Socio-cultural perceptions that influence the choice of where to give birth among women in pastoralist communities of Afar region, Ethiopia

Socio-cultural perceptions that influence the choice of where to give birth among women in pastoralist communities of Afar region, Ethiopia: A qualitative study using the health belief model

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Abstract

Background: Facility-based delivery care provided by skilled birth attendants is globally considered to be crucial in reducing maternal mortality and morbidity. Although home deliveries are discouraged in Ethiopia due to an associated higher risk of maternal mortality or morbidity, the majority of women in the Afar region continue to deliver at home. Numerous barriers contribute to the low utilization of health facility delivery and skilled birth attendance services in the Afar region.

Objective: Investigate the perceptions and decision-making processes of pastoralist women from Afar regarding home and institutional childbirth using the health belief model.

Methods: A qualitative study was conducted to examine the socio-cultural perceptions that influence the decision-making of Afar women who utilize institutional delivery services and those who deliver at home. A total of 13 women aged 17 to 45 who gave birth within the past four years before the data collection period were selected, based on a purposive selection strategy, and took part in in-depth interviews. Atlas.ti 7 software was used for deductive content analysis. Upcoming themes were assigned to pre-determined constructs of the health belief model.

Results: The main barriers to the demand, access and use of facility-based delivery were lack of awareness regarding the risks of childbirth; lack of support from social networks; the strong impact of husbands' opinions; difficulties associated with discussing reproductive health issues; the reliance on traditional birth attendants; lifestyle factors; cultural needs; and distrust in skilled birth attendants and health facilities. The factors that motivated women to use delivery services provided by skilled birth attendants were associated with strong communal and kinship support; antenatal care visits; high awareness of pregnancy-related risks; the influence of previous negative birth experiences; and the belief that facility-based delivery brings faster recovery from birth-related wounds.

Conclusions: The data give in-depth insights into a range of socio-cultural factors that prevent or facilitate the choice of institutional delivery. Based on our findings, recommendations to increase the uptake of institutional delivery services should focus on community and family involvement, as well as on individual factors. Similarly, effective integration of traditional birth attendants should be encouraged to advise mothers to utilize reproductive, maternal and neonatal health services, and arrange a timely referral of women to emergency obstetric care. Furthermore, making facility-based care more culturally attractive to the needs of pastoralist women should be addressed in future interventions. [*Ethiop. J. Health Dev.* 2018;32(Special Issue):50-64]

Key words: Institutional delivery, socio-cultural barriers, maternal health, childbirth, health belief model, pastoralist communities, Afar, Ethiopia

Introduction

In the 21st century, maternal mortality continues to be a formidable challenge for Sub-Saharan Africa, accounting for 66% of maternal deaths worldwide (1). Ethiopia, the second most populous country in Sub-Saharan Africa, is not immune to the burden of unacceptably high maternal mortality. Nearly 30% of deaths among women of reproductive age (15-49 years of age) are pregnancy or birth-related. Medical complications that arise during pregnancy and after childbirth are the second largest cause of female mortality, next to mortality due to infectious diseases (2-4). One of the key approaches to address maternal mortality is ensuring skilled obstetric care at the time of delivery, which is often achieved by encouraging pregnant women to deliver their newborns in healthcare facilities (5). In the event of unexpected birth complications, every moment of delay in receiving skilled care can significantly increase the risk of maternal death (6). It is estimated that having universal skilled birth attendance could reduce maternal mortality by 13-33% globally (6).

Even though it is widely proven and acknowledged that skilled delivery care (SDC) can make a significant impact on preventing maternal mortality, the majority of deliveries in Ethiopia still occur at home without any professional assistance, resulting in a low use of health care facilities and an unacceptably high 412 (95% CI: 273–551) maternal deaths per 100,000 live births (7). The situation in the pastoralist communities of Ethiopia is far worse than in its agrarian communities. The uptake of SDC services is strikingly low among women from the pastoralist communities of Afar

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region compared to other regional states in Ethiopia, which might partly explain the high maternal mortality ratio (MMR) of 801 deaths per 100,000 live births in the region. According to the Ethiopian Demographic Health Survey 2016 (EDHS), Afar has the lowest percentage of women whose births were delivered by a skilled provider or delivered in a health facility (16% and 15%, respectively), while Addis Ababa has the highest percentages for both indicators (97% each), further illustrating the dimension of disparities regarding maternal health in Ethiopia (7). Although the core strategy for reducing maternal deaths includes improving access to skilled care during delivery, the majority of Afar women continue to give birth at home, attended by traditional birth attendants (TBAs) and family members. A recent study from the Dubti district of Afar reports that 92.6% of mothers deliver at home (8). Similarly, according to the EDHS, about 85.1% of women from Afar region gave birth to their youngest child at home and nearly 83.5% of the mothers were assisted by TBAs (7). Another study from semi-pastoralist communities of Southern Ethiopia reported a similar pattern of the use of available institutional delivery services. Only 14.5% of the mothers delivered with the assistance of skilled birth attendants (SBAs), and a significant majority (83.3%) gave birth at home (9).

A major underlying reason for the low use of SDC is the little attention given to the socio-cultural barriers that limit the health-seeking behavior of pastoralist women in the Afar region (8). In order to decrease the high MMR in the region, there is need to better understand why communities are not using available institutional maternal health services. As the deadline for the 2015 Millennium Development Goals (MDGs) has passed and the national goal of reducing the MMR to 267 deaths per 100,000 live births remains far from being achieved, the focus on improving the uptake of SDC has to be intensified in the pastoralist communities of Afar (10).

It is believed that socio-cultural factors, which have barely been explored in the Afar region, may jeopardize the demand for utilizing SDC in a pastoralist context. Specifically, the socio-cultural barriers influencing the decision-making power of women to use SDC have not been critically explored. To gain clearer insights into the decision-making processes and patterns of health-seeking behavior among pastoralist women in the challenging environment of Afar, the social structures need to be thoroughly considered. This investigation was therefore undertaken to qualitatively explore the range of challenges and socio-cultural barriers that limit SDC service use by women from the pastoralist communities of Afar, Ethiopia. Rosenstock's health belief model (HBM) (11) was applied as the theoretical framework and foundation to understand the influence of socio-cultural factors on women's perception regarding home delivery and institutional delivery. The findings are important for the development of policies that consider the influence of socio-cultural factors on health-seeking behavior, with the ultimate goal of combating the unacceptably high MMR in Afar region.

