

A Qualitative Case Study of Maternal Mortality in Bidoa District, South-West State of Somalia

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Abstract

Introduction: Maternal mortality (MM) is discussed globally as one of several problems that seriously affect pregnant women during childbirth; but mostly in underdeveloped poor nations where people live below the poverty line. Despite that, considerable measures have been taken recently that are aimed at improving the health of pregnant women in order to address the problem. Somalia, being among the poorest of the poor, is a nation that suffers considerably as a result of maternal mortality. This report presents the second phase of a research study that takes Baidoa District in South-West State of Somalia as a case to examine maternal mortality from the perspective of medical professionals engaged in the topic.

Objective: The study has the objective of exploring maternal mortality from the perspective of medical professionals including doctors and midwives. It seeks medical experts' perceptions as a valuable input to explore the reality about the phenomenon. In particular, the study considers the necessity for professional input to compare and contrast with the earlier study that conducted an observation of archival data.

Method: The study is purposive in that data were collected from medical doctors and midwives designated to work in the maternal ward of a specifically selected hospital. The sample size was initially planned to constitute 12 medical personnel although data were collected from only 6 midwives and 3 doctors working in the maternity ward at Bay Regional Hospital in Baidoa district. **Results:** Eclampsia, PPH and APH, delay to visit healthcare facilities, eclampsia with hypertension, prolonged labor, poverty, and poor governance were raised as substantial factors contributing to maternal mortality in Baidoa.

Conclusion: The results support the findings of an earlier study on archival materials observed in the hospital that maternal mortality is taking away lives that could be saved. It occurs as a result of several reasons some of which can either be prevented, managed or addressed. In order to reduce MM, awareness and comprehensive training are needed for the pregnant women to visit health facilities regularly and timely. The various concerns mentioned by the medical professionals need to be taken seriously and implemented appropriately by the authorities concerned.

Keywords: Baidoa, Bay region, healthcare, maternal mortality, South-West State of Somalia

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I. Introduction

An Overview of Maternal Mortality in Africa

In the countries on the continent of Africa, the mortality ratio of women during childbirth is higher than that in many other countries of the world (WHO 2019). However, African countries themselves differ in their achievement in reducing the current maternal mortality ratio. An inter-agency report mentions that "Moderate MMR (100–299) was estimated in Northern Africa," (p. xi) which is fairly better than the ratio in Sub-Saharan Africa. We do not mean to deny that "Sub-Saharan Africa also achieved a substantial reduction in overall regional MMR of roughly 38% since 2000," but to note that it still had a "very high MMR in 2017," when compared to other countries (WHO, UNICEF, United Nations Population Fund, and The World Bank, 2019, p. 40).

As a region, according to the inter-agency report, Sub-Saharan Africa, which includes Somalia, "achieved a substantial reduction of 39 per cent of maternal mortality" between 2000 and 2017 (Ibid.). Nevertheless, it is still behind the high achievement rate reached by South Asia, which was praised for making "the greatest overall percentage reduction in MMR, with a reduction of 59 per cent (from 395 to 163 maternal

deaths per 100,000 live births,” (Ibid). The high rate of maternal mortality in Africa exists because the healthcare systems are still very poor in a majority of the countries. For instance, many African countries have experienced colonization which frustrated the traditional course which the African society had lived. After independence many African countries still experienced very low economic systems, while others like Somalia, Rwanda, the Democratic Republic of Congo, South Sudan, and many others have experienced wars that affected their small economies and therefore their health policy and implementation strategy (Collier, 2018).

Because of these and other reasons like poor governance, corruption, poverty, and little education, the health services of most African countries remain very poor. The negative effect from these problems is touching on every part of the life of the African people, except the very few at the upper rank of the economic ladder. Therefore, there is no doubt that the negative impact of all these problems leads to insufficient healthcare services that cause women to die during childbirth. When such problems are contextualized, we understand why Somalia is suffering more than many African and other low-income countries. Somalia, as a war-torn country, and also as one of the poorest countries in the world, is a special case. Yet, it has many problems to share with the countries that are classified as either “very high alert” or “high alert” in the Fragile States Index (WHO, UNICEF, United Nations Population Fund, and The World Bank, 2019, xi).

