

*Full Length Research Paper*

# **Midwives' experiences in the practice of maternal death audits in Burkina Faso: A qualitative study**

**Idrissa DIALLO<sup>1\*</sup>, Nestor BATIONO<sup>1</sup>, Dieudonné SOUBEIGA<sup>1</sup>, Gustave NANA<sup>1</sup>,  
Patrice Alain NGANGUE<sup>2</sup> Ahmed KABORE<sup>3</sup>, Clovis Albéric TOE<sup>1</sup>, and Maxime DRABO<sup>4</sup>**

<sup>1</sup>Institut de Formation et de Recherche Interdisciplinaires en Sciences de la Santé et de l'Éducation, Burkina-Faso.

<sup>2</sup>Department of Family Medicine, McGill University, Canada.

<sup>3</sup>Université Joseph KI-ZERBO, Burkina Faso.

<sup>4</sup>Centre National Pour la Recherche Scientifique et Technologique, Burkina-Faso.

Received 12 December, 2021; Accepted 9 February, 2022

**Maternal death audits (MDAs) are the key to reducing maternal mortality. However, there are some barriers to the involvement of midwives in carrying out maternal death audits. This article aimed to explore midwives' perceptions and experiences of maternal death audits in Burkina Faso. This was a qualitative study conducted in December 2018. Data were collected from individual semi-structured interviews. Thematic analysis of the data was performed using Qualitative Data Analysis (QDA) Miner software. Shortcomings in applying the audit charter and implementation of recommendations, financial rewards and non-invitation of providers compromise midwives' participation. However, the study found that midwives had good experience and perception of MDAs. The study highlighted shortcomings in the conduct of the audits and difficulties in implementing the recommendations. This requires more significant involvement of the various administrative and clinical actors in the health system and the integration of maternal death audits into routine activities.**

**Key words:** Maternal death, midwives, death audits, qualitative stud, Burkina Faso.

## **INTRODUCTION**

Improving the quality of obstetric care is a major concern for developing countries in general and Burkina Faso in particular. In resource-limited countries such as Burkina Faso, maternal and neonatal mortality are a tragedy for society (Coulibaly, 2020). As a global public health problem, maternal mortality is an important indicator of health system performance (Smith et al., 2017). Moreover, most maternal deaths are preventable (OMS, 2015). Thus, reducing maternal mortality and improving maternal and newborn health are essential preconditions for development and poverty reduction (Ministère de la santé, 2011). As a result, Burkina Faso has adopted a

policy of subsidising emergency obstetric and neonatal care since 2007 (Présidence du Faso, 2017) and free healthcare for women and children under five since 2017 (Présidence du Faso, 2017). However, despite the interventions, maternal mortality remains high in Burkina Faso (Sombié et al., 2018).

Moreover, the country has not achieved the Millennium Development Goals (WHO, 2015). Therefore, it is essential to strengthening maternal mortality reduction strategies such as Maternal death audits (Kodan et al., 2020). Indeed, auditing hospital data can provide detailed information about the underlying causes of maternal

\*Corresponding author. E-mail: idrissadiallo04@yahoo.fr.

deaths and can be used in strategies to reduce maternal mortality (De Brouwere et al., 2012). In Burkina Faso, MDAs have been introduced in health facilities. To this end, training modules to strengthen the skills of midwives have been developed (Ministère de la santé, 2011). Midwives are at the forefront of maternal health care delivery. They have more contact with pregnant women than other health workers. Thus, they are the first to gather information from their clients when visiting health facilities. This information is of vital interest in providing quality care to reduce maternal and neonatal morbidity and mortality (Dartey and Ganga-Limando, 2014). Midwives are health facilities MDA's team members, but their knowledge of MDAs remains limited (Diallo, 2021a). In addition, there are difficulties in implementing MDAs by midwives and their experience is poorly documented (Congo et al., 2017). This study aimed to explore midwives' experience of MDAs practice to improve the quality of obstetric care.

## MATERIALS AND METHODS

The study took place in a district hospital of Boulmiougou/Ouagadougou (province of Kadiogo) in Burkina Faso in December 2018.