Methods

Study design: Guided by the five constructs of the HBM (11, 12), this qualitative case study was conducted to identify socio-cultural factors that influence perceptions which either encourage or deter women in the Afar region from using facility-based delivery.

The HBM captures the multidimensionality of perceptions related to decision-making and health-seeking behavior shaped by socio-cultural influences, which is thought to be more appropriate to this study. In an attempt to gain insights into individual perceptions that affect decision-making processes, the model proposes that preventive health-seeking behavior is a function of three components: modifying variables, individual perception and action. The framework suggests that socio-demographic and cultural factors, for instance age, education, social relationships and health-related beliefs, determine five major perceptions: perceived threats, perceived benefits, perceived barriers, cues to action and self-efficacy. By applying the conceptual framework of the HBM to the data of this research, the study identified socio-cultural differences in individuals' perceptions which encouraged women to either use facility-based delivery or to continue with home delivery.

Study area: This study was executed in the Afar region, one of nine regional states in Ethiopia. the Afar region is predominately Muslim in region and pastoralist. The data were collected from Ada'ar, Mille and Chifra woredas of Zone 1 between in June and July 2016.

Study population: For the purpose of this study, 13 women with ages ranging from 17 to 45 were given in-depth interviews. The participants fulfilled the criteria of having given birth within the past four years prior to the data collection period, either in a health institution or at home.

Health extension workers (HEWs) were used to hire the study participants. A purposeful sampling technique was used to recruit the study participants based on their availability and willingness to participate. In addition, this sampling technique was adopted to ensure variation in participants who either delivered in a health facility or at home. Furthermore, the snowball sampling technique was used when interviewed women referred to other potential participants. The characteristics of interviewees are summarized in Table 1.

Data collection: Prior to the start of the research period, a literature review was conducted that focused on social-cultural and interpersonal barriers, as well as inter-community dynamics in rural Africa. Themes that

arose from the review that fitted the constructs of the HBM were integrated in a semi-structured interview guide. The in-depth interviews were conducted by using the semi-structured interview guide, with closed questions for demographic questions and open-ended questions to cover the main research question: Which socio-cultural factors affect the choice of home or institutional delivery by pastoralist women in the Afar region, Ethiopia? The main themes discussed were divided into different sections. The first two sections comprised socio-demographic information and a woman's preference for the location of birth for her most recent pregnancy. The following sections captured information about perceptions based on the five constructs of the HBM regarding childbirth, home- and facility-based delivery: *perceived threats, perceived benefits, perceived barriers, cues to action* and *self-efficacy*. Prompts were used to ask questions when statements of participants remained unclear and in order to gain a deeper understanding.

Interviews were conducted in the local Afar language and back translated from and into English by translators. Before going into the field, the prepared interview guide in English was discussed with the translators to prevent misinterpretations and misunderstandings. Interviews lasted approximately 30 to 60 minutes, and audio was digitally recorded to reduce information bias and to increase reliability. In total, two interview rounds were completed in June and July. The first interview round covered 10 in-depth interviews, and were conducted in collaboration with a male translator (due to difficulties finding a female translator). In order to adjust for socially desirable information bias and to cover emerging themes of the first round, a second round was conducted in July with a female translator.

Data analysis: The English translations from the audio recordings of the in-depth interviews were transcribed verbatim into Word documents and were compared with field notes and pictures that were taken during the field work. The interview transcriptions were exported into Atlas.ti 7, a software program for the analysis and processing of qualitative data. A deductive approach was used for the analysis of the data, underpinned by the major constructs of the HBM. After repeated readings of the data, recurring themes were assigned to the five perception constructs of the HBM framework according to the place of delivery (home or institutional delivery), as represented in the thematic framework (Table 2). Quotes of participants were used to illustrate the importance of themes.

Socio-demographic data of the study participants: Thirteen in-depth interviews were conducted among women who gave birth in the last four years prior to the data collection period. Participants were all Muslim, with ages ranging from 17 to 45. All women were married at the time of their last pregnancy. At the time of the study, one woman had divorced her husband and one woman was separated from her husband. The majority of women (n = 11) had not received formal education. One woman was self-employed; the remaining participants were engaged full time in taking care of children, preparing food, fetching water and guarding animals. The mean age of the participants was 28 years and on average respondents had three children. The data showed that the majority of women who delivered at home lived in polygamous marriages (n = 5), whereas women who delivered in one of the health facilities were from monogamous marriages or were separated from their husbands (Table 1). Except for one woman (Participant 12), all women had heard about the importance of maternal health, via HEWs, before their last delivery. Of the 13 women, six had delivered in a health facility, 10 had attended a health facility for antenatal care (ANC) at least once during their most recent or current pregnancy, eight had used postnatal care (PNC), and one was currently using modern family planning (FP).

Ethical consideration: Ethical clearance was obtained from Institutional Review Board of the College of Health Sciences at Mekelle University. The permission for conducting research was secured through a formal letter from Mekelle University. At the start of each interview, participants were informed about the purpose of the study. Due to the high rate of illiteracy among women in the region, it was necessary to acquire oral informed consent regarding participation and audio-recording of the interview. Participation in this study was on a voluntary basis and participants were assured that privacy and confidentiality would be maintained at all times.

Table 1: **Characteristics of women who delivered a child within the last four years, 2016 (n = 13)**

Participant	Number of children	Location of last childbirth	Use of other RMNH services	Marital status	Age at marriage	Current age
1	2 (pregnant)	At home	ANC	Polygamous	15	20
2	6	At home	ANC & PNC	Monogamous	15	25
3	4 (one died)	Health facility	ANC & PNC	Monogamous	17	30
4	4	Health facility	ANC & PNC	Polygamous	18	25
5	4	Health facility	ANC &PNC	Polygamous	19	35
6	3	Health facility	ANC & PNC	Monogamous	18	30
7	4	Health facility	ANC	Separated	12	30
8	4	At home	ANC & PNC	Polygamous	16	30
9	3	At home	–	Polygamous	10	17
10	1	At home	–	Monogamous	24	27
11	1 (2 died)	Health facility	ANC, PNC, FP	Divorced	17	27
12	5 (2 died)	At home	–	Polygamous	16	45
13	1	At home	ANC & PNC	Polygamous	17	20

Results

To investigate decision-making processes regarding the location of delivery, perceptions of individuals were assessed by using the major constructs of the HBM: perceived threats, perceived benefits, perceived barriers, cues to action and self-efficacy. Comparisons were made between women who delivered at home and those who delivered in a health facility.