A Brief Note on the Health System in Somalia

We can discuss the health system in Somalia according to different periods, although we separate it into only two distinct eras: a. Pre-war Somalia and, b. Post-war Somalia, which begins from the collapse of the state in 1991.

Pre-war Somalia

What can be called modern public health system or service came to Somalia during the colonial period. Before that, people practiced traditional forms of medicine (Abdinor et al. 2021, 28; <https://en.wikipedia.org>). In any case, before the collapse of the state in January of 1991, the country was ruled by two successive civilian governments from 1960 to 1969 and a military regime beginning 21 October 1969 till January 1991. The civilian administrations came after independence and unification of Northern Somalia and Southern Somalia as the Republic of Somalia in 1960. The health system was working although the country was poor and depended on foreign countries for training its civil servants and professionals including physicians (Tripodi 1999). There was not much that the civilian administrations had achieved in the health sector, although a few health facilities were working in different parts of the country.

The health system in Somalia was public service provision and patients who attended public health centers paid no charges for the services. In 1969 the civilian government was overthrown in a military coup d'état led by Gen. Mohamed Siyad Barre which changed the social and political landscape of the country drastically (Ahmed 1995, 1996). During Barre's rule there was a Ministry of Health that provided health services to the people freely like the civilian administrations. There were good hospitals and more trained doctors who worked in the country's hospitals and provided regular services to the patients in different parts of the country. After the collapse of the state in 1991, the country went through different periods of civil war, recurrent droughts, severe famine, destructive floods and long-standing clan clashes that brought all public services to their knees.

Post-war Somalia

As a result of the chaotic civil war, the free services of the Ministry of Health have disappeared, and provisions of public health services in general have collapsed, not to mention the maternity wards and related healthcare activities. Like other top professionals, many of the experienced medical doctors fled the country as hospitals were looted and medical equipment was confiscated for personal profit. In the midst of the chaos, foreign health workers under the support of many international agencies arrived in the country to restore provision of effective health services.

Despite hard work and huge financial investment in the sector, there is an assumption that these agencies and organizations are not able to solve all the health problems the country is facing. Although their work and aid are much appreciated, it seems that the delivery of effective national health services is still far distant from meeting even the basic goals. Therefore, the problems in the health sector of the regional administration of the South-West State of Somalia, including the district of Baidoa in Bay region, are more or less the same as they exist in other parts of Somalia. In particular, maternal mortality is an existing reality in Baidoa, the city that hosts Bay Regional Hospital, which is the referral hospital that serves not only the whole of Bay Region but also patients from other neighboring regions that do not have such a developed facility.

II. Literature Review

A Global View of Maternal Mortality

Maternal mortality has been a serious issue in the world for a long time. The discussion is common among medical experts in the hospitals, scholars in medical schools, and policy makers of the different countries in the world. The United Nations Declaration on The Sustainable Development Goals (SDGs) aims at globally decreasing maternal mortality ratio (MMR) to less than 70 per 100,000 live births by 2030. In fact, Goal Number 3, which reads: “Ensure healthy lives and promote well-being for all at all ages,” focuses on the subject (<http://www.un.org/sustainabledevelopment/health/>). Yet, in order to achieve that goal and improve the condition of child-bearing mothers, “identifying the drivers of maternal mortality is critically important,” (Cameron et al. 2019, 1). The statements by Cameron et al. and the UN declaration show how much the world has taken seriously the reduction of maternal mortality.

As a result of the aforementioned global effort, a joint World Bank and UN inter-agency report says, “Global MMR in 2017 had declined 38% since 2000, when it was estimated at 342 maternal deaths per 100 000 live births,” (WHO, UNICEF, United Nations Population Fund, and The World Bank, 2019, 39). In global terms, Nigeria and India fall in the first and second positions of highest deaths due to maternal mortality, both “accounting for approximately one third (35%) of estimated global maternal deaths in 2017, with approximately 67,000 and 35,000 maternal deaths (23% and 12% of global maternal deaths), respectively,” (Ibid, xi, 34, 38).

