Stakeholders' Perspectives on the Implementation of Maternity Waiting Homes in Rural Ethiopia: A Qualitative Study

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Abstract

Background

The rural community in Ethiopia is scattered over a wide geographic area, some regions with difficult mountains, making access to healthcare facilities a great challenge. To overcome geographical barriers and improve access to skilled childbirth care, maternity waiting homes (MWHs), shelters built nearby health facilities, where pregnant women are lodged until labour begins, were introduced decades ago. This study identifies the demand and supply-side determinants of access to MWH services in rural Ethiopia.

Methods

This descriptive, exploratory study included five focus group discussions and eight in-depth interviews using a semistructured interviewer guide. Field notes were collected, and interviews were audio-recorded. Using Quirkois®, data were coded, transcribed verbatim, translated into English, and analyzed following Penchansky and Thomas's modified framework of access.

Results

The study identified several challenges of the implementation of the MWH program in the study area. Subthemes that emerged from the discussions were lack of awareness about the MWH services, geographic inaccessibility, inadequacy of facilities and unaffordability-related issues, substandard and culturally insensitive care at MWHs, and logistic barriers. Most participants rated the MWH quality as poor and requested better MWH services to promote access to skilled birth attendance.

Conclusions

Several contextual, structural and socio-cultural barriers have been hindering the implementation of MWHs in the study area. To improve women's access to skilled childbirth, it is crucial to tailor context-based MWH messages, upgrade existing MWHs and ensure that the services are culturally sensitive.

Introduction

Despite efforts made by the World Health Organization (WHO) and other stakeholders, the global maternal mortality ratio remains high. In 2017 alone, an estimated 295,000 women died globally because of pregnancy- and childbirth-related complications, yielding an overall maternal mortality ratio of 211 per 100,000 live births [1]. However, there is a high disparity in maternal mortality between high-income and low-income countries (LICs), making maternal mortality one of the greatest public health inequities in the world. According to the recent reports by the WHO, about 95% of global maternal deaths occurred in LICs,

with Sub-Saharan Africa accounting for two-thirds of the global total [1, 2]. Even in LICs, countries such as Ethiopia carry a high maternal mortality burden. According to recent reports, Ethiopia is one of the ten countries that contributed 59% of global maternal deaths [1, 3]. The tragedy is that the vast majority of maternal deaths in LICs are because of easily preventable direct obstetric complications, such as hemorrhage, hypertensive disorders, sepsis, and complications related to unsafe abortion [4].

The World Bank and other United Nations agencies estimate that about 74% of all maternal deaths can be averted if all women have access to skilled care to prevent or treat obstetric complications [4, 5]. A recent report by the WHO indicated that there has been a promising increase in the proportion of births attended to by skilled birth attendance (SBA) globally (from 74% in 2014 to 81% in 2019). In Sub-Saharan Africa, however, the estimated number of births attended to by skilled attendants is no more than 60%, which is one of the main reasons why there is still high maternal death in the region [6]. Numerous studies have identified problems with access to healthcare facilities (HCFs), particularly to SBA, noting that this barrier is still a prime reason for home birth without the assistance of skilled birth attendants in rural areas in LICs [7, 8]. Although the Ethiopian government has aggressively promoted institutional delivery, more than half of all pregnant women in the country are still giving birth at home without the assistance of SBA. According to the 2019 Ethiopian Health and Demographic Survey report, only 48% of births in Ethiopia were assisted by SBA [9].

Several interventions have been implemented to improve women's access to SBA in LICs. Among these, bringing healthcare services to the communities through the expansion or decentralization of HCFs was enacted to reduce the barriers associated with distance to HCFs that are found in many parts of LICs [10–12]. However, in settings where the decentralization of HCFs is not practical or feasible, a maternity waiting home (MWH), which is a residential lodging where expectant women in the late stages of pregnancy can stay until the onset of labour and can be quickly transferred to the facility to receive timely skilled obstetric care, has been developed as an alternative solution [12–14].

Published reviews on MWHs have demonstrated a positive contribution of MWH use to an improvement in the uptake of maternal health care services and has also been linked to a reduction of maternal and perinatal death in LICs, including Ethiopia [12, 15–17]. Even though MWHs help improve maternal health care, a lack of awareness of its existence [18–20], perceived poor quality of care at the MWHs and adjacent HCFs [25, 26], and the costs associated with a longer stay in MWHs have resulted in the poor uptake of MWHs in many parts of LICs [21]. In addition, there is also evidence in the literature about the major challenges that women face in receiving MWH services, including problems related to bringing food and money for services [22] and the difficulties faced by women when they are leaving their families [18, 23], women's inability to decide on their own to use MWHs [24], cultural insensitivity of services, a lack of family and social support and the absence of space in the MWH for visiting relatives to stay [21, 25].

