Healthcare providers experiences of comprehensive emergency obstetric care in Somaliland: An explorative study with focus on cesarean deliveries

Authors: Jonah Kiruja[1*], Birgitta Essén[2], Kerstin Erlandsson[3], Marie Klingberg-Allvin[4], & Fatumo Osman[5]

1. MPH, PhD candidate, School of Education, Health and Social Studies, Dalarna University and Lecturer, University of Hargeisa, Somaliland. Email: kjo@du.se
2. Professor, Department of Women's and Children's Health, International Maternal and Child Health (IMCH), Uppsala University, Uppsala, Sweden. Email: Birgitta.Essen@kbh.uu.se
3. Associate Professor, School of Education, Health and Social Studies, Dalarna University, Sweden. Email: ker@du.se
4. Professor, School of Education, Health and Social Studies, Dalarna University. Sweden Email: mkl@du.se
5. Associate Professor, School of Education, Health and Social Studies, Dalarna University. Sweden Email: fos@du.se

Correspondence: kjo@du.se

Abstract

Background: Severe obstetric morbidity and mortality remain a serious challenge in developing countries such as Somaliland. Despite the wide implementation of comprehensive emergency obstetric care in Sub-Saharan Africa, including Somaliland, the reduction of severe maternal morbidity and mortality has been slow.

Aim: This study aims to explore the experiences of healthcare providers (HCPs) regarding the provision of emergency obstetric care in a referral hospital and four maternal and child health centers in Somaliland.

Method: An exploratory qualitative approach using focus group discussions was employed at the main referral and teaching hospital and four maternal and child health centers in Hargeisa, Somaliland. Twenty-eight healthcare providers were divided into groups of 6-8 for 1 to 2-hour discussions. HCPs included in the study had experiences in providing care to women with severe maternal complications. Data were analyzed using thematic analysis.

Results: Collectivistic decision making through family ties was identified by HCPs to act as a barrier to provision of life saving obstetric interventions. This tradition of decision making at a group level rather than at the individual level was perceived as time-consuming and delayed HCPs from obtaining informed consent to provide lifesaving obstetric care. Low socioeconomic status, poor knowledge about maternal healthcare among users affected care seeking among women. Suboptimal care affecting provision of emergency obstetric care at the hospital was reported to be due to miscommunication, inadequate interprofessional collaboration and lack of infrastructure.

Conclusion: HCPs experiences provided vital insights into the care provided to women with severe obstetric complications in Somaliland. To ensure smooth and timely decision-making processes, the antenatal period can be used to prepare families for potential obstetric emergencies and to obtain signed consents.

Key Words: Maternal, Somaliland, Healthcare providers, Family ties, Emergency obstetric care, Cesarean section

Plain English Summary

Emergency obstetric care (EmOC) refers to interventions provided to women with life threatening conditions during pregnancy, birth and after birth. Although healthcare providers in Somaliland are trained to provide emergency obstetric care, they often encounter challenges that contribute to severe maternal illness and death. Therefore, to improve the care given by healthcare providers, it's vital to understand their experiences with provision of EmOC. This study was conducted to explore the experiences of healthcare providers when giving care to women with severe obstetric complications in Hargeisa, Somaliland. Findings were achieved through focus group discussions with healthcare providers (doctors, nurses and midwives). Three research themes identified were: decision making about emergency obstetric care at a group level in the family, low socioeconomic status and lack of knowledge among pregnant women, inadequate teamwork among healthcare providers and insufficient equipment and supplies at the healthcare facility level. In conclusion, these results could be helpful at the antenatal level, to increase awareness and prepare decision makers early, in order to be ready to give consent for emergency obstetric care on time. Team building trainings can be done, to promote effective communication and coordination of care among healthcare providers.

INTRODUCTION

Despite the global progress made by the Safe Motherhood Initiative and the Millennium Development Goals (MDGs) in reducing maternal mortality, low resource countries are still struggling to achieve their threshold goals and targets [1]. Sustainable Development Goal (SDG) 3 has a current target of reducing maternal mortality to less than 70 per 100,000 live births by 2030 [2]. The World Health Organization (WHO) maternal near-miss approach was developed as a standardized method to improve the quality of maternal health care by going beyond the provision of essential interventions [3]. Somaliland is one of the lowest resource setting in the world, yet it struggles with some of the highest rates of maternal mortality, estimated at 732 per 100,000 live births [4]. In an effort to address this challenge of high maternal morbidity and mortality, the country started to follow Emergency Obstetric Care (EmOC) guidelines [5]. These lifesaving obstetric interventions have been widely used to address the problem of maternal morbidity and mortality across Sub-Saharan Africa in countries such as South Sudan, Rwanda, Kenya and Uganda [6, 7]. However, despite improvements in the coverage and provision of essential obstetric interventions in Somaliland, the reduction of maternal mortality has been slow [4]. Treatments within Basic Emergency and Obstetric Care (BEmOC) include the administration of parenteral antibiotics, oxytocics and anticonvulsants, manual removal of placenta, removal of retained products and assisted vaginal delivery. Comprehensive Emergency and Obstetric Care (CEmOC) includes all of these and adds blood transfusion and cesarean section [8]. CEmOC thus enables the prevention and treatment of a number of additional maternal complications, such as obstetric hemorrhage, pre-eclampsia, sepsis, obstructed labor, as well as complications related to miscarriage or termination of pregnancy before term [5].