Perceived threats of childbirth

Women who delivered at home

Participants who delivered at home perceived childbirth as a normal and natural process that does not require institutional help or treatment in the absence of complications, as represented by the following quote:

> *I wish to continue to deliver at home – it is safe, I have a mother trained as a traditional birth attendant.* (Participant 10)

Only two women reported perceiving childbirth as dangerous:

> *I was afraid, but I delivered at home.* (Participant 13)

However, this did not result in utilizing a health facility for delivery. Interestingly, the interviews showed that none of the mothers experienced any serious complications during the delivery process or had lost a child due to birth-related complications. This might have contributed to the fact that women continued to deliver at home, and only considered facility-based delivery when there were problems:

> *Afar women deliver at home. We prefer the home delivery, if we haven't any problems.* (Participant 13)

In order to avoid complications during home delivery, women appreciated the use of antenatal care ANC at health facilities. The main reason for attending ANC was affirmation that they were having an uncomplicated pregnancy, thereby creating the expectation of a normal and easy home delivery:

> *I followed the ANC follow-up and that is why I delivered the children at home.* (Participant 8)

Only one woman in the study stated that, at the time of her last pregnancy, she lacked awareness about danger signs and the importance of reproductive, maternal and neonatal health (RMNH) services:

> *The danger signs were swelling of my leg and my arm, but at that time I had no awareness about the benefits of health facilities. After the last birth, I got more information and awareness about the benefits of health facilities.* (Participant 12)

Although the theme of religion arose during the interviews, the role of religion in shaping perceptions of threat regarding childbirth remained unclear. However, it is likely that women put responsibilities into God's hands, as suggested by the following quotes:

> *So, children come and grow up with the help of Allah.* (Participant 2)

> *If Allah gives us children, we accept it.* (Participant 1)

Women who delivered at a health facility

Respondents who delivered at a health facility expressed awareness that home deliveries expose more health risks to women and newborns than institutional deliveries:

> *I delivered two children in a health care facility because of a lot of important things which are provided and which we can get at the health care facility. If we take the home delivery, it has a lot of problems. During the delivery, I might be hypertensive and I might be epileptic, or there might be bleeding which could result into severe anemia. So, in that case, it is not manageable at the home in Afar communities. I created my awareness and delivered my last two children at a health facility and I will continue to do so in the future.* (Participant 3)

In particular, women who were considered by health professionals as having a risky pregnancy perceived themselves to be more susceptible to serious problems:

> *I had an antenatal care follow-up where I was told that my pregnancy was a bit complicated, so the health professional told me to deliver my child at the health facility. I was a bit sick and I was anemic. That's why I went to the health facility – to get better service.* (Participant 7)

Some women who decided to deliver in a health facility had encountered negative experiences in previous home deliveries and felt that it was likely that negative experiences, including the death of a child, would occur again. Furthermore, participants showed awareness of possible health risks, including unhygienic conditions at home:

> *During my two previous births, I was very sick and I had vaginal bleeding after delivery. There is an instrument called 'mekita', a razor which the TBAs use for defibulation during delivery, which is shared among many women in my community. I don't like that. For that reason, I went to hospital for the last child.* (Participant 11)

In addition, some participants thought that their female genital mutilation (FGM) exposes them to greater health risks regarding the birth process:

> *Because of FGM, I thought I should go to hospital to get good service.* (Participant 11)

Perceived benefits of giving birth in a health facility

Women who delivered at home

Although women who delivered at home revealed that they were aware of the benefits of institutional delivery at the time of their last pregnancy, most did not consider giving birth in a health facility due to cultural reasons:

> *Culturally, we practice home delivery because it has so many advantages. That's why most of the people prefer home delivery, even though there are a lot of things done with health education, including the promotion of institutional delivery.* (Participant 9)

Nevertheless, women appreciated the availability of RMNH services at health institutions in case of complications. Many women translated the perceived benefits of RMNH services into ANC visits:

> *I go to the health facility just to check myself.* (Participant 1)

A few women who were in favor of using institutional delivery services were prevented from attending a health facility due to lifestyle factors and a lack of community support. Furthermore, some reported that they heard from other women about the benefits of facility-based delivery, including faster recovery from FGM and birth-related wounds compared to mothers who delivered traditionally at home:

> *The mothers who delivered at health institutions might even heal faster than the home delivery mothers. They can walk earlier than home delivery mothers.* (Participant 9)

Interestingly, there were inconsistencies regarding the perception of who is better skilled to treat the complicating factors caused by FGM during the birth process. One woman argued that, in difficult cases, health professionals are better skilled and equipped than TBAs for coping with FGM-associated birth complications:

> *Sometimes, it might be that the FGM is even more complicated or difficult for the traditional birth attendants than the health professionals.* (Participant 9)

Additionally, the study showed that a few women did not perceive FGM as a cultural barrier to using health services for delivery:

> *... the FGM might not hinder the health institutional delivery.* (Participant 9)

However, the majority of women who preferred to deliver at home perceived FGM as a cultural barrier to institutional delivery.

