Title: Women's experiences and satisfaction with maternal referral service in Northern Ghana: a qualitative inquiry

Abstract

Objective: To gain insights and improve existing referral structures with maternity care in Northern region of Ghana, this study explored the referral experiences and satisfaction of women.

Research design: Twenty women referred to the Tamale Teaching Hospital for maternal health conditions were interviewed along with three husdands of these women between January and April 2020. An interview guide was used in individual face-to-face semi-structured interviews. The transcripts were inductively coded using content analysis. The study was guided by the three delays model and the availability, accessibility, acceptability and quality framework.

Findings: The study revealed seven key themes. These are women's involvement in referral decision; available health workers and care at the first facility; inadequate transportation; communication between facilities; quality of care at the receiving hospital; worth the time and money; and women's companions during referral. While several women acknowledged and appreciated the care and emotional support they received in the hospitals they first presented to, some women reported poor attitudes of healthcare providers. Most women acknowledged that there was no communication between the facilities for the referral. A woman's socioeconomic status appeared to determine the respect and support she received from healthcare providers.

Key conclusions: To ensure a responsive and efficient referral service, the central government of Ghana should commit to ensuring that each district hospital has at least one ambulance for effective emergency transportation. Career progression opportunities need to be explored for health workers in northern Ghana to attract and retain more professionals. To prevent abuse and ensure empathetic and supportive care, testimonial videos may help health providers to assess the services they provide to women. During referral, inter-facility communication can be strengthened through effective supervision and dedicated mobile phones for communication between health facilities.

Key words: referral, maternity care, experience, satisfaction, Ghana

Introduction

Ghana's maternal and neonatal mortality rates are 310 per 100,000 and 25 deaths per 1,000 live births, respectively (Ghana Statistical Service [GSS], Ghana Health Service [GHS] & ICF 2018). Women in the Northern region have an increased risk of maternal mortality and highest prevalence of institutional maternal mortality ratio (i.e., 207.8 per 100,000 live births) (Family Health Division 2017; GSS, GHS & ICF 2018). Ghana's MMR is higher than the global average (211 per 100 000) but lower than the average for sub-Saharan Africa (542 per 100,000) (WHO 2019). Approximately 67% of maternal deaths in Ghana result from direct causes such as haemorrhage, infection, eclampsia, and obstructed labour. Health care interventions can prevent these deaths, including effective referral services (Holmes & Kennedy 2010; Nwameme et al. 2014). Ghana will need to invest considerable resources to achieve the Sustainable Development Goal (SDG) targets 3.1 (MMR of 70 per 100 000 live births) and 3.2 (neonatal mortality of 12 per 1000 live births) by 2030 (United Nations 2015). Achieving these goals will involve implementing a well-coordinated and effective referral system between health facilities to ensure timely access to comprehensive emergency obstetric and neonatal care (CEmONC) (Pattinson et al. 2011).

Efficient, high-quality maternal referral indicates a robust health system that ensures the prompt treatment of obstetric complications to save lives (Nwameme et al. 2014). Streamlined referral ensures a woman's right to health and facilitates accessible, acceptable, and quality care (WHO 2016). The availability of competent, and motivated health workers is essential for a positive healthcare experience across the maternal healthcare continuum (Campbell et al. 2013). The global movement in reproductive, maternal, and neonatal health and rights established by the White Ribbon Alliance stresses the need for dignified and respectful maternal healthcare (White Ribbon Alliance 2011; WHO 2019). To this end, every woman has the right to respectful, high-quality healthcare. However, limited health workers and weak health systems in low and middle-income countries such as Ghana can compromise effective referral services and maternal healthcare quality (Heyen-Perschon 2005).

Women's satisfaction with healthcare is an indicator of its quality. Dissatisfaction with health care can reduce the demand and uptake of maternal health services (Dzomeku 2011). Multiple factors contribute to women's satisfaction, including the lack of medicines, equipment, and physical services; the lack of well-trained human workers providing respectful and emotional care, and a lack of clean facilities (Kassa et al. 2020; Mocumbi et al. 2019; Okafor et al. 2015; Roder-DeWan et al. 2019; Srivastava et al. 2015). Further, mistreatment, physical, and verbal abuse can increase the likelihood of postpartum depression (Silveira et al. 2019). Previous studies from some parts of Ghana, not including the Northern region, have found that women are dissatisfied with healthcare services. Women have reported disrespectful care, poor care coordination, long waiting times, and a lack of health workers (Adjei et al. 2019; Amu & Nyarko 2019; Avortri et al. 2011; Avortri & Modiba 2018; Ebu et al. 2015; Tunçalp et al. 2012). There has been little research examining women's satisfaction with referral services.