In Somaliland, these severe maternal complications have been identified as the main causes of maternal mortality [9]. To manage these causes, Health Care Providers (HCP) have been undergoing training in CEmOC to develop their capacity to manage complications in pregnancy and childbirth [10]. However, previous studies [9, 11] have identified potential suboptimal encounters of patients and HCPs at the hospital level, despite the HCPs being trained to provide CEmOC. These studies hypothesized that the continued high maternal mortality rates were possibly due to other barriers, such as delays in performing cesarean sections. Somaliland is a collectivistic society characterized by the subordination of individual wishes and needs. Somali communities are shaped by the predominance of collective kinship, which offers its members protection in exchange for certain responsibilities and duties [12]. The influence of this collectivist culture on Somali maternal health is not known. Informed consent is often required to be given when care such as cesarean section [11], blood transfusion, induction of labor and dilatation and curettage for management of miscarriage and removal of retailed placental tissues are indicated in Somaliland [13]. Studies conducted with Somali women in high-income countries have shown that the expectations of HCPs regarding lifesaving obstetric care are frequently in conflict with the beliefs of Somali women, who often feel that essential obstetric interventions such as Cesarean Sections (CS) are

life threatening procedures [14-16]. HCPs in these high-income countries were unable to convince Somali women or their families that CS was not life-threatening and to accept what they felt were essential obstetric interventions [14]. These findings showed that HCPs and their Somali patients had different expectations, which made it difficult to implement a CEmOC effectively. These attitudes within the Somali population need to be further explored. To our knowledge, there is very little evidence from a HCP perspective on the barriers to the provision of lifesaving obstetric interventions in Somaliland. This study aims to explore the experiences of healthcare providers regarding the provision of emergency obstetric care in a referral hospital and four maternal and child health centers in Somaliland.

METHODS

Study design

This study followed an explorative qualitative approach using Focus Group Discussions (FGD) [17]. The FGD method was used to explore the experiences of CEmOC that HCPs shared. From now on, BEmOC and CEmOC will be referred to by the more general description "emergency obstetric care". "HCP" will be used to refer to doctors, obstetricians, nurses, midwives, anesthesiologists and auxiliary nurse midwives. The study was approved by University of Hargeisa Ethical Review Board (DRCS/41/05/18) and the Somaliland Ministry of Health Development (MOHD/DG: 2/165/2018).

Study setting

Somaliland is an autonomous self-declared state located in the horn of Africa, with an approximate population of 3.5 million. It is a low resource country: the population has a generally low standard of living and there are relatively high levels of illiteracy and poverty across the country, particularly in rural areas [18]. Hargeisa is Somaliland's capital city, with a population of approximately 1.5 million people. With responsibility for the national healthcare system, the Somaliland Ministry of Health Development (MoHD) has organized the delivery of healthcare into four levels: the local, or primary, health unit, the health center or maternal and child health center (MCH), the regional health center or referral district hospital, and, lastly, the regional referral hospital. Private hospitals also provide emergency obstetric care services. Based in Hargeisa, Hargeisa Group Hospital (HGH) is the largest public hospital in Somaliland. It is also the country's main referral hospital, serving not only the population of Hargeisa, but also taking referrals from Somaliland's five other regions. For cesarean section cases there is a cost sharing model in place, where the government subsidizes and covers the cost of surgery and families pay for the costs associated with medication and medical supplies[19].

The study was conducted among HCPs who worked at the HGH and four other maternal and child health centers in Hargeisa. HGH provides delivery services to approximately 5500-6000 mothers annually. The MCHs provide prenatal services to about 13,200 mothers/year, delivery services to about 3,120

mothers/year and postnatal care services to approximately 1,560 mothers/year [20]. Despite these figures, MoHD reports indicate that the majority of deliveries are conducted by traditional birth attendants at homes, and that many of these lack the competencies required to provide adequate and safe maternity care [4]. The HGH obstetric wards employ approximately 40 staff (comprising senior, resident and junior doctors, nurses and midwives) working in the maternity and gynecology departments. Taken together, the four MCHs examined here employ roughly 60 nurses and midwives.

Participants and recruitment

HCPs with expertise drawn from different areas of obstetric health provision were recruited by purposive sampling [21] at HGH and the four MCHs in Hargeisa between 2018 and 2019. In order to be eligible for inclusion in the study, HCPs had to be either a doctor, nurse or midwife at HGH or one of the four selected MCHs and have experience of working in a delivery ward providing obstetric care to women with severe maternal complications [22]. The HCPs were recruited from the labor ward, Intensive Care Unit (ICU), operating rooms, gynecology wards and the four MCHs. Doctors, midwives and nurses who did not work in departments where women with severe maternal complications were managed were excluded from this study.

The first author (JK) contacted the administration department of each of the health facilities and through the relevant individual in charge was given access to relevant HCPs. Access was granted and the participants were invited to the focus group discussions. Information regarding the purpose of the study and how results would be disseminated were given to the participants. Before each FGD took place, participants were asked to give their verbal informed consent to participation. All participants agreed to this; no refusal to participate was registered. The sampling of study participants stopped when no new information was discerned [23].

In total, 28 HCPs comprising 12 doctors and 16 nurses and midwives who had experience managing emergency obstetric situations were included in this study. Twenty were women and eight were men with ages ranging between 25 to 50 years. The doctors had between 6 to 10 years' experience, while the nurse/midwives had between 4 to 22 years' experience. All of the HCPs had undergone BEmOC or CEmOC training.