Women who delivered at a health facility: Women who delivered in a health institution acknowledged the benefits of better management during an uncomplicated childbirth, as well as better management in case of complications and in the immediate postnatal period:

> *There are so many motivations to go to the health facility. First, it helps and saves the mother's life because if the mother is epileptic or she has lack of blood [meaning 'anemia'], she gets the intervention or the management for anemia or epilepsy or hypertension. Even if the fetus is malpositioned during pregnancy, it is necessary to go to the health facility for delivery; otherwise it is difficult to deliver at home.* (Participant 3)

In addition, all women who delivered in a health facility used ANC during pregnancy due to the perception that RMNH services are highly beneficial to the mother's and unborn baby's health. Some of these women had been considered to be at risk of a complicated delivery during ANC follow-up visits and perceived that the offered delivery services would benefit their health:

> *I was a bit sick and anemic. That's why I went to the health facility to get better service.* (Participant 7)

Women who were asked to compare the advantages and disadvantages of home and institutional deliveries emphasized the advantages of faster recovery and the trust in better management regarding institutional delivery:

> *In particular, women who have FGM have so many problems if they deliver at home. They are not even able to bath themselves, they have difficulties going to the bathroom for three months, and there is severe pain and complications like infections in and around the uterus and reproductive area. They are not even able to stand. I delivered four children, three of them at home. I had to stay at home for three months, because I*

was not able to walk. But when I delivered my last child at the health institution, it was easy. I was able to stand after the third day. Especially for women who suffer from cultural traditional malpractice, including FGM, it is better to go to health institutions rather than delivering at home. (Participant 7)

As exemplified in the aforementioned quote, several women mentioned that FGM and associated delivery complications were an additional motivation to seek SDC, since health facilities were perceived as a hygienic and safe location to deliver a child. Additionally, it appeared that women who delivered in an institution were more likely to use PNC than women who delivered at home and intended to continue using institutional delivery services during future pregnancies.

Perceived barriers to giving birth in a health facility

Women who delivered at home

Most of the women who delivered at home had used ANC services and were aware of the benefits of facility-based delivery. However, the interviewees mentioned that they regard the lack of knowledge as an important predictor for refusing available RMNH services, including institutional delivery, for many other women in the Afar region:

The main thing why people are not using the maternal health care in our community is due to lack of knowledge. (Participant 2)

The majority of women articulated that lifestyle and cultural reasons contributed to the continuing practice of home births. A few women expressed their wish to deliver in a health facility. However, seasonal migration and distances to the nearest health facility made it impossible for them to access a health facility:

Yes, everyone knows about the importance of maternal health care, especially getting better care in the health institution. But the problem is we are living an unstable life, plus we are living remote. (Participant 9)

Long distances would necessitate planning the travel to a health facility far ahead of the due date of delivery. Interestingly, some women reported to have had an unexpected labor:

I delivered my child at home because the labor was unexpected. (Participant 1)

It is not known if these women did not know the expected date of delivery or if they had a premature birth. On the other hand, the duty of home activities was frequently mentioned as a reason for not using facility-based delivery. Some women wanted to stay at home because they felt responsible for continuing to perform household chores, such as caring for children and animals, fetching water and preparing food for the family. However, the women were not only afraid of being unable to monitor household activities, they were also afraid of losing the family's main income source:

We have animals at home. So, we are not able to leave the animals without anybody looking after them. We don't like to go to a health facility even though everybody knows about the importance of institutional delivery. (Participant 9)

Another woman added:

Actually, I was far away. There was no health facility nearby. That's one factor. The other thing is, we are too busy with domestic activities. We go to get water, we got to the animals and we go to prepare the food for the family members. So, we are too busy. That's why we have no time to go to [a health facility] and to deal with our health or baby's health. (Participant 1)

This is very interesting in terms of the distribution of gender roles and the importance of community support regarding institutional delivery. Some participants explained that their husbands were in favor of home delivery due to household activities that traditionally need to be fulfilled by women

If you go for institutional delivery, there is nobody who takes care of the home activities. Thus, it is good to deliver at home so that you can control every activity of the home. Otherwise, if you deliver at a health institution, you are far away from your residence area and will not be able to take care of your resources at home. The husband supports home delivery because there is nobody who can care for the animals and the children, so you have to deliver at home. That's it. (Participant 9)

Furthermore, the women described that using health facilities against their husband's will would have serious negative consequences for themselves and their children. Women who do not obey their husband's word were reported to no longer receive (financial) support from the husband or other women in the community. However, two women who had received ANC reported that, in case of complications, their husbands would have taken them to the health facility. In addition, women in this study who did not receive ANC or were first-time mothers reported difficulties in discussing intimate health issues with their husbands in the absence of a specific problem:

There is no detailed discussion about maternal health, especially in normal health conditions. (Participant 9)

First, she didn't discuss the issue with another person. (Participant 1)

There is shame. (Participant 12)

Furthermore, due to the fear of dying during the birth process, women stayed at home so that they could be surrounded by their loved ones. Additionally, this was perceived as a potential indicator for mistrust towards health facilities, which was mentioned several times by the participants. The women showed skepticism

regarding the reliability, skills and competence of care givers; instead, they trusted their TBAs. This was reinforced by the perception of underserved health facilities in terms of medical equipment and non-Afar-speaking health professionals:

> *There is no health professional trained for delivery and no health professional that can communicate easily in the Afar language. Even though the health facility is nearby, there is no health professional available. Going to the health facility doesn't make sense because there is no health professional and there is a barrier of language communication. So it's better to deliver my child at home.* (Participant 2).

There was a common perception that TBAs are more reliable and socio-culturally more appropriate than health professionals. Many women also articulated this with regard to FGM, believing that TBAs are better skilled and experienced to open and close the vagina according to traditional custom:

> *Especially those females having FGM, they prefer the traditional birth attendant because she knows about FGM. If you go to a health institution, the people perceive that health professionals don't know how to manage FGM.* (Participant 10)

In addition, women stayed away from health facilities out of fear of being examined by a male health professional:

> *The health professionals are males and we are afraid of these males.* (Participant 13)

Other barriers to institutional delivery were rumors and misbeliefs within the communities that health professionals have a malicious intent towards pregnant mothers:

> *Pregnant mothers don't prefer to go to health facilities for delivery because they think that their fetus or children will be killed.* (Participant 10)

Furthermore, the majority of women emphasized the importance of maintaining the culture of home delivery, including the receiving of cultural ceremonies during and after the childbirth:

> *At times of delivery, there are so many cultural things surrounding birth – so many ceremonies. Moreover, there are household tasks that need the close attention and presence of the mother.* (Participant 8)

> *If you deliver at home, there are so many cultural activities.* (Participant 9)

> *There is no ceremony or something at a health facility.* (Participant 13)

> *I don't like to go to and deliver my child at a health center. Culturally, I don't like.* (Participant 10)

Cultural celebrations included the slaughtering of a sheep, the traditional preparation of food, and steam ceremonies ('gula') in honor of the new mother. Furthermore, the perceived need and norm to receive cultural ceremonies at home played an important role for young or first-time mothers.