A referral network or system connects the lowest healthcare level to the relatively higher levels to grant access to specialised care, such as EmONC services, and ensure the continuum of care (Macintyre & Hotchkiss 1999). In Ghana, healthcare at the community level is the largest and first on the health continuum. The focus on preventive care at the community level comprises Community-based Health Planning and Services and community health clinics (GHS 2017;

Nuamah et al. 2016). Health care is managed by a Community Health Officer and a nurse who identify women and refer them for routine healthcare at primary health facilities. In emergencies, the Community Health Officer usually initiates a referral to the health management team and health centres at the sub-district level that manage Emergency Obstetric and Neonatal Care (EmONC). Conditions beyond their capacity are then referred to district-level hospitals and subsequently to the regional hospitals. The highest level of care is the teaching hospital that provides specialised care (GHS 2017; Nuamah et al. 2016). The objective of this research was to conduct a qualitative inquiry into pregnant women's referral experiences and satisfaction in the Northern region of Ghana to provide insights into how existing referral structures can be improved to accelerate Ghana's prospects of achieving SDG targets 3.1 and 3.2.

Methods

Theoretical perspectives: (1) three delays model and (2) Availability, Accessibility, Acceptability and Quality (AAAQ) framework

Two theoretical perspectives informed this descriptive qualitative study (Creswell & Creswell 2018). These are the three delays model by Thaddeus and Maine (1994) and the World Health Organization's (WHO) availability, accessibility, acceptability, and quality framework (2016).

The three delays model posits that maternal mortality in developing countries originates from three constraints or delays which compromise quality and timely maternal healthcare access. These delays are: delay in recognizing a health condition and deciding to seek care (first delay); delay in reaching a suitable or appropriate source of care (second delay); and delay in receiving adequate care at the facility (third delay) (Thaddeus & Maine, 1994). The first delay occurs at the decision-making stage and is linked with the individual, family, and community-level factors such as previous experience with the health system and knowledge of pregnancy danger signs. The first delay was interpreted in the context of our study as the delay in recognizing the need for and deciding to proceed with a referral from the originating facility to higher-level facilities. The second delay relates to accessibility challenges due to availability, distance, and transportation issues, among other factors. The third delay can occur due to disrespectful care and lack of equipment and supplies (Phiri et al, 2013; D'Ambruoso et al, 2010).

At the same time, the WHO's availability, accessibility, acceptability, and quality (AAAQ) framework describe key elements for the study. Availability refers to the existence of functional health facilities. It also refers to the availability of essential services and competent professionals, medical personnel, and other skilled healthcare providers. Accessibility implies that the service can be physically accessed by all and without financial barriers. Acceptability necessitates that health services are centred on the needs of individuals and the community, sensitive to all population groups, and are confidential and ethical. Finally, quality refers to the need for services to be evidence-based, scientifically, and clinically sound. For instance, health personnel should be competent while equipment and drugs should be of a high standard.

Study setting

This study was conducted in the Northern region of Ghana, a region with 1.5 million people and a 2.9% intercensal growth rate. The study was conducted in the Northern region based on many factors, including the fact that women in the region have the highest risk of MMR compared with women in other regions (Family Health Division, 2017). The region shares

boundaries with Volta and Brong Ahafo regions to the south and Upper East and Upper West regions to the north, La Côte d'Ivoire to the west, and Togo to the east (Northern Regional Health Directorate 2017). Most roads in the region are not passable during the rainy season, which adversely affects the delivery of essential health programs (Northern Regional Health Directorate 2017). The Northern region of Ghana has 16 administrative districts; however, nine have district hospitals. Northern region Ghana has a regional hospital and teaching hospital called the Tamale Teaching Hospital (referred hereafter as 'teaching hospital'). The teaching hospital is the highest referral facility within the region (Ghana Health Service 2017). All these hospitals are designated to provide Comprehensive Emergency Obstetric and Newborn Care (CEmONC). This implies that all the hospitals provide all the essential comprehensive maternal and newborn health services recommended by the WHO (WHO et al. 2009).

Research team

The research team members who conducted the interviews did not have a prior relationship with the women interviewed (EKA and RMA). EKA is a public health researcher involved in both quantitative and qualitative research on maternal health. RMA is a professional midwife and a tutor with a research interest in midwifery education, maternal health nursing and paediatric care. The other team members (CN, NTT and AD) have relevant qualitative maternal health research expertise.