Data collection

The focus group discussion topic guide was developed, and pilot tested, followed by restructuring and rephrasing of questions. Four FGDs of 6-8 HCPs each were organized, one for each of the occupations represented by the HCPs. The FGD with Resident Doctors (FGD 1) comprised six participants, with Junior Doctors (FGD 2) 6 six participants, and the Senior Nurse/Midwives (FGD 3) and Junior Nurse/Midwives (FGD 4) groups eight participants each. The FGDs with the doctors were mixed groups of men and women,

while the FGDs with nurses and midwives were all female. FGDs were conducted within the healthcare facilities themselves. The FGDs were conducted in English and moderated by the first author and observed by research colleagues. At the first FGD (FGD1) the first author introduced the research questions to be discussed by the group and observations were made by several other research colleagues (BE, MK, KE), who raised additional follow-up questions regarding maternal women and early pregnancy complications. Participants were asked about their experience of providing care to women with severe maternal complications and what they perceived were the barriers for seeking, accessing and receiving appropriate care at the right time. Follow up questions for clarity were asked, depending on the information raised by the participants. This method is similar to a general interview guide approach that allows for further probing when the moderator notes any additional important information [17]. At the end of the FGD meeting, the moderator presented a summary of the discussion and the HCPs were asked if they wanted to make any additional comments or changes. None of the participants wished to add or change the moderator's summary and the FGD then ended. The FGDs lasted 30 to 90 minutes and were audio recorded. Shortly afterwards, the first author transcribed the FGDs verbatim [24]. The transcripts were verified by BE, FO and JK for accuracy. Their summaries, produced as a result of their observations during the FGDs, were transformed into a useful set of additional notes.

Analysis

The analysis of the data in this study followed the thematic approach as described by Braun and Clarke [24]. The preliminary analysis was conducted by the first, second and last author. In the first phase, authors read the transcripts several times to familiarize themselves with the data set. The second phase involved generating codes using the inductive approach of coding the data text in relation to the study aim and seeking to bring out the HCPs experiences and perspectives. In the third phase, the codes were examined and re-examined to find repeated patterns, differences and similarities; these were then organized into themes [24]. In the fourth phase, a further check was carried out by mapping of themes back on to the transcripts to ensure that they accurately reflected the original meaning of the text. These preliminary themes were then presented to the study participants to ensure their credibility. All of the authors were involved in the fifth and final phase of the process, which, by further defining and refining every theme, involved interpreting the data set beyond its original description.

FINDINGS

The data analysis resulted in three themes. The HCPs interviewed here suggested the delay in obtaining consent for emergency obstetric care was due to *collectivistic decision making through family ties*, *poverty and lack of awareness among users, and, miscommunication*, *inadequate interprofessional collaboration and* infrastructure. Table 1 shows the themes that emerged from the data analysis.

Table 1: Thematic analysis of HCP explanations for a delay in consent for emergency obstetric care among women in Somaliland

Theme 1	Collectivistic decision making through family ties
Theme 2	Poverty and lack of awareness among users
Theme 3	Miscommunication, inadequate interprofessional collaboration and infrastructure

Collectivistic decision making through family ties

HCPs described the difficulties they had providing and managing women in an obstetric emergency situation because of the Somali practice of extended family decision making in relation to the consent process. They described how kinship networks, especially those based on blood relationships, could cause a husband to be slow in obtaining consent for emergency obstetric care for his wife.

> *"I remember one severe case, the husband said: 'I am afraid of her father, I cannot sign the consent. Her father will come and will do signature, and operation will be done'….. this is because of cultural belief and lack of awareness" (FGD 3 Midwife 6).*

This finding delineates that the use of family ties hinders individuals from making decisions for someone they are not related with through blood. These attitudes can create a conflict of interest, illustrated by one of the doctors in FGD 1, when advising a pregnant woman and her husband that an emergency CS would be necessary to save their baby and also, potentially, her life:

> *"The culture itself is saying that when you marry her, you have the right, for the baby, it's yours. But the lady or the mother is our daughter, so that is like she is us, and the baby is yours, so they are two. So, when it comes to signing consent. If the man from his side will say save my baby for me, you see. And then the other side will say save our daughter for us" (FGD 1 Resident Doctor 2).*

The HCPs described how a woman's community leaders seemed to have the power to make significant decisions in cases when her male family members were not available to give consent. The HCPs understood themselves at this point as being in the hands of a community-based collectivistic decision-

making process that limited their professional obstetric performance, especially in significant emergency situations.

> *"Sometimes the clan elder comes to assist, and he signs giving permission for emergency cesarean section to be done if the father of the woman in need of the emergency obstetric intervention is not available" (FGD 1 Doctor 6).*

Long-standing socio-cultural beliefs surrounding childbirth were also described by HCPs as contributing to delays in the provision of obstetric emergency care. To avoid a cesarean section, even though one woman had severe perinatal complications, her family discharged her from a tertiary level health facility to deliver at home:

> *"I remember one case in the maternity, she was gravid-2, para-1. While in the ward, the fetus distressed, and there was no progress of labor at all, and she had lost her first baby. Then we informed the family, she needs emergency c/section, because the baby was distressed. We had only few minutes to save the baby. She said my daughter, 5-days after membrane rupture, I gave birth, so she can deliver normal, no problem. Then, they discharged themselves, and went home" (FGD 2, Doctor 2)*

HCPs agreed that most of their patients believed it was only the woman's husband and/or male blood relatives who could give consent for emergency obstetric care. The informants shared their interpretation of a Somali tradition that women could not sign in their own right:

> *"When it comes to consent form, the mother cannot sign herself during surgery, even surgeon and operating theatre department will not accept to do surgery if you sign yourself (mother). They said where is your husband or father. The man can sign for operation for other man during operation" (FGD 4, Midwife 6)*

Previous disagreements between the woman's husband and her male family members sometimes has the unintended consequence of delaying consent in an emergency situation. HCPs described situations where two sides of the family clashed over treatment suggestions, with one side giving their approval and the other side refusing:

> *"Sometimes there are conflicts between the family of the husband and wife. One side they want cesarean section and the other side they don't want" (FGD 3 Midwife 7).*

The HCPs repeatedly stated that they had the capacity and skills to perform emergency cesarean sections, but because of these family conflicts and considerations, could not always perform them in time to prevent a maternal near miss or mortality. They stated that family members had been aggressive towards

them and threatened to take them to court or even kill them when they had suggested cesareans or other emergency interventions. Some HCPs even stated that family members had physically assaulted them.