Because the rural communities in Southern Ethiopia, such as the Arba Minch Zuria and Gacho Baba districts, are scattered over a wide geographic area, some with difficult mountains, geographic barriers are

likely to influence women's access to SBA. According to earlier studies, a large number of women do not use MWH services and end up giving birth at home or en route to the HCFs without the supervision of SBA, despite the efforts made to establish MWHs to improve access to HCFs [26–28]. However, there are limited studies in Ethiopia, and none exist that emphasize the structural and sociocultural influences on the use and nonuse of MWHs from the perspectives of the stakeholders who are directly involved in MWH services. What is missing so far is an in-depth understanding of the factors hindering the use of available MWH services in the local context, here paying attention to the perceptions and experiences of users, nonusers, and community members as they relate to MWH services in the rural areas of Ethiopia. Thus, the present study will provide baseline information for suggesting interventions that could contribute to better SBA and maternal health outcomes in the study area.

Methods

Study design and context

A qualitative exploratory study was undertaken at the Arba Minch Health Demographic Surveillance Site (HDSS), which encompasses the Arba Minch Zuria and Gacho Baba districts of the Gamo zone in Southern Ethiopia. From the two districts, nine kebele, the smallest administrative structure in the Ethiopian government (eight rural and one semiurban kebele), were randomly selected from the twenty-nine kebeles of the districts as part of Arba Minch HDSS.

There are six public health centers and thirty public health posts in Arba Minch Zuria and Gacho Baba districts. Both districts use Arba Minch General Hospital, the only hospital for the districts and surrounding area, as a referral hospital. At rural health posts, the female cadres of salaried community health workers, called health extension workers (HEWs), offer promotive and preventive maternal health care services that include child immunization, contraceptive provision, and antenatal and postnatal care.

Health centers, which are staffed by a public health officer, nurses, and midwives, provide routine maternal-child health care, including basic and emergency obstetric care, immunizations, diagnosis, and the treatment of primary care conditions; each health center serves a population of between 5000 and 25,000. When midwives at the health centers are faced with obstetric complications, they refer the women to Arba Minch General Hospital, where comprehensive emergency obstetric care and advanced medical care are offered.

Because most of the kebele in these two districts are identified as 'hard to reach areas, pregnant women are likely to be affected by physical barriers to access HCFs. As part of the efforts to minimize the distance between women's residences and HCFs and to facilitate access to SBA for women in remote areas, the MWHs were built close to the health centers through direct community participation. The main economic activities in the districts are agriculture (banana and mango cultivation) and livestock rearing.

Data collection methods and procedures

Focus group discussion

To identify the main challenges women face in receiving MWH services and their perceptions regarding MWHs and skilled delivery care services, we conducted five focus group discussions with purposively selected women from a catchment population of four HCFs with open MWHs. The participants were approached via HEWs and included both MWH users and nonusers, including those who have given birth outside the HCFs (homebirth or gave birth en route to HCFs).

A semi-structured guide was developed after reviewing the relevant literature; the guide included open-ended questions to solicit the perceptions and experiences of women, including the customs and traditions during labour and delivery, and the factors that contributed to using maternal healthcare services in general and MWHs in particular. The focus group discussion guide was used as a framework for the moderator to ask and probe questions, increased the comprehensiveness of data collection, and made the data collection process more efficient. All the focus group discussions were audio-recorded and were, on average, fifty minutes in length. Each focus group discussion was conducted by two individuals: one who served as a moderator and one as a note-taker.

In-depth interviews

To obtain in-depth information about the MWH services and skilled delivery care at the adjacent HCFs, we developed a semi-structured, in-depth interview guide based on the issues gathered from the literature [20, 29–31]. In-depth interviews were conducted with four MWH users, excluding those women who participated in focus group discussions and four key informants (two heads of the HCs with open MWHs and two HEWs). The interview topics for the women included personal experiences of pregnancy and delivery, MWH and skilled delivery care services used, the challenges they faced during their stay at MWHs, and during the time they received the delivery service at the adjacent HCF, and suggestions for improvements. For the person in charge of the HCFs and HEWs, the interview questions included the professional background of the participants, current gaps and limitations in providing MWHs and skilled delivery care, and their views of the possible solutions based on the local contexts.

Women were approached by the HEWs; the interviews took place at a location of their choice and were conducted in person. All the interviews were audio-recorded and were between fifty and sixty minutes in length; the first author conducted all the interviews. The interviews for the HEWs and health personnel were conducted in person in the HCFs at the participant's offices and health posts. All interviews were audio-recorded.

Data collection was limited to five focus group discussions and eight in-depth interviews because the data were intended to provide rich insights to better understand the stakeholder perspectives rather than statistical information. The number of focus group discussions and in-depth interviews was predetermined based on the principle of data saturation. The rationale for using these qualitative methods was to tap into stakeholder perspectives and reactions in a way that would not be feasible using other quantitative methods. Before the beginning of the focus group discussions and interviews,

demographic information—age, education attainment, marital status, number of children, and income level—was collected. All five focus group discussions and the eight interviews were tape-recorded, and additional notes were also taken during the discussion, particularly regarding the interaction among group members, to better explain the findings. The discussions were conducted from April to August 2019, while the in-depth interviews were carried out in January 2020.