Study design

This study employed a cross-sectional design (Creswell & Creswell 2018). Data were collected using semi-structured interviews from a cross-section of women at a particular point in time to explore women's maternal referral service experience.

Participants sampling and recruitment

We sought to recruit women referred to the teaching hospital within the past three months preceding the study, which occurred between January and April 2020, to provide a depth of understanding of recent referral situations (Boddy 2016; Creswell & Creswell 2018). A woman referred for antenatal, childbirth, or postnatal conditions qualified to be included in this study. Women who matched these criteria were identified from records obtained from the teaching hospital, and their willingness to participate was sought by a local health professional who provided information on the study and obtained consent to contact. Those willing were invited to participate, and we sought their availability. None of those contacted declined. We phoned the women to introduce ourselves, further explained the study's purpose and, gained formal consent. Twenty women participated in the interviews. Additionally, three husbands of the women interviewed wished to join because they had accompanied their wives during the referral process and were interested in the study. Women were privately asked if they agreed to the involvement of their husbands in the interviews.

Data collection procedure

We used an interview guide to gather the data through individual face-to-face semi-structured interviews with women or couples. The interview guide included the following questions: "Why were you referred?" "Were you (and your husband/family) satisfied with the referral processes?" "What do you think about the level of respect and emotional support provided by the health professionals?" and "How do you think maternal referral could be improved?" The interviews were conducted over three months (January-March, 2020) and conducted in three

local languages; Twi, Dagbani, and English. Interviews were held in the homes of participants, were audio-recorded, and field notes were taken. Interviews took, on average, 35 minutes.

Analysis

After completing the interviews, we transcribed all the audio-recorded interviews. The non-English transcripts were transcribed verbatim and then translated to English and back-translated into the local languages. Transcripts of the non-English interviews were translated to the local languages (Twi and Dagbani) and back to the English language to ensure that the transcripts accurately communicate the participants' responses (Shklarov 2007). All the transcripts and field notes were read several times to improve the researcher's understanding of the data. The transcripts were inductively coded and the data managed using Nvivo version 12. We examined the data using content analysis (Bengtsson 2016). Content analysis constitutes the objective and systematic identification of key findings of texts to make inferences. Dominant themes and sub-themes were identified and collated. The AAAQ framework and the three delays model helped to direct the analysis by guiding the coding of themes and sub-themes. In doing this, we categorised issues relating to women's satisfaction and experience of maternal referral and identified quotations from the interviews to support these.

Ethical approval

We obtained ethical approval from the Navrongo Health Research Centre of the Ghana Health Service [NHRCIRB347]. The study protocol was ratified by the Human Research Ethics Expedited Review Committee of the University of Technology Sydney, Australia [ETH19-4201]. The participant information sheets explained the study's aim and scope and the participants' rights to informed consent before the interviews. The information sheets were read to participants who could not read or write. Each participant gave written informed consent by signing or thumb printing the consent form. We sought participant approval to tape-record the interviews and publish the findings.

Results

Socio-demographic characteristics of research participants

The socio-demographic characteristics of the women are presented in Table 1. Almost half of the women were aged 20-34 (n=9). Nearly half of the women were not formally educated (n=9); however, one had secondary education. Nineteen of these women were married. Nearly all women had children, and half of them (n=10) had between 1 and 3 children. Most women resided in the Tamale Metropolitan Area. Three husbands of the women participated in the interviews.

Table 1. Socio-demographic characteristics of research participants (n=20)

Characteristics	Variable	n
Age		
	15-19	2
	20-34	9
	35-49	7

	Don't Know	2
Education		
	No education	9
	Primary	7
	Secondary	1
	Tertiary	3
Marital status		
	Married	19
	Single	1
Children		
	0	1
	1-3	10
	4 and above	9
District	Tamale Metropolitan	11
	Kumbungu District	1
	Tolon District	4
	Sagnarigu Municipality	2
	Savelugu Municipality	1
	Nanumba North Municipality	1

Reasons for referral

As shown in Table 2, The common conditions that women reported that prompted their referral to another health facility included caesarean section (n=3), prolonged labour (n=3), and unspecified conditions of newborns (n=3).