Poverty and lack of awareness among users

As the HCPs described it, another reason that contributed to a delay in women seeking timely obstetric care at a health facility or hospital was poverty and a lack of awareness on the part of her husband concerning what to do in an obstetric emergency. HCPs reported that husbands and other family members were worried about medical costs and felt ashamed to disclose their constrained socioeconomic situation to the healthcare professionals.

> *"The family members sometimes they want to avoid the costs of hospital expenses, so they refuse giving permission for cesarean section because they cannot afford. And they will not tell you that they don't have money, the husband keeps quiet and goes, later after getting money from other family members or friends he comes and gives consent" (FGD 3 Midwife 5)*

Having to pay for healthcare up front and, if poor, needing to borrow the necessary funds from family members, was a significant factor contributing to delays in treatment, according to many of the HCPs interviewed here. According to them, many cases of severe maternal complications could have been avoided if families only sought treatment sooner. They were frustrated because women were brought to them already in a critical condition, having bypassed the local maternal and child health centres at earlier stages of their labour because of worries about treatment costs. The long distances many families needed to travel in order to reach a healthcare facility and the desire to avoid expenses at them meant that many families opted for home-based care from traditional birth attendants using traditional methods.

> *"There are so many maternal complications like post-partum hemorrhage, pre-eclampsia, miscarriage, early or late bleeding, so many cases that we attend here, because there is poverty, they cannot afford for example the hospital costs…., for example for heavy bleeding, they cannot afford to take the drugs, there is no free charge for everything… They will not tell you they don't have money, the husband keeps quiet and goes" (FGD 1: Doctor 1).*

*"*if they cannot afford to buy the drugs, and there is no free charges for everything, the mother, can try to stay in the home and go to the traditional birth attendant in order to minimize the cost*" (FGD 1: Doctor 5)*

Miscommunication and inadequate interprofessional collaboration and infrastructure

The HCPs described communication and interprofessional collaboration as important aspects of the provision of emergency obstetric care. They also noted that there could be miscommunication between professional and patient. Families could be confused by the different ways their female relative's

condition could be managed. When an HCP proposed an appropriate treatment, then, family often did not trust the professional recommendation and sometimes delayed giving consent. Their inability to understand that a rapid emergency intervention was essential if the lives of their relative, and her baby, were to be saved often meant that they clashed with the HCPs and their advice. HCP expectations, therefore, frequently encountered the obstacle of family distrust.

The HCPs in this study expressed the desire for improved interprofessional collaboration and the implementation of an organized process of getting family and community consent for obstetric care in emergency situations. "When it comes to hospital, we need systems in the wards, the systems of working together if we are not working together, we are not doing anything" (FGD 1 Doctor 1). The HCPs also admitted that poor collaboration among themselves delayed provision of emergency obstetric care. Managing a severe maternal complication could take a long time. Getting a senior obstetrician to take the decision on how to proceed, arranging for a doctor to do the surgery and organizing an anesthetist to be available were processes that could be streamlined and better coordinated.

> *"The anesthetist will take time and then they will come, the surgical team until they come they will take 2 to 3 hours, the patient is waiting, the doctors are waiting, everyone is waiting, we are just waiting, we wait until the anesthetist comes, so the concept itself of timely decision making and being present on time is missing, from so many people. If the decision is taken that cesarean section should be done, and we must call the doctor and the doctor is far" (FGD 1, Doctor 2)*

Participants expressed the view that the inability of HCP to manage the severe maternal complications led to the clash between what the community and the family of the woman expected and what HCP could provide. Some doctors expressed the view that front-line staff who encountered these obstetric emergencies when they first presented were not always sufficiently trained to manage difficult conversations with anxious family members and that this could lead to a clash of expectations. One healthcare provider said: "The nurses and midwives they undergo ongoing courses/training related to maternal complications, (EmOC training), but there is less improvement, and still commitment is lacking" (FGD 2 Doctor 4).

The participants in this study also emphasized the need for educated and informed communities, health care institutions and government leadership, that were willing to work together to improve existing weaknesses in the current system. They stated that changes needed to be made in order to bridge the gap between families and their community networks and the healthcare system to receive timely consent. This would reduce the delay in the provision of operational deliveries to women in need of lifesaving interventions.

> *"The parliament are having a huge discussion about this issue of consent [for performing surgery], because it is not easy, it is because of our culture, it is embedded within our culture, it's like*

something being practiced all this years, it's something that cannot be changed that easily." (FGD 1 Junior Doctor 5)

DISCUSSION

To the best of our knowledge, few studies examining maternal healthcare provision have been conducted in Somaliland [9, 11]. This study provides significant evidence to show the importance of healthcare providers working together with extended family members within the community to reduce the delay in consent for evidence-based care. In particular, our main findings show that the Somali familial relationships and emphasis on collective decision-making could result in significant delays in obtaining consent for life saving obstetric interventions. Moreover, lack of awareness of emergency obstetric care among families with little resources, and the shame associated with this lack of awareness delays provision of obstetric emergency. Finally, the conversations with the HCPs revealed that it could be difficult to organize a timely and effective communication and coordination process that ensured consent was in place in case of an emergency CS.

