International Journal of Women's Health

Dovepress
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ORIGINAL RESEARCH

Understanding Gender-Based Perception During Pregnancy: A Qualitative Study

Ketema Shibeshi[1], Yohannes Lemu[2], Lakew Gebretsadik[2], Abebe Gebretsadik[2], Sudhakar Morankar[2]

[1]Dire Dawa University Department of Public Health, Dire Dawa, Ethiopia; [2]Jimma University Department of Health, Behavior and Society, Jimma, Ethiopia

Correspondence: Ketema Shibeshi, Dire Dawa University Department of Public Health, Dire Dawa, Ethiopia, Tel +251-937282987, Email ketemaayele2001@gmail.com

Purpose: Gender-based perceptions about maternal health care during pregnancy draw attention to the existence of gender inequity in maternal health care. This study aimed to understand the gender-based perception of gender roles and norms, gender relations, social support, and psychosocial variation in maternal health care during pregnancy.

Methods: A qualitative study was conducted in three rural districts of Jimma, Ethiopia. Participants were purposefully chosen from the community groups, including male and female health development armies, religious leaders, health extension workers, midwifery nurses, and primary health care unit directors. The data was gathered through in-depth interviews and focus group discussions. The actual data was collected by men and women qualitative study experts. Atlas ti Ver 9 was used for the analysis. The data was initially coded then changed to a sub-category and at last converted to a category.

Results: Four categories emerged: Gender-based roles and norms, psychosocial variation, social support, and gender relations. The informants described men's and women's independent and shared roles improve maternal health care service usage during pregnancy. Once the women became pregnant, men undertook a variety of demanding duties to enhance maternity service consumption. Gender relations and shared decision-making were essential in facilitating maternal healthcare utilization during pregnancy and beyond.

Conclusion: This study revealed that maternal health care should not be limited to women alone. Men's and women's prior maternal health experiences, in addition to their knowledge and beliefs, have significantly impacted the utilization of maternal healthcare services during pregnancy. Policymakers and academics should consider men's essential contribution to maternal health care during pregnancy. However, in order to increase their intention to use maternal health care services, it is necessary to clearly identify the interests of women in which men should be involved.

Keywords: gender role, gender norm, gender relation, knowledge, belief

Introduction

Maternal health is crucial for a healthy and productive population. Despite significant reductions in morbidity and mortality, globally, nearly 830 women die daily due to pregnancy and childbirth, primarily in low and middle-income countries.[1] Ethiopia has shown a remarkable reduction in maternal mortality in the past two decades, but maternal mortality remains higher than expected.[2] There are factors that affect maternal health such as health care provider attitude, economic inequity, gender equity, socio-cultural, and socio-demography.[3] Besides to these utilizing maternal health care services during pregnancy have played a significant role in maternal health.[4]

Since the 1994 International Conference on Population Development (ICPD), gender integration in maternal health care has been believed to improve health outcomes for women and newborns.[5] Considering socially acceptable behaviors for men and women vary across societies have far-reaching effects on the health status.[6] Maternal health is traditionally considered a women's matter.[7] But men's involvement is less expected, especially in low and middle-income countries where women lack economic resources and decision-making power.[8] Gender inequities negatively

Received: 12 May 2023
Accepted: 26 September 2023
Published: 11 October 2023

affect maternal health service utilization during pregnancy, with gender division of labor, limited access to resources, gender norms, limited autonomy, and decision-making power being the most important factors.[9,10]

Gender issues are a primary concern in maternal health, as men play a significant role in saving lives through shared decision-making and motivation.[5] However, men's involvement in maternal health care during pregnancy is limited by factors such as individual, family, community, societal, and policy.[11] Evidence suggests that paternal involvement has a positive impact on pregnancy and infant outcomes, as it reduces maternal negative health behaviors and reduces the risk of preterm birth, low birth weight, and fetal growth restriction.[12] A Ugandan study found that men's involvement in maternal health strategies through community, religious leaders, and men themselves has been overlooked, despite their significant role in maternal and child health (MCH).[5,13]