An analysis of the report indicates that low-income countries still do not have good healthcare systems that provide quality services to their women. Therefore, pregnant women in low-income countries are more likely to die during childbirth than their counterparts in the developed nations. This happens because of many problems in the health sector of the developing countries. For example, a large number of third world hospitals do not have high number of well-trained medical personnel such as doctors, nurses, midwives and other core medical professionals (BBC 2019). Demographically, the ratio of the medical personnel in Africa, more specifically in Sub-Saharan Africa, does not match the ratio of the population (Ighobor 2017).

Most of the health facilities in the third world countries do not have enough medicines for their patients (Pheage 2017). In many low-income countries, medicines are expensive and not affordable to many patients (BBC, 2019). In addition to lack of or unaffordable medical drugs, there is also lack of enough modern equipment to deal with the identification and diagnosis of certain types of diseases, as stated by Fenollar and Mediannikov (2019). The situation becomes worse because, according to Fenollar and Mediannikov (Ibid.), necessary equipment for the treatment of certain diseases is not available in many of the hospitals. From another point of view, Kironji et al. (2008) express that there is lack of awareness among a significant number of the citizens in poor nations to seek medical assistance immediately.

“The Three Delays” as Contributors to Maternal Mortality

Although worldwide maternal deaths occur as a consequence of several health-related factors (Yarow et al. 2021), there are certain non-health-related habits that contribute to the problem. As commented by Nawal M. Nour (2008, 78), “Maternal mortality in resource-poor nations has been attributed to the ‘3 delays’: [Delay A]: delay in deciding to seek care, [Delay B]: delay in reaching care in time, and [Delay C]: delay in receiving adequate treatment.” Nour’s analysis perfectly captures a reality of what also exists here in Baidoa city, Southwest State of Somalia; and indeed, in other parts of Somalia as was similarly reported by Aden et al. (2019) who studied maternal mortality cases in Bosaso district of Puntland, Somalia.

No doubt that Somalia is one of the countries mentioned to be among the poorest in the world. Moreover, Somalia is suffering from the effects of a prolonged civil war, famine, droughts, malnutrition, floods, and very poor health and sanitation problems. Poor education system, poor road infrastructure, and absence of appropriate policy guidelines and their effective implementation have in general contributed to putting the country under the care of international donors for so many endless decades. Somalia, therefore, and more specifically Baidoa, shares a lot of what Nour has analyzed about “the delays” made by pregnant women when it comes to seeking healthcare. Delay A: comes as a result of delaying in deciding to go to a health facility, especially a facility for maternal health, a fact which generally happens in the Somali community (Aden et al. 2019). This is because a large number of the community of expectant mothers either feel complacent about seeking healthcare, or do not have the means to visit the health facilities, or lack a general awareness of the benefits of antenatal health check-ups, as Jinga et al., (2019) reported elsewhere.

Delay B occurs because the mother does not act fast enough to seek medical help at a maternity facility and reach there in good time and deliver her baby safely under the good care of trained medical staff. In the context of Baidoa, this kind of delay may usually happen, among others, due to three reasons:

- i. The fact that many families are poor and therefore cannot afford to get fare for *dhoweeye* (local term for privately hired taxi) or *Bajaaj* (a tricycle vehicle commonly used for public transportation);
- ii. Main roads which are massively dilapidated and cause unnecessary extensive delays even in non-emergency situations of everyday life;

iii. The reality of the situation of insecurity which does not allow people to move out of the house, particularly at night.

The last delay, Delay C, may happen as a result of inadequate healthcare service within a healthcare facility in the neighborhood of someone in an emergency labor situation.

Prevention of Maternal Mortality: Importance of Policy and Skilled Personnel

Harvard scholar Neel Shah (2018) highlights the concern that maternal mortality needs to be considered as a very serious issue—not only by the governments but also significantly by the medical personnel. To explain his point, Shah acknowledges:

Undoubtedly, clinicians and hospitals can do more to ensure the safety of women giving birth. For example, they can issue health guidelines and run simulations to better prepare to handle emergencies. Policymakers can do more, too; including tracking maternal mortality so that failures like delays in lifesaving care can be identified and fixed, (Shah 2018)