The three delays model has been widely used to explore contributing factors to poor maternal outcomes. The delay in deciding to seek care on the part of the individual, family or both is the first delay, the delay in reaching adequate healthcare facility is the second delay, and the delay in receiving adequate care at the health facility is considered the third delay [25]. In accordance with the Binders' modified three delays model, [26] our findings show that poverty and lack of awareness contributes not only to the first and second delays, which are attributable to the individual, [25] but also to the third delay, which is the responsibility of the healthcare facility [26]. Miscommunication and inadequate interprofessional collaboration and lack of supplies and infrastructure contribute to the first and third delays and collectivistic decision making through family ties contributes to the third delay, thus creating a negative loop effect. This third delay of decision making at a group level appearing at the health facility level as a sociocultural factor is a contradictory finding when considering sociocultural factors mainly contribute to the first delay of seeking care [25, 27]. Figure 1 illustrates our main findings contextualized within the modified Binders' three delays model [26].

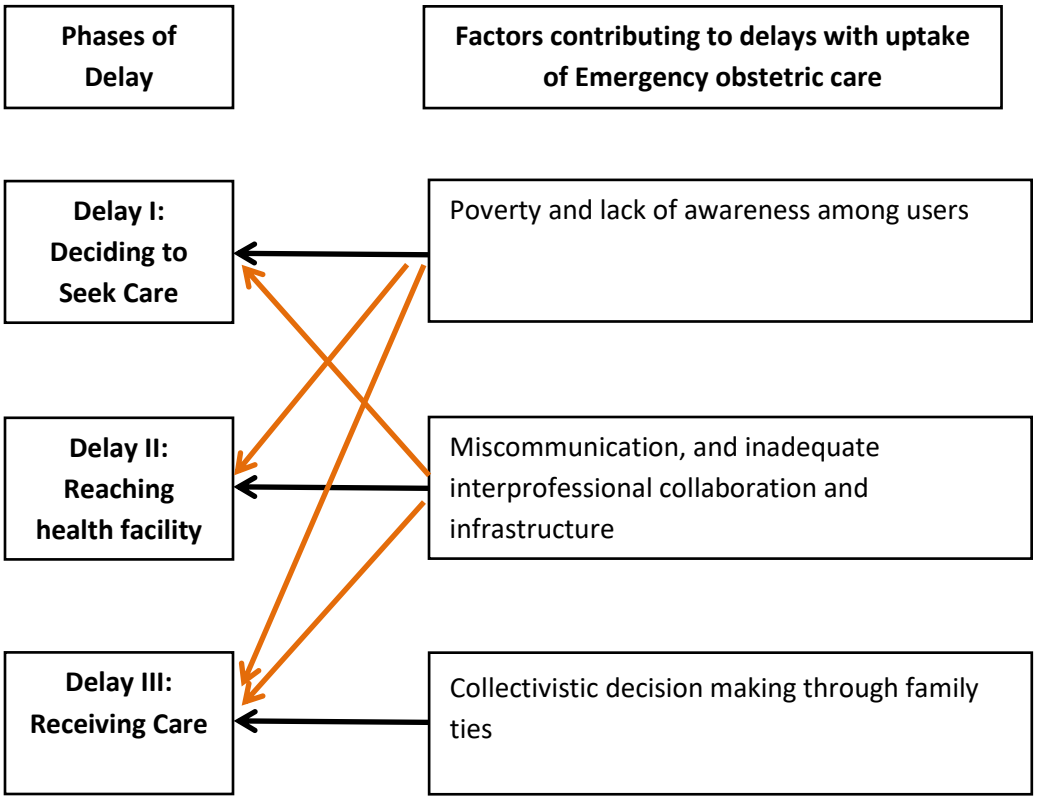

Figure 1. Factors influencing utilization and provision of emergency obstetric care illustrated using the modified Binders' et al. [26] three delays model. Arrow shows influence of factors on delays in a specific phase.

In this study, participants suggested that poverty and lack of awareness along with miscommunication and inadequate interprofessional collaboration and infrastructure contributing to distrust among women and their families led to a delay. They argued that this situation accounted for many women's decision to delay seeking obstetric care at a health facility until their condition was severe. It is likely that this broken trust between women, their families and the healthcare providers caused a loss of confidence and belief in the healthcare system. This then resulted in minimal healthcare-seeking to a higher level and low uptake of available obstetric care services. The HCPs in this study also recognized that the inability for

families to cover the costs involved in emergency obstetric care services was an economic barrier that further discouraged women and their families from seeking care. Our findings are consistent with those from previous studies that also identified socioeconomic barriers and sub-optimal obstetric care as key obstacles when deciding to seek care [26, 28]. Distrust of the obstetric care system can be addressed by adopting a team-based approach to managing maternal crises, discussed in more detail below. An earlier study has also shown that the obstetric care women receive during facility-based childbirth can influence other women and deter them from seeking timely obstetric care [29]. Developing a birth preparedness plan with a pregnant woman together with her husband [30] at the early stages of pregnancy has been shown to enable families to prepare in advance funds that might be needed to cater for the costs of seeking care. Moreover, male involvement during pregnancy and childbirth has been found to have a positive effect on maternal and perinatal outcomes [31].