Table 2. Reasons for referral

Reasons	**N**
Maternal factors	
Emergency caesarean section	3
Prolonged labour	3
Abnormal vaginal discharge	1
Neonatal factors	
Newborn unwell (unspecified condition)	3
Low birth weight of newborn (<2500grams)	2
Yellowish colour of neonate's eyes	1
Elevated temperature of the neonate	1
Neonatal surgery	1
Neonatal infection	1
Health facility factors	
Absence of special equipment (e.g., oxygen and incubators)	2
Doctors on strike/lack of doctor	1
Other	
Not told/Unknown	1

The women and the husbands interviewed described the referral pathway from their arrival at the first facility, including their staff observations, how decisions were made concerning the need for referral, and the information provided to the next facility's journey and their care at the receiving hospital. One man described the processes leading to the referral of his wife:

> *She is my wife so I sent her to the Bimbilla Hospital the Tuesday before the election for Assembly members. She slept there till the next day, which is Wednesday. That day the nurse in charge gave me a letter that I should send here to Tamale. I did not meet any doctor myself but I was only given the paper when I got there. They added that the doctors says we should go to Tamale. So I said OK. I then returned home to inform my family. Upon going back to the hospital, they asked us to call the ambulance. I did that, and they put her in it. So I paid the bill [GH¢75.00] and sent her* (Husband of respondent 13, Nanumba North Municipality).

First delay

The key issues that emerged relates to the first delay of the three delays model (Thaddeus and Maine 1994) and includes available health workers, care at the first facility and women's involvement in referral decision-making. Each of these issues have been detailed below with their supporting themes:

Available health workers and care at the first facilities

Women commented on staff at the first facility they attended and the care they received. One woman said "*I think the number [of healthcare providers] is small because only four providers were attending to us, not only me, almost all women that were in labour and the rest were in the staff room sleeping*" (Respondent 18, aged 40, Sagnarigu Municipality).

While several women acknowledged and appreciated the care and emotional support they received in the hospitals they first attended, some women reported poor attitudes. For instance:

> *I will look at the attitude itself because, most at times, they become too harsh on the clients. You might even be in pain, and they will not attend to you. For instance, if you are in pain and are kneeling, they will say get up on your own. If you don't get up and deliver the baby on the floor, they won't attend to you. And if you deliver the baby on the floor and the baby dies, you are the one that [has] have killed your child. They will just be insulting you and talking [about] all sort of things, so I think the attitude…* (Respondent 18, aged 40, Sagnarigu Municipality).

There was variation in the care and emotional support provided in public and private facilities. One woman who was referred from a public facility recounted "*When I went they [public facility] were shouting at me.t why am I coming here? [They said] that they don't have NICU here so I should have gone to TTH*" (Respondent 18, aged 40, Sagnarigu Municipality). In the case of private facilities, one of them had this to say:

> *Well, like I said, it is a private hospital, and because it is a private hospital, they have time to check you, [and] advise you to generally do everything. Your drugs and everything, they will come and administer it on time. They take proper care of you and clean every place*

you ask them to clean… Virtually everything was perfect. For that place, I don't have a complaint whatsoever because I even refer people to go there and access health service because of what I encountered (Respondent 10, aged 36, Tamale Metropolis).

Women's involvement in referral decision-making

Two of the women were asked what facility they wanted to be referred to. This is a narration from one woman who was asked to choose her preferred hospital for referral:

So they asked me to choose the hospital I want to be referred to. I mentioned Tamale Teaching Hospital (TTH) because that is where I had a successful C/S the other time. So that is how I ended up at TTH (Respondent 3, aged 27, Tamale Metropolis)

Similarly, the woman who had to decide on whether she wanted to be referred to the teaching hospital shared her experience as follows:

So the nurse told me that if I want to be transferred to Tamale, I should tell them because they are ready and they don't know what next to do. So I told them to send me because I was suffering, and we the women were many; however, the healthcare providers were only two. She said I should wait, but I told her that I cannot wait because I was tired. So she said, if that is the case, then they should send me (Respondent 14, aged 20, Savelugu Municipality)

One of the husbands of a woman interviewed reported that the reason why his wife was referred from the first facility was not communicated to him:

No, I was not told. For me, I didn't understand why they transferred us. I didn't understand it at all. I brought my wife to the hospital and when you were about transferring her you did not find out from me if I had money or not. They could have told me that 'maybe the condition has reached this stage, we can't handle it here, we need to transfer her.' Nothing happened like that, all they did is giving me a paper upon my arrival, and I picked it… (Husband of respondent 13, Nanumba North Municipality).