Gender norms and relations in individuals, households, and communities can impact women's use of maternal health care services.[14,15] Men are acknowledged as clients with a right to healthcare and partners with a responsibility to support women's and children's health are central to birth preparations and emergency actions.[15] No matter how, men often lack relevant knowledge about maternal health care, it's not solely women's concern.[16] Pregnant women need physical, social and psychological support.[17] The common sources of support are family, social network, friends and partners.[18] Understanding gender-based perceptions about maternal health care services are crucial for integrating gender into care, a qualitative study in Ghana showed that opinion leaders support men's involvement as "a way of life" and need to articulate the support needed for pregnant women.[14] However, another study in Ghana revealed that housekeeping is not the role of men, but they decide on maternal health care services during pregnancy.[19] Research in India found that men's knowledge about pregnancy-related care and a positive gender attitude enhance maternal health care utilization and women's decision-making, their presence during antenatal care visits significantly increases the chances of women's delivery in health institutions.[20] Obviously, an improved maternal health care knowledge of men is crucial for safeguarding women and newborn health, but their knowledge of maternal health care services during the perinatal period is relatively low.[21]

This study examines gender normsand roles, psychosocial variations, social support and gender relations in maternal health care services during pregnancy. The finding highlights the importance of understanding gender aspects for policy-makers and researchers to improve maternal health during pregnancy. The discussion was held based on the wider qualitative literature, recommendations, and declarations on the capacity of women to utilize maternal health care services during pregnancy.

Materials and Methods

Setting

The study examined three rural districts in Jimma Zone, located in south-west of Ethiopia, with limited infrastructure and not easily accessible health facilities.[22] The population was estimated to be 180,000–270,000 in 2016, with the predominant ethnic group being Oromo and the religion being Muslim.[2]

Study Design

This qualitative case study which focuses on men, women, and health professionals explores their perceived gender norms and roles, psychosocial variations, social support, and gender relations during pregnancy.

Participants

The participants included women's and men's health development armies, religious leaders (RL), health extension professionals (HEP), and primary health care unit directors (PHCUD) based on their roles as connectors of the health facility and community as well as preferred sources of health communicators.[23]

Sampling

Purposive sampling was used to select study participants, both men and women, based on their community roles and understanding of gender roles. Participants were valued for their significant roles in providing healthcare support, counseling, and leadership.

Data Sources

The data for this analysis came from a baseline survey conducted before the intervention was implemented to examine the effect of maternal health care education and improving existing maternal health care waiting rooms targeted at improving institutional delivery, with a registration number (Clinical Trial.gov identifier: NCT03299491).

Data Collection Methods

Focus group discussion (FGD) was held with the Women's and Men's Health Development Armies, whereas an in-depth interview was carried out with religious leaders, health extension professionals, primary health care unit directors and midwifery nurses. A semi-structured in-depth interview and focus group discussion guides were employed to explore the data.

Data Collection Tools

The study used semi-structured focus group discussion guides that contain detailed query about the continuum of maternal health care, including information access and child immunization (Figure S1 Focus group discussion interview guide for female health development army, Figure S2 Focus group discussion interview guide for male health development army) and an in-depth interview guides that describes about their activities and perceived perception in maternal and child health care (Figure S3 In-depth study guide for health extension workers, Figure S4 In-depth study guide for religious leaders, Figure S5 In-depth study guide for primary health care unit directors and midwifery nurse) to explore data. Skilled male and female qualitative data collectors underwent five-day training. The guides were checked after pretests and made indispensable modifications to be compatible with the local socio-cultural context.

Data Collection Approach

At a convenient time and location for the participants, data were collected separately from men's and women's. Data was collected from 20 in-depth interviews and 12 focus group discussions from three districts. Data saturation was the reason for limiting the number of interviews and discussions. Both in-depth interviews and focus group discussions were held for an average of 75 to 120 minutes respectively with an average of 90 minutes.

Data Analysis

A total of 24 male and female data collectors were translated and transcribed soon after the time of data collection. Atlas ti Ver 9, computer-assisted qualitative analysis statistical software was used to analyze the data. The entire FGDs and in-depth interviews were exported to the software and created a new project. Content analysis was conducted to identify gender-based emergent concepts of maternal health care during pregnancy.[24] Initially, the data was inductively coded by two coders based on the participant's perceived gender-relevant descriptions in the quotation, then codes with similar ideas merged together and formed sub-categories, very similar sub-categories merged and form overarching categories such as gender-based role and norms, social support, psychosocial variations, and gender relation on maternal health care services during pregnancy (Table 1). The coding strategies used to answer the research purpose were descriptive methods because the analysis was performed to explore the gender-based maternal health care perception during pregnancy from different group of health professionals and segments of the community (Table 1).

