

Full Length Research Paper

Midwives perspectives on risk factors influencing maternal morbidity and mortality rates in Zambia: A case of Lusaka and Mumbwa Districts

Kalusopa Mwiinga Victoria¹, Mukwato Katowa Patricia¹, Muleya Mutinta¹, Kwaleyela Concepta¹, Musenge Emmanuel¹, Chapima Fabian¹, Nambala Sianchapa Brenda¹, Jon Oyvind Odland², Babil Stray-Pedersen² and Maimbolwa Connie Margaret^{1*}

¹Department of Nursing Sciences, University of Zambia School of Medicine, Lusaka, Zambia.

²Department of Public Health and Nursing, Faculty of Health Sciences, University of Tromsø, Norway,

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Maternal and neonatal mortality has remained a public health challenge in developing countries, particularly in Zambia despite the efforts to improve access and use of maternal health care services universally. Majority of these maternal deaths could be prevented by ensuring access to good-quality maternal health services, such as antenatal and postnatal care, and skilled attendance during child birth, including emergency obstetric care. This study explored the perspectives of midwives on factors influencing maternal morbidity and mortality rates in Zambia. A qualitative approach was utilized for this study to identify the experiences as described by the participants. This study was carried out in Lusaka urban and Mumbwa rural districts. Focus groups discussions were utilized to collect data. The challenges in the provision of care was understaffing and lack of infrastructure, fear of HIV test, attitude of the midwives, trusting herbal medicines, poverty, congestion at the hospitals and distance to health care facilities were mentioned as underlining causes of maternal morbidity and mortality. Equipping midwives with supplies and required equipment in antenatal and postnatal areas may help alleviate the challenges midwives face in the delivery of care

Key words: Midwifery, midwives, midwives perspectives, maternal morbidity, mortality.

INTRODUCTION

Maternal death refers to death of a woman while pregnant or within 42 days of termination of pregnancy, irrespective of the duration and site of the pregnancy,

from any cause related to or aggravated by the pregnancy or its management, but no from accidental or incidental causes (WHO, 2012). According to the WHO

*Corresponding author. Email: mmaimbolwa@yahoo.com

(2012), maternal death can be classified into two categories, viz; the direct and indirect obstetric death. Direct obstetric death is as a result of obstetric complications during pregnancy, labour, puerperium, from interventions, omissions and incorrect treatment. Indirect obstetric deaths are related to the aggravation of preexisting diseases or diseases that develop during pregnancy due to physiologic effects of pregnancy. These may be cardiac disorders, neoplasms, endocrine conditions or infections such as HIV, tuberculosis and malaria.

Globally, about 810 women die each day due to complications during pregnancy and childbirth (WHO, 2019). In 2017, about 295,000 women died during and following pregnancy and childbirth (WHO, 2019). Most of these deaths, 277,300 (94%) happened in low-resource settings. Out of the 295,000 global estimated maternal deaths, 86% (254,000) happened in the Sub-Saharan Africa and Southern Asia. Sub-Saharan Africa alone accounted for roughly two-thirds (196,000) of the 254,000 maternal deaths in the Sub-Saharan Africa and Southern Asia regions. However, it is worthy to note that, the majority of these deaths could have been prevented (WHO, 2019).

In Zambia, maternal mortality is a major cause of death among women. In 2017, maternal associated deaths accounted for 17.2% of all deaths in women aged between 15-49 years (Gianetti et al., 2019). The major direct causes of maternal mortality in Zambia arise from complications related to pregnancy and birth, such as hemorrhage, septicemia (blood infection), obstructed labor, hypertensive conditions, as well as unsafe abortions. Indirect causes are multi-factorial and inadequate human resources and commodities. Majority of these maternal deaths could be prevented by ensuring access to good-quality maternal health services, such as antenatal and postnatal care, and skilled attendance during childbirth, including emergency obstetric and neonatal care among (CSO [Zambia], MOH [Zambia] and USAID Zambia (2017).