For some women, decisions concerning referral had to be made with their husbands from whom they had to seek permission. Women described how this affected their ability to accept and act on referral advice, their lack of sufficient autonomy to consent to referral, as illustrated in this quote. '*If it was me, I will go before I inform you [husband or family member], I will not wait for permission from you [husband] before I go, [laughs]'* (Respondent 2, aged 30, Tamale Metropolis). Another woman added:

Frankly speaking, there are certain homes in which pregnant women are prevented from going when they are referred to a hospital, but it all depends on how enlightened or otherwise your husband is. There are certain local or traditionally inclined husbands who normally prevent their wives from going for referrals, but if your husband knows the referral is for the good of you and the baby, he will not prevent you (Respondent 4, aged 34, Tamale Metropolis).

A participant's husband indicated how language barriers affected the referral decision-making process:

> *The only problem we encountered was language barriers, as many health workers were not able to speak Dagbani. So any time you were going to [the] hospital, you needed to get someone who could speak English to accompany you.* (Husband of respondent 11, Tamale Metropolis).

Second delay

The participants shared some experiences that relate to the second delay of the three delays model (Thaddeus and Maine 1994). The issues related to their means of transport from the initial health facility to the higher facility, and communication between the health facilities during referral.

Calling the "Yellow Yellow"

Many of the women arranged their transportation due to a lack of ambulances. Most of the women used tricycles, locally termed as "Yellow Yellow." However, one woman was transported by motorbike: "*He (husband) picked me with a motorbike from Nyankpala to TTH"* (Respondent 15, age unknown, Tolon District). One expressed:

> "*They need to have a car there because when they said emergency, I was not sure whether I would even arrive at TTH, and I went with Yellow Yellow [tricycle]. When they get a car to send us, that will be good* (Respondent 2, aged 30, Tamale Metropolis).

Four women who were transported by ambulance shared their experiences:

> *I was sent [to the hospital] by ambulance. If you have money, you can board [the ambulance]. However, if you don't have money, you will have to go by 'trotro' [cheap public transport]. If you think your condition is worse, you will surely opt for the ambulance* (Respondent 14, aged 20, Savelugu Municipality).

> *The ambulance was ready just when we were discharged to move to TTH. We didn't waste time on the way, so when we took off, we arrived early* (Respondent 12, aged 15, Kumbungu District).

Communication between facilities

Most of the women acknowledged that there was no communication between the facilities for the referral. For some women, referral letters were issued, while others were referred without any documentation. Some women reported they had no idea about whether a call was made to notify TTH about their referral as one woman expressed, "*I don't know whether they called them [staff at the referral hospital] or not*" (Respondent 19, aged 35, Tamale Metropolis). The following are the accounts of two women whose newborns were referred:

> *I don't think they have any coordination. There's nothing like that; nobody communicates to anybody. They just refer you. So what you do is you also go there [to the hospital] and find out what to do, then they [the hospital staff] will take you through the steps. Maybe*

you pick a folder [woman's health records], then you go to the neonatal centre, and they will also take the necessary things. If they [health personnel] have tests to run, they will write the necessary tests for you, and then you will go and run them and bring the results back to them. So if they need samples, they will draw the samples and give it to you, then you go to the lab, and they will do it (Respondent 10, aged 36, Tamale Metropolis).

At West Hospital, they [health personnel] told me that they don't have NICU [i.e., Neonatal Intensive Care Unit]. [AD1] *So they said I should just go to TTH because they have NICU, but they didn't call to inform them. I just went there myself* (Respondent 18, aged 40, Sagnarigu Municipality).

Third delay

The quality of services at the referring and receiving hospitals emerged as the main theme with respect to the third delay. Despite the crowded conditions experienced at the referral hospital, some of the women commented positively about the attention the nurses gave them.

The nurses were very helpful. Immediately I was admitted, over there too there [weren't] wasn't enough beds, so I had to lie on the floor. They gave me injections and other things, so whenever it is time for taking medicine, they will just alert you. Sometimes they will give you water, and sometimes if you have water with you, they will let you take the prescribed medicine at the right time (Respondent 1, aged 25, Tamale Metropolis).

Truly, the staff of TTH are more respectful than the staff here because when I was admitted here [Nyankpala Health Facility], the health worker who admitted me did not administer even a single drug, but when we were just referred to TTH they examined me until I gave birth (Respondent 15, age unknown, Tolon District).