Trustworthiness

A large number of criteria were carefully considered to ensure the rigor of this research. To begin, sufficient data from various community and health professionals was gathered in order to produce significant findings. Second, sufficient time was spent in the field to obtain reliable results. Third, identified theoretical goals that should alienate the study subjects' context. Fourth, when conducting interviews, taking field notes, and analyzing data, and followed a strict procedure. The four basic qualitative research trustworthiness measures were considered during data collection and analysis. The first is credibility; to achieve this, data were collected by experienced teams of data collectors; data saturation was taken into account; data were transcribed and translated on time; and extensive field engagement was conducted. Furthermore,

Table 1 Coding Guide Applied in the Second Stage of Analysis

Code Category	Description	Number of Codes Identified	Thematic Categories
Gender based social norm	The role men and women performed during pregnancy to enhance maternal health care service utilization	35	Gender-based social norms during pregnancy
Gender role	Women and men partners commonly communicate and act when the women became pregnant.	26	Gender role during pregnancy
Gender psychosocial variations during pregnancy	Women and men partners knowledge and belief during pregnancy	64	Gender-based Knowledge and belief during pregnancy.
Men support	The various activities of men are performed to support to the pregnant women.	54	Gender-based support during pregnancy
Men mental involvement	The thought and understand of men to support the pregnant women during pregnancy	18	
Gender relation	The discussion held between men and the pregnant women about maternal health care during pregnancy.	13	Gender relation during pregnancy

detailed descriptions for the categories of gender perspective and supportive quotations were provided, adding value to the content. Aside from that, multiple data collection methods from different groups of participants (multivocality) were used to create a more complex, multifaceted, and credible picture of the outcome. The second characteristic is dependability, which ensures that peer debriefing and audit trials are carried out during data collection, translation, and transcription. The third is transferability because the data were collected in a resource-limited setting and multiple data-data triangulation was used; The research findings add methodologically and practically to the body of knowledge of gender-based maternal health care because there are few evidences in this field of study; the fourth is conformability, which ensures that the data analysis (interpretation) process is strictly grounded in the data to avoid the researcher's preferences and point of view.

Result

Participant Profiles

A focus group discussion involved 95 women, including pregnant women and 97 men. In the in-depth interview, a total of 24 participants from religious leaders, HEWs, and PHCUDs have participated. The average age of men and women were 41 and 35, respectively. Their educational backgrounds range from no formal education to a university degree. All of them are married and have more than one child.

Description of Categories

This qualitative study identified four categories: gender-based norms and roles, psychosocial variation, gender-based support, and gender relations. Gender-based norms and roles focus on responsibilities for men and women during pregnancy, while psychosocial variation examines differences and similarities in knowledge and beliefs about maternal health care. Social support involves activities to help pregnant women to maintain their health and the health of their unborn children at home and in the community. Gender relations examine the relationship and conversations that encourage the utilization of maternal health care services during pregnancy at household and community levels (Table 1).

Gender Roles During Pregnancy

Gender-based roles during pregnancy, according to the participants it was classified as combined roles and specific roles of men and women, including the husband and wife. Gender roles were established from the moment women became aware of the fetus' conception. Men's roles begin in the late pregnancy after their wives have confirmed the conception of the fetus, which includes planning together about future ANC use, determining the place of delivery, escorting, and supporting the pregnant woman physically, emotionally, financially, and psychologically (Table 2).

