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Access barriers to healthcare services among the Fulani population in Ghana: a qualitative study in the Sissala East Municipality

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Abstract

Background Access to healthcare services is at the center of every health system. Research to understand access to healthcare services for the Fulani in Ghana is limited. Efforts have mainly focused on the confrontations between the Fulani herders and the communities. The study aimed to explore what access barriers exist among the Fulani vulnerable population in Ghana; this will contribute to the understanding of access to healthcare services for a vulnerable population, who are also prone to possible transmission of diseases from human-animal connections, and requiring global health interventions.

Methods This is an explorative study using qualitative methods to investigate how the Fulani population access healthcare services in the Sissala East Municipality, Ghana. From 17 to 30 September 2022, interviews were conducted using an interview guide among 11 individuals sampled purposively based on the criteria that, the individual is a Fulani or healthcare professional, resides in and around the study area, and is 18 years or older. Thematic content analysis was used for the analysis.

Results Contrary to the widely held view of the Fulani population being typically conservative, they displayed positive healthcare-seeking behavior and acceptance of modern healthcare services. And despite their nomadic lifestyle, physical accessibility of healthcare services has not been a challenge given that they can even reach a health facility via mobile phones (mHealth) as well as via other means of transport (e.g., motor bike). However, access barriers to healthcare are influenced mainly by financial constraints and gender roles. They rely on health insurance for healthcare coverage, but co-payments and difficulties in enrollment pose serious healthcare affordability challenges. They require access to health information to improve their knowledge on health-related issues as well.

Conclusion This study reveals that the main barrier to healthcare access among the Fulani is affordability and gender-specific roles. However, they are also utilizing innovative mobile technologies to assist in seeking healthcare against the potential barrier of their nomadic lifestyle. Community engagement and policy measures to improve

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the coverage of the national health insurance scheme are required to improve healthcare access among the Fulani vulnerable population.

Keywords Healthcare, Fulani, Vulnerable, Access, Barriers, Nomads, Migration

Background

Access to healthcare services is an important goal of every health system [1]. With varying definitions, access to healthcare services has been expounded on to have aspects of acceptability (i.e., beliefs about health, psychological, racial, cultural, and ethnic factors influencing the likelihood that patients will accept services), affordability (i.e., socioeconomic status, monetary costs, and ability to pay), availability, geographical access (i.e. distance, transportation and ability to reach), and accommodation of services (i.e., appointment system, hours of operation, walk-in facilities) [2, 3]. Based on this, the framework used in this study, access was defined as: ability to perceive need, ability to seek, ability to reach, ability to pay, ability to engage, availability and accommodation of services, alternative sources of healthcare and movement Thus, it is the willingness and ease with which consumers or communities can use appropriate services according to their needs [2]. Healthcare access is considered a linchpin in the pursuit of Sustainable Development Goals (SDGs) 3 (good health and well-being) and 1 (no poverty) as well as Universal Health Coverage (UHC). Ultimately, it fosters both social and economic development, promotes healthier populations, reduces poverty-induced barriers to healthcare, and advances equity [4].

Previous studies have examined the challenges of accessing healthcare services [5, 6], especially among vulnerable groups for improvement. Limited access to healthcare services was found to negatively impact the health outcomes of vulnerable communities and minority groups [7]. And even where health services are available, access among disadvantaged communities, such as the elderly [8], women [9, 10], and ethnic minorities [11], is lower. An excellent illustration of this intricacy would be the Fulani nomads– one of Ghana's minority ethnic groups. Nomads' access to health services is lower than that of other population groups [12]. Long distances to facilities and limited access to transportation, financial constraints, and language barriers are some reasons for low access among nomads. This is of concern, especially because nomadic individuals and communities are exceptionally prone to infectious illnesses such as malaria, tuberculosis, guinea worm disease, leishmaniosis, onchocerciasis, schistosomiasis, soil-transmitted helminthiases, brucellosis, and trachoma [13], which increase mortalities among such communities.