Data management and analysis

The standard for Reporting Qualitative Research was followed to report the result of this study (Supplementary file 1). A descriptive statistic was used to describe the sociodemographic characteristics of the participants using Stata version 15. After we finished the field activities, all recorded interview tapes were transferred to a laptop. Two researchers read all the copies and gave codes separately in Quirkois® data analysis software. Coding was guided by Penchansky and Thomas's theoretical framework of access to services which was modified in 2016, and the categories and themes were then compared and aligned according to the five dimensions of access[32]. To ensure the trustworthiness of the data, a discussion was conducted among selected participants to ensure that their ideas and concerns were well noted in the research process. Finally, the results were organized and presented into themes and subthemes and supported with key quotes and narrations.

Results

Characteristics of the participants

In the following section, we present the findings from the five focus group discussions and eight individual interviews with thirty women, two HEWs, and six key informants who met the inclusion criteria for this study. Nearly 14/30 of the focus group participants were in the age group of twenty to twenty-four years old, and the majority (22/30) of them had no schooling. More than half of the participants (17/30) were farmers and housewives (only household chores). The mean number of deliveries of the participants was 2.4 (±0.89). Twenty women had given birth to their last babies at health centers, four at a hospital, and six at home. The majority (21/30) of the participants were Protestant Christians, which is the dominant religion in the region. Thirteen out of thirty (13/30) focus group participants had ever used MWH services (Table 1). Eleven users (11/30) reported staying at the MWH less than a week (two to six days) before delivery, while six (6/30) were accommodated at the MWH for more than one week before giving birth (seven to seventeen days).

Table 2 presents themes and sub-themes, which were constructed from participants' responses, and sorted and categorized according to Penchansky and Thomas's Theory of Access [38] and are grouped into six main themes.

Theme 1: Awareness of MWHs

Poor awareness

The participants demonstrated poor awareness of MWHs. The participants explained that their current poor awareness of the existence or benefits of MWHs in the community has played a role in increased home birth rates. The participants and key informants also noted that even individuals who are aware of MWH services do not use these services because they are unsure of their estimated delivery date. Interviews with the HEWs about MWH awareness also confirmed the stories that several of the women gave; however, they linked the problem to the reluctance of the women to come to HCFs for any services, including the antenatal visits and other meetings where they are likely to get information about MWH services.

The following quote summarises the ideas of those women who gave birth at home and did not use MWHs: '*I'm not familiar with the houses you're referring to. I've never heard of them ... Nobody has ever informed me of their existence or advantages. But, based on what you're saying now, I believe it's important, especially for women who want to come here [health center] but live a long distance away [...] I believe it would be beneficial if other women were also made aware of it'* (Kebele#1, age 33, MWH nonuser).

MWH services promotion

In terms of efforts to raise awareness, dispel myths and sustain knowledge about MWHs, the key informants and FGD participants emphasized the importance of providing context-based communication and information. They stated that given the setting, working in a partnership with the kebele and influential community leaders is the best way to reach the relevant audience. They also suggested resuming the pregnant women's forum, where the women used to gather monthly, which may be done by HEWs, which generally have good connections with the communities and work with volunteers from the women's development army in each kebele: '*There are community gatherings for various events and during these events; it is known that most parts of the community are present, and I think it will be a good time to share information about MWHs. This information has to be delivered by HEWs and influential community and kebele leaders since the information delivered by these individuals is more trustable and acceptable; this would increase the awareness and encourage mothers to stay at MWH* (Kebele#1, age 34, MWH user).

Reason to stay at MWHs

All the participants who had stayed at MWHs at some point learned about the service through health education during antenatal check-ups and were either categorized as having a potentially high-risk pregnancy or lived far away from the health centers. One of the FGD participants mentioned the reason for choosing to stay at MWHs as follows: '*I had no intention of giving birth at home because my first delivery was by surgery. I decided to get near the HCFs as soon as possible. The death of a close friend*

because of heavy bleeding after she gave birth was a second reason why I decided to give birth at HC. I was afraid of my life as well, so I opted to stay nearby' (Kebele#2, age 28, MWH user).

Theme 2: Availability-related barriers

Poor physical facilities of MWHs

Several participants discussed the lack of basic facilities and resources in MWHs to meet users' expectations as a barrier to using MWHs. The MWH users from distant communities described how women who live far from health centers are hesitant to leave their homes because the health center and MWH do not have the necessary equipment and resources. According to the key informants, there has frequently been a scarcity of supply, which may imply that less attention is being paid to maternity care at public health institutions. There used to be budget allocation, but that money has now been fully depleted, and there is no other source of income to cover all of the needs of MWH users. Furthermore, MWHs users have proposed that to attract many more women to stay at MWHs, the houses must be upgraded to a standard level where the women can rest and enjoy themselves: '*I know the MWH facility at [omitted] health center, and it lacks basic facilities where the women wash their clothing, take bath and cook food. … I heard the women who stayed there also complaining of a shortage of foodstuff. I would suggest that food be provided for those who are waiting for labour. There used to be this kind of contribution in the catchment a few years back which needs to be resumed*' (Kebele#3, age 30, HEW).