Although maternal mortality is generally a major problem in the world and particularly in Africa, Asia, and parts of Latin America, there is no doubt that many of these deaths can be prevented. According to the World Health Organization (<https://www.who.int>), “Most maternal deaths are preventable with timely management by a skilled health professional working in a supportive environment.” The statement by WHO suggests that efforts can be made to prevent maternal mortality if people learn how to manage the problem and act within a suitable time, since it is commonly accepted that “prevention is better than cure”. The preceding statement is true in that most deaths of women during childbirth in Somalia in general, and in Baidoa’s Bay Regional Hospital in particular, occur due to anemia, most probably as a result of malnourishment which can be prevented if diagnosed early during antenatal check-ups (Yarow et al. 2021).

In many countries among the developing nations, factors related to age have been mentioned as another concern which society needs to focus on and address. For instance, there are studies which support that pregnancy due to early marriage can cause maternal death. We invoke a WHO (2019) statement that, “Young adolescents (ages 10-14) face a higher risk of complications and death as a result of pregnancy than other women.” Although the WHO report cited here has its merits, we argue that in Baidoa city, it is an uncommon practice for girls between the ages of 10-14 to get married and give birth at that age. Our statement here is not meant in any way to deny whether the practice exists in upcountry or elsewhere in Somalia, but just to elaborate that even if it exists, it is not a widely followed culture or a common practice.

However, and whether the practice is common or uncommon, the WHO (2019) report highlights the “gap between the rich and the poor,” when it comes to quality health services. Presenting factual figures, the WHO (Ibid.) report states: “The MMR in low-income countries in 2017 is 462 per 100 000 live births versus 11 per 100 000 live births in high income countries.” The gap is so wide because of the various difficulties which exist in the so-called poor and under-developed countries. Among the poor category include also countries classified as “very high alert” or “high alert” on the “Fragile States Index” (Ibid). Understandably, Somalia is one of the 15 countries in the Fragile States Index (Ibid), featuring in this category durably for so many years (Ingiriis 2020). The different levels of administrations, whether state/regional or federal, which have been established in recent years, operate ineffectively in that they still depend on foreign aid to run the country and deliver to the citizens the essential services needed such as healthcare (Yarow et al. 2021).

III. Methodology

The study primarily benefits from the qualitative case study method (Gerring 2007; Eno & Dammak 2014; Flyvbjerg 2011; Kothari 2007) to collect primary field data from 9 medical professionals including 6 nurses and 3 medical doctors. It employs the interview as a suitable technique to interrogate exclusively personnel in the medical profession, and purposively only those designated to work in the maternity ward—the most relevant department to our case study in this phase of maternal mortality at Bay Regional Hospital. Along with the qualitative analysis of the discussion, categorization of data, coding of items, and verbatim quotes of the respondents; the study employs a quantitative analysis of some of the qualitative data (Krippendorff 2004; Stephenson 1985; ACAPS 2012; Kusow 1998) by way of frequency and categorization, specifically from the midwives. The focus was to describe frequencies of terms repeated by way of enumerating them in percentile to determine their respective rate of repetition, as was borrowed from Kusow (1998). To further elaborate this point, “it is the analytic approach that will dictate the approach to coding and reliability, not the qualitative nature of the data, per se,” according to a recent article by scholars Syed and Nelson (2015, 3)

We conducted the interviews separately with each one of the respondents. Two or three of us took notes while one of us asked the questions. In all our interviews, we used the Somali Maay language which is the indigenous medium of communication in Bay Region and its neighboring provinces. After each interview, the notes were handed over to the group team leader. Later, all the group members would meet to read and work

together to translate the Maay into English language. Then, we would move to conduct the analysis and discussion in English.

IV. Analysis and Discussion

In this section we present a comparative analysis of interviews conducted with midwives and medical doctors working in the maternity ward of Bay Regional Hospital, in order to enhance validity and reliability to the results. The reason for the interviews was two-fold: first, we wanted to compare the perceptions of the medical personnel i.e., midwives and medical doctors working in the same ward; second, we had the objective of comparing the medical professionals' perception of MM to the results of our earlier study observing database accessed from hospital archive. In this case, we asked seven open-ended questions to the doctors and midwives in separate face-to-face interviews.