This study has shown that some of complicated maternal cases HCPs dealt with came from rural areas and that distance to a healthcare facility could be a barrier to timely maternity care. An inability to pay for the costs of transport thus played a central role in preventing women from reaching care in time. Our findings are in line with previous studies which also emphasize the importance of increasing access to obstetric care among communities living in remote and hard to reach areas [32, 33].

Time-consuming collectivistic decision making, miscommunication and inadequate collaboration and infrastructure all contributed to a delay. The delay has been confirmed in Binder's et al. context specific third delay, that showed that this delay is not just due to healthcare facility inability to provide care in time, but also due to sociocultural barriers from the individual or family [26]. In this regard, these factors meant that, despite women arriving in time to a healthcare facility, they did not receive timely care. In addition, even though emergency obstetric care intervention such as cesarean sections are free, the family was expected to pay the extra costs for medicines. An inability to pay thus delayed families from giving consent for care to be provided. Other studies have shown that economic disadvantage can be a factor in the third delay of receiving timely obstetric care [32, 34].

Our findings illustrate specific challenges the HCP has to deal with when informed consent from more than the patient herself is expected. The HCPs spoke about how stressful it was for them to navigate these conversations in a professional way. On the one hand, they knew that, according to WHO guidelines [13], they needed to carry out essential interventions to save the fetus or the mother's life. On the other hand, they knew they needed to reflect professionalism, which showed respect to the patient and their wishes. Emergency operative deliveries were even more stressful because, by tradition, consent should be given not only by the childbearing women and her partner, but by their extended family members at the community level. The HCPs described this familial decision-making process as the father having the responsibility to consent for his married daughter, while the husband had the responsibility to consent for the unborn child. The notion of family ties refers to a close relationship between individuals based on

kinship that offers bonds of support and obligation, claims to resources and social protection at a group rather than an individual level [35]. Alongside this context of familial decision-making process, however, there is the hospital's own hierarchical decision-making system. The surgical delivery team, for example, have to agree on whether the woman should receive emergency obstetric intervention or not. These relatively autonomous decision-making processes disclose a disconnected, mutually distrustful and inadequate coordination between the HCP and the extended family which is likely responsible for the third delay of receiving care. Family involvement in medical decisions is essential in promoting women's and children's maternal health [36], no matter how difficult it is to implement in an emergency situation. The fact that family ties can contribute to a third delay of receiving timely care shows the need for community engagement and informed empowerment [37] to break the negative relationship between family ties and delayed consent. Our findings make an important contribution by pointing out that in Somaliland, collectivistic decision making through family ties is a key factor that can influence the timely provision of emergency obstetric care. Decision making at a group rather than an individual level means it takes time for all concerned family members to consent to CEmOC.

This study, thus, provides empirical data supporting the need for HCPs to work on the consent, within their immediate working environment, and their wider healthcare system. Discussions around these topics can lead the way to healthcare systems that will be better able to implement the WHO's CEmOC guidelines. Providing care in a culturally sensitive manner can promote responsiveness to the collectivistic decision-making approach, prevalent in Somali obstetric contexts. With an effective system in place, familial groups will be willing to grant consent and sign the paperwork smoothly and efficiently. However, for this to happen they must be prepared for doing so at the antenatal care level, long before the woman arrives at the hospital with an obstetric emergency. As our previous study showed, in Somaliland it is the family and not the individual woman herself who gives consent [11]. This study shows that the potential for this collectivistic and familial culture to delay decision making was exacerbated when the woman's husband or father was not present to give consent and was further worsened because of a lack of an emergency obstetric intervention policy on consent that HCPs could follow. Such a policy could give guidance on how emergency obstetric care could be performed when decision makers are not present or are unwilling to give consent [11]. A policy could also protect HCPs, freeing them to perform CS without fear of litigation, blame or violence from a patient or her family [38].

In this study, HCPs experienced a chain of events such as; miscommunication, poor collaboration and inadequate coordination between a patient's family and HCPs. These events led HCPs to provide sub-optimal care and delays in obtaining consent. Thus, the chain of events contributed to distrust with the HCPs and caused a delay at the third level, that of receiving care. Other studies have also shown this to be the case [26, 39]. Our findings are in line with previous research, which shows that weak interprofessional collaboration and miscommunication between HCPs can [39, 40] affect the provision of

emergency obstetric care. These findings show the need to develop strong clinical leadership systems and improved coordination of care.

Earlier studies have shown that team-based care can improve interprofessional collaboration and effective communication [41, 42]. The institutionalization of interprofessional collaboration through programs that encourage multidisciplinary health care providers to work together is considered a possible way of addressing sub-optimal care and improving patient outcomes [42]. In the literature, the team-based care concept is identified with the attributes of healthcare providers: sharing common goals, having clear roles and responsibilities with regular training and competency checks, showing mutual respect and trust, communicating effectively and having defined workflows and workflow mapping [41]. It is likely that in our study, the identified sub-optimal obstetric care characterized by healthcare providers not working together, contributing to the distrust women and their families showed towards the obstetric care services, likely caused women and their families to be dissatisfied and frustrated with the obstetric care services being provided. Among our study participants, the need for working together was evident.

Strengths and Limitations

A key strength of this study lies in the manner in which the experiences of HCPs were elicited through focus group discussions to verbalize their encounters with severe maternal complications. The focus group discussions allowed the HCPs to comment on each other's views and opinions regarding their provision of emergency obstetric care [17]. The diversity of the experiences obtained from the HCPs, who described sub-optimal care at the community, facility and government level, is a further strength of this study. Furthermore, that the groups were comprised of HCPs doing similar jobs with similar levels of experience in treating women with severe material complications gave the discussions a high level of homogeneity [23].