MWHs staff shortage

The MWH users also stated that MWHs do not have a separate staff/employee in charge of the day-to-day operation of the services. Currently, the midwives in charge of maternity care at the health centers are also in charge of the MWH services. Because of a shortage of midwives at health facilities, appropriate attention has not been paid to MWH services. According to the health center's heads, '*I'm worried that we have a shortage of midwives. We have two midwives on duty; let us say one has a personal problem; the remaining one is expected to provide maternity services for twenty-four hours. This is one of the problems in this health center. We have requested that the district health office assign more midwives for this HC*' (Health Centre#1, age 27, Health Officer).

Furthermore, the clients of the MHWs indicated that staff shortages are not simply a matter of numbers; they are also an issue of technical and interpersonal interactions, particularly when it comes to their practical childbirth management skills compared with locally known traditional birth attendants. Women were also disappointed by the midwives' unprofessional approach at the health centers; they said that some midwives do not take their jobs seriously and that instead of caring for the mothers who needed help, they spoke on the phone during working hours.

Theme 3: Geographical access barriers

Logistic barriers

Many geographical constraints prevent women from getting skilled delivery services. Long distances, a lack of transportation options, and mountainous terrain are the most significant physical hurdles to receiving skilled care, especially for women who give birth at night or during the rainy season. Several participants also mentioned that poor road conditions made it impossible for parturient women to physically access MWHs, even those that were only a few kilometers away. '*One of the primary reasons I don't go to the MWHs and health facility is the lack of adequately constructed roads in our neighborhood. ... I'm sure you've seen the route that leads to the HC; it's a tough one for anyone, let alone a pregnant or laboring woman. As a result, rather than going out, we choose to stay at home and pray to God to keep us safe from unanticipated complications'* (Kebele#3, age 35, MWH nonuser).

Ambulance services

The ambulance service was another transportation-related issue. The service is only available for interfacility transfers in emergencies. The participants also advised that because of the lack of public transport and poor road conditions, an ambulance was used to transfer pregnant women from their homes to health facilities and vice versa. They further stated that the available ambulances did not provide adequate service: '*We have only one ambulance at the district level to transport emergency cases from the HCFs to the hospital. We have to wait for hours for the ambulance after the decision to refer has been made and the driver has been notified. The ambulance may have another assignment, the drivers may refuse to cooperate, or there may be a lack of fuel, causing the case to be transported to the hospital to be delayed for more than three hours or more*' (Health Centre#2, age 36, Nurse).

The MWH allows pregnant women to get closer to the facility before labour starts and decreases geographic barriers by giving them access to skilled care. They went on to say that it allows women to stay close to health centers during the last two weeks of pregnancy and travel to HCFs before labour pains begin. Furthermore, most of the participants stated that while staying at the MWHs, women can benefit from immediate delivery services when labour begins, as well as being referred to a hospital on time if additional care is required. One of the FGD discussants, an MWH user, noted the following: *'[…] one of the important reasons for deciding to stay at the waiting home is to get timely midwifery care […]. I mean you can avoid delay in reaching the health center at the critical time of labour. By the way, staying at MWH is a good opportunity to skip care from traditional birth attendants'* (Kebele#2, age 23, MWH nonuser).

Describing the importance of MWHs, one participant stated*, 'A community health worker informed me that the health facility has a waiting home. It would be more convenient for mothers who reside a long distance to receive delivery services through these houses. However, I believe that a woman should not be*

forced to stay at home; rather, she should be convinced and encouraged to do so. It frequently solves problems that arise as a result of delays in reaching health centers' (Kebele#1, age 27, MWH nonuser]).

Theme 4: Acceptability of MWHs

Culturally insensitivity to the services

The current study revealed that the acceptability of MWH services is another factor in determining MWH use. Not even considering MWHs, it was not customary to give birth at a health facility, and most often the women sought skilled delivery care only when they were having problems during labour that the attending traditional birth attendant could not help with.

The participants also stated that doing some traditional rituals freely at home would be beneficial because health professionals do not allow families to do so in health facilities. Some of the women we spoke with also mentioned how tough it was to leave children at home without someone to look after them. The men were frequently afraid of taking on all of these duties; therefore, they would not allow their wives to leave the house and stay at the MWHs. One of the FGD discussants explained this as follows: *'In our community, elders don't allow parturient women, especially those whose delivery is for the first time, to rush to a health care facility. They tell you that labour in these women may take longer than in those women who have the experience. As a result, many women wait until the labour progress at their residency, and some women had given birth while waiting for advanced labour at home.*' (Kebele#5, age 23, MWH nonuser]).

One of the FGD discussants remarked, *'I think one of the customs we have in this area is preserving the placenta or burying it in the backyard. As we are not allowed to do this custom in health centers; many women don't want to go there. As we believe labour is a natural process, we believe that no interference is needed, but if you are in healthcare facilities, they may perform unnecessary interventions'* (Kebele#3, age 28, MWH nonuser).

Birthing position preferences

When we asked the women about the cultural preferences that may influence MWH use, the women who had never used MWHs explained that giving birth in a squatting position is generally encouraged to avoid exposing women's private parts to others. However, the women were not allowed to adopt squatting positions at the HCFs. In addition, women are culturally advised not to leave home after giving birth because there is the belief that mothers may get sick and infected if they leave home early after they gave birth. '*As you know, we [health centers] do send the women who gave birth at the health center right away to their homes as we don't have a place for postnatal women, so they don't want to give birth at the health facility. The reasons why they don't allow mothers to go out of the house ... they believe the mothers*

might get sick [Likift yiyizatal] when they leave the house, especially if she is alone' (Health Centre#1, age 27, Health Officer).