Interview with Midwives at Bay Regional Hospital

Q1. On the common causes of maternal mortality at BRH

Table 1

Causes	Percentage
Eclampsia	66.67%
Delay to visiting the hospital	33.33%
PPH and APH	50%
Prolonged labor	33.33%
TBAs	16%

Regarding question one, the causes of maternal mortality in Bay Regional Hospital: about 66.67% of the midwives thought the main cause of MM was eclampsia, 50% believe PPH and APH remain the main causes of MM, while 33.33% said causes are related to delaying to reach the hospital. Prolonged labor was mentioned by 33% of respondent midwives against a minority of 16% who mention traditional birth attends (TBAs) as part of the problem contributing to MM.

First, we note that the 33% of midwives' responses relating MM to delays are in agreement with Nour's (2008:78) above suggestion of "delay in reaching care in time" as a cause of maternal mortality. Second, the midwives' answers are clear about the causes and support the data illustrated in the previous study (Yarow et al. 2021) that mentions all the causes except "delays". This is understandable because the hospital archives do not specify or rather identify "delay" as a cause since the patient is at the hospital. Instead, the archival data base reveals the cause of death as seen right at that moment of delivery.

Q2. Whether eclampsia is the most common cause of MM at BRH

Table 2

Causes	Percentage
Yes	66.67%
No	33.33%

The second question—whether eclampsia is the most common cause of maternal mortality at Bay Regional Hospital: about 66.67% of the interviewees replied positively "yes" compared to 33.33% respondents had a different opinion that eclampsia could not be the most common cause of the death at BRH. A majority of the midwives agree with the doctors and previous data from the hospital archive, although the annual statistics of 2019 shows MM and HPP as the two main causes of maternal mortality (Yarow et al. 2021).

Q3. Why eclampsia may be attributed to be a common cause of MM

Table 3

Causes	Percentage
Eclampsia with blood pressure	33.33%
Without visiting ANC	33.33%
No answer/ not applicable	33.33%

On the question of why Eclampsia may be attributed to be a common cause of maternal mortality, the respondents diverged into three equal groups. Roughly 33.33% agreed that the reason is because some women, during the delivery period, come to the hospital after they have been suffering from eclampsia for quite some time and their blood pressure had risen well above normal. An equal group of similar percentage of 33.33% replied the reason is not necessarily eclampsia as such, but because of not visiting health centers to get ANC as some of the women may not be aware of their health situation during the time of pregnancy, as was indicated

elsewhere by Kironji et al. (2008). The other 33.33% of the respondents' answer was marked as N/A for the reason that they avoided to discuss the issue. The silence definitely shows their reservation not to commit themselves to any suggestion. Whether they thought this is a breach of some ethical issues between them and their employer or whether it was their reluctance simply not to reply has not been followed up as they were answering to the questions voluntarily.

Q4 Why eclampsia should not/may not be the most common cause of MM

Table 4

Reason	Percentage
No answer/ not applicable	66.67%
Eclampsia can be managed	33.33%

Question 4 was a follow up of Q3 on why eclampsia may not be or should not be regarded as the most common cause of maternity mortality at Bay Regional Hospital: about 66.67% declined to answer, hence N/A as shown in the table; while 33% thought eclampsia can be managed same as PPH and APH which can also be managed normally. The higher percentage of respondents avoiding to reply to the question shows that either the respondents were uncomfortable sharing their views or that they were not aware of whether eclampsia should really be categorized as the main cause of MM. In significance, the lack of response to such an important, focused, and open-ended question is not that surprising because these respondents consist of the 33% who declined to answer to the previous question (Q3) and the 33% who accused expectant mothers of not visiting health centers for antenatal checkup.

Q5. Details on the causes of eclampsia

Table 5

Causes	Percentage
High blood pressure	66.67%
Not visiting MCH regularly	33.33%

In their reply to the question on details concerning the causes of eclampsia, 66.67% of the interviewed midwives answered that the causes of eclampsia are related to high blood pressure—possible occurring due to genetic reasons, and consumption of excessive amounts of salt in foods and so on. In contrast, 33.33% of the respondents underlined that the cause of MM by eclampsia is worsened by lack of pregnant women's visit to the Mother and Child Health (MCH) centers and designated health points regularly. The analysis makes us suspect lack of awareness as a contributing factor. As it seems, the mothers are not having enough awareness about the care needed during pregnancy—antenatal care (ANC); and therefore, not knowing the health problems affecting them during their pregnancy.