### Study design

A single, exploratory, embedded qualitative case study design was adopted. The case study design was chosen because it is an empirical research approach that investigates a phenomenon, an event, a group or a set of non-randomly selected individuals to draw a precise description and an interpretation beyond its limits (Roy, 2010).

### Study participants

Participants in the study were selected based on purposive maximum variance sampling. Participants were midwives involved in the care of pregnant women and parturients meeting the following inclusion criteria: be a midwife working in the district hospital maternity of Boulmiougou /Ouagadougou for at least one year, have participated in at least one MDA, and agree to participate in the study. The data saturation criterion was used to determine the number of participants in the study.

### Data collection

Midwives were approached at their place of service. They were presented with the study's objectives and then invited to participate in individual semi-structured interviews. The interviews were conducted within the hospital in a room where confidentiality could be guaranteed. An interview guide was developed iteratively. First, it was tested with a midwife in another hospital. The interviews were conducted in French and recorded using a dictaphone.

### Data analysis

The interviews were transcribed verbatim. Then, an inductive thematic analysis based on Braun and Clarke's seven steps was

carried out (Braun and Clarke, 2006). First, the principal investigator (ID) read and thoroughly reviewed all transcripts (step 1). A codebook was developed by two members of the research team (ID and NB). All co-authors validated the final version of the codebook. ID used this to code all transcripts using Provalis' QDA Miner software to ensure data quality (step 2). ID and NB discussed and identified the participants' emerging themes. The selected themes were discussed and approved by the other team members (steps 3 and 4). Finally, each theme was named, defined, and a report was generated (steps 5, 6, 7). The Ministry of Health approved this research (Number 2018/73 MS/RCEN/DRSC), and all participants signed a consent form. In addition, each participant was assigned a code to ensure their anonymity.

## RESULTS

### Socio-demographic characteristics

A total of nine midwives were interviewed, four men and five women. The average professional length of service was 14.8 years, and the average length of service in the maternity ward was nine years. The number of training they attended ranged from 1 to 4. In addition, the maternity ward supervisor and one midwife had participated in 8 maternal death audits.

### Knowledge of methods for investigating maternal deaths

Participants gave divergent answers regarding the different methods of investigating maternal deaths. While several of them were aware of death audits, it was not true for other methods. Indeed, only three respondents acknowledged the existence of other methods, in particular verbal autopsies. One of the respondents stated that:

*"These are the audits that we know about, right; sometimes, the officers go to the community to find out what happened before the woman came. This is what he calls verbal autopsies" (MW 2).*

In discussing knowledge of MDAs, several respondents described it as a study that identifies the shortcomings that contributed to the death of a woman in labour. This is reflected in the words of the MW5:

*"(Silence) Ehi!. It is a strategy that allows staff to study and investigate (...) any maternal death that occurs in a facility. (...) identify causes, whether they are preventable or not (...) make recommendations to prevent these undesired situations from occurring".*

About knowledge of the MDA, all the participants were able to provide good answers similar to each other. However, it should be noted that very few of them had received training in this area.

### Conduct a maternal death audit session

For the conduct of an audit session, some participants

were doubtful as they did not have a very appropriate answer to give. This is highlighted by the words of this participant: *"I have not been trained in MDA, so I don't know how it should be done theoretically"*. (MW7). However, another states that: *«Ehi! It is done on the fly. Moreover, there is a coherent system that is set up. So, for example, an audit committee exists within the healthcare facility and is made up of a certain number of participants including operating theatre staff, maternity staff, etc.. »*.

### **MDAs advantages and challenges**

Midwives see MDAs as opportunities for training, improving the knowledge and skills of providers. For example, this is why the following participant states that: *"MDAs allow us to know, to have more knowledge about the management of certain cases. (...) for midwives, we have not yet finished learning"* (MW3).

### **Two other participants shared this idea in the following terms**

*"it is to see our flaws and correct them for the next takeovers"* (MW7).