While some had a satisfactory experience, others reported having difficulties. One woman indicated that she was not satisfied as she expected: "*I was not satisfied as I anticipated. It appeared that they don't have time for the women*" (Respondent 2, aged 30, Tamale Metropolis). Another woman recounted that she received a good service:

The experience was good because I gave birth [to twins] on our way to the hospital in a car so the nurses were called and two nurses came and cut the umbilical cords, they cleaned the babies, and we proceeded to the hospital (Respondent 11, aged 34, Tamale Metropolis).

A woman's socioeconomic status appeared to determine the respect and support she received from healthcare providers. For instance, one woman described the preferential treatment that wealthier women received:

"…they look at you and prepare the appropriate soup for you" [laughs] When they look at your face, they know that "OK this person we cannot downplay [ignore her needs] her.", so they accord you the necessary respect. You will sit there and see them treat somebody in a way, then you ask yourself, 'is it this same person who is treating me?' You understand, for me, to be honest, they respected me but especially those who are not educated, the way they speak to them, it was quite sad (Respondent 10, aged 36, Tamale Metropolis).

The women noted issues with the available facilities and equipment at the receiving hospital. One woman described the lack of facilities and how security staff restricted access to them:

> *There is no washroom in that facility. When you feel like going to the ladies, you have to go down [the stairs] or to the maternity ward. But the security men chased us away from that place [the washroom downstairs], so you have to go to the mortuary to relieve yourself. So the washroom is a problem, they should also improve on the washroom there* (Respondent 20, aged 37, Tamale Metropolis).

Another woman described issues with the size of rooms:

> *The Neonatal Intensive Care Unit [NICU] is inadequate. The place is too small, and there are too many clients accessing the place. And at times too, it is too small a space to put a child. You know, those who are already on admission, most of them may not recover at the expected time, and because the space is small, the care providers will discharge him/her in order to get a space for those coming* (Respondent 11, aged 34, Tamale Metropolis).

Another woman was more positive in her assessment:

> *With the equipment, I think everything is OK because everyone had a bed, that is, your baby had a cot. So your baby will be lying in his or her cot, and when the nurse or you yourself want to do something, you go and attend to your baby. And with the medicine too, it was OK because it made the baby healthy* (Respondent 18, aged 40, Sagnarigu Municipality).

In addition to the experiences pertaining to the three delays model, two other essential themes emerged. These are "worth the time and money" and "women's companions during referral" and have been elaborated in the proceeding paragraphs of the results section.

Cross-cutting themes

Two other themes cut across the three-delay model and pertain to the perceived value of the referral process and companionship during referral. These issues are directly linked to the AAAQ framework and have important consequences for determining the quality of referral service, acceptability of care and prospects of using the service in the future.

Worth the time and money

Many women were not concerned about the cost they incurred during the referral process if they felt that they had benefited. One woman said:

> *The most important thing is the baby's health. So even though the cost was high; we bought fuel for the motor-bike to go to the hospital, but as of then, we were not bothered about how much we were spending because the most important thing was how we were going to get the baby to be treated* (Respondent 20, aged 37, Tamale Metropolis).

The majority of the women admitted that they had not wasted time and money on referrals because the costs incurred were beneficial for the wellbeing of themselves and their newborns. One woman and husband of another participant commented:

> *It was worth it because it was for my baby [laughs]. I don't have any other baby, that's my only baby, so anything at all I would have spent, and I think [it] would be worthwhile, you know* (Respondent 10, aged 36, Tamale Metropolis)

> *It was beneficial. I am saying it was beneficial to spend the money because there sit[s] my wife, nothing is worrying her and the baby lying there too is fine. So there are so many benefits* (Husband of respondent 13, Nanumba North Municipality).

Women's companions during referral

Most women were not accompanied by health personnel during their referral to another health facility. Relatives or their husbands/partners accompanied several women. The husband of one of the women said:

> "*…those who accompanied her are my elder brother and her wife. These are the three people who went. There was no nurse. Considering her condition, at least one nurse should have accompanied her, but it didn't happen that way."* (Husband of respondent 13, Nanumba North Municipality).

Another woman mentioned that health workers did not accompany women due to an inadequate number of available health personnel:

> *…they will just ask you to go [to the receiving hospital] so that the few personnel there will take care of whatever is happening around. So I want to believe they really do not have enough personnel, and that is the reason why they don't accompany people during most referral cases* (Respondent 10, aged 36, Tamale Metropolis).