The approaches recommended by Lincoln and Guba [43] to improve trustworthiness were applied in this study. Credibility was increased through a member-checking session with study participants who reviewed the study themes and interpretations and confirmed that the themes accurately reflected their experiences. However, where some themes were noted by the study participants as overlapping with others, the first author later merged and combined them. The researchers involved in this study, drawn from different disciplinary backgrounds, helped to prevent the first author from expressing personal biases or excessively influencing the findings. In this regard, the researchers engaged in regular meetings and dialogue during the data collection and analysis process and shared the responsibilities equally. Since all qualitative findings are specific to the context and the setting in which they occur [17], we leave it to the reader to decide if the findings of this study can be transferred to other contexts.

Conclusion and implications for practice

This study highlights the factors that contributed to delays with provision of EmOC from the experiences of HCPs. The findings show that low socioeconomic status, and low awareness about maternal health care among users combined with collectivistic decision-making process for obtaining consent for EmOC and inadequate of interprofessional collaboration and communication among HCPs contributed to the delays with provision of timely EmOC. Therefore, it is essential for healthcare providers with support from the MoHD to resolve the difficulty of obtaining consent by raising potential preventive strategies with the mother and her family at the antenatal care level. The woman's nearest male family member can begin to think about who will sign the consent form if EmOC is needed. Moreover, an in-service training on team-based care for HCPs involved with CEmOC would improve the quality of care and would in the long term enhance trust and confidence within families and communities towards the public healthcare system and improve timely uptake of obstetric care services. Pregnant women from low socioeconomic backgrounds and those with low maternal health literacy should be given more attention as to utilize antenatal care. A well-structured and functioning healthcare system can be organized to reach this group in the community, considering few women attend antenatal care. This study suggests that the hypothesis of a family-based approach to collectivistic decision making as a prerequisite for consent be tested in further studies.

Abbreviations

BEmOC: Basic Emergency Obstetric Care

CEmOC: Comprehensive Emergency Obstetric Care

CS: Cesarean Section

CEmOC: Emergency Obstetric Care

FGD: Focus Group Discussion

HCPs: Health Care Providers

ICU: Intensive Care Unit

MDG: Millennium Development Goals

MoHD: Ministry of Health Development

SDG: Sustainable Development Goals

DECLARATIONS

Ethics approval and consent to participate

Ethical approval was obtained from the University of Hargeisa Ethical Review Board (DRCS/41/05/18) and the Somaliland Ministry of Health Development (MOHD/DG: 2/165/2018).

Consent for publication

Not applicable

Availability of data and materials

Supporting data is available from the corresponding author on request.

Competing interests

The authors declare that they have no competing interests.

Funding

The study had been funded by College of Medicine and Health Science, University of Hargeisa, School of Education, Health and Social studies, Dalarna University and the Faculty of Medicine, Uppsala University, Sweden.

Authors' contribution

All authors participated in the conception and design of this study. JK was responsible for data collection and initial data analysis and the writing of the manuscript. They each read the FGD transcripts and contributed to data analyses. They all contributed to the interpretation and results sections and took part in member checking and reviewing of the manuscript. All authors participated sufficiently in the work to take public responsibility for appropriate portions of the content. All authors reviewed and approved the final manuscript.

Acknowledgments

The authors would like to thank the healthcare providers who participated in the study.

REFERENCES

1. Girum T, Wasie A. *Correlates of maternal mortality in developing countries: an ecological study in 82 countries.* Maternal health, neonatology and perinatology, 2017. **3**: p. 19-19.
2. Boldosser-Boesch A, et al. *Setting maternal mortality targets for the SDGs*. Vol. 389. 2017. 696-697.
3. WHO. *Evaluating the quality of care for severe pregnancy complications. The WHO near-miss approach for maternal health*. 2011, World Health Organization: Geneva.
4. MoHD. *Health Sector Strategic Plan II*. 2017, Ministry of Health Development: Hargeisa.
5. Ameh C, et al. *The effectiveness of training in emergency obstetric care: a systematic literature review*. 2019.
6. Pearson L, Shoo R. *Availability and use of emergency obstetric services: Kenya, Rwanda, Southern Sudan, and Uganda.* International journal of gynaecology and obstetrics: the official organ of the International Federation of Gynaecology and Obstetrics, 2005. **88**: p. 208-15.
7. Echoka E, et al. *Existence and functionality of emergency obstetric care services at district level in Kenya: theoretical coverage versus reality.* BMC health services research, 2013. **13**: p. 113-113.
8. Otolorin E, et al. *Essential basic and emergency obstetric and newborn care: From education and training to service delivery and quality of care.* International Journal of Gynecology & Obstetrics, 2015. **130**: p. S46-S53.
9. Kiruja J, et al. *Maternal near-miss and death incidences - Frequencies, causes and the referral chain in Somaliland: A pilot study using the WHO near-miss approach.* Sex Reprod Healthc, 2017. **12**: p. 30-36.
10. Ameh C, et al. *The impact of emergency obstetric care training in Somaliland, Somalia*. Vol. 117. 2012. 283-7.
11. Abdillahi HA, et al. *A mixed-methods study of maternal near miss and death after emergency cesarean delivery at a referral hospital in Somaliland.* Int J Gynaecol Obstet, 2017. **138**(1): p. 119-124.
12. Ahmed AJ. The Intervention of Somalia. 1995, Lawrenceville, NJ: Red Sea Press.
13. WHO, et al. *Pregnancy, childbirth, postpartum and newborn care: a guide for essential practice*. 3rd ed. ed. 2015, Geneva: World Health Organization.
14. Essén B, Binder P, Johnsdotter S. *An anthropological analysis of the perspectives of Somali women in the West and their obstetric care providers on caesarean birth.* Journal of Psychosomatic Obstetrics & Gynecology, 2011. **32**(1): p. 10-18.
15. Narruhn R, Schellenberg IR. *Caring ethics and a Somali reproductive dilemma.* Nursing Ethics, 2013. **20**(4): p. 366-381.
16. Glavin K, Sæteren B. *Cultural Diversity in Perinatal Care: Somali New Mothers' Experiences with Health Care in Norway*. Vol. 10. 2016.
17. Lewis S. *Qualitative Inquiry and Research Design: Choosing Among Five Approaches.* Health Promotion Practice, 2015. **16**(4): p. 473-475.
18. MoNPD. *The National Development Plan II, 2017-2021*. 2017, Ministry of National Planning and Development: Hargeisa.
19. MoHD. *Essential Package of Health Services*. 2009, Ministry of Health Development: Hargeisa.