Q6. Possible relationship between poverty and poor governance to MM

Table 6

Causes	Percentage
Yes	100%
No	0%

Commenting on poverty and poor governance as being among the causes of MM in general and as a reality particularly in Baidoa, all respondents agreed that these have a very bad impact on most of the pregnant mothers. They mentioned factors such as “lack of transportation”, “malnutrition of pregnant mothers”, “inability to visit health centers”, “lack of awareness”, “inability to buy medicines”, and visiting hospitals only “after the problem has increased” or “after the situation has worsened”. The answers of the midwives support the responses given by the doctors and mentioned in the literature review section above that poverty and poor governance impact negatively on women as to cause maternal mortality.

Q7. Measures to prevent MM

Table 7

Prevention	Percentage
Visiting health centers	66.67%
Capacity building training	33.33%

Not surprisingly, 66.67% of the respondent midwives have the perception that, in order to prevent MM, “pregnant women should be advised to come to the health centers for checkup,” as one of them explained. As another added, “It is important for pregnant women to be aware of their condition”—thus raising awareness as an important step to prevention of MM. The remaining 33.33% said to prevent MM it is important to conduct

capacity building training for the TBAs, as was similarly suggested by Shah (2018); and to advise malnourished pregnant women “to eat nutritious food” and to “take medication as recommended by the doctors”.

Interview with Doctors at Bay Regional Hospital

Q1. On the common causes of maternal mortality at BRH

In the first question we wanted to know the doctors’ perception on what they regard as the common causes of maternal mortality (MM) as they experience it in their environment at BRH hospital. The responses from all the three doctors matched regarding our first question. They believed that “causes of MM are related to APH, PPH, and eclampsia” while one of them added that “heart failure” is part of the causes of MM in the hospital. The doctors’ unanimity of their answer supports the analysis of our observation of the archival record as presented in a previous study (Yarow et al. 2021). It also reconfirms the responses we recorded from a section of the midwives who mentioned these same causes as prevalent among women who visit the hospital for delivery, although neither the archival data, nor the midwives, nor two of the doctors mentioned “heart failure” specifically as an individual factor.

Q2. Whether eclampsia is the most common cause of MM at BRH

With question two we aimed to compare what is generally perceived among us students, during our course and discussions during our study, with the medical doctors’ opinion in view of the reality at the hospital. We asked: According to a section of the medical experts and the books we have read, there is an indication that eclampsia is the most common cause of Maternal Mortality in some parts of the world (Das & Biswas 2015); is the same true of this hospital too? Two of the doctors agreed with each other and replied “Yes” to the question; while one of them disagreed with his colleagues and replied “No.” The latter doctor, Doctor C, underlined his disagreement by noting that eclampsia “can be treated” and that “hemorrhage can be worse than eclampsia in this hospital,” since it cannot be immediately addressed. One of the reasons Doctor C mentioned was that “the deterioration becomes worse very fast and there is too much discharge of blood.” Doctor C continued: “a situation like this causes more complications if the patient had other undetected or undiagnosed diseases earlier on.”

Doctor C’s reply is interesting for two reasons: first, he disagreed with his colleagues that eclampsia is the main cause of MM at Bay Regional Hospital. Second, he had a different view from what we read in our study program because he mentioned hemorrhage as a worse cause of MM than eclampsia—but of course in his experience at BRH. His explanation of the relationship between hemorrhage and previous illnesses of expectant mothers made sense to us when he described “previously undetected, undiagnosed illnesses.” Those particular terms were in agreement with our findings from the hospital registry in an earlier study (Yarow 2021) which displayed eclampsia and APH & PPH at par with each other and the same frequency in their occurrences. Although Dr. C mentioned hemorrhage as a more serious cause of MM than eclampsia, it is important to note that he classified eclampsia as among the main causes of MM at Bay Regional Hospital and not necessarily *the* single major cause.