Table 2 Gender Role During Pregnancy in Rural Jimma Zone, Oromia, Ethiopia

Gender Roles	Illustrative Quotations
As segments of the community and health workers indicated, multiple genders' specific and sensitive roles were performed by men and women. The women's related specific roles (including pregnant women, mothers, neighboring women, and grandmothers) comprise confirming the pregnancy, informing the husband about her pregnancy, searching for further information from family, husband, and HEW, deciding to attend ANC follow-up, starting birth preparation, and searching for advice from other women to attend ANC. Men are more likely to offer advice to pregnant women who are beginning to visit health care facilities. Follow her condition and health status during pregnancy. Primarily, the husband is the only responsible person to support the pregnant woman's emotional, financial, physical, and material needs. Typically, if a woman did not prepare for her pregnancy in terms of food, clothing, and money, the community would mock her and her husband. Men-related roles (including husbands) include a variety of pregnancy-related supports for pregnant women. The major one was understand her situation and resume from heavy work at home; financial support for her diet, and accompanying, particularly the first ANC visit.	Her husband asks about her [pregnant wife's] needs, tries to approach her like before pregnancy, discusses with her how she feels about her pregnancy, and motivates her to go to the health center. **[Husband (MDA), Kersa District]**[Figure S1] He [the pregnant women husband] takes her to the health facility and allows her to be immunized as well, so he will stay with her in the health facility as needed. Generally, he will see and observe any problems she faces and support her. **[WDA, Gomma District]** [Figure S2] "Only the family of the pregnant women engages in birth preparation, and no other individuals help her." Only her husband and even the rest of the community will scoff at her if she gives birth without adequate preparation. **[Pregnant women (WDA), Gomma District]**[Figure S2] Partner role include prepare a comfortable sleeping area, listening her [the pregnant woman's] problems with attention, check her health status, and encourage her to talk about her mind [thoughts]. If her baby is not moving in the womb and the mother is not feeling well ….take her to the hospital right away. The role also includes assuring her that she should avoid heavy work and rest frequently until delivery time reached. **[Husband (MDA), Seka District]**

Gender-Based Social Norm

Recent improvements in discussions about pregnancy have been observed at various levels, including family and community. Pregnant women initially consult with their mothers, very close women's relatives, friends, and health professionals before informing their husbands about their pregnancy. This social norm often occurs during the first trimester or first three months, and women would later gather information about pregnancy and maternal health services from close family members.

> We [Pregnant women] usually discuss it [pregnancy] with other women rather than men; initially, we hide from men [husbands]. We discuss it after menstruation has stopped with other women, not with our husbands. We talk about it with our neighbors, friends, and mothers. [Pregnant women (WDA), Gomma district]

> [Pregnant] women, rather than their husbands, discuss about their pregnancy with health extension workers, relatives, and other mothers. [Husband (MDA), Seka district]

Upon pregnancy confirmation, women typically visit health facilities for anti-natal care (ANC) services to monitor their condition and fetus status. This activity is common during early stages, but may occur all at once if facilities are inaccessible due to distance.

> They [pregnant women] will go to the health center to know whether their pregnancy is in an appropriate position or not [MDA, Gomma district]

> We [pregnant women] visit health facilities as soon as we understand we are getting pregnant. [Pregnant women (WDA), Kersa districts]

However, few pregnant women often conceal their pregnancy from health extension workers and community health development armies to avoid attending ANC services, sometimes lasting until delivery. Family members, including husbands, occasionally validate these experiences.

> Women have no motivation to go to the health center; some hide their pregnancy until it is visible, and a few disregard the advice given to them. [MDA, Seka district]

> Pregnant women avoided going to health-care facilities by hiding their pregnancy from health-care workers. [WDA, Gomma District]

> Some pregnant women avoid going to the health center or follow-up appointments. [MDA, Kersa District]

Furthermore, pregnant women were responsible for preparing meals for themselves and visitors after giving birth. They also started saving money independently of their husband, allowing them to make decisions during labor and when their husband is unavailable or involuntary for higher-level healthcare.

> [Pregnant] women prepare and save money hidden from their husband, in case he [husband] may not give money or help her while she faces some difficult situation at the time of labor and delivery. If she has a best friend, she will tell her where she put the saved money so as to use it for her while she goes to a health facility for delivery. [Pregnant women (WDA), Gomma district]

Men Supportive Role During Pregnancy

Men typically provide assistance to pregnant women. When women become pregnant, they also take on additional responsibilities, such as saving and borrowing money, preparing essentials for the baby, and supporting when labor started.

> Give her [pregnant women] money to buy or prepare what she needs like cloth, and help with household activities, and so on. Help her financially. [MDA, Kersa District]

> The husband is financially supporting the women, as if everything had been planned with his money. [Pregnant women (WDA), Kersa District]

> The husband is in charge of preparing everything used by the mother, such as food and cloth. [MDA, Gomma District]

Men's roles during pregnancy are divided into home-side preparation (preparing meals) and healthcare-side preparation (escorting pregnant women to the maternal waiting area and staying with them). According to participants the roles of men are complex and addressing all aspects of women's and children's health.

> … There are two types of preparation: health preparation and home preparation. Husbands prepare various grains used to make porridge for the women and guests for that [delivery] day at home. On the health care aspect, he transports her to the health center and places her in the maternal waiting area until she gave birth. [Husband, Kersa District]

> … Because we [husband] don't know what will happen to her during pregnancy, we must be prepared to begin as early as the third or fourth month of pregnancy. Because some women are bleeding never stops once it begins. [Husband (MDA), Gomma District]

Participants reported that, husbands shield pregnant women from emotional distress by avoiding frustrating information and creating comfortable communication situations to understand and reassure her.