One of the few women accompanied by healthcare providers commented: *"One nurse accompanied us to TTH, so she had all the necessary information with the letter"* (Respondent 12, aged 15, Kumbungu District).

Discussion

This study investigated women's experiences and satisfaction with maternal referral service in the Northern region of Ghana and was guided by the three delays model and the AAAQ framework (availability, accessibility, acceptability, and quality). Availability in this study's context reflected the presence of health workers, companionship during referral, and equipment and facilities. The findings identified factors associated with accessibility, including the need for some women to obtain permission from their husbands to travel, women's involvement in referral decision-making at the first facility, and transport between the sending and receiving facilities. Participants also stated that they found the amount of money and the time taken to travel acceptable and hence worthwhile. Women described quality care experiences at health facilities such as person-centred, respectful care, and inter-facility communication.

Available and competent staff can prevent the first delay at sending hospitals (Thaddeus & Maine, 1994). Few women were accompanied by health professionals when they or their newborns were referred, and this may have been due to a lack of health personnel. Other studies have noted that medical staff are reluctant to accept postings to the Northern region. This reluctance is due to limited infrastructure, poor opportunities for career progression, and the lack of locums (extra shifts from different facilities) to supplement income, compared to the southern part of the country (Abdulai et al. 2017). These factors can affect healthcare providers' decisions to refer women (Forrest et al. 2006) and women's acceptance to be referred to the next level of care (Hanson et al. 2015). Thus, Forrest et al (2006) reported that discretionary referral is affected by the availability of higher levels of managed care and specialists within the community. Issues with human resources for maternity care is not peculiar to Ghana (WHO 2009). There is a need to increase career progression opportunities for those health professionals who work in northern Ghana to enhance a positive maternal healthcare experience (Abdulai et al. 2017; WHO 2016).

Women's involvement in referral decision making highlights the accessibility dimension of the AAAQ framework (WHO 2016). Only one woman described being involved in decision making concerning her referral. A number of the women in our study admitted that the time and money spent on referrals were not wasted because the costs incurred were beneficial for the wellbeing of themselves and their newborns. This positive evaluation suggests that the women accepted the referral advice that prevented a delay in care. However, healthcare costs are a major challenge to care uptake in low and middle-income countries (Abekah-Nkrumah et al. 2011; Banke-Thomas et al. 2020). Maintaining acceptable costs for all maternal health services could enhance women's adherence to referral advice and overall maternal healthcare utilisation.

While some women were required to obtain permission from their partner/husband before proceeding with a referral to another facility for either themselves or their newborns, this did not appear to prevent referral but may have added an unnecessary delay. Evidence from other sub-Saharan African countries have indicated that women's ability to make autonomous decisions concerning their health care facilitates maternal healthcare utilisation that improves health outcomes (Sougou et al. 2020; Tiruneh et al. 2017). Hence, to accelerate Ghana's prospects of achieving SDG targets 3.1 and 3.2, there is the need to enhance women's autonomy by increasing their education and economic opportunities as highlighted by SDG four and eight (Banke-Thomas et al. 2017; United Nations 2015; WHO 2016). Both education and economic opportunities empower women and enhance their prospects of utilising maternity care (Banke-Thomas et al. 2017; Dimbuene et al. 2018; Kim & Kim 2019). Further, a comprehensive cross-sectoral approach to improving health may be prudent.

Relating to the second delay, the most common means of transport during referral was tricycle *[Yellow Yellow]*, with three ambulance transportations. This can cause a significant delay due to the tricycle(s) availability and the time it takes to order one. Transport difficulties in northern Ghana have been reported in previous studies (Abdulai et al. 2017; Dalinjong et al. 2018). Consequently, the use of tricycles for the referral is common (Heyen-Perschon 2005). Transportation challenges in maternity referrals have similarly been noted in a number of low and middle-income countries such as India (Raj et al. 2015), Zambia, and Uganda (Sacks et al. 2016). Evidence from maternal referral reviews indicates that Ghana's maternity risks are aggravated by transportation challenges (Afari et al. 2014; Awoonor-Williams 2010).

Therefore, much investment is required from the central government to improve emergency transportation for efficient referrals through increased ambulance availability.