One of the reasons for [being reluctant to give birth at the HC] is ... they [providers] often insert their fingers into your secrete/private body at the health centers, which is unacceptable in our culture. As a result, families, including the husbands, recommend staying at home and giving birth with the help of an experienced traditional birth attendant' (Kebele#5, age 36, MWH nonuser).

The companionship of the women's choice

Another reason the women did not want to use MWHs was that the midwives would not let them have a companion during birth. MWH users, on the other hand, stated that they were allowed to bring a family member with them while staying at the MWHs. According to the head of one health center, midwives allow companionship in some cases but not in others because they only have one room and want to protect the women's privacy: '*My husband had to wait outside the maternity ward during my last delivery in [omitted] HCF because the midwives wouldn't let anyone in. My husband would have offered me psychological support if they had permitted companionship while I was in labour'* (Kebele#6, age 22, MWH user).

Most of the participants said that their husbands would normally determine whether or not they could stay at the MWHs, and that in some cases, the woman's mother and mother-in-law were also involved in the decision-making process. In terms of the husbands' involvement in the use of MWHs, women who had stayed at the MWHs at some point said that their husbands were the ones who chose to let them stay there. '*We came here with the positive will of the husbands. But I know a pregnant woman who wanted to come and stay here, but she couldn't as her husband didn't allow her to do so. Many men restrict women from leaving home for long periods. I know some women go back to their homes; they could not stay at the MWHs for more than two weeks because their husbands didn't allow them to stay more than that*' (Kebele#6, age 33, MWH user).

Theme 5: Affordability of MWH services

Transportation costs and willingness to pay to MWH services

Although maternity care is generally considered 'free of charge' in Ethiopia, women have raised concerns about the indirect costs, which most women cannot afford. Community members had to carry pregnant women from remote locations on traditional stretchers until they could get to the road, and the costs of both traditional stretchers and public transportation were among the reasons why women may not opt to seek skilled delivery or stay at an MWH. Additionally, they were also requested to buy drugs from private drug dispensaries and to pay for the costs of meals during their stay. The person in charge of the health center reported that in previous years, there was community support for the management of MWHs, but

this has had ended, which limited the functionality of the MWHs. When asked if they would be prepared to pay for the MWHs, the focus group participants expressed a reluctance to do so if the service was linked to a payment: '*I don't agree with payment for this service. Those with good income can pay, but for those with low income, I don't know if they could afford it, they couldn't? … The source of income in this area is subsistent farming. Let alone for MWH services [accommodation], they don't want to pay for other medical services; rather, they want to look for traditional options, which costs them less*' (Kebele#5, age 30, MWH nonuser).

Theme 6: Adequacy of the MWHs

Substandard of care and services at the MWHs

The adequacy of MWH services was also identified as a concern for the participants' to meet the needs of the women. Because there was no meal service, the women must purchase grains to prepare food, but they were unable to do so because of a lack of utensils and a designated cooking area: '*The house is physically available; it requires materials. It would be wonderful if we could make our coffee and cook our meals … but sitting with your arms and feet folded and doing nothing is a sign of laziness*' (Kebele#7, age 28, MWH user). '*Since there is no delineated place to stay after delivery at the health center, the health workers send us home immediately after delivery without washing our clothes, which are soaked with blood*' (Kebele#2, age 28, MWH user). It was revealed that the MWHs do not have shower services or a way to maintain privacy when two women remain in the same room as the one who is accompanying them: '*There is no area to change clothes or do personal stuff if there are more than three women at a time*' (Kebele#6, age 28, MWH user).

Discussion

In areas where maternal mortality is high, the number of mothers receiving maternal healthcare services is very low. Delays in reaching a facility that provides emergency obstetric care have been identified as one of the major determinants of preventable maternal death. In rural Ethiopia, where access to maternal health care services—particularly delivery services—has been difficult because of geographical constraints, the MWHs program was widely implemented to improve service utilization. The current study aimed to explore stakeholder perspectives on MWHs in contexts where the services were made available to improve access to skilled childbirth services. The present study identified several challenges related to MWH awareness, geographic accessibility, adequacy, acceptability, and affordability-related issues that influenced the implementation of the MWH program in the study area.

Consistent with previous studies, the present study identified awareness as a key motivating factor for using services and a key facilitator for receiving timely care, and most women who never used an MWH

service were unaware of the existence or purpose of MWHs, which influences MWH use [19, 21, 33]. Women who live in remote settings and want to give birth at HCFs with the assistance of SBA were unable to use the MWH services because they did not know of the availability and benefits of the MWH services. This finding could be explained by the fact that some women have never visited antenatal care or other maternal health services, their literacy level is low, or they have limited access to health information. Thus, creating awareness about the benefits of MWH services could help these women know about and, hence, use the existing MWHs, particularly those most in need and living in remote settings [20, 21, 34]. Furthermore, such education initiatives should not only target women but also husbands and in-laws because these family members have a substantial impact on women's utilization of maternal health care, including MWHs [35].