> Making a comfortable sleeping environment for her, carefully listening to her problems, checking her health status, encouraging her to express herself, and rushing her to the doctor if her [the] baby is not moving in her womb and the mother [pregnant woman] is not feeling well. The husband's role also includes assuring her that she should avoid strenuous activity and rest frequently until she gives birth. [Husband (MDA), Kersa District]

> Avoid spreading rumors that may irritate her (pregnant woman). [WDA, Gomma District]

When labor becomes complicated it's best to refer the situation to a higher institution for better intervention. Money is needed in such situation for transportation and other expenses, and women need extra food before and after delivery. The husband is responsible for generating funds and preparing for these needs.

> Preparation is not the pregnant woman's responsibility. It is the husband's responsibility to allocate funds to purchase various items used for meal preparation, financial planning, whether she will be referred to a hospital, and other related cases. [Husband (MDA), Seka District]

> … Her husband gives her money to purchase or prepare what she requires. She can purchase free-size clothing for use at home and other activities. He helps her financially and with labor when she needs it. [MDA, Kersa District]

Other discussants supplemented, men's role in maternal health is comprehensive or unlimited, including exempting pregnant women from heavy workloads, providing proper understanding of their needs, food staff, and household chores, and reminding them of delivery time.

> The role of a husband is very broad in scope. Exempting from strenuous labor. various food items that benefit her and the baby [Husband (MDA), Gomma District]

> The husband must understand everything about pregnant women. He has to pitch in, even if it means cooking food. [Husband (MDA), Gomma District]

> At the moment, husbands assist women both inside and outside the home. For example, helping with housework, transporting crops to a grinding facility, and so on. Support them and accompany them to the health center during follow-up. [MDA, Kersa District]

> … Husband gathers all resources required to save the life of pregnant women. [RL, Gomma District] [Figure S3]

> … Tell or remind her (pregnant woman) of the due date of anti-natal care appointment and delivery. [WDA, Gomma District]

Shared Gender Roles During Pregnancy

Pregnancy care is gender sensitive and shared by both men and women. Collaboration is essential for discussing and making decisions about maternal health care during pregnancy. As the discussants explained, parents discuss the current pregnancy, decide on anti-natal follow-up, save money for delivery and post-natal time, and decide on the place of delivery.

> The pregnancy was discussed between the husband and wife. They consider the long-term consequences. They talk about it amongst themselves. As a result of the discussion, the pregnant woman visits the health center and follows up. [Husband (MDA), Kersa District]

Religious leaders emphasize that women are involved in preparing culturally appropriate food and clothing for the newborn, while the husband provides all necessary resources. They further explained, pregnant women are concerned about the outcome of their pregnancy, they said that "I do not know what will happen with the pregnancy outcome, if the outcome is okay, I will use what has been prepared for me and the new born baby".

> They [pregnant women] prepare various cereal crops and butter to feed them well after delivery. They also prepare various types of clothing for the newborn baby. Because pregnant women are more concerned with whether or not they can deliver safely, it is usually the husbands who provide these services. They have no idea what to expect. Women say, Let me get ready for whatever, but I have no idea what will happen. [RL, Gomma district]

Gender Relation During Pregnancy

Partners discuss with pregnant women to develop confidence in seeking ANC services after confirming the conception of fetus and before the beginning of ANC follow-up to reach mutual agreement on maternal health-care services usage.

> There is discussion between husband and wife about pregnancy. So, based on the discussion, the pregnant woman goes to the health center and attends follow-up. [Husband (MDA), Gomma district]

Gender relations during birth preparation are common and involve partners discussing about food items for women and visitors based on their income.

… She [the pregnant wife] also consults with her husband, prepares money, and purchases sheep or goats. [WDA, Kersa District]

… When a woman becomes pregnant, she consults with her husband about house preparation and begins saving money, reasoning that the things that might happen in the future are unknown, and she saves that money. [WDA, Seka District]

During birth preparation, husband and wife share responsibilities which include discussing the needs of the pregnant woman and newborn baby. This is often associated with fear of shouldering the family alone in case of the pregnant women develops health problems or death.