Gianetti et al. (2019) stated that, maternal health has already been included in the third goal of the United Nations (2016) Sustainable Development Goals (SDG) framework, to which Zambia subscribes. Zambia has been working within this framework to ensure universal access to high quality of maternal health services. Zambia has also employed several strategies such as Safe Motherhood Action Groups (SMAGS), Mobilizing Access to Maternal Health Services in Zambia (MAMaZ) and health surveillance system to deliver high quality maternal care to Zambian women with infrastructure and human resource (midwives) among others. However, indicators from the demographic and health survey still indicate that there are still low maternal indicators (CSO, [Zambia], MOH, [Zambia] and USAID Zambia (2017) with

the current maternal mortality ratio at 398/100,000 live birth. The current maternal mortality ratio of 398/100,000 live birth is still unacceptable.

Since midwives provide care to women during pregnancy, birth and the postnatal period based on evidence based practice, they are vital not only in providing quality maternal health but also in reducing maternal deaths. Most studies have looked at factors influencing maternal deaths from surveillance records and midwives have little input in these studies. It is from this background that midwives' viewpoint on factors influencing maternal morbidity and mortality in Zambia should be explored. Findings of this may help to bring evidenced based practice in the reduction of maternal mortality rates in Zambia.

MATERIALS AND METHODS

This study aimed at exploring the perspectives of midwives who offer the care regarding the quality of care offered to women and the challenges they meet during the line of duty. The aim was to understand rather than predict the midwives' perspectives concerning this phenomenon. Therefore, a qualitative approach was utilized for this study as this helps the researcher identify the experiences as described by the participants (Creswell, 2007).

Because of the differences in the maternal and child health that often exists between the urban and rural areas, participants were drawn from both settings. This study was carried out in Lusaka district (urban) of Lusaka province and Mumbwa district (rural) of central province. For each of the district, two health facilities were purposively selected: Lusaka- Kanyama first level hospital and Ng'ombe Health Center, Mumbwa- Mumbwa District Hospital and Nangoma First Level hospital. The settings were selected to reflect a representative cross section of health facilities in Lusaka and Mumbwa. All midwives and nurses working in labor ward were invited to participate in the study. Eligibility criteria and identification of study participants which was purposive sampling was used to capture the participants. All those who were working in the maternity unit during the time of data collection and consent were included in the focus group discussions.

Qualitative research sample size determination relies on the concept of saturation which has become the gold standard by which the samples for qualitative inquiry, including focus groups are determined (Tordes and Holloway, 2006). Focus group discussion can range from two (2) per study to more than 20 depending in the characteristics of the participants (Krueger and Casey, 2015) (whether homogenous or heterogeneous population). Equally, the number of participants depends on the number of focus groups. In this study which had relatively homogenous population with a semi structured guide, thirty-eight (38) maternal neonatal child health nurses and midwives attending to women prenatally to postnatally were included. Four focus group discussions were conducted (one per facility) with each group ranging from 8-9 participants per group.

Focus groups discussions were utilized to collect data from the midwives which involved a series of guided discussions about specific topics. This mode of data collection was chosen as it helps to obtain information about the needs of a specific group through narrative information about opinions, experiences, beliefs or perceived norms. Focus groups also helped to get feedback in clients' own words about program strengths and weaknesses and identify major categories and themes about a specific health

problem and challenges concerning maternity care and see how they relate to each other. The focus groups were conducted in English between June and July 2017. Written informed consent was obtained from all participants who accepted to participate. The guides focused on midwives working in maternity ward. A small team of moderators conducted the focus group discussions which comprised of a note taker, time keeper and moderator. The focus group discussions were audio recorded after seeking permission from the participants. A research assistant contacted the participants and gave the information sheet to inform the participants what the study was all about. The participants sat in a circular formation when the participant agreed to participate and the consent form was signed indicating agreeing to participate. A moderator conducted the focus group discussion.