Also, community members or influential family members with a negative attitude towards health facilities represented a barrier to women's physical and emotional ability. The communities' adverse attitudes towards institutional delivery were based on cultural reasons. As a result, women reported that their communities emphasized the benefits of home delivery, including the support of community members, provision of food and conducting ceremonies surrounding birth. Unsupportive communities regarding institutional delivery posed a particular problem to women who were in favor of utilizing health facility care. When these women elucidated their plan to leave the community for delivery purposes, community members refused to take over the full responsibility for household and herding tasks, so the women ended up staying at home. The women's dependency on their social network caused them to stay at home out of fear of risking the family's reputation, wealth and financial income:

> *They didn't take the fully responsibility. There are a lot of tasks expected of me. So, if there is no one that takes over the activity at home, I couldn't go to a health institution to deliver, even in the presence of means of transportation, because a lot of tasks are under my responsibility at home. The goats are the main sources of income for the family. If I go to the health center without assigning someone to take care of them, wild animals might attack and kill them. This will bring bad consequences to the family.* (Participant 9)

Furthermore, opinions differed with regard to the influence of TBAs on utilizing health facilities. Some women reported that it was a TBA's obligation to refer mothers to a health institution in the event of serious problems. Other mothers revealed that TBAs recommend staying at home.

Women who delivered at a health facility: Despite the communities' support for institutional delivery, a few women revealed that they experienced some resistance concerning institutional delivery:

> *Half of the people accepted the idea to go to the health institution and to deliver there and to access antenatal care – that's okay for them. Half of the people didn't agree with that idea. People still have hesitations on that because they have fear of the health institutions. They have no knowledge about the importance of delivering at health institutions. They didn't know the difference between home delivery and institutional delivery.* (Participant 5)

This quote indicates that the use of RMNH services is not yet accepted by all community members due to the cultural promotion of home delivery. A divorced woman in this study, who delivered in a health institution while she was still married, reported that her ex-husband did not allow her to leave the home in

order to access ANC or institutional delivery due to his misbeliefs regarding health professionals and his fear of being divorced by her:

> *He was thinking that ANC follow-up is not good, because the medical professionals that work in the health institution give pregnant women drugs which induce miscarriage… [and]… he did not want me to get an ANC follow-up because he was afraid that if I go to another city that I wanted to get separated from him.*. (Participant 11)

Differences were recognizable regarding the influence of TBAs on the place of birth. Some women reported that TBAs still encourage women to stay at home for delivery:

> *She [TBA] prefers women to deliver at home. Because she gets something, you know. She comes to home and attends the delivery and gets a gift, which might be even an income for her. In such cultures, the people might not agree with the maternal health opportunities from health institutions.* (Participant 5)

Other women commented that TBAs recommended mothers to use institutional delivery services.

Cues to action

Women who delivered at home

The aforementioned barriers to women delivering at home outweighed the benefits of institutional delivery and contributed to the fact that women stayed at home to give birth. The majority of women reported that the focus of community support was mainly centered on the use of ANC services. In particular, the lack of communal support for institutional delivery prevented the overcoming of other socio-cultural barriers and did not present cues to action for institutional delivery on an individual level. For pregnant women, it seemed to be crucial to know whether communities were supportive of institutional delivery, especially when communities were settled far from health facilities. Childbearing women were in need of receiving mental as well as household support from their communities:

> *The other thing is support. In particular, a mother who delivers at a health institution far from her relatives needs a lot of things. So, if you fulfill such scenarios, mothers might come to health institutions, including me.* (Participant 9)

Also, the lack of food provision was mentioned as a missing cue to action, as was anxiety regarding the reliability of health professionals. Although the interviews showed a general knowledge about the benefits of RMNH services, women asked for more educational support, both for themselves and their community, regarding maternal health.

Women who delivered at a health facility

Women who supported institutional delivery described a shift from the 'old days' and the expectation to deliver at home, to the awareness that delivering in a health institution is desirable:

> *The first thing is the lack of awareness about the importance. Nowadays, things are changing. Most of the women are going to a health facility.* (Participant 6)

Another woman added:

> *But nowadays things are changing. Everyone has the awareness and knows about the importance of maternal health care especially that provided at a health facility. These days everybody is inclined to go to the health facility. Everybody supports us and tells us to go to health facility to get the ANC follow-up, deliver at health facilities and attend the postnatal care.* (Participant 7)

The role of HEWs was significant in bringing about this shift:

> *I've heard about maternal health care services, first from health extension workers and then from my relatives' ceremonies in the community and my mother. My mother is even aware, and these days I am aware, of many issues about maternal health care services.* (Participant 7)

Other cues to action included various forms of support from communities. Social networks of health facility users seemed to perceive the benefits of facility-based delivery and encouraged women to deliver in a health institution. Consequently, the majority of women reported a positive influence from their relatives, including the receiving of maternal health information and recommendations to seek maternal health care. In particular, interviewees felt supported by their mothers and sisters:

> *My mother told me to go to hospital, but some other people told me that I should better not go because it is not the culture of Afar women. They used to tell me that most Afar women used to give birth at home and facility-based delivery is not our culture.* (Participant 11)

Relatives and community members did not only provide emotional support, but also had a decisive role in supporting women in their household activities during their absence:

> *My husband and my mother took over my responsibilities when I was at the health facility.* (Participant 3)

The husband's attitude towards institutional delivery also constituted a crucial cue to action for women to deliver in a health facility. Despite most women requiring permission for the use of RMNH services, women informed and convinced their husbands about the RMNH benefits of institutional delivery for the mother and her child. Interestingly, there were also participants in this study who were convinced by their husbands to use institutional delivery:

> *He takes me there, yes. He wishes – also not only wishing – he is involved and insists that I go for facility-based delivery.* (Participant 6)

In addition, TBAs were found to exhibit a profound influence on the use of institutional delivery services. Some women reported that TBAs encouraged and recommended institutional referral, especially in the case of serious problems. In addition, previous negative birth experiences were a decisive factor for women to proactively seek maternal health information and create awareness:

> *I had one child that died during birth. Starting from that time, I educated myself and learned about the importance of health facility delivery and delivered my children at a health facility.* (Participant 3)

Self-efficacy

Women who delivered at home

Women who delivered at home seemed to have a more obedient attitude towards their husbands. These women emphasized the unavoidable need to inform husbands about actions and to receive permission, including for maternal health-related actions:

> *A married woman should obey her husband. She should get permission and she should inform the husband.* (Participant 8)

Some women reported that they did not dare administer money by themselves, showing low self-esteem regarding financial matters:

> *If I take the responsibility of the finance by my own authority and spend it unwisely, this is not good for my children and husband.* (Participant 9)

Despite many women in this study having to face limitations with regard to mobility, financial issues and influences from culturally determined, intra-communal, decision-making processes, a few women showed potential for self-efficacy and defiant behavior. For example, one woman could not accept that her husband forbade her to visit her family, at which point she started to secretly visit her family:

> *Sometimes when I ask to go to my family, he might disagree with that. When he knows that I am waiting at home, then he goes far away for another activity, I go to my family, without his permission, and return soon before he comes back home.* (Participant 10)

Another participant revealed that if her husband prohibited her from using health services in the event of her child's sickness, she would seek medical institutional help, even if it was against her husband's will.