The husband also advises her [the pregnant women] because he is concerned about the complications and costs that may arise from this childbirth. The husband believes that whatever problem arise will first affect or harm his family. As a result, he must transport the pregnant women to the health center. [Husband (RL), Gomma district]

Women's Experience Matter for ANC Utilization

According to the participant's explanations, pregnant women's knowledge has improved significantly in utilization of ANC services. This knowledge includes early pregnancy confirmation for ANC services. Moreover, educated women seek maternal health care more frequently, as they are more likely to learn about their fetus's health during the early stages of pregnancy.

They [pregnant women] will discuss with the health personnel. in the health center to find out whether their pregnancy is an appropriate position. [Husband (MDA), Gomma District]

… Some literate women get pregnant, visit health centers on their own interest through interaction with health extension workers or health professionals. [RL, Gomma district]

I [participant] see pregnant women who go to the doctor for vaccinations after becoming pregnant. They will be told the duration of their pregnancy in case they don't know. [MDA, Seka District]

They [pregnant women] will discuss with the health personnel. in the health center to find out whether their pregnancy is an appropriate position. [Husband (MDA), Gomma District]

… Some literate women get pregnant, visit health centers on their own interest through interaction with health extension workers or health professionals. [RL, Gomma district]

I [participant] see pregnant women who go to the doctor for vaccinations after becoming pregnant. They will be told the duration of their pregnancy in case they don't know. [MDA, Seka District]

On the other hand, some pregnant women often seek ANC services during their late pregnancy, and often dropping out due to overburden with daily activities and past experiences. They believe that if they did not benefit from ANC, they would have less attention to their pregnancy status. Conversely, those who felt benefited from their previous ANC use continued to use it in their subsequent pregnancy, while those who did not experience problems in their previous pregnancy perceived the current and subsequent ANC services as not benefiting them.

When we ask her[the pregnant women] the reason why she come late, she responded I planned to come but can't do so. [PHCUD, Gomma district] [Figure S4]

Some other women those dropout the service was due to, 'I[the pregnant women] received it in my previous pregnancy I didn't benefited from it, or some said I did not received it in all my previous pregnancy. [Midwifery nurse, Seka district] [Figure S4]

Men's Knowledge About Maternal Health Care During Pregnancy

Men are generally unaware of the specific maternal healthcare services provided to pregnant women, but they recognize the importance of maternal healthcare and often advise their wives to seek medical attention once she conceived the fetus.

In the case of husbands, the majority of them are unsure of what care they [the medical personnel] should provide for their pregnant wives. [Husband (MDA), Seka District]

… If any problems arise during pregnancy, her [pregnant women] husband tells to go to the hospital. [WDA, Gomma District]

My husband suggests that I [pregnant women] go to the health center to know the pregnancy status. [Pregnant women (WDA), Gomma District)]

The men's role is to encourage women to visit the health center monthly and take care of the pregnant women themselves. [Husband (MDA), Seka District]

Men's have more awareness than women and they advise them [pregnant women] to give birth at a health center by considering its advantages. [Husband, Kersa district]

However, few men can describe both the significance of ANC services and the services provided during pregnancy follow-up.

Various pills and injections will be administered. The mother becomes more active and does not become ill. The baby will be physically fit enough. That is why, just to keep the mother's health, the injection must be received on a monthly basis. Keeping the mother healthy will thus help the baby stay healthy. [Husband (MDA), Gomma District]

Women's Belief Determine Maternal Health Care Services During Pregnancy

Pregnant women strongly believe in maternal health care services to protect them and their newborn's health. They are more aware of the importance and use them without waiting advice. Similarly, most women develop a useful belief in maternal health care based on differences in maternal and newborn health outcomes before and after using ANC services.

… The pregnant women are now very cautious about their health and are taking their tablets very well as they curiously wait for their appointment day. [WDA, Kersa District]

We [pregnant women] accepted the benefit of the health service since we also confirmed it from the experience we have had with both pregnancies without following a health service and pregnancies while following a health service. [Pregnant women (WDA), Seka District]

However, economically competent women often disregard maternal health education and care services due to their belief in their financial stability. Furthermore, some pregnant women may also believe in "Allah's" power to save the fetus and their life, preventing them from visiting health facilities during their pregnancy.