Q3. Why eclampsia may be attributed to be a common cause of MM

We enquired from each of the doctors a further detail by putting to them our third question: why eclampsia may be classified or attributed to be the most common cause of maternity mortality here in this hospital. Like in Q2, Dr. A and Dr. B produced similar responses that it happens because of “shortage of magnesium sulphate” or “lack of magnesium sulphate” which is used to treat severe pre-eclampsia and eclampsia conditions. One of the doctors, Dr. C, did not seem to be interested to discuss or reflect further on the matter. In recognizing Dr. C’s intentions, we moved to the next question.

Q4 Why eclampsia should not/may not be the most common cause of MM

With the fourth question, we aimed to reframe Q3 as to solicit the doctors’ views and see any details, similarities of opinion or differences with Q4. Although Dr. C replied “Eclampsia is not first line of the causes of MM” because “it can be managed;” Dr. B and Dr. C have not been comfortable to share their perception. It is somehow interesting to mention that this is the same doctor, Dr. C, who disagreed with his colleagues in Q2. By answering to this question, Dr. C probably saw the opportunity of emphasizing on his previous response, unlike Dr. A and Dr. B who declined to give more explanation on the subject.

Q5. Details on the causes of eclampsia

Because eclampsia, whether as a main cause of MM or otherwise is often discussed by students, we intended to find out from the doctors at BRH the cause/s of eclampsia itself in general in the same way that we asked the midwives interviewed in the preceding section of the current study. Accordingly, we posed question 5. Dr. B mentioned that there are “factors like family history” that can result in/from eclampsia “among other causes”. Dr. A notes “previous eclampsia” or what is medically termed as primigravida” are known causes of eclampsia adding that “chronic hypertension cannot be ruled out at all.” However, Dr. C, despite agreeing with both Dr. A and Dr. B in their responses, seemed to also support some of the midwives’ responses as “the cause of eclampsia is worsened by several factors among them: without visiting the health facilities regularly. The responses,

though not adding much to what was already thought to be familiar or commonly understood, were confirming what we had previously learned from the hospital archive and a section the midwives. Therefore, the confirmation, in our view, supports our early understanding of eclampsia which was indicated as one of the main causes of maternal mortality at BRH and not necessarily the main cause of it.

Q6. Possible relationship between poverty and poor governance to MM

In questions 6, we sought the doctors' perceptions regarding the relationship of poverty and poor governance to maternal mortality. So, we asked them: poverty and poor governance are claimed to be among the causes of maternal mortality; how do they contribute to the situation in general and/or to this hospital in particular?

According to Dr. C:

If there is poor or bad governance system, not pregnant women only are those who suffer from the problem. In fact, the community in general cannot access good health services in situations of poverty and poor governance. Secondly, not many patients are able to go to the private hospitals because they do not have the resources to pay—and we know that health services are expensive, and medicines too.”

Here, the respondent Dr. C seems to confirm the point by Pheage (2017) as mentioned above in the literature review section—that many Africans die of easily treatable diseases because of lack of medicine. It also reconfirms the WHO's report on the distinction between rich and poor nations regarding provision of healthcare as well as available scholarly literature (Ighobor 2017; Fenollar and Mediannikov 2019; Collier).

In another comparative view, Dr. B. expressed that “lack of financial resources” as well as “poor governance” can contribute to death of women during labor. As Dr. B elaborates, “If the mother lives in poverty, she cannot buy nutritious food; and she may become a malnourished mother.” In addition, Dr. B emphasizes: Especially, if the hospital cannot give the specialized services to the patient and the mother cannot get transportation to the hospital immediately; that alone can contribute seriously to the fatality of the situation.” Dr. B highlights a major concern when suggesting thus: “In the case that there is poor governance, there may be no awareness programs; no one encourages the community to visit the health facilities for checkup.” In a final note Dr. B sums up “A situation of poor governance means that the services the citizens receive in the health facilities can never be sufficient and may never be as timely as required in times of emergencies.”

To the same question, the last one of the three doctors, Dr. A, replied: “Both poverty and poor governance are catastrophic factors that can contribute to MM because a mother living in poverty may not be able to come to the hospital in good time for checkup and treatment.” As Dr. A further states: “In the city [Baidoa] there may be several private hospitals which are possibly close to a pregnant woman, but because of lack of financial resources, she cannot access those facilities since she cannot pay money to get the needed health service.”