Following completion of the focus group discussion, the qualitative data derived from open-ended questions and field notes were analyzed using the principle of content analysis (Polit and Hungler, 1999; Sarantakos, 1998). Each audio tape recording was transcribed verbatim and the key words that were similar per study site were identified. Field notes were incorporated into the transcripts. Focus group discussion and audio recording were transcribed by the research assistant and field notes incorporated into the transcript. Each focus group discussion was transcribed and read to acquire a sense and understanding of the whole text and to obtain ideas for further analysis.

This involved vigorous and reflective study of each question. A process of open coding was applied, which revealed concepts in the responses that were then classified into categories. Text was coded and reviewed for pattern of consistency and variation, relationships between themes and exemplary cases or quotations (Schensual, 1993; Natasi and Schensual, 2005). Connections between the categories became apparent in accordance with the coding. This led to the systematic development of the major themes. The additional themes were also identified upon review of the transcript.

Ethical approval was obtained from the University of Zambia Biomedical Ethics Committee and the National Health Research Authority. Further permission to conduct the study was sought from the Lusaka Provincial and District Health Offices and Central Province Medical Office, and Mumbwa District Medical Office. The Provincial and District Medical permission were obtained in order to gain access to health facilities that participated in the study. On accessing the facilities, permission was further obtained from the Nurse in-charge at each health centre who also facilitated recruitment of eligible midwives.

RESULTS

There were four (4) focus group discussions carried out with the midwives that raised issues that affected the mothers over the perinatal care. Most of the discussion was revolving around dealing with women and their neonates in the maternity wards.

Causes of maternal morbidity and mortality

Maternal morbidity and mortality are on the increase. Midwives who took part in the focus group discussion had several views regarding the cause of this maternal morbidity and mortality. When midwives were asked on

the underlining causes in an increase in maternal morbidity and mortality, various responses were given such as religious beliefs, traditional beliefs/seeking help from elderly women in the community, congestion, attitude of the midwives, poverty, ignorance fear of the unknown, HIV/AIDS infection, taking herbal medicines. The participants also further indicated that most of the complication occurred in the labor ward and only a few in the postnatal. Two themes emerged from here as explained by the practicing midwives as follows.

Traditional/cultural and religious beliefs

This theme of women still following these traditional/cultural and religious beliefs kept recurring from almost all the facilities. It is evident that women are still following these beliefs which eventually lead to complications and even mortalities. For example some midwives had this to say;

“One of the contributing factors to maternal morbidities can be that some mothers would rather seek help from the traditional healers or from elderly women in the community when they want help especially when pregnant and even during postnatal, if the baby is not well.....they would rather seek help from neighbours or the elderly people in the community rather than coming at the health facility which is likely to be ignorance on the part of the women”. “The mothers in the compound also believe in taking herbal medicine from 5 to 6 months so that they can be well during their pregnancy which they say its easy for them to deliver, but brings a lot of complications when they come to deliver in our facility.....they also believe that the herbal medicine gives the mother the precipitate labour which makes them deliver quickly.

This finding shows that there are lots of traditional/cultural beliefs that are still held strongly in the communities especially regarding women and neonatal health which may be the cause of some maternal and neonatal complications. From the findings, another factor and belief that has arisen in the recent past are religious belief where people have come believe so much in their pastor and prophets than conventional medicine. This was also mentioned by the midwives who participated in the discussion.

“Religious beliefs that women believe in is to go to their churches to see their pastor or prophet after and when they fail that’s when they go to the facility and it is at a very late stage where it is not possible to provide a service and prevent complications.”

Delayed access to the health facility

Delayed access to the facility is another finding that could lead to perinatal morbidities and mortalities although not common to all health facilities. Distance is one factor that leads to delayed access to the facility. In rural places, there is a challenge of distance to the health facilities which is often impacted with poverty.