Women who are better off [economically] have beliefs on their money…. when we [HEW] say that pregnant women should attend the health facility. As a result, they do not volunteer to go to health facilities for services because they believe they can go anywhere with their money whenever they want. [HEW, Gomma District] [Figure S5]

Some pregnant women believe that the supernatural power predetermined everything. These women said, The one who gives me a child is Allah. Allah put a child in my womb; it will give me my hands without the help of a human being. As a result, they have no desire to visit the health center. [MDA, Kersa district]

Men's Belief During Pregnancy

Most men prioritize maternal healthcare services for pregnant women, emphasizing the importance of receiving care at a health facility. As a result, they believe that unexpected complications can occur during pregnancy, and precautions must be taken during the early stage of pregnancy to protect both the mother and the newborn.

For pregnant women, health care provided by professionals at a health center is far more important than anything else. [Husband (MDA), Seka District]

Discussion

Gender-based norms and roles, gender relations, social supportand psychosocial components such as knowledge and belief are common factors that influence maternal health care service utilization during pregnancy. It is hoped that it will close the gender gap in maternal health care services. As a result, the discussion in this study is focused on the main finding that facilitates maternal health care services with a scientific explanation in comparison to the existing literature.

Gender-Based Norm During Pregnancy

One of the gender-specific roles identified was a woman's perceived pregnancy, primarily they would have told for women relatives, mothers, or the health extension workers. The partner is aware of the pregnancy either the manifestations she has revealed or they told him after pregnancy confirmation from the health facility. This cultural norm was not questioned; challenged and changed, which basically contributes to a major role in perceiving pregnancy as only an issue for women, which explicitly leads to gender inequity in maternal health care. Unless men are involved from the early beginning of pregnancy and have discussion with their partners, men's involvement in maternal health care may not be adequate. From the global declarations, MCH initiatives and WHO recommendations did not clearly define the mechanisms in which men's involvement is ensured but provided the theoretical framework about the importance of men's involvement in maternal health care services.[25,26] In contrast to the WHO, assumption of men's involvement, as men have the decision-making capacity in the household, which helps to support the maternal health care use, the finding of the current study indicates most women are empowered to make decisions on maternal health conditions.[10,27–29]

Multiple and Complex Role of Men

The primary role of men, once identified as his wife became pregnant, was start to save money independently. That was basically connected with the fear of complications during labor, which led to referral to hospitals for better management. Similarly, the women have saved money independently with the intention of carrying her to a health facility in case her husband is not interested or absent at the time of labor and fear of any complications. The pregnant woman would tell her close family members where she kept hide the money; she had saved in case something unintended happened that she could not handle by her own. This indicates that the extent of the complication readiness of men and women has improved in the community, which ultimately enhances maternal and child health outcomes. In contrast, in the qualitative study in Iran, the concern of the women was not about saving money but rather focusing on taking care of the fetus. Money is only the concern of the husband.[30] This may be due to socio-economic and cultural differences. Another study mentioned the importance of money saving, including the motivation behind, indicates men's involvement that plays paramount importance in improving health outcomes.[31]

Moreover, the men's roles during pregnancy were multiple and complex. Their involvement from the time they knew their partner's became pregnant generally includes; exempting from heavy work, fetching water, household chores, and escorting to health facility; encouraging and motivating to attend health care; held discussion on the consecutive maternal health care service use and fulfilled their interest; understand the condition of the pregnant women without consulting; fulfilling all the necessary food stuffs; and providing money. This indicates that men involve in both physically and mentally. Particularly the mental involvement, such as conducting discussion with the pregnant women and understanding her situations without consulting, were exclusively unique characteristics, that contributed to ensure the real men's involvement in maternal health care which is supported by a qualitative finding, understanding of the pregnant women and the physical, financial, and emotional support gives the women a sense of togetherness.[26] It was believed to improve maternal health care utilization.[32,33] In contrast to the current finding in Ghana, men are less concerned about ANC service and the last decision maker on maternal health care service use.[19] This may be due to, as literature indicated in Africa, the involvement of men in maternal health care preparation was very limited and affected by socio-economic and cultural factors,[15] include age and educational factors.[34]

Men Intention to Improve Maternal Health Care

Hence, men worry that their partners may develop complications and endure challenges for the rest of their lives. As a result, one of the goals of men's better support in the current study was to reduce the burden that could be caused by pregnancy problems and mortality. On the other hand, Men's understanding of pregnancy difficulties offers a wide variety of benefits that suggest the repercussions have an impact on the family and the community. The study conducted in Nigeria backs this up; perception of danger sign should not be left solely to women; family and community members should also understand and prevent issues.[35] Regardless of how much men's awareness of pregnancy complication has increased, the fundamental goal should be to enhance the lives of the pregnant woman and the fetus.