In line with previous studies [21, 36, 37], we found that traveling long distances and a lack of transportation options were barriers to access MWHs. In the study area, the MWHs were located on the premises of health centers where women could receive basic emergency obstetric care [38]. Therefore, these physical-related barriers affecting basic emergency obstetric care use have a similar impact on MWH use. Although MWHs is an important strategy to overcome distance, transportation, and travel time-related barriers, we found that the women are also expected to travel a long distance across mountainous terrain with poor roads to access the MWHs. Because the MWHs provides accommodations near a health center for pregnant women close to birth, the MWHs in this study area can be seen as the true means of overcoming distance-related barriers because the women can be transported a few weeks before labour begins when it is comfortable to travel [37, 39].

There must be adequate facilities at both the MWHs and adjacent HCFs for women to use MWH services [21]. Consistent with previous studies, the study has shown that the adequacy of sleeping areas that take into account the privacy of the users, the availability of beds and mattresses, bathing facilities, food supplies, or kitchen utensils in MWHs are likely to affect whether or not the service is used [20, 21, 40, 41]. Moreover, one qualitative thematic synthesis showed that the MWHs were better used and accepted by women and their families when they provided basic infrastructure and facilities [21]. Our study identified that many MWHs did not have these basic services and that, where they were available, they were either inadequate or lacked good quality. These findings are important because they underscore the importance of basic needs, such as food, as determining factors that can be easily addressed for the use of MWHs. Health systems must ensure that basic services are supplied and that basic facilities and services are met before women use the available services [27,52].

In the current study, it was found that MWH utilization was influenced by several social and cultural factors. With all the responsibilities that women have at home, leaving children at home to stay at MWHs without someone to look after them was stated as challenging. Husbands do not encourage women to leave the house and to stay at MWHs for long periods because husbands are the key decision-makers in the household [35]. We also found that the lack of culturally sensitive care in health centers, including the reluctance of midwives to allow families to exercise their cultural practices during labour, was the reason for the low acceptance of the MWH services. There was also a reluctance to seek professional care

among pregnant women, including to stay at MWHs, because there was a misconception that the use of delivery services should be limited to complicated pregnancies and deliveries [33, 41].

Furthermore, some women stated that they were not allowed to give birth in the position they preferred, nor were they allowed to accompany a husband or relative to the delivery room, which they described as challenging. In some cases, in the formal health care system, some cultural practices were not allowed. Consistent with other studies from similar settings, many of the women continued to practice homebirth and did not come to the MWHs because of the lack of culturally appropriate care in the HCFs. Therefore, incorporating cultural practices into the healthcare system as long as they do not harm the women and the new-born, such as allowing women to have the companions of their choice and empowering women by clarifying some misconceptions, need to be considered to improve the acceptance of MWHs in the community [41].

Although maternity care, including MWHs, is an exempted service in public health facilities in Ethiopia, our findings are in line with other studies showing that the indirect cost, such as the cost of transportation and food, is a barrier to the uptake of MWH services [21]. Several of the participants in our study identified the absence of meals as a barrier to using the MWHs; particularly, the concern remained high among those with a low income because they were unable to bring the required amount of food for a longer stay. Evidence has shown that a lack of food at MWHs has prevented their successful implementation, and a shortage of income has affected their functionality [35, 42–44]. Thus, for the MWHs to achieve their intended goal, the community must resume its contribution to the food supply at the MWHs, and the institutionalization of the MWH service in the wider health services is needed to lower other barriers to use.

Above all, it was emphasized that the implementation of the MWHs should take into account the expectations of and experience at the MWHs. One of the findings that emerged in the current study is that the women who did use the services were considered lazy by the community, and the reason for their stay at the MWHs was also considered as a way to skip one's responsibilities at the household. In line with this, MWH users have expressed that lodging at MWHs, especially for long periods without doing anything, is boring. For the MWH approach to achieve its stated goal of improving access to SBA, establishing the means for women to learn new skills such as handcrafting during their lodging time could increase community acceptance of MWH services [45]. Although the MWHs were built through direct community participation, existing services must be upgraded to a level that meets the expectations and perceptions of the women for the MWH strategy to achieve its intended goal of improving skilled childbirth utilization and, ultimately, reducing maternal mortality in rural Ethiopia.

Conclusions

The current study assessed the experiences and challenges of MWH services from stakeholders' perspectives; we found several structural and sociocultural factors influencing the access to and utilization of MWHs. Low MWH awareness in the community and poor road conditions, including the lack

of transportation options in the district, were among the challenges contributing to the low use of MWH services. The lack of culturally appropriate care in the MWHs and health facilities, as well as the inability to choose the preferred position for giving birth, not allowing the chosen partner to accompany the woman during labour and not allowing the cultural practices to be freely practiced at HCFs, were all seen as barriers. The social status of women, in particular their low involvement in decision making, also appeared to be a reason for not using the existing services in general, MWHs in particular. Most importantly, the users stressed that the poor quality of the houses, as well as of the services provided, was the most important reason for MWH underutilization. Given the context and health literacy, appropriate communication and information strategies should be developed to increase awareness of the MWH service and its benefits. Access-related problems, such as poor road conditions and lack of transportation options, equally affect the use of MWHs and skilled childbirth care. However, if women are encouraged to plan to travel to MWHs before labour begins when they can still walk, this could help them overcome distance-related obstacles to access these services. Efforts to improve the quality of care and upgrading the existing services and incorporate cultural practices into the healthcare system, as long as they are not harmful to the users, could attract many women to use the MWHs.