“The other factor was the long distance from the health facility if they were in labour..... Some mothers or patients when they feel that they are sick, wait until the condition worsens, that is when they can come to the hospital. Because of distance, by the time they get to the hospital it gets worse.most of the women are poverty stricken and when they find that they do not have the baby layette and other things to use they deliver at home and the baby may get infection as the environment is not known. After the delivery, the women come to the clinic in very poor state.”

Reasons for home deliveries

According to the discussion by the midwives, deliveries outside the institution have continued due to different reasons. Some of the reasons have to do with the women themselves, and also the attending midwives. When the nurses and midwives were asked on why women deliver outside the institution, different responses were given which included;

Stigma and fear of HIV treatment/testing

Despite the fact that HIV testing and treatment has become compulsory with mothers seeking maternal and child health service, there is still stigma around it and non-disclosure of status as some women are still not ready to disclose their status to either the partner or support relatives.

Bad attitude of midwives towards women

Bad attitude of midwives is something that has been talked about both in social and print media. It is another finding that was brought out by the same midwives that some attitudes hinder women from institutional deliveries. Women are scared of going to deliver from the health institution if they do not have baby layette and other requirement for fear of being shouted at by the attending nurses and midwives.

Lack of human resources and infrastructure

Human resources and infrastructure continue to hinder the provision of quality care to women who seek maternal and child health services. Midwives indicated they may have adequate knowledge and skill and equipment may be available to provide the care required but may be understaffed to provide the quality care. Privacy is also challenged due to limited infrastructure. Midwives had this to say:

“It is easy to provide care because one has knowledge and skill to offer the services” and it is not easy because of lack of material and human resource and also it is not easy due to lack of infrastructure”; others indicated that the health centers also do not have obstetricians. “We provide the services for the women and babies who came to access the services from us as they presented, but sometimes lack of human resources and overwhelming work; so sometimes we tend to be in a hurry providing the services that the mother require.”

One of the participants responded that:

“It is easy that we have the skills and knowledge that we need to offer to them. “.....sometimes it is lack of human resources and you are overwhelmed with work; so sometimes we tend to be in a hurry providing the services that the mother requires”. At times it is not easy looking at the infrastructure which is not adequate because the space is not enough. Confidentiality most of the time is compromised when you look at the space itself.

Another midwife said this

“It is easy provided the resources which we are trying to give to mothers are there”. “.....It is easy because when they come, some of the mothers have some problems they cannot solve, but when they come to the health provider some become open to reveal what ever problem they have”.

Another participant had this to say; “.....*We have challenges for those mothers who come alone or single because there are times when you want to give a service and they say that they want to ask from the partner.*

Midwives also expresses concern over follow up of the mothers who come to seek maternal and child health services from the facilities. They expressed that it is a big challenge and makes the care incomplete. These are some of the expressions used;

....."it is easy when they come to the health services for care because we are able to be in contact with them, but sometimes it becomes difficult when you would want to do a domiciliary and find out that maybe they have given you the wrong address and it becomes difficult for us to trace them and make a follow up of the child; maybe when the child is sick then they will just go to a traditional healer to seek for medication or end up losing the child".

Another response from one facility said;

"It is easy when they come with a neonate such as the postnatal period they come with their neonate and then also they have to assess the baby and assess the mother and then in situations where there is no enough staffing, only two midwives have to do the work".

DISCUSSION

This study aimed at exploring the quality of care understanding the perceptions of the midwives' perception of the factors that contribute to maternal morbidity and mortality. The role of a midwife starts well before pregnancy and goes beyond birth with the midwife offering guidance and care for women as they start to plan their families. It continues as these women welcome their newborns into their homes. It is the desire and responsibility of midwives to provide the highest quality care for the mother before, during and after pregnancy. Frequently, midwives experience challenges or barriers in providing quality care—such as a lack of basic medicines and supplies, poor or no equipment. Improving quality of maternal healthcare delivery is pivotal to reversing the trend of maternal health in developing countries and consequently, achieving the SDGs especially those that encompass reducing maternal mortality and improving universal access to reproductive health.