*"Yes, there is an advantage for the midwives; it allows us to know where the mistake was really made, the person misbehaved, there is all that there which is really, it allows us to improve the skills"* (MW9).

Some limitations or disadvantages of MDAs related to non-compliance with the audit charter were mentioned by two participants. From these assertions, it appears that midwives have some recriminations about MDA practice.

*"We are human beings! We cannot say that we put this into practice. There is a real tendency to castigate health workers; those in charge tend to shirk their responsibilities. Everything falls on the shoulders of the little healthcare worker"*. (MW6)

*"For our managers, it is unfortunate; they are going to tell you, you should have done that. So, you should have done that; we are really (pause) if possible even giving you tickets, letters of explanation"* (MW3).

## **DISCUSSION**

This study aimed to explore midwives' perceptions and experiences of maternal death audits in Burkina Faso. The main results showed that although midwives believe that practising MDAs is an opportunity for training, their knowledge on the subject remains limited. Moreover, most of them have not been trained in conducting MDAs.

In addition, the lack of verbal autopsies in the district for maternal deaths could also explain this. The lack of training and experience of health staff in the facilities is a recurring barrier to conducting good quality maternal death audits, as reported in a systematic review on barriers and enabling factors in conducting maternal death and obstetric care audits in Nigeria (Hussein et al., 2016).

Furthermore, as our results showed, MDAs are a source of continuous training, and in this sense, they can present benefits for health facilities and staff, such as improving clinical knowledge and skills, improving quality of care, disseminating protocols/procedures (Dao, 2021; Diallo, 2021a). For example, in a study conducted in Burkina Faso in 2008, midwives showed a good understanding of the objectives of MDAs and found it as a factor leading to change and improvement in their practice (Richard et al., 2008).

However, like others, our study found that midwives' participation in MDAs or restitution sessions remains low (Dao, 2021). Indeed, some midwives are not invited to these activities, limiting their participation in the different sessions. This low participation is also explained by the way MDA sessions are organised. It is organised in seminars or workshops, where some staff benefit from an incentive (fuel and catering costs) while others do not. The study results showed that granting the incentive is perceived as a requirement by the midwives. Consequently, the non-granting of this sum does not motivate staff to participate and can even lead to demonstrations of discontent, as pointed out by two interviewees. This situation was also mentioned in a study carried out in the health districts of Burkina Faso (Congo et al., 2017).

Similar results to our study showed that midwives with the lowest attendance at MDA sessions wanted financial compensation or fuel costs. This was not the case for midwives who regularly attended the audit sessions (Sombié et al., 2018). Our study also found that just two audit sessions were carried out during 2018, one session per six months; this is largely insufficient. ADM sessions are recommended for all maternal deaths and within one month after the maternal death at the most (Hussein et al., 2016).

In our study, some participants noted shortcomings in implementing the audit charter. For example, they felt that most of the time, the MDA committee insisted that the death was avoidable despite the efforts made by the providers. Midwives perceive this as guilt-tripping. It is a way of telling them that there is an inadequacy in the provision of care, resulting in the death of the parturient. This has a negative influence on providers' participation in these MDA sessions.

Our findings are also supported by some studies that have pointed to shortcomings in anonymity. Indeed, the absence or insufficiency of anonymity and poor interpersonal communication hinder the proper

implementation of the audit charter (Diallo, 2021b). Our results, which were identical to others, revealed that the implementation of the charter in some health care institutions was deficient. They also pointed out that anonymity was one of the least respected aspects.

This is an important factor for the participants in the low adherence of maternity care staff to WMD. Indeed, the fear of blame for not fully complying with the charter hinders the successful implementation of ADMs in this health care facility, as has been reported in some studies (Diallo, 2021a; Dao, 2021). In addition, our study revealed shortcomings in the reporting or communication of the MDA findings and the implementation of the various recommendations. The effective audit system is a cycle. It consists of identifying the case, collecting information, analysing the results, making recommendations, implementing corrective measures and reassessing practices (Diallo, 2021b). Indeed, some participants said that they were not aware of the existence of a committee to ensure the implementation of these actions.