Women who delivered at a health facility

Women who delivered at a health facility demonstrated some positive self-efficacy or at least the potential for self-efficacy and defiance. These women seemed to be more autonomous and less obedient than women from the home delivery group:

> *Even in the absence of the willingness of the husband or the mother, I would go to the health facility for delivery because I know that I can benefit a lot… I am searching for governmental job opportunities. If I get a job in the government, being pregnant will not be that easy and I will take contraceptives. Afar husbands don't allow using family planning methods. First, I need to get the job at the government. Then I can decide by myself to take the family planning. No need to wait for the permission of my husband.* (Participant 3)

Interestingly, the study showed that women who decided to deliver in a health facility in advance were less likely to be convinced by others to stay at home:

> *The labor was problematic because it started late at night, and the TBA told me not to go to the hospital. But I told her that I don't want to deliver at home and decided to go to, and delivered in, the hospital.* (Participant 11)

Women who demonstrated self-efficacy were mostly involved in income-generating activities or involved in decision-making processes. A few women even reported that their husbands entrust them with important decisions and responsibilities in their husbands' absence. It is also important to note that some of the interviewed women were role models, since they were the first woman in their community who utilized SDC and thereby defied the common opinion that women should stay at home during the childbirth process. These role models reported that, based on their advice, other women in their communities had chosen facility-based deliveries.

Table 2: **Thematic framework of elements of the health belief model (HBM)**

Construct of HBM	Home delivery	Institutional delivery
Perceived threat of childbirth	- Normal and safe process - No complications at ANC - Lack of awareness at the time of last birth - God determines outcome	- Awareness that home deliveries increase the risk of negative health outcomes - Complications at ANC - Negative experiences of previous births - Prone to infections due to unhygienic conditions - FGM increases risk
Perceived benefits of institutional delivery	- Appreciation of availability of RMNH services in case of complications - Belief that women recover faster - Belief that health professionals are better skilled to treat FGM	- Better management of normal and complicated childbirth - Faster recovery - Health professionals better skilled to treat FGM - Satisfaction with institutional services resulted in use of PNC
Perceived barriers to institutional delivery	- Lifestyle • Seasonal migration • Distances to HF • No birth preparedness - Cultural reasons • Wish to receive traditional ceremonies • Wish to deliver in the presence of family due to fear of death • Fear of losing communal respect - Distrust of health professionals • Not reliable • Incompetent • Culturally inappropriate • Not able to treat FGM • Non-Afar speaking • Men • No equipment • Misbeliefs - Trust in TBAs • Reliable • Experience treating FGM - Social network • Negative attitude • Not supportive • Fear of consequences • Workload - Fear of losing income	- Social network - Culturally not accepted - Resistance
Cues to action	- Focused maternal health education to increase awareness at individual and communal level - Social network support should focus not merely on use of ANC More mentally and physically supported by husband and community (including food provision)	- Increased awareness at individual and communal level - Sufficient support from husband and community: family took over household activities, provision of food - Negative experiences
Self-efficacy	- Obedient attitude towards husband - Dependent on husband, and potential for self-efficacy and defiant behavior	- Less obedient - More autonomous in using financial resources or mobility - Birth preparedness

Discussion

This qualitative study demonstrates the impact of individual perceptions, cultural norms and intra-communal influences on place of delivery chosen by pastoralist women in the Afar region. Perceptions about possible health risks and benefits regarding the place of delivery differ markedly between women who delivered at home and those who delivered in a health facility. In this study, factors that had a negative impact on the demand for facility-based delivery from a socio-cultural perspective included:

- the lack of awareness regarding the risks of childbirth
- lack of support from social networks

- the impact of husbands' opinions and difficulties discussing reproductive health issues
- reliance on TBAs
- lifestyle factors
- cultural needs surrounding birth
- distrust in SBAs and health facilities.

Furthermore, it is of great importance to acknowledge factors which motivate women to deviate from the majority by seeking facility-based delivery, which were particularly related to:

- communal and husbands' support
- good awareness of pregnancy-related risks
- promoting ANC visits
- the belief that institutional delivery brings faster recovery from birth-related wounds
- the influence of previous negative birth experiences.

The following sections discuss the factors which, alone or collectively, affected women's decision to deliver at home instead of in a health facility.

Lack of awareness regarding the risks of childbirth: The majority of women in this study received maternal health education provided by HEWs before their last pregnancy and acknowledged the benefits of RMNH services. However, striking differences were recognizable in women's concerns about birth-related health risks. Mothers who delivered at home tended to regard childbirth as a normal and safe process due to a low perceived susceptibility to birth-related health risks. The opinion that a 'normal delivery' does not require professional support was widely held by the participants. This finding is corroborated by other studies conducted in Ethiopia (13, 14). Moreover, this study showed that previous uncomplicated birthing experiences increased women's confidence to continue with home birthing, which is also in line with previous research (15). This has resulted in the perception that facility-based deliveries are only needed in the occurrence of sudden medical complications. This is an important aspect to consider, since appropriate health education is necessary for women to make an informed decision based on the respective advantages and disadvantages of home and institutional delivery.