The participants in this current study were all female nurses and midwives working from the maternal and child health departments from the study sites. This included the in-charges who can be regarded as key informants. These findings are from the four sites used in this study. However, despite the fact that there were four different sites, the perspectives are similar in all the sites. The findings are based on the three major issues discussed in the focus groups; challenges in managing women seeking maternal and child health services (lack of human resources and infrastructure), perceived factors contributing to maternal and neonatal morbidities and mortalities (traditional/cultural and religious beliefs) and reasons why women still opt to deliver outside of the

health institutions (bad attitude of midwives and stigma and fear of HIV testing and treatment).

Challenges in managing women seeking maternal child health services

Midwives are central in providing quality health care; however, their voices are rarely heard. Midwives play a pivotal role in ensuring quality of care for mothers and newborns, but must be supported with the tools needed to provide that care.

Shortage of human resources and inadequate infrastructure are some of the reported barriers to providing adequate/quality midwifery care. This shortage of staff for maternal and child health care may not be peculiar to the study settings but also country wide and regionally as reported by other studies done in other areas (Tibandabage et al., 2016; Mselle et al., 2013). Research has also shown that this shortage of human resources creates an increased workload to the existing staff which means that the quality of care being offered may be low and of poor quality (Nyamtema et al., 2013; Shipp, 1998; Flynn and McKeown, 2009). Other than shortage of infrastructure which could include space, road and transport pose a challenge to the provision of quality maternal and child health care. For midwives to function effectively, they need to have an "enabling environment" which should have adequate space, the necessary equipment and medicines as well as adequate referral means to be effective for them to provide quality maternal and child health services and thereby reducing maternal and neonatal morbidity and mortality. From this current study, space, infrastructure and transport seem to be the biggest challenge among the maternity care providers. Globally, respectful maternity care is being advocated for and one of the articles emphasizes the need for privacy and confidentiality (White Ribbon, 2011; Windau-Melmer, 2013; Essendi et al., 2015). Without adequate space, it becomes practically impossible to meet this one right for the women (Banchani and Tenkorang, 2014). Women respect their privacy, and probably this lack of privacy hinders them from having institutional deliveries.

Causes of maternal morbidity and mortality

Maternal mortality and morbidity are still on the increase, this could be due to poor quality of care delivered by midwives during pregnancy and child birth. (Patricia et al, 2019; Margret et al, 2019). According WHO (2014) fact sheet, approximately 830 women die from preventable causes related to pregnancy and childbirth. 99% of all maternal deaths occur in developing countries and most

of these mortalities happen to women living in rural areas and among poorer communities. Several conditions have been associated with maternal deaths such as hemorrhage, infections, complicated labor and others. These have been identified as causes but there are some factors/risks that usually lead to these.

In this study, findings indicate that women still have cultural/traditional and religious beliefs concerning pregnancy and child birth. This is not a new phenomenon as the beliefs are as old as human history. Globally, several studies have indicated the use of traditional herbs among women (Harris et al., 2012; Hoang et al., 2009). Within the region (in Tanzania, Uganda and Zambia), several studies have also revealed traditional customs of administering traditional herbs to the woman during pregnancy and post-delivery (Evjen-Olsen et al., 2008; Kyomuhendo, 2003; Margret et al., 2019). This has proved to be a risk to the women to the point of morbidity and mortality. These health beliefs about pregnancy and childbirth have shown an effect on the woman's choice to access and use healthcare facilities and let alone accept the advice given by healthcare practitioners at a facility (Harris et al., 2012:41).

Apart from the traditional beliefs, it was evident from the study that delayed access to the facility and quality of care offered (Patricia et al., 2019) could lead to perinatal morbidities and mortalities although not common to all health facilities, distance one factor that lead to delayed access to the facility (Margaret et al., 2019). In rural places, there is a challenge of distance to the health facilities which is often impacted with poverty among women.