## Conclusion

This article aimed to understand midwives' perceptions about MDAs. The results showed shortcomings in the conduct of audits and difficulties in implementing MDA recommendations. In order to improve its implementation and promote its success for an improvement in the quality of care and hence a reduction in maternal mortality, avenues are emerging for a better practice of MDA sessions; with broad participation of health system administrative and clinical actors.

## CONFLICT OF INTERESTS

The authors have not declared any conflict of interests.

## REFERENCES

- Braun V, Clarke V (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology* 3(2):77-101. <https://doi.org/10.1191/1478088706qp063oa>
- Congo B, Sanon D, Millogo T, Ouedraogo CM, Yaméogo WME, Meda ZC, Kouanda S (2017). Inadequate programming, insufficient communication and non-compliance with the basic principles of maternal death audits in health districts in Burkina Faso: A qualitative study. *Reproductive Health* 14(1):121. <https://doi.org/10.1186/s12978-017-0379-1>
- Coulibaly A (2020). Evaluation du système de référence/évacuation dans le district sanitaire de Bla. Université des sciences, des techniques et des technologies de Bamako, Bamako.
- Dao O (2021). Décès maternels au centre de santé de référence de la commune II de Bamako. Université des sciences, des techniques et des technologies de Bamako, Bamako.
- Dartey AF, Ganga-Limando M (2014). Contributions of midwives in the implementation of facility-based maternal death review (MDR) in selected health facilities in Ashanti Region, Ghana. *Repéré à http://www.ijrhs.com/issues.php?val=Volume2&iss=Issue2*
- De Brouwere V, Zinnen V, Delvaux T (2012). Comment conduire des revues de cas de décès maternels (RDM). Guide et outils pour les professionnels de santé.
- Diallo CM (2021a). Audit des décès maternels au centre de santé de référence de la commune de CVI du district sanitaire de Bamako (2014 à 2018). Université des sciences, des techniques et des technologies de Bamako, Bamako.
- Diallo I (2021b). Bilan des activités d'audits de décès maternels en établissement de soins dans le district sanitaire de la commune V de Bamako. Université des sciences, des techniques et des technologies de Bamako, Bamako.
- Hussein J, Hirose A, Owolabi O, Imamura M, Kanguru L, Okonofua F (2016). Maternal death and obstetric care audits in Nigeria: A systematic review of barriers and enabling factors in the provision of emergency care. *Reproductive Health* 13(1):47. <https://doi.org/10.1186/s12978-016-0158-4>
- Kodan LR, Verschueren KJC, Boerstra GE, Gajadien I, Mohamed RS, Olmta LD, Bloemenkamp KWM (2020). From Passive Surveillance to Response: Suriname's Steady Efforts to Implement Maternal Death Surveillance and Response (MDSR). In Review. <https://doi.org/10.21203/rs.3.rs-35174/v1>
- Ministère de la santé (2011). Module de formation en audit de décès maternel et néonatal. Document du formateur et du participant.
- OMS (2015). Surveillance des décès maternels et riposte: Prévention des décès maternels, informations au service de l'action.
- Présidence du Faso (2017). Décret portant gratuité des soins au profit des femmes et des enfants de moins de cinq ans vivant au Burkina Faso.
- Richard F, Ouédraogo C, Zongo V, Ouattara F, Zongo S, Gruénais M, De Brouwere V (2008). The difficulty of questioning clinical practice: Experience of facility-based case reviews in Ouagadougou, Burkina Faso. *BJOG: An International Journal of Obstetrics and Gynaecology*, 116(1):38-44. <https://doi.org/10.1111/j.1471-0528.2008.01741.x>
- Roy SN (2010). «L'étude de cas», Recherche sociale de la problématique à la collecte de données, sous la direction de Benoit Gauthier., Presses de l'Université Laval pp. 199-225.
- Smith H, Ameh C, Godia P, Maua J, Bartilol K, Amoth P, Van Den Broek N (2017). Implementing Maternal Death Surveillance and Response in Kenya: Incremental Progress and Lessons