Abbreviations

FGD	Focus Group Discussion
HCFs	Health Care Facilities
HDSS	Health and Demographic Surveillance System
HEW	Health Extension Worker
LICs	Low Income Countries
MWH	Maternity Waiting Home
SBA	Skilled Birth Attendance
WHO	World Health Organization

Declarations

Ethics approval and consent to participate

Ethical clearance was obtained from the Institutional Ethical Review Board of Arba Minch University. Written informed consent was obtained from each study participant and for the participants who could not read because of their literacy, we obtained fingerprints demonstrating their willingness to participate, which was also approved by the ethics committee. All methods and procedures were performed following the relevant guidelines and regulations.

Consent for publication

Not applicable

Availability of data and materials

All data generated during this study are included in this published article and its supplementary information files. The minimum data set is however available from the authors upon reasonable request and with the permission of Arba Minch University.

Competing interests

The authors declare that they have no competing interests

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Authors' contributions

M.K.G., V.D., Y.J. and J.P. conceptualized the study and supervised the data collection process. M.K.G., Y.J. and J.P. led the analysis of the data presented in this paper. MKG prepared the draft manuscript, with substantial inputs from V.D., Y.J. and J.P. All authors have reviewed and approved this final draft of the manuscript.

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Tables

Table 1. Socio-demographic characteristics of the focus group discussants (n=30) from Gamo zone, Southern Ethiopia,2020

Variables		Frequency	Percentage
Age	20-24	14	47
	25-29	8	27
	30-34	8	27
Occupation	Farmer	17	57
	Only home duties	10	33
	Small Private business	3	10
Educational level	Not attended formal education	22	73
	Completed primary Schooling	8	27
Parity	<2	19	63
	≥2	11	37
Marital status	Married	30	100
Mean income per month (ETB*)	<500	25	83
	≥500	5	17
Religion	Protestant Christian	21	70
	Orthodox Christian	9	30
Walking time to the health facility on foot	≥ 2 hours	20	67
	< 2hours	10	33
Place of delivery for the youngest child	Home	6	20
	Hospital	24	80
History of obstetric complications in the last childbirth	Yes	7	23
	No	23	77
MWH service use	Yes	13	43
	No	17	57

*1 USD ≈ 41 ETB during the data collection period

Table 2 Themes/sub-themes, which were constructed from participants' responses, and sorted and categorized according to Penchansky and Thomas's Theory of Access

Dimension of access	Dimension components and examples	Themes and Subthemes	Illustrative Quotes
Awareness	A service maintains awareness through effective communication and information strategies with relevant users.	Awareness of MWHs	"*I'm not familiar with the houses you're referring to; I've never heard of them... Nobody has ever informed me of its existence or advantages. But, based on what you're saying now, I believe it's important, especially for women who want to come here [health center] but reside at a long-distance [...] I believe it would be beneficial if other women were also made aware of it.*" Source: Age 33, MWH non-user]
		Reason to stay at MWHs Low socioeconomic status Negative childbirth experiences	"*I had no intention of giving birth at home because my first delivery was by surgery. I decided to get near the HF as soon as possible. The death of a close friend due to heavy bleeding after she gave birth was a second reason why I decided to give birth at HC. I was afraid for my life as well, so I opted to stay nearby." Source: [Age 28, MWH user]* *I wanted to go to [the] MWH, not because I was told about the standards of care there, but because I couldn't afford the payment for transportation, even I didn't have alternative transportation means in case something [unforeseen] happens during childbirth at home. Instead, I preferred to be close to the facility with professional care. [Age 33, MWH user]* *The very reason I decided to stay in [the] MWH was my shocking experience during my second childbirth. …I was with [a] traditional birth attendant. For some reason I don't know, I had started bleeding shortly after the child was born and the blood was a lot that the traditional birth attendant couldn't do anything… my village is quite far, walked long to get there [health center], and I was between life and death when I arrived there. If I had not received professional care at that time I would be alive. [Age 28, MWH user]*
		MWHs promotion	"*There are community gatherings for various events and during these events, it is known that most parts of the community are present, and I think it will be a good time to share information about MWHs. This information has to be delivered by HEWs and influential community and kebele leaders since the information delivered by these individuals are more trustable and acceptable; this would increase the awareness and encourage mothers to stay at MWH.*" Source: [Age 34, MWH -user]