Differences regarding sensitivity to maternal health issues can be caused by various factors. It can be reasonably assumed that not all women in this study have been provided with equally comprehensive information about the health risks associated with childbirth. Further, it is possible that the women lacked interest in modern maternal health education or ignored information they received due to their adherence to cultural knowledge and beliefs about childbirth. In addition, previous health information may not have been powerful enough to change women's minds regarding the birth location. Evidently, there is a need to increase women's awareness about the importance and necessity of SBAs during delivery to ensure skilled care in complicated as well as in uncomplicated cases. To increase facility-based deliveries, tailored health information and education need to focus on making women realize that complications can occur at any time, without warning, during a delivery, and even after normal pregnancies. On the one hand, the curriculum of HEWs should be evaluated to remedy education gaps in order to better communicate the importance of institutional delivery and the susceptibility of pregnant women to health risks. On the other hand, traditional methods of spreading awareness, which are not necessarily tied to the formal system, should be considered to increase the scope of health information. Thereby, the study recognizes the importance of the local 'dagu' system (a community-based system helps to share different information), which has already incorporated general information about RMNH services and offers unique opportunities to informally strengthen communities' attitudes to the importance of institutional delivery.

Lack of support from social networks: In theory, a 'consumerist' approach on the part of health professionals should equip women with comprehensive maternal health education so that they can make independent informed decisions about delivery (16). However, in practice, individual decision-making processes are intertwined with social relationships and local belief systems in Afar region. Communal networks and their norms and values often do not allow space for independent decisions (17). Also, the women in our study were dependent on their social environment, including husbands, family and community members, in various ways. In most cases, these networks had a decisive role on women's perceptions and decision-making regarding the use of skilled care in health institutions. In Afar region, giving birth is generally perceived as a collective experience which strengthens social bonds and confirms a woman's status. Social networks of women who deliver at health facility had high supportive environment than women who gave birth at home. The study showed that some women thought that communal networks perceived institutional deliveries as unnecessary and even as a waste of scarce resources. Due to women's inferior role within Afar society and their dependence on communities, women were likely to follow the community's common opinion. Also, women who considered facility-based delivery in their last pregnancy due to concerns about the baby's or their own safety were likely to stay at home when the community expressed a negative attitude towards health facilities. This barrier was amplified by the unwillingness of individuals in the women's social networks to take over household chores while being absent. However, some women who reported resistance from community members found support from close family members, which encouraged them to utilize facility-based delivery.

Traditional knowledge with regard to maternal health has been passed down through generations, and the sudden shift from home to institutional delivery might be perceived as a reduction in the power of local knowledge (18). Therefore, it is hardly surprising that institutional knowledge and recommendations disseminated by unfamiliar health professionals who

are foreign to the Afar culture and language are in conflict with traditional knowledge. Furthermore, a study from Nigeria shows that individuals rely on experiences of relatives or friends, communicated through discussion, rather than on detailed information from health professionals (19). In order to facilitate the uptake of facility-based delivery among communities, clan leaders could be engaged as 'community volunteers' to promote RMNH services and specifically address the need for institutional delivery. The aim is to assign community volunteers for semi-formal counseling of mothers by visiting them at home, or to convene discussion rounds concerning reproductive health issues. Important requirements of community volunteers are that they are highly respected and influential authorities within the community. The advantage of these community volunteers is that they do not require formal education or comprehensive training, but rather operate through community acceptance and the understanding of local customs and traditions. The strategy of engaging community volunteers to promote the uptake of RMNH services is well known in Nigeria and other Sub-Saharan African countries (20-23). Therefore, the linkage between community volunteers and Ethiopia's formal health care system could be created via HEWs, who have already gathered experience in community health education. Another approach could be to target the counseling of prominent women in the community to start using RMNH services, thereby becoming role models for other women in the community.

The impact of husbands' opinions and difficulties discussing reproductive health issues: Husbands' attitudes towards the importance of receiving maternal health care have also been recognized as a crucial factor in women's reproductive health. In the Afar culture, husbands normally control household expenditure, their women's mobility, and the place of birth. These findings correspond to a qualitative study from rural Ghana, where women living in rural Islamic communities were excluded from participation in decision-making (23). As shown by several studies, women with low levels of autonomy are less likely to perform positive health-seeking behaviors regarding institutional delivery (24). Generally, the women who delivered in a health institution were more autonomous in utilizing financial resources and mobility, and demonstrated higher levels of self-efficacy compared to the women who delivered at home. Furthermore, the use of facility-based delivery is associated with monogamous relationships. The findings are consistent with studies from Ghana, Kenya and other studies in Ethiopia, which show that women living in a polygamous marriages are less involved in reproductive decision-making and at higher 'risk' of delivering at home (23-25). Formal education of husbands was an important factor for husbands to perceive the need for facility-based delivery, and was decisive for women's access to skilled care. Similar outcomes have been stressed by other studies (26). This and other studies suggest the need to emphasize the promotion of formal education for girls and boys, which is expected to contribute to the improvement of gender equality, women's rights and women's economic independence. For quite some time and in other study areas, the expansion of formal education has been recognized as being effective in raising the demand, access and use of maternal health services (26, 27).

The need for RMNH services was widely underestimated among men from the study communities. A study by Ganle *et al* (23) report that polygamous husbands, in particular, did not understand the necessity of health facilities if their other wives had safely delivered at home. In order to raise awareness and to counteract misperceptions among men regarding facility-based deliveries, maternal health education needs to be tailored to the specific needs of men. Moreover, cultural norms and values of femininity in the Afar region present a problem for women to discuss reproductive health issues with their husbands. Therefore, male-friendly education needs to sensitize men to reproductive discussions by emphasizing the benefits for husbands and their families that come with their women receiving timely skilled care for deliveries. A possible strategy encompasses the expansion of maternal health education to schools and/or mosques. Additionally, community volunteers can discuss the issue of maternal health in men-only groups. In order to prevent excessive male involvement, this topic should be carefully debated by advocating gender equality, because men and women should be equally involved in the choice of the birth location (28).