20. MoHD. *Annual Report*. 2015, Ministry of Health Development, Somaliland: Hargeisa.
21. Lopez V, Whitehead D. *Sampling data and data collection in qualitative research*. 2013. p. 123-140.
22. Tura AK, et al. *Applicability of the WHO maternal near miss tool in sub-Saharan Africa: a systematic review.* BMC Pregnancy and Childbirth, 2019. **19**(1): p. 79.
23. Barbour R. *Doing Focus Groups.* 2008, New York. SAGE Publications Ltd
24. Braun V, Clarke V. *Using thematic analysis in psychology.* Qualitative Research in Psychology, 2006. **3**(2): p. 77-101.
25. Thaddeus S, Maine D. *Too Far to Walk: Maternal Mortality in Context.* Newsletter (Women's Global Network on Reproductive Rights), 1994. **38**: p. 22-4.
26. Binder P, Johnsdotter S, Essén B. *Conceptualising the prevention of adverse obstetric outcomes among immigrants using the 'three delays' framework in a high-income context.* Social Science & Medicine, 2012. **75**(11): p. 2028-2036.
27. Chavane LA, et al. *Maternal death and delays in accessing emergency obstetric care in Mozambique.* BMC Pregnancy and Childbirth, 2018. **18**(1): p. 71.
28. Serbanescu F, et al. *Addressing the First Delay in Saving Mothers, Giving Life Districts in Uganda and Zambia: Approaches and Results for Increasing Demand for Facility Delivery Services.* Global Health: Science and Practice, 2019. **7**(Supplement 1): p. S48-S67.
29. Bohren MA, et al. *The Mistreatment of Women during Childbirth in Health Facilities Globally: A Mixed-Methods Systematic Review.* PLOS Medicine, 2015. **12**(6): p. e1001847.
30. Mullany BC, Becker S, Hindin M. *The impact of including husbands in antenatal health education services on maternal health practices in urban Nepal: results from a randomized controlled trial.* Health Education Research, 2006. **22**(2): p. 166-176.
31. Yargawa J, Leonardi-Bee J. *Male involvement and maternal health outcomes: systematic review and meta-analysis.* Journal of Epidemiology and Community Health, 2015. **69**(6): p. 604.
32. Aden JA, Ahmed HJ, Östergren PO. *Causes and contributing factors of maternal mortality in Bosaso District of Somalia. A retrospective study of 30 cases using a Verbal Autopsy approach.* Global Health Action, 2019. **12**(1): p. 1672314.
33. Geleto A, et al. *Barriers to access and utilization of emergency obstetric care at health facilities in sub-Saharan Africa: a systematic review of literature.* Systematic Reviews, 2018. **7**(1): p. 183.
34. Knight HE, Self A, Kennedy SH. *Why Are Women Dying When They Reach Hospital on Time? A Systematic Review of the 'Third Delay'.* PLOS ONE, 2013. **8**(5): p. e63846.
35. Jack J. *The Institution of the Family, Marriage, Kinship and Descent Systems*. Selected Topics in Nigeria Peoples and Culture. 2015, Benin City: Dimaf Publishers.
36. Ho A. *Relational autonomy or undue pressure? Family's role in medical decision-making.* Scandinavian Journal of Caring Sciences, 2008. **22**: p. 128-135.
37. MacDonald T, et al. *The fourth delay and community-driven solutions to reduce maternal mortality in rural Haiti: a community-based action research study.* BMC Pregnancy and Childbirth, 2018. **18**(1): p. 254.
38. Weiniger CF, et al. *Holy consent – a dilemma for medical staff when maternal consent is withheld for emergency caesarean section.* International Journal of Obstetric Anesthesia, 2006. **15**(2): p. 145-148.

39. Esscher A, et al. *Suboptimal care and maternal mortality among foreign-born women in Sweden: maternal death audit with application of the 'migration three delays' model.* BMC Pregnancy and Childbirth, 2014. **14**(1): p. 141.
40. Romijn A, et al. *Interprofessional collaboration among care professionals in obstetrical care: are perceptions aligned?* BMJ Quality & Safety, 2018. **27**(4): p. 279-286.
41. Baik D. *Team-Based Care: A Concept Analysis.* Nurs Forum, 2017. **52**(4): p. 313-322.
42. Guise JM, Segel S. *Teamwork in obstetric critical care.* Best practice & research. Clinical obstetrics & gynaecology, 2008. **22**(5): p. 937-951.
43. Lincoln Y, Guba E. *Naturalistic Inquiry*. 1985, London: Sage.