Shared Gender Role Perception During Pregnancy

Despite of whether men and women played independent roles in facilitating maternal health care service utilization and preventing complications, the shared role, particularly in conducting discussions, shared decision-making, and saving money, increases pregnant women's interest in using health facility services. Similarly, as numerous studies have demonstrated, gender power dynamics have the potential to boost women's health-care consumption.[36] Based on EDHS data, a study in Tanzania and Ethiopia found that gender power relation contribute to ensure gender equity in maternal health care.[30,37]

Gender Psychosocial Perception During Pregnancy

The majority of men in the current study were unaware of the precise care provided to pregnant women in the health facility, but they urged the women to seek maternal health care during their pregnancy. Similarly, as previously stated in the research, men do not demonstrate enhanced awareness of specialized maternal health care during pregnancy.[15] Men's knowledge about maternal health care during pregnancy, on the other hand, enhances maternal health care utilization, according to a study conducted in India.[20] Men are not only considered clients but also partners accountable for the support and agents of change in maternal health care throughout pregnancy, despite their lack of specific understanding of maternal health care.[15,38]

Pregnant women have a strong conviction in maternal health care services, which are connected with services that can improve the woman's and fetus' health. The belief system evolved through time by comparing the benefit of the service with and without use on the pregnant woman's and fetus's health outcomes. This suggests that pregnant women do not develop a belief system about maternal health care during pregnancy simply by receiving health information; rather, they must evaluate the usefulness of the services in comparison to their previous experiences of the health facility's maternal health care.

Conclusion

The study found that men's involvement in maternal health care during pregnancy began either after the woman identified her pregnancy states or informed her husband, or when they suspected pregnancy signs and symptoms in the late first trimester. The intention of men's support in using maternal health services can be seen as saving the lives of the woman and the fetus, or relieve the family burden if the pregnant woman experiences serious health problems or death due to improper service utilization. Men's concerns, particularly their husband's, can be expressed through physical, financial, and emotional support. Understanding the pregnant woman's situation and providing her with the opportunity to express her thoughts are highly motivated and considered part of improving her health condition. Despite improvements in knowledge and belief about gender-based maternal health care during pregnancy, there are still gaps, such as pregnant women with well-developed economies showing less interest in attending regular ANC follow-ups, which is associated with the intention to do anything as long as they have money.

Data Sharing Statement

All relevant data are within the paper and its Supporting Information File.

Ethics Approval and Informed Consent

Potential respondents were given verbal information about the aim of the study and invited to participate with their willing consent. Consent was obtained verbally by the data collectors just before the time of interviews. Field notes and tape recording were made to remember the natural setting and proper transcription. To ensure confidentiality and anonymity the participants' names were not mentioned rather verbatim of the participants were taken as a quotation to support the categories description. The FGD was undertaken at the participant's residence at a convenient time before they started their daily activities, whereas the in-depth interview was conducted at the participant's offices. A limited amount of money for transportation purposes was reimbursed for FGD participants. All the aforementioned issues was acceptable and approved by ethical Jimma University Research Ethics Institutional Review Board based on compliance with the ethical principles of the declaration of Helsinki, (Reference No RPGE/449/2016).

Acknowledgments

The authors express their appreciation to the study participants for their time and efforts. We would like to express our heartfelt gratitude to the Innovative Maternal and Child Health in Africa (IMCHA) project for supporting this study through the government of Canada's International Development Research Center (IDRC) and Ottawa University in Canadian.

Author Contributions

All authors made a significant contribution to the work reported, whether that is in the conception, study design, execution, acquisition of data, analysis and interpretation, or in all these areas; took part in drafting, revising or critically reviewing the article; gave final approval of the version to be published; have agreed on the journal to which the article has been submitted; and agree to be accountable for all aspects of the work.

Funding

The Safe Motherhood Project is supported by Innovating for Maternal and Child Health in Africa Initiative grants #108028-001 (Jimma University) and #108028-002 (University of Ottawa), which are co-funded by Global Affairs Canada, the Canadian Institute for Health Research, and Canada's International Development Research Center. This study does not reflect the views of these organizations. They solely offered financial assistance for the research's execution, with no involvement in the research process. Ensuring the information is accurate and grant numbers are correct.

Disclosure

The authors report no conflicts of interest in this work.

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