Availability	An available service has sufficient services and resources to meet the volume and needs of the clients and communities served.	Poor Physical facility of MWHs	"*I know MWH facility at [omitted] health center and it lacks basic facilities where the women wash their clothing, take bath and cook foods…. I heard the women stayed there also complaining of a shortage of foodstuff. I would suggest if food is provided for those who are waiting for labor. There used to be this kind of contribution in the catchment a few years back which needs to be resumed*" Source: [Age 30, HEW]
		Technical competencies of providers	"*Let me tell you, my last visit to a health center. I went to support my sister, who was in labor. We arrived at the HC in the evening after a long journey. My sister was examined by the midwife on-duty, who then left the room because he thought the labor was not progressing well. After that, my sister began going around the garden. She gave birth unexpectedly in the yard, and I yelled for help. The midwife approached me, stared at me, and shouted. I told him he was too blamed for everything. We go there hoping to be safe, but the midwives aren't paying attention to the parturient women. Consider what would happen if the baby fell to the ground. If she [the laboring woman] hadn't tried to hold the baby with her bare hands, the infant would not have survived*." Source: [Age 34, MWH-user]
Acceptability	An acceptable service responds to the attitude of the provider and the consumer regarding characteristics of the service and social or cultural concerns.	Cultural sensitivity of the services	*"I think one of the customs we have in this area is preserving the placenta or burying it in the backyard. As we are not allowed to do this custom in the health centers, many women don't want to go there. As we believe labor is a natural process, we believe that no interference is needed, but if you are in healthcare facilities they may perform unnecessary interventions. As a result, we believe that a woman may visit the HC, only when she faces difficulties during labor or delivery." Source:[Age 28, MWH non-user]*
		Companionship of Women's choice	"*My husband had to wait outside the maternity ward during my last delivery in [omitted] HCF because the midwives wouldn't let anyone in. My husband would have offered me psychological support if they had permitted companionship while I was in labor.."*Source: [Age 22, MWH user]
		Decision making to seek care or Lack of women's autonomy	"*We came here with the positive will of the husbands. But I know a pregnant woman who wanted to come and stay here but she couldn't as her husband didn't allow her to do so. Many men restrict women from leaving home for long periods. I know some women go back to their homes; they could not stay at the MWHs for more than two weeks because*

			their husband didn't allow them to stay more than that." Source: [Age 33, MWH user] *I knew about the existence of MWHs in my catchment [area] but I had to request my husband's permission to use go and stay there. I and my husband made [a] joint decision about that during my last pregnancy; it would have been unlikely to use [the] MWH without his consent*.[Age 20, MWH user]
		Negative perception by healthcare providers	*Even though we have good health care providers who make us feel as if we are at our home [health center] ... I'm sorry to say that...few discourage us from using [the] MWH. They encourage you to return to your home as long as you have someone who would escort you to the facility when active labor begins.* [Age 32, MWH non-user]
		Absence of someone to care for children at home	*As you leave your home, someone has to take care of all the responsibilities you have at home, including the caring and rearing roles*. [Age 20, MWH user]
Affordability	Affordable services examine the direct costs for both the service provider and the consumer.	Transportation cost and willingness to pay	*I don't agree with payment for this service. Those with good income can pay but for those with low income, I don't know if they could afford it, they couldn't? … The source of income in this area is subsistent farming. Let alone for MWH services [accommodation], they don't want to pay for other medical services rather they want to look traditional options which costs them less*." Source: [Age 30, MWH-nonuser]
Adequacy	An adequate service is well organized to accept clients, and clients are able to use the services.	Substandard of care and services at MWHs	*One of the discussants, a 28-year-old lady, said: I decided to stay in this home [MWH] and I was escorted by two of my relatives. The room had no partition for changing your clothes, was small, and couldn't occupy more than three people at a time. How do you protect your privacy in this room with no space for the ones that accompanied you? Guess what will happen? You would rather prefer not to come here.* [Age 28, MWH user] *There used to be food catering in [MWHs] during the time the community used to contribute for the service. But that stopped, so I brought my own food, but there was no money to continue buying food after two days. I didn't have other options than to return back home. I also remember there were pregnant women who wanted to prepare their own food, but they couldn't because there were no designated area and utensils to cook. So, they had to buy food.* [Age 32, MWH user]

Geographical access barriers	A service in a reasonable distance with transport options	Logistical barriers Ambulance service	*My labor started around 5 p.m., but it didn't push me down hard, […] it was at midnight that the pain got stronger. That's when I woke my spouse and told him he needed to get ready. He then in turn awoke my mother-in-law and grandmother to go to the HC as a group. We looked for transportation options, but we couldn't find any. So, we started walking on foot and after a short distance I couldn't walk anymore […] I sat down at the side of the road. Because my grandmother had experience helping women during childbirth; I just lay on the side of the road and gave birth there.*" Source: [Zeyse Dembile, Age 32, MWH nonuser] "*We have only one ambulance at the district level to transport emergency cases from the HC to the hospital. We have to wait for hours for the ambulance after the decision to refer has been made and the driver has been notified. The ambulance may have another assignment; the drivers may refuse to cooperate; or there may be a lack of fuel, causing the case to be transported to the hospital to be delayed for more than three hours or more. As a result, family members are dissatisfied and yell at us, saying things like, "You keep telling us to come to the HC, but watch what you do! We are still dying."*

Supplementary Files

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