The low quality of referrals evidenced in our study was due to a lack of inter-facility communication (WHO 2016; Thaddeus & Maine, 1994). No phone calls were made, but some women were provided with letters during their referral or referral of their newborns. Effective inter-facility communication is crucial during maternal referrals because such communication helps the receiving facility prepare before the woman's arrival and reduces the likelihood of delay at the receiving facility (Amoakoh-Coleman et al. 2019; Murray & Pearson 2006). Evidence suggests that the quality of healthcare for referred women is enhanced if the sending facility directly contacts with health professionals at the receiving facility (Haliq 2015; Murray & Pearson 2006). Therefore, to achieve a sustainable inter-facility communication for referral services, effective supervision by the management of health facilities and having toll-free phone numbers in health facilities may be required as the electronic exchange of referral information through emails may be difficult due to the absence of internet in some health facilities (Huq et al. 2014; Hyrkäs & Paunonen-Ilmonen 2001; Lechat et al. 2019).

Pertaining to issues on the third delay, women reported that they received emotional support in private health facilities and were seen immediately at facilities. Although there was no delay there were negative experiences, especially for less wealthier women. Thus, several women indicated that staff were rude and wealthier women had better treatment. Disrespectful care and abuse have been reported in studies from several low and middle-income countries, including Ethiopia (Gebremichael et al. 2018; Sheferaw et al. 2017) and Pakistan (Azhar et al. 2018), Nigeria (Orpin et al. 2018) and Tanzania (Solnes Miltenburg et al. 2018). The WHO advocates person-centered and respectful care for all women in order to ensure that women have easy access to competent, respectful, and emotionally responsive maternity care (WHO 2014). Health professionals are, therefore, required to exhibit high professional standards with respect to clinical care (WHO 2014).

To ensure the availability of high-quality referral services, testimonial videos as part of continuing professional education can help health providers to evaluate the services they provide to women (Jembere et al. 2020). In the study by Jembere et al (2020), the testimonial videos illustrated normal childbirth, referral, and emergency care as well as an adolescent pregnant woman with preterm labour. Students role-played associated scenarios and then discussed ways to enhance communication and clinical care (Jembere et al. 2020). Research in Sweden, Brazil, and Sri Lanka examined the impact of a training intervention using a participatory theatre technique to help health professionals recognise violent situations to help prevent these and improve women centred care (Boal 1995; Österlind 2011; Swahnberg et al. 2019). During the training workshop, participants shared their experiences, and simulations provided insights into effective communication and empathetic care (Swahnberg et al. 2019).

Women's satisfaction with care is key to the quality of health care. In our study, positive experiences and satisfaction were aligned with private health facilities and higher socio-economic status. Research has found that women of lower socioeconomic status experience higher levels of abuse in childbirth (Sen et al. 2018). This can affect the future uptake of care (Odetola & Fakorede 2018). One woman in our study who was dissatisfied with the care she received due to her child's death in the labour ward indicated that she has planned to give birth

at home in the future. Other studies have found that women who are dissatisfied with care are less likely to return to the same facility for subsequent care (Tabassum Nawab et al. 2019).

Limitations of the study

This study's qualitative nature means that the findings and conclusions cannot be generalised to all women of reproductive age in Northern Ghana. The study is missing the perspectives of healthcare providers who may have shared further information concerning the provision of referral services and how best they can be improved. Further, the study investigated only referral conditions that are related to maternity care. Women who were not referred to the Teaching Hospital were not included in this study. Women who experienced maternity-related morbidity had a newborn with severe complications or were from the family of a woman who had experienced a serious maternal complication may have provided additional information concerning the gaps in the referral system.

Conclusion

This research explored women's experiences and satisfaction with maternal referral services in the northern region of Ghana. The study has revealed gaps in the availability, accessibility, acceptability, and quality of maternal referral services. To ensure a responsive and efficient referral service, the central government should commit to ensuring that each district hospital has at least one ambulance for effective emergency transportation. Between District hospitals and lower health facilities, the availability of cheaper transport system services can ensure that means of transport exist for referrals at all healthcare levels. Career progression opportunities need to be explored for health workers in northern Ghana to attract and retain more professionals to the area. Additionally, to overcome abuse and achieve empathetic and supportive care, testimonial videos may help health providers to assess the services they provide to women. During referral, inter-facility communication can be strengthened through effective supervision and dedicated mobile phones for communication between health facilities.

Abbreviations

AAAQ	Availability, Accessibility, Acceptability and Quality
CEmONC	Comprehensive Emergency Obstetric and Neonatal Care
GHS	Ghana Health Service
GSS	Ghana Statistical Service
MMR	Maternal mortality ratio
NICU	Neonatal Intensive Care Unit
SDG	Sustainable Development Goal
TTH	Tamale Teaching Hospital
WHO	World Health Organisation

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