The Thaddeus and Maine's three delays model has been used to describe factors that drive maternal (Thaddeus and Maine, 1994). The model has helped to identify barriers and potential points of intervention along the continuum from home to hospital for several years now (Thorsen and Sundby, 2012; Pacagnella et al., 2012; Pacagnella et al., 2014). This model describes the three delays in access to quality emergency care. The first delay occurs at the household and community level and reflects the delay in deciding to seek care for pregnancy complications. The second delay (delay II) refers to the delay to reach the facility that provides emergency obstetric care (EmONC) and, the third delay (delay III) refers to the delay that occurs in receiving care after arrival at the health facility (Thaddeus and Maine, 1994).

The study finding has shown that the first delay was more frequent especially in rural areas where women live in poverty and far from health facilities. Most times women delay to make a move to the health facility because they are not empowered to make decisions concerning their own health. As earlier discussed, women also delay because they want to perform some traditional

activity at home like taking herbal medicine which they cannot do at the health facility. Because of this first delay, women end up not receiving care at an early stage and by the time they reach the health facility, they already have severe complications like ruptured uterus.

Reasons for home deliveries

Increasing institutional births is an important strategy for reducing maternal mortality and morbidity. However, it is still clear that some women prefer to have home deliveries due to some reasons. Currently, institutional deliveries in Zambia stand at 64%. Midwives in this study revealed that women prefer to deliver at home due to bad attitude. They feel the environment is not good for them to give birth.

The environment for giving birth need not to be stressful as it has an impact on how the labor progresses (Lamaze, 2007). The midwife's attitude towards the woman in labor can influence her decision to deliver from the hospital or not in future pregnancies (Margaret et al., 2019). Waldenstrom et al. (1996) also indicated that child birth is a joyful event and has a great meaning to the woman and her family which require a caring attitude from the midwife. Another study by Lucia (2005) conducted around client satisfaction of delivery services indicate that some women were not satisfied of the services because of negative attitudes by midwives. Further, it has also shown that this negative attitude has a great impact on women's decision about where to deliver from. Natukunda's (2007) study also noted that those women in labor were usually not happy with unfriendly and rude attitudes of midwives and this influenced their choice of delivery at the hospital, and others sought delivery services and care from unqualified personnel like Traditional Birth Attendants, and relative which results in serious obstetric complications, increasing maternal and neonatal morbidity and mortality.

Further, this study also revealed that some women will prefer to deliver at home for fear of stigmatization of their HIV status. According to UNAIDS (2015) guidelines on terminologies, define stigma as beliefs and/or attitudes marking or staining a person or group of people as unworthy or discreditable in this case, HIV-related stigma are "negative beliefs, feelings, and attitudes towards people living with HIV (UNAIDS, 2014). Researchers have widely documented the pervasiveness of HIV stigma and discrimination, and its impact on people living with HIV.

Despite that HIV testing and treatment has become compulsory with mothers seeking maternal and child health service life for HIV infected women is never easy. There is still stigma round it and non-disclosure of status as some women are still not ready to disclose their status to either the partner or support relatives. In another

study by Ringström and Johansen (2015), results showed that there was still stigma among healthcare professionals towards the HIV positive women, during pregnancy and childbirth. Women are poorly treated because of their HIV diagnosis and this affects the way women view health institutions.

Conclusion

From this current study, it is clear that the voice of the midwife is vital in the improvement of quality care to women. The midwives expressed themselves on what they encounter during the provision of services to the women and what challenges they face. Therefore, the battle of providing quality maternity care and reducing maternal and neonatal deaths has to involve every care provider especially the midwives who are the first contact. Equipping the midwives with supplies and required equipment in antenatal and postnatal areas along with enhancing existing infrastructure may help alleviate the challenges midwives face in the delivery of care. Empowering women and their significant others with knowledge on the dangers of using traditional medicines may help to reduce the complications women face during antenatal and postnatal periods. There was limitation of the study in that some of the health centers had few midwives to take care of the women and their space was inadequate which resulted in congestion of the women.

CONFLICT OF INTERESTS

The authors have not declared any conflict of interests.

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