Typically, culture and traditions influence the demand for health services. Some nomadic communities share cultural barriers for demanding health services. The Fulani in Nigeria, for example, see fever as a natural ailment with no cure [14]. Regarding maternal health, nomadic men in Sudan do not engage themselves in maternal health issues but rather leave such issues to be handled at home by female relatives [15]. This lack of involvement results in women being denied access to maternal care, with negative outcomes on maternal health. Another contributing factor to the low uptake of reproductive health services is the belief that seeking healthcare or showing illness are signs of weakness which has been identified among Fulani in Kenya [16]. In addition, it has been reported from the Sahel region that nomads' traditional beliefs, such as the number of children born in a household as an indication of their social status, imply that family planning methods are rarely used [17]. In Mali, other cultural practices resulting in increased maternal mortality have been reported to include early marriage and widespread female genital mutilation [12]. Furthermore, because access to health information and health care services is influenced by a male figure as the head of the family or of the community, nomads' health demands are significantly impacted by gender stereotypes [12]. Another factor that influences the demand for health services is the distance to medical services. A study in Sudan identified that nomads' constant migration hampers their ability to obtain health care, particularly among women [18]. Rural areas, where most nomadic people live, have comparatively few health services since health facilities are concentrated in more densely populated metropolitan areas [19]. In addition, for many nomads, accessing health facilities is practically impossible due to the great distances that must be traveled to receive modern healthcare, which are often not facilitated by public transport [20]. Similarly, Fulani communities resorted to home care of ailments for various reasons, including low physical accessibility, low availability of health workers, and the unfriendliness of the few available [21].

In Ghana, there are not enough studies that assess the access (or barriers) to healthcare services for the Fulani nomads [22], to then help improve. Therefore, this study explores the perspectives on access to healthcare services by the Fulani in Ghana to inform policy making and suggests possible custom-fit methods to provide accessible healthcare services for the Fulani population in Ghana.

Methodology

Study design

An exploratory qualitative research design was used to explore the perspectives on access to healthcare services by Fulani in Ghana. The chosen method aided

in achieving the study's objective by investigating the research questions that have not previously been studied in-depth. This includes the identification of the various health provision structures available to the Fulani community and exploring how seasonal migrations, among other factors, affect access to healthcare services. The Standards for Reporting Qualitative Research (SRQR) reporting guideline was used for reporting this.

Sampling and participants

Fulani people living in selected communities in the Sissala East Municipality of Ghana served as the population for this study. Sampling was purposeful, based on the different roles and occupation of the participants. The study included herdsmen, semi sedentary farmers, community opinion leaders, women and a health worker within the community. This sampling strategy brought together diverse perspectives from the study population. Participants were approached in their homes. The sample size for this study was eleven (11) (from the initial target between 15 and 20) and was determined by the concept of "information power," wherein adequate sample size is defined in terms of a clearly defined aim, specific sample, theoretical approach, high quality dialogue and clear analytic strategy [23].

Ethical considerations

Ethical approval was obtained from the Committee on Human Research, Publication and Ethics in the Kwame Nkrumah University of Science and Technology with reference number CHRPE/AP/614/22. The methodology employed in this study followed the principles of the Helsinki Declaration. Verbal informed consent was found appropriate and used for this study after reading out the contents of the informed consent letter. This was because participants were unable to read. Participation was entirely optional, and consent was sought for participation and the interview recording. Only participants who met the inclusion criteria were recruited, which helped the researcher maintain the study's credibility. The study tool was pretested to ensure transferability and dependability of the study tool. These measures ensured rigor and trustworthiness of this study.

Data collection procedure

Using an interview guide, in-depth face-to-face interviews were employed to collect data. The interview guide used was developed for this study (see supplementary file). The interviews were conducted by the first and fifth authors with relevant experience in qualitative data collection and analysis. The fifth author has worked with the study population in other areas in previous studies. It included questions about background characteristics, cultural perspectives on the dimensions of access to healthcare, the role of the various health provision structures available within and around the nomadic community and how seasonal migrations, impinge on access to healthcare services. The interview guide was piloted at a similar Fulani populated community at Hellembelle also within the municipality under study. Each participant was interviewed at a time and place of their convenience, and the duration was 30 min on average. The interviews were conducted in the Fulani dialect and translated into English with the assistance of an interpreter who was co-opted and trained for the purpose of this study. Also, verification was done by the fifth author who comprehends the Fulani dialect. Interviews were conducted from 17 to 30 September 2022. Also, to ensure that the interpreted data matched exactly what had been communicated during the interviews, each participant received feedback from the interviews to ensure confirmability.