Reliance on TBAs: In the Afar region, women traditionally deliver in the presence of TBAs. In accordance with several studies, our study showed that women preferred TBAs as birth attendants for various reasons, including easy accessibility, cultural sensitivity, and distrust towards health facilities and health professionals (13, 29-31). In addition, the majority of women believed that health professionals are incapable of performing the traditionally appreciated opening and stitching of FGM-treated vaginas. By contrast, women who delivered in a health facility tended to trust the medical skills of health professionals with regard to FGM. The Ethiopian health system acknowledges the important position of TBAs as 'gatekeepers' for the transition from home to institutional deliveries (32). Therefore, it is recommended to integrate TBAs as a component of Ethiopia's formal health system instead of advocating against TBAs, and to bridge shortages of local health workers. The services of TBAs are especially of high value to women who have no access to professional skilled care. Experiences from a study in Nigeria show that the integration of TBAs into the formal health system was essential in realizing an increased acceptance and uptake of SDC (33. 34). However, the training of TBAs in midwifery skills should not be the focus while planning and integrating new interventions

(35-37). Rather, it is recommended to inform TBAs of the advantages of skilled birth care. They could function as cultural brokers between women and the formal health system by informing women about RMNH services and referring them for complicated and uncomplicated pregnancies and deliveries to SBAs and/or health facilities (28).

Lifestyle factors: Some women who demanded a facility-based delivery in their last pregnancy were not able to attend a health facility due to lifestyle factors. Seasonal migration created large distances for pregnant women to reach health facilities, which were difficult to overcome given the lack of transportation, which is another major obstacle in the Afar region. Mobile clinics have rarely been implemented to overcome distances and to deliver health services to remote pastoralist communities in the Afar region, due to the drawbacks of poor cost-efficiency and unsustainability [8, 38]. Maternity waiting homes (MWHs), however, offer a cost-efficient and sustainable alternative to overcome the barriers of geographical distances and the lack of transportation to timely access skilled care. MWHs are places located close to health facilities, where women can stay and await the start of the labor. The establishment of MWHs is an approved strategy for tackling the aforementioned barriers for hard-to-reach communities. The promotion of birth preparedness and the use of MWHs could be facilitated by TBAs due to their well-known status for guiding women through pregnancies (28, 39).

Cultural needs: The younger women in this study, in particular, emphasized the importance of delivering at home because of cultural reasons. The perceived need to receive cultural ceremonies was often stronger than the perceived severity and susceptibility of birth-related health risks. These findings corroborate with other studies. Van der Kwaak *et al.*, for example, describe the phenomenon of poorer health-seeking behavior among adolescents in pastoralist communities as a result of stigmatization by communities (30). Furthermore, a study conducted in rural Ghana shows that institutional delivery negatively affects the reputation of women within families or communities (40) . On the one hand, focused health education, especially informal knowledge transmission, should emphasize the normality of institutional delivery to prevent stigmatization. On the other hand, skilled birth could be provided in traditionally constructed huts in order to increase women's comfort. Traditionally, pregnant women need to be accompanied when leaving the home, which may require the provision of accommodation for companions. Furthermore, the (free) provision of water, ingredients for preparing traditional meals and traditional ceremonies need to be ensured for women and families who have to travel long distances to access a health facility for delivery.

Distrust in SBAs and health facilities: Another crucial barrier that deters women from using facility-based deliveries is the perception that health facilities are not well equipped and that health professionals are not always available, especially at nights and weekends. The finding that health facilities and health professionals are not perceived as reliable by potential users has been reported in several studies (29-31). Another study also revealed that lacking infrastructure and transportation systems causes an amplified delay in seeking health care which, in turn, results in severe complications for women after extended labor (30). Turning to professional health care in emergencies can also result in false perceptions with regard to health facilities and health professionals (13), and might explain the negative belief that health professionals intentionally induce miscarriages.

Other studies reveal that poor attitudes from health professionals, who were rude or not able to speak the Afar language, discourage women from delivering in health facilities (41, 42). The wide acceptance of ANC within the Afar context should be perceived as a major improvement and can be an important stepping stone towards establishing new culturally appropriate strategies grounded in indigenous social values, working to increase the trust in and demand for health facilities and health professionals. First, communities' adverse perceptions of health professionals need to be addressed so that they can be eradicated. Second, health workers who are originally from another area should be sensitized to cultural beliefs and habits in the Afar region in order to strengthen their professional commitment. Furthermore, women, including TBAs from surrounding communities, could be invited to transfer cultural knowledge and values to health professionals. In return, health professionals could inform women about the benefits of RMNH services. The aim of this cooperation would be to facilitate trust between the formal and informal sector through a reciprocal process of learning.

However, in the long run, investment in formal education is essential to overcome the current lack of locally trained health workers and positively affect the social capital of the Afar region.

Methodological limitations

Because of the small number of participants, the ability to generalize the findings from this study to a greater population is limited. Another limitation, due to social desirability, might include the presence of a male translator in the first round of interviews. In addition, temporal and financial constraints impeded the translation and transcription of Afar-spoken sections of the interviews. Therefore, the accuracy of the research may have been decreased by the reinterpretation of the translator or translation errors.

Conclusions:

The study highlights socio-cultural factors which encourage and deter women in the Afar region to use facility-based delivery. Perceptions regarding home- and facility-based delivery are slowly changing and women are moving between the paradigms of 'biomedical' and 'traditional' treatment with regard to child delivery. On the one hand, women make use of modern health facilities for ANC. On the other hand, many women continue with home deliveries. Often, the

availability of health facilities was only perceived as a safety net during complicated or prolonged labor. However, for RMNH services to be accepted and used on a regular basis, they must be regarded as essential and culturally appropriate. In the context of this study, the lack of socio-cultural acceptance contributed to the Afar women not accessing health facilities, even when they were available.

To foster the change of paradigms in a facility-based direction, targeted awareness creation and health education at the community and individual level need to be continued, albeit in a modified form. Health professionals and HEWs need to adjust their focus when educating communities on the importance of maternal health care. The idea is to convey the message that screening during ANC visits is not sufficient to protect mothers from possible complications during the birth process. Therefore, health educators need to explain to communities that TBAs are not always able to detect a high-risk labor and delivery at an early stage, which is necessary to arrange a timely referral of women to emergency obstetric care.

The effective integration of TBAs into the Ethiopian health care system will continue to be a challenge. A recommended strategy is the encouragement of TBAs to advise and refer mothers to use RMNH services. At the same time, the promotion of women's active participation in decision-making and of male involvement have great potential. It should be stressed that basic education for boys and girls is essential for a bottom-up development of the Afar region. Furthermore, the government should consider investment in innovative strategies for mitigating socio-cultural barriers to increase the demand for facility-based deliveries and thereby decrease the unacceptably high MMR among women in the Afar region.

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