The view of these three medical professionals supports the general literature that links poor health to poverty. In a place like Baidoa, the district where Bay Regional Hospital is located, poverty, lack of enough awareness, poor education and training, lack of research and poor governance are serious issues discussed in society. Yet, we note from the doctors' and midwives' expressions that these are contributing factors to the causes of maternal mortality.

Q7. Measures to prevent MM

In question 7, the subject matter on the prevention of MM, the doctors shared their views as follows:

Dr. A said:

Poor economy and bad governance can cause MM because when there is insufficient economic resources and poor administration exists, this will lead to inaccessibility of needed equipment and materials for the health facility like...say... the intensive care unit (ICU); and there may unavailability of computerized tomography (CT) scan which is important and is used to display detailed images of the interior of the body.

The other doctor, Dr. B, concentrated on the prevention of MM and replied:

“What is good [for pregnant women] is to get antenatal care (ANC) which is regularly visiting health facilities that provide services to pregnant women. By regularly visiting doctors, pregnant women can get advice from the doctors in order to manage their health. This way, they will be able to manage high blood pressure and other manageable or treatable diseases in order to prevent or reduce the risk of fatality during the delivery of her baby.

Dr. C, the last respondent among the three doctors, reflects on the question as follow:

a. Patients: the patients, and in this case the pregnant mothers, should be considerate of their health, and always contact the doctor or visit the health facility for services in order to treat them and advise them early enough;

b. Community: the community should be provided with education and, especially, TBAs should be given enough training about their work. The Ministry of Health should also consider to give them a monthly fee and advise them to refer patients to the health facilities before they experience severe conditions; and

c. Health professionals: like doctors and midwives, must have training and be updated regularly. It is necessary for them to have community engagement as well; the community should work together with the

medical professionals at the hospitals and other health facilities in order to prevent Maternal Mortality. If we get a coordinated approach toward the problem, I am sure we can achieve a lot to reduce maternal mortality.

V. Conclusion

The current research enquired into maternal mortality in Baidoa, South-West State of Somalia, from the perspective of medical professionals' perceptions. Using the purposive approach, we collected data by way of holding interviews with 3 doctors and 6 midwives selected on their specific criterion of working in the maternity ward at BRH. The medical professionals highlighted that the most common causes of maternal death during delivery, or maternal mortality, as including bleeding, eclampsia, APH & PPH, poverty, delay to the hospital, lack of awareness and relevant medical equipment, as well as malnutrition and training for professionals engaged in maternal healthcare. In order to protect our community, especially pregnant women, the results show the need for prevention of the mentioned causes in order to minimize related problems and treat immediately any existing diseases and infections so as to ensure the safety of the mothers during childbirth. In no lesser terms, the results reveal that in order to save mothers during childbirth, and even during pregnancy, improving healthcare centers and the services they provide are important so that pregnant women can receive good quality services that save their lives and those of their babies. These can be attained, among others, by adequately training and developing the skills and knowledge of the personnel involved in the profession, including the TBAs.

Recommendations

To decrease maternal mortality and achieve the goal, the study suggests the following recommendations:

- The health authority to increase the focus towards the care to pregnant women;
- Pregnant women to visiting health facilities before reaching critical conditions;
- Medical and health professionals to report common causes of maternal mortality at regular health workers' meetings;
- Health authority to establish an integrated network system of public healthcare centers in order to provide better healthcare in hospitals
- Health authority to take special care of mothers between the ages 15 to 49, the age of child birth for most women
- Health authority to create awareness on consumption of a balanced diet in order to prevent diseases caused by malnutrition
- Health authority to conduct exhaustive awareness campaigns on the benefits of early check-up and accessibility to healthcare for pregnant women
- All hospitals, public and private, to consider professional training programs to update medical professionals

Strategy for reducing maternal mortality

Abu Bakar Suleiman,

1

Alex Mathews,

2

Ravindran Jegasothy,

3

Roslinah Ali,

4

& Nadeswary Kandiah

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