Data analysis

Interviews were tape-recorded and transcribed. Thematic analysis technique was used to analyze the interview data manually [24]. The analysis involved six phases: Researchers read through the transcripts many times to familiarize with the findings. All transcripts were read line by line, and some sections were noted. Coding was done by assigning labels and grouping similar codes to ascertain the pattern of responses to the interview questions. Identified codes were organized into seven themes based on the research objectives and conceptual framework on access: ability to perceive need, ability to seek, ability to reach, ability to pay, ability to engage, availability and accommodation of services, alternative sources of healthcare and movement. They were later fine-tuned with continuous analysis. Finally, engaging quotes were selected and linked with the research topic and literature discussed in this study. Data was analyzed inductively, where themes to emerged from the data as this study was exploratory and data-driven. Data was analyzed by first, third and fifth authors. Although we didn't use specialized software for data analysis (like Nvivo), we did use Excel as a tool to store data and make the process of data analysis easier.

Results

With the aim to explore the perspectives on access to healthcare services by the Fulani in Ghana, this study interviewed eleven (11) people from the Fulani community, including two key informants (these were a community leader and a health professional from the study sample). Table 1 presents the main background characteristics of the study participants.

We identified seven themes, namely (1) Adaptation to the majority's health demand patterns, (2) Positive, but dependent healthcare seeking behavior, (3)

Table 1 Background characteristics of study participants

S/N	Gender	Age	Reported Health Status	Occupation	Educational Status
P001 (KI)	Male	57	Healthy	Herder and farmer	No formal education
P002	Female	25	Sick	Sells extracted milk	No formal education
P003	Male	53	Healthy	Herder and farmer	No formal education
P004	Male	65	Chronic condition	Herder and farmer	No formal education
P005	Male	23	Chronic condition	Herder and farmer	No formal education
P006	Female	26	Healthy	Sells extracted milk	No formal education
P007	Male	34	Healthy	Herder	Primary
P008	Male	19	Healthy	Herder	No formal education
P009	Female	23	Healthy	Sells extracted milk	No formal education
P010	Female	25	Healthy	Sells extracted milk	No formal education
P011 (KI)	Male	30	Healthy	Health professional	Diploma

Physical barriers of health services, (4) Affordability of health services, (5) Low reach out by healthcare workers, (6) Acceptability of orthodox health services, and (7) Nomadism and access to healthcare.

1. Adapting to the majority's health demand patterns

Participants explained that they have adapted to the existing healthcare system of the community in which they reside. They have also adopted the general health demand behavior as that of the community they live, with no deliberate cultural influence from their perspective as such. Hereto, the Fulani accessed the same healthcare services as the other residents, such as childhood immunization and Community-based Health Planning and Services (CHPS). Unlike in health, Fulani have established particular beliefs and different cultural practices that shape other social systems like marriage and family. This demonstrated in the quote below:

> *"Concerning our culture, we still practice them, but none that I know of has any link to health-related issues or diseases... we have other beliefs on early marriage and others, but none has an influence or effect on how I seek care." (P001, 57 years, herder and farmer)*

2. Positive, but dependent healthcare seeking behavior

Participants portrayed a positive and active approach to seeking healthcare. Thus, participants explained that they would not wait until their health is deteriorating before visiting the health facility to seek appropriate care. It quite telling of one participant who had taken three doses of the COVID-19 vaccine and stating its importance to the community:

> *"...I have made it compulsory to go to the hospital if I am sick and do not stay home..." (P007, 34 years, herder)*

Also, it was revealed that the gender played an essential role in the health care seeking process. Women depend on men to access health services, and explained that the husbands/fathers/male relatives or significant ones would usually be informed and expected to send the sick to the health facility. In their absence, the sick woman would have to rely on a male neighbor to take responsibility for sending the sick to the hospital as shared by a participant:

> *"...I inform my husband, because he decides whether to send me to the hospital. When he is not around, I call on my neighbor to send me to the hospital..." (P002, 25 years, sells extracted milk)*

In addition, men and women alike may also have less freedom and autonomy in their healthcare-seeking decisions. The sick depend on whoever pays for the cost of the healthcare to decide if, which and when to seek care. A participant shared:

> *"When I want to go to the hospital, I have to inform my husband and he makes the decision to send me to the hospital because he is the one who pays." (P002, 25 years, sells extracted milk)*

3. Physical barriers to health services

Physical barriers were highlighted by most participants as critical factor influencing access to healthcare among the Fulani communities. Beyond availability of the service, which was a precondition for access, long distances and poor access to transportation were two important factors outlined as physical barriers to access. However, those who had a motor vehicle helped others to reach the health facility. This supported by the quote below:

> *"I use my motorbike to transport anyone who is sick to the hospital. If I am not around, they call on my neighbor or a motor rider from town to pick up the person at the hospital." (P001, 57 years, herder and farmer)*

It was also identified that the polyclinic which was the only available health facility provided sufficient services for its status. The services were outlined by a participant:

"The polyclinic is the only health facility in the town. At the polyclinic, the following 24-hour services are offered to the people: outpatient department (OPD), detention and admissions, laboratory services, emergencies, antenatal care (ANC), and reproductive and child health (RCH). The polyclinic has a total of fifty-four (54) working staff." (P011, 30 years, health professional)

4. Affordability of health services

The majority of the participants indicated that they had registered with the health insurance scheme. The health insurance is meant to provide them with some financial coverage as and when they use healthcare services. However, they had to make significant payments when they visited the health facility. This could be attributed to the fact that the kind of medication prescribed are not covered by the health insurance as shared by a participant:

"I mostly find it financially difficult to pay my bills even though I have health insurance. The insurance does not cover the blood pressure medications, so I have to buy them myself. There has been a point where I could not pay for my medication." (P004, 65 years, herder and farmer)

Also, others who have not been able to register for health insurance indicated that lack of consistency with which the registration team from the Municipal capital (Tumu) visit their communities to register them were some of the reasons for not having health insurance coverage. This posits frustration and led to some giving up on the effort to register for the National Health Insurance Scheme (NHIS). The quote below supports:

"...I do not have the insurance because when the insurance people come from the district [Municipal capital] Tumu to this place for registration, they cannot do it for everyone. Always they say next time, so that is why I have not been able to register for the health insurance." (P006, 26 years, sells extracted milk)

Despite some participants without health insurance coverage because they are not registered, there is personal commitment to pay any amount regardless of the cost involved to access healthcare. A participant shared:

"I do not have health insurance, so I pay when I go to the hospital. Despite this, I have made it compulsory to go to the hospital if I am sick and do not stay home because I can pay even though I do not have health insurance." (P007, 34 years, herder)

5. Low reach out by healthcare workers

Some participants indicated that they had a low reach out by some health professionals, particularly community workers, and for that matter no access to certain services such as health education and promotion. This is important as such information influences the decisions of the population on their health and that of their community. With the exception of one participant who had had periodic visits by healthcare professionals for health education purposes, all the participants rather maintained that they have had little to no information on health-related matters from health professionals. A participant shared:

"I have personally not had any nurse come around to talk to us about anything. I suspect, because my place is very far from the main township." (P010, 25 years, sells extracted milk)

6. Acceptability of orthodox health services

Some participants indicated their acceptance of orthodox healthcare services as their sole means of healthcare services (as expressed in the first quote). However, a participant indicated the personal use of other homemade treatment regimens as first aid before going to the hospital for a professional opinion on the condition. Regardless of this practice, it did not prevent her from going to the hospital when needed (as expressed in the second quote).

"I have not used any herbs in treating my blood pressure condition; it has always been the visit of the hospital." (P004, 65 years, herder and farmer)

"When I am sick, it is only the hospital that I visit... I placed the cloth in my ears because I have some toothache, and when the cloth is placed in the ear, it helps reduce the pain. The pain started today, so I have not been to the hospital but I will go." (P002, 25 years, sells extracted milk)

Participants shared varied opinions on adherence to prescribed medication. Some participants indicated that he could constantly adhere to medically prescribed medications. This can be attributed to past experiences with not adhering to medications as lessons could be drawn from the outcome of their former decisions. One participant shared:

"...I always finish the medication given to me at the hospital." (P007, 34 years, herder)

Other participants also indicated that they could not adhere to the medications prescribed to them upon visiting the health facility. The lack of adherence was found to be more related to personal decision to discontinue the intake of the medication due to identified signs of better health or recovery as shared by a participant:

> *"I normally do not finish all my medications. When I feel better, I stop taking them." (P005, 23 years, herder and farmer)*

7. Nomadism and access to healthcare

The study identified a changing pattern in the nomadic lifestyle of the Fulani population. However, individuals who continue to engage in frequent and distant movements with their cattle have adeptly embraced modern technology, particularly mobile phones, to enhance their access to healthcare. One key advantage of using mobile phones (mHealth intervention) is the ability to swiftly and efficiently seek assistance when health-related issues arise. In the past, it would have been a challenge to access timely medical attention, given the remote locations that they take their cattle to for pasture. However, with the adoption of mobile phones, individuals could now easily call for help, bridging the gap between their mobile lifestyle and the critical need for healthcare. A participant shared:

> *"If I go far with the cattle into the bush during the dry season and I am sick, I try to manage and walk home and go to the hospital. In cases where I cannot walk home, I call [with a mobile phone] for a motorbike to come and pick me up to the hospital." (P007, 34 years, herder)*

Discussion

With the objective of the study to explore the perspectives on access to healthcare services by the Fulani in Ghana, the findings revealed diverse perspectives among participants concerning access to healthcare. Noteworthy similarities identified were the prevalence of patriarchal leadership, with decision-making concentrated within males and those with the household resources. This observation aligns with a prior study [14], which underscored the pivotal role of the male family head in determining when and type of healthcare should be sought for ailing Fulani individuals. In contrast to some earlier studies [19, 25], this study found that the Fulani were ready to collaborate with healthcare providers, engage in vaccination programs, and receive health-related education which differed from a previous study [12]. They reported on reluctance among Fulani women to seek medical assistance during pregnancy and childbirth due to concerns about privacy during specific medical procedures [12]. The current study's findings do not indicate that as a significant concern; however, their dependency on men to seek care is a vulnerability.

The willingness of some Fulani to visit the health facility whenever they need healthcare from the study revealed their exposure and understanding of the need for professional healthcare. The study also revealed the significance of social support [26] within Fulani community, which extends to caring for sick relatives or family friends in the absence of immediate relatives. Financial, communication, and transportation assistance had also been identified to play crucial roles in bolstering the community. The study highlighted the difficulties encountered in reaching healthcare facilities when ill. Despite the predominant use of motorbikes for transportation, not all Fulani possess this luxury, relying instead on the support of relatives and friends for transportation to healthcare facilities. This situation reinforces findings from previous research [26] and can be attributed to the narrow, vehicle-inaccessible pathways connecting Fulani communities to main roads leading to healthcare facilities. These transport and geographic constraints not only impede healthcare access but also hinder regular visits by health personnel for educational purposes.

Notably, the study found that the majority of Fulani individuals were enrolled on the NHIS. Despite the coverage provided by the insurance, the study identified that other co-payments made affected families financially. In addition, some remained unregistered and made out-of-pocket payments during hospital visits. This aligns with earlier research [26] which reported that financial barriers prevented some nomads from seeking professional healthcare. Other identified challenges included the enrollment process for health insurance, which some Fulani individuals expressed worry after repeated unsuccessful attempts to get registered. Gender inequality in financial resources was evident among the Fulani. Females had limited earning opportunities and low financial independence. Consequently, they relied heavily on the sale of cattle milk to support their families, leaving them financially dependent on their immediate family members when payment for healthcare was needed. This also affirms the findings of other studies [10, 27]. This dependency has negative outcomes on the ability to seek health services among woman.

The study identified low access to healthcare workers on health information among the Fulani, exacerbated by the concentration of health education efforts in areas easily accessible from healthcare facilities. This can be partly attributed to the considerable distances health workers have to cover and language barriers [26, 28]. Regarding drug administration, the study indicated that Fulani individuals predominantly preferred prescribed medications provided by healthcare facilities rather than attempting

self-diagnosis and/or medication. However, compliance to prescribed medications varied among participants. Notably, the study identified a single healthcare facility serving the entire Fulani population in the area, distinguishing this scenario from other nomadic communities globally [14]. The Fulani in the study area exhibited a preference for orthodox healthcare services over traditional methods, indicating a departure from customary practices. Moreover, the study showed that collective memory has been lost to some extent, as most Fulani expressed that they had no knowledge about any health beliefs. This could be related to the fact that most of them migrated with their parents at a very young age or were born at their present location.

The study also presented findings that differed largely from existing research. While previous studies suggested that herders often dealt with health concerns independently while herding [22], our research indicated a preference among herders in seeking assistance to reach the nearest health facility when unable to return home. Furthermore, the Fulani in our study have adopted modern approaches to accessing healthcare services when in remote areas, such as acquiring mobile phones for communication and motorbikes for transportation to healthcare facilities. Surprisingly, the study revealed that healthcare facilities were available wherever they migrated. Additionally, report of the Fulani population in the study suggested some transition away from long-distance migrations, opting instead to integrate into nearby communities, establish families, and settle in those areas. This trend signals a departure from historical migration patterns which by implication, affects their access and health seeking behavior.

Limitations

Although participants did not know the researchers which was a good practice, the participants could have also withheld some personal experiences. In addition, due to the nature of settlement arrangements, only a few of the Fulani population within the study area were reached, as others did not also agree to participate in the study, making the pool of possible participants small. An ethnographic study should be conducted to establish a more receptive relationship with the study population, as they tend not to be responsive often to people outside their setting. Further studies should also be conducted to assess their understanding of need of healthcare. Because, their demand is directly related to what they perceive as need, and this might be different between the Fulani and other groups.

Conclusion

The study reveals that the main barrier to access healthcare among the Fulani is cost but also gender-specific roles pose some challenges. However, the study also identified challenges with enrollment unto the NHIS which provides for some healthcare costs; despite a generally broader interest to be enrolled. The interest and utilization of mobile phone to assist in seeking healthcare against the potential barrier of their nomadic lifestyle is an area that can be leveraged to improve their access to healthcare. This study provides healthcare policy-makers and/or administrators at various levels of management with valuable information on the Fulani population to facilitate improvement in their access to healthcare services. We recommend further studies to explore also the variations of healthcare services utilization of the Fulani and their livestock to inform comprehensive global health interventions in mitigating against the possible transmission of diseases from human-animal connections.

Abbreviations

ANC	Antenatal Care
COVID-19	Coronavirus Disease-19
NHIS	National Health Insurance Scheme
OPD	Out-Patient Department
RCH	Reproductive and Child Health
SDGs	Sustainable Development Goals
UHC	Universal Health Coverage
CHRPE	Committee on Human Research, Publication and Ethics

Supplementary Information

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Supplementary Material 1.

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Authors' contributions

Conceptualization: RAB, DO, BOE; Methodology: RAB, RW, DO; Data curation: RAB, ED; Formal analysis: RAB, ED, KAM; Writing initial draft: RAB; Reviewing and editing: DO, BOE, RW, KAM, ED, JHA; Project administration: BOE, DO, JHA, RAB; Supervision: DO, BOE, RW; Acquisition of funding: DO, JHA. All the authors have read and approved the final manuscript.

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Data availability

The author confirms that all data generated or analyzed during this study are included in this manuscript.

Declarations

Ethics approval and consent to participate
Ethical approval was obtained from the Committee on Human Research, Publication and Ethics in the Kwame Nkrumah University of Science and Technology with reference number CHRPE/AP/614/22. The methodology employed in this study followed the principles of the Helsinki Declaration. Verbal informed consent was found appropriate and used for this study after reading out the contents of the informed consent letter. This was because participants were unable to read.

Consent for publication
Not applicable.

Competing interests
The authors declare no competing interests.

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