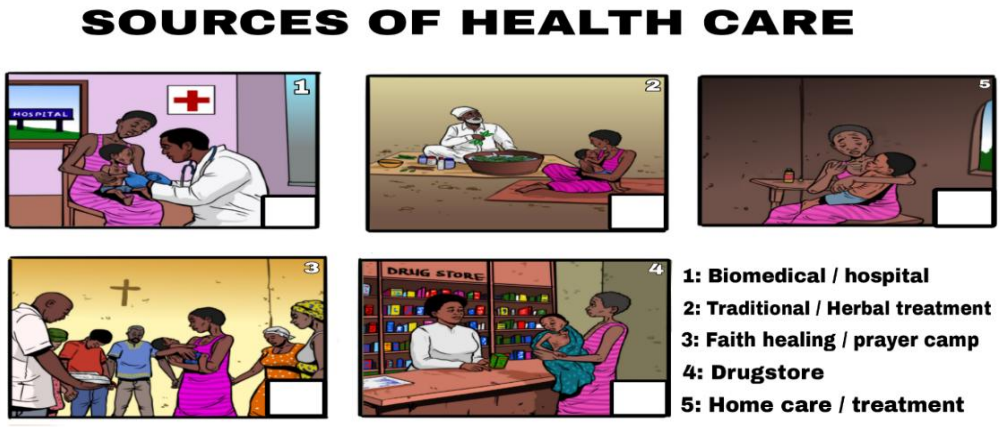


***Figure 6**:* pictorial guide showing sources of healthcare

Drug Stores

The drugstore was the preferred source of care for mothers living with HIV in the municipality. Almost half (10) of the participants chose drugstores as their preferred source of seeking child healthcare whenever the child was sick or ill. It emerged from the data that drug stores provided affordable and convenient access to medication but might not offer adequate counselling and support for adherence and side effects management. However, mothers living with HIV perceived drug stores to be one of the best sources to access medication and support to maintain their health and that of their children. This is what one of the participants had to say:

"[pointed at pictorial guide # 4] *...I don't have to worry myself so much walking a long distance or use my little money on me to pick a car to the hospital, ...besides, some of the drug stores here are doing well, and the drug sellers know some of the common childhood illnesses like malaria, fever, and others, so they prescribed medicine for me and my child to get well [feels better] ..."* R_001_KEEA

Another participant corroborated:

"...I often go to the drug store first because it's unfortunate that anytime my child gets sick is the time I have no money on me, hmm... [she sighed], so with a little amount like GHC20/$1.8[...] I can gently talk to the chemical seller to give me medicine [...] [participant pointed at pictorial guide # 4] *..."*. R_017_KEEA

Another participant likened the drugstore to stigma-free:

"I feel much more okay buying from a drugstore always when my child is sick...there is no fear of stigma... I get more fear [perceive stigma] when I go to the hospital because some of the nurses know my HIV status..." R_006_KEEA

Biomedical/Hospital

A considerable number of factors, such as limited access to healthcare information and resources due to stigma attached to mothers living with HIV, inadequate education and

knowledge regarding HIV and child healthcare, as well as limited financial resources to access biomedical/hospital care and medication for their children, influence their choice of biomedical care or accessing a health facility. Other indirect factors were identified and considered from the interviews as those that could also influence the choice of a health facility, such as the stereotyping and discrimination against mothers living with HIV by healthcare providers when seeking child healthcare. One of the participants had this to say:

"I believe in hospital than other sources [faith healing, traditional and home treatment …[pointing to pictorial guide # 1] *My condition was identified by a doctor and I have been advised that if I don't go to the hospital and follow my medication guidelines as well as my child, I can transfer my condition to my child so anytime I don't feel well or I sense that my child is sick I quickly rush to the hospital[…] so I will usually prefer to go to the hospital because of my condition [HIV] and I believe taking my child to the nurses and doctors is the best decision because they are trained well to provide treatment for our child sickness…"* R_020_KEEA

Traditional Medicine/ Herbal Healing

Although herbal and traditional remedies have been used for centuries and can be effective in treating certain ailments in children, such as malaria, measles, convulsions, fever, and other common childhood illnesses. There are some socio-cultural beliefs and values attached to traditional medicine/herbal healing, which also influence the decision-making of mothers living with HIV in seeking child healthcare. Some of the mothers living with HIV described how cultural beliefs influence their preferences towards adherence to traditional medicine and herbal treatment responses for their children's illnesses. Very few participants related their belief in herbal and traditional healing/treatment of childhood illnesses like convulsions. This is what one of the participants had to say:

662 "[…] *I never had a belief in the herbalist and our traditional way of healing childhood illness*
663 *until my child convulsed…my neighbour took me, together with my child, to an herbalist…the*
664 *herbalist mixed some herbs and water, and after consulting his gods, he healed my child […]*
665 [pointing at #2 on the pictorial guide]*.…"* R_023_KEEA

666 To corroborate this, another participant, due to the critical condition that the child went
667 through, had this to say:

668 *''Hmm! [she sighed] …when I gave birth to my child, I observed that one of his balls [penis-*
669 *testicles] was missing. My child could cry from midnight to the next morning due to that*
670 *condition until one of my friends suggested a traditional healer for me* [pointing at the pictorial
671 guide #2] *[…] I had tried this with the hospital for more than a year, but the herbalist was able*
672 *to help. My child now has the two balls [penis-testicles] …''* R_007_KEEA

673 ***Faith Healers/Prayer Camps***

674 In this study, faith healers and prayer camps were used interchangeably. It emerged from the
675 results that faith healers provided a sense of hope and comfort to mothers living with HIV who
676 might struggle with depression and feelings of isolation. Participants mentioned that prayer
677 camps provide a holistic approach to healing, emphasising the importance of spiritual,
678 emotional, and physical well-being. Evidence shows that faith healing practices improve
679 mental health and reduce stress [36]. Some of the participants also narrated reasons why they
680 would prefer faith healing/prayer camps to other sources of child healthcare. Some of them
681 mentioned that faith healers did not discriminate or stigmatise, even if they got to know their
682 status. The only hope they had was that, through prayers, their children's sickness or illness
683 would be healed. This was recalled by one of the participants:

684 *"[…] I normally take my sick child to prayer camp to see my pastor* [pointing at the pictorial
685 guide # 3] *because I believe in God, and when I gave birth, my child nearly died, my child felt*
686 *sick continuously… if not because of my pastor* [she heaved a sigh of relief] *[…], I would have*

lost my child. All because there is a belief deeply rooted in my family that if you give birth, you have to take the child to meet certain family members, and one wanted me to name my child after him, and I didn't do it, so he used spiritual means/ways to cause sickness for my child. My child was getting sick countless times, and in unusual situations, until finally, I went to a prayer camp for prayers [...]" R_004_KEEA

However, a few of the participants also mentioned that prayer camps might perpetuate harmful myths and attitudes about HIV, such as the belief that HIV was a punishment from God. This is what some participants had to say:

"[…pointed at the pictorial guide # 3 and mentioned] *..., I remember one day I went for a consultation with my child's sickness and the pastor told me such sickness could be a punishment from God and I should keep praying […]So I don't see the need to seek other healthcare for my child apart from prayers because it related to spirituality and nothing else…[she sighed]"* R_008_KEEA

Home Care / Treatment

A few of the mothers living with HIV demonstrated a strong understanding of the prevention, treatment and management of some common childhood illnesses. However, some of the participants had different approaches to providing home care/management of common childhood illnesses for their children under five. Some of them indicated specific approaches that need to be taken and implemented in home care and management of childhood illnesses, including hand washing before feeding the sick child, putting the child under a mosquito net (particularly those living in wooded and hazardous environments), boiling/making warm water to massage/bath child. This is what one of the participants had to say:

"*Honestly, I sometimes do home care or treatment of some common illnesses myself* [pointed at # 5 on the pictorial guide*…I apply basic healthcare strategies like boiling/making lukewarm water and gently massaging my child when I feel the body is hot […]* R_022_KEEA

One of the participants used local herbs to treat her child's sickness; a leaf locally called '*Mboframa brodzi*' [scientifically known as *Cassia Occidentalise*, an antimalarial/antipyretic leaf normally used to treat childhood illnesses like malaria, infections, wounds, ulcers, and reducing fever] was mashed and used to treat her child's sickness. This is what the participant had to say when probed about the application/use of herbs for home treatment of childhood illness:

"It is very normal to treat childhood illness, […] As a mother, you can learn some basic home remedies[medications]. For instance, when your child coughs, you can use ginger and add a little sugar for the child; the cough will stop…" R_018_KEEA

Another participant who had knowledge of herbs or knew herbs indicated how she applied local herbs/remedies *"Nunum"* [scientifically known as "*Ocimum gratissimum"* is an antimicrobial/antioxidant leaf normally used to treat childhood illnesses like diarrhoea, fever, coughs, stomach pain, indigestion and flatulence] to treat her child's running stomach or stomach upset related:

"…. sometimes I also use 'Nunum' [Ocimum gratissimum] to enema [a procedure in which a liquid and/or gas substance is injected into the rectum of the child to expel its contents] *my child to cure stomach running and also to wash the child's stomach if the child gets stomach upset or flatulate frequently* [she giggled]". R_014_KEEA

Reasons for the Choice of Child Healthcare

Understanding the rationale behind the preferred sources of child healthcare is crucial for mothers living with HIV. Reasons such as fear and stress at the hospital, trust in healthcare services, financial constraints, and severity of child sickness were raised in the study. In many cases, some participants shared their fears about high expenses and bills, which made them reluctant to visit the hospital whenever their child fell ill. This is what she had to say:

"…Going to the hospital is not something I like in the sense that you will be asked to do so many things such as taking receipts, going to a lab [laboratory test], paying for the rubber and bed[when admitted], and some of the nurses tried to hide some of the child medication and still asked you to go to a pharmacy and buy some, so by the time you leave the hospital all your money is gone meanwhile, just GHC 20/$1.8 can get you medicine from the drugstore, and my child will be okay…" R_021_KEEA

Another participant indicated that her decision regarding child healthcare is based on the severity of the sickness. This is what she had to say:

"*Sometimes I had to sit back and think about how severe my child's sickness is before I decide on the choice of child healthcare. If the sickness is serious, I can go to the hospital, but if it is not that serious, I will buy the drug from the drugstore for him…"* R_013_KEEA

Another participant (single mother) who had a financial reason, such as money for transport, payment of drugs, considered before deciding on the choice of child healthcare, had this to say:

"…me? hm.., it is only when I have money for transport and payment of drugs that I take my child to the hospital, but if I don't have money, I don't even think or decide to go to the hospital or clinic…." R_007_KEEA

Discussion

The study explored healthcare-seeking decision-making for children under five among mothers living with HIV. The key findings of the study revealed the support, roles, and care from friends, partners and family that influence mothers living with HIV's decision-making concerning the choice of seeking child healthcare. The pathways of healthcare, such as drug formal health facilities, store, hospital, prayer camp/faith healer, herbalist, and home care management /treatment, identified in the conceptual framework (Figure 1) adapted from Colvin et al. [35], were mentioned when mothers living with HIV were asked to describe where they access healthcare for their sick children under five years with the aid of a pictorial guide.

Mothers living with HIV who are the primary caregivers of their children under five years were given a pictorial guide to complement the interviews by confirming their decision-making regarding child healthcare and motives for the choice/selection of a particular source of healthcare. The findings of the study revealed that the decision-making of mothers living with HIV in seeking child healthcare is somehow influenced by their close relatives (family), partners, and friends due to the significant roles they play in their lives. The results indicate that some factors (roles, motives, availability, affordability, trust, and proximity) influence decision-making practices regarding the pathways of healthcare (drug store, hospital/Biomedics, prayer camp/faith healer, traditional healer/herbalist) as postulated in the household decision-making pathway of care model [35]. The findings of the study revealed that mothers living with HIV had more knowledge about home-based management of childhood illnesses and medications. It was also revealed that most mothers living with HIV preferred medications from drug stores to any other source(s) of child healthcare. This result aligns with the household decision-making pathway of care model, where a drug store is one of the choices of healthcare resources [35]. Similarly, the results of the study further corroborate those found in the study conducted by Anokye et al. [38].

The findings of the study on reasons for the choice of seeking child healthcare revealed several factors that influence their decision, including fear and stress at the hospital, trust in healthcare services, financial constraints, and severity of child sickness, which are consistent with the theory by Colvin et al.[35] which postulates that mothers/caregivers might misinterpret or undervalue their children's illnesses based on their past experiences, beliefs, and limited support, which could cause them to delay in their decision -making on the choice of child healthcare and seeking necessary medical intervention. These findings also corroborate [39], which used a socio-ecological model to investigate the factors influencing the decision to seek medical attention among parents of children admitted to Kenyatta National Hospital due to

787 acute childhood illnesses. Their study further discovered that the children's lengthy hospital
788 stays and high death rates were caused by their delayed pursuit of healthcare.

789 The study observed that knowledge of child danger signs and symptoms for common childhood
790 illnesses, such as malaria and fever, did not determine care-seeking or timely care-seeking in
791 this study. Most of the mothers living with HIV were aware of some medications from drug
792 stores that could be given to their child at home when ill, without necessarily seeking
793 biomedical care or seeing a doctor. The findings of the study are consistent with those found
794 in a recent study conducted by Fardan et al. [40] on the awareness level of mothers towards
795 common neonatal danger signs observed that young mothers were able to list the symptoms
796 that they know and must be serious to cause health adverse and risks to the life of the children.

797 The results of the study revealed that the majority of the mothers, after seeing symptoms,
798 rushed to the doctor; some participants delayed for about four to five days before seeing a
799 doctor, and some also waited till the symptoms resolved spontaneously. Some findings of their
800 study further seem to confirm some of the findings in this study, where some participants did
801 home treatment based on the knowledge from family and friends, and some of them also
802 gathered knowledge from social media and the internet [40, 41]. In addition, some of the results
803 on signs and symptoms seem to contrast with other studies [42,43] that have demonstrated that
804 knowledge of danger signs or symptom recognition is a critical predictor of care-seeking for
805 child health services. For instance, in Lungu and associates' study, it was noted that factors
806 related to the child, the type of illness, and the caregivers are central to the healthcare decision-
807 making dynamics [43], regardless of the signs and symptoms, while those of Tiari et al. [42]
808 also revealed that a common danger sign stated by caretakers in their study was fever in
809 children, which was about 92.4 per cent. In line with the ecological system theory, the
810 promotion of health education on child danger signs to caregivers at the micro and meso

811 systems (home, community, and health facility) promotes the uptake of child health and
812 childcare practices [35, 44].

813 The result of the study on complete and incomplete medication regimen administration posits
814 that early diagnosis and treatment of childhood illnesses can significantly reduce the risk of
815 newborn and infant morbidity and mortality, as well as improve the quality of life for children
816 under five years. The study observed that the vast majority of mothers living with HIV knew
817 about some of the treatments of childhood illnesses and made every effort to complete the
818 child's medication to ensure that the child got better. However, a few of the mothers living with
819 HIV disclosed that they sometimes forget to complete the child's medication, especially when
820 they perceived that the child is getting well (can play, eat and have uninterrupted sleep); they
821 discontinued medication regimens for their children under five. The findings of this study
822 corroborate a study conducted by Tanner [45], where subgroup analysis results also revealed
823 variations in discontinuation rates among dosage regimens; triple therapy had the highest rates
824 of discontinuation, which could be connected to medication choice. Also, treatment regimens
825 were frequently incomplete, which led some participants to choose to discontinue, increasing
826 the risk of HIV transmission following high-risk exposure, where three-drug regimens were
827 also suggested to be less well tolerated than two-drug regimens [45].

828 The results of the study revealed that a close network (family, partners and friends) influenced
829 mothers living with HIV's decision-making concerning the choice of their children's health.
830 They also indicated the important roles these individuals play in a mother's life, as opined in
831 the ecological systems theory [44]. The findings thus corroborate those found in the study by
832 Twintoh et al. [44], where family members often influence the decision-making and social roles
833 of caregivers. Also, encapsulating the practices of family, partners, and relatives in the
834 Ghanaian context, the immediate home (microsystem) of the individual has direct and indirect
835 impacts on their roles as primary caregivers.

836 The results of the study revealed that mothers living with HIV had beliefs about spiritually
837 related health issues, which also influenced their decision to seek healthcare from traditional
838 healers/herbalists in treating minor childhood illness issues such as convulsions and other
839 perceived spiritually related illnesses, even though few of them indicated that, for the majority
840 of common health risks that under-five children face, professional medical care (Hospital) is
841 required. The result of the present study confirms those found in the study by Roberts et al.
842 [46], where mothers in Kenya admitted to rarely consulting medical professionals out of
843 concern that their child might not survive medical intervention. The study illustrated how the
844 results of a health-related behaviour become feedback that affects the future development and
845 use of health literacy skills. For instance, the use of traditional medicines over hospitalisation
846 and immunisations [47]. In contrast, this study highlights how challenging it can be for any
847 HIV mother to deal with her child's illness, particularly when it is complicated by the cost of
848 treatment, distance/proximity, or a lack of adequate healthcare resources and poor decision-
849 making.

850 The findings of the study on decision-making concerning the choice of seeking child
851 healthcare, particularly on faith healers or prayer camps as postulated in the conceptual
852 framework [35], revealed that faith healers or prayer camps are welcoming and provide
853 spiritual and emotional support and healing. The practice of faith healing and attendance at
854 prayer camps have been perceived as effective decision-making options among mothers living
855 with HIV in this study when seeking child healthcare due to the trust and belief in spirituality
856 or religion. A study conducted on prayer and health beliefs of Ghanaians and understanding
857 their religious space confirms that the effectiveness of faith healers and prayer camps in healing
858 also influences caregivers' decision-making because whenever the child was ill/sick,
859 caregivers/mothers were able to consider the spiritual benefits, faith, and trust attached to the
860 utilisation of faith healing/prayer camps [35, 36].

The findings of the study revealed that about half of the mothers living with HIV preferred and utilised drug stores more often than any other choice of child healthcare as a way of ensuring fast, easy, reliable, and less costly treatment for their children's illness/sickness. However, in situations where mothers living with HIV wanted to avoid home medication or treatments, some of them might decide to seek healthcare from health facilities such as health centres and hospitals, including both private and public or government facilities, for their sick child. The findings of the current study corroborate those found in the study by Anwar [48], who observed that the biggest health-seeking outlet for most people is the public health facilities. Some studies have noted some reasons caregivers utilise private health services, including a good attitude of personnel, better and more flexible access, greater confidentiality and shorter waiting times, and good quality medicine. Unlike public health services, where caregivers or patients doubted the efficacy of the treatments they received, poor quality of medicines, improper examination, poor explanation of health problems, absence of doctors, shortage of medicines, and bad attitude of paramedic staff and nurses [48].

The result of the study on the choice of traditional medication or herbal healing revealed that some of the mothers living with HIV, apart from seeking healthcare services, also preferred traditional medication/treatment or healing for their children's illnesses or sicknesses. The findings of the study observed a considerable number of factors that influenced mothers living with HIV's decisions toward the utilisation of traditional medicine or herbal healing [35]. These factors may include their availability and readiness, friendliness, low cost, flexible payment, and religious or traditional beliefs [35]. Mothers living with HIV also considered the distance to the health facilities and the type of illnesses. The results of the present study are consistent with those found in a study conducted in Mali in which caregivers engaged in traditional healing because of the healer's sense of pity, fraternity, and good friendship or neighbourliness [49].

Conclusion

The study concludes that mothers living with HIV possessed knowledge of common childhood illnesses—particularly malaria—and could identify relevant signs and symptoms. However, many resorted to home-based treatment or patronised drug stores rather than health facilities, primarily due to perceived stigma, long waiting times, cost, and proximity. Although hospital visits were made in cases of severe illness, the preference for informal care channels raises concerns about the appropriateness of treatments administered. This influences their decision and beliefs regarding the child's medication. The study recommends the need for stigma reduction initiatives in healthcare settings, improved access to affordable and non-discriminatory services, and strengthened health education by the Ghana Health Service to empower mothers living with HIV to make timely, informed and appropriate health-seeking decisions in HIV-affected households.

Abbreviations

HIV	Human Immunodeficiency Virus
ART	Antiretroviral Therapy
FPs	Focal Persons
GAC	Ghana AIDS Commission
GHS	Ghana Health Service
GSS	Ghana Statistical Services
IRB	Institutional Review Board
KEEA	Komenda-Edina-Eguafo-Abrem
LMICs	Low and Middle -Income Countries
SQOTA	Systematic Qualitative-Oriented Text Analysis
MTCT	Mother-To-Child-Transmission
UNAIDS	United Nations Programme on HIV and AIDS
UNFPA	United Nations Population Fund
UNICEF	United Nations International Children's Emergency Fund
WHO	World Health Organisation

Declarations

This study was conducted following the ethical principles aligned with the Declaration of Helsinki (WMA). All the ethical considerations (both institutional and health ethics clearance) pertaining to the study were obtained. One of the standards was that mothers living with HIV received clear, non-coercive informed consent. Although none of the participants was a minor, consent described issues like confidentiality, strict data protection (anonymity), minimising social harm/disclosure of HIV status (non-maleficence), and potential implications as well as benefits (improving maternal— child HIV care).

Consent for Publication

Not Applicable. This study does not include any individual participant's identifiable data in any form (including participant quotes).

Ethics approval and consent to participate

All ethical guidelines were followed, consistent with all the standards required to conduct qualitative research on vulnerable subjects. Ethical approval and a clearance number were obtained from the Ghana Health Service Ethics Review Committee (GHS-ERC) -ID **(**GHS-ERC: 020/03/24).

In addition, permission was sought from the Regional Health Directorate and the KEEA Municipal Health Directorate before data collection. Confidentiality issues were first discussed with participants by the focal persons and the HIV data manager of the facility, even before the researcher was introduced to the mothers for the interviews. Thus, no real names were mentioned or attached to the recordings or interviews; only pseudonyms were assigned to the participants' interviews. Furthermore, informed consent was sought from the participants before interviewing them. In addition, the researcher, with FPs providing home care for the mothers living with HIV, showed the approval letters, stamped information sheet and consent form approved by the Ghana Health Service Ethics Review Committee to the participants, and the details of the principal supervisor and co-supervisor were attached to the consent form to offer the participants the opportunity to contact them if the need is and also to be convinced and have all reasons to participate fully in the interviews. Also, to avoid any harm (non-maleficence) or ethical challenges, the participants were informed before recording their voices and their confidentiality was protected by anonymising their script using pseudonyms so no personal identifiers were attached to their responses in the data.

Availability of data and materials

All relevant data supporting the findings of this study are included within the article. Full interview transcripts can be made available upon reasonable request from the author through the Department of Population and Health, University of Cape Coast, via email at pop.health@ucc.edu.gh, or by contacting the author directly (reuben.twintoh@stu.ucc.edu.gh)

Competing interests

The author declares that there are no competing interests related to this study.

Funding

This research did not receive any funding.

Author's contributions

This paper is based on PhD research conducted by R.F.T., who conceptualised the study, developed the methodology, collected and analysed the data, drafted the manuscript and reviewed it to enhance its scientific rigour for publication.

Acknowledgements

I acknowledge the following for their support in diverse ways: I am highly indebted to Prof. Eugene Kofuor Maafo Darteh and Prof. Kobina Esia-Donkoh, who supervised the research. I am also grateful to the Health Director, Public Health Officer and HIV and AIDS data manager and focal persons, who assisted me in collecting the data, as well as the mothers living with HIV who provided their consent and voluntarily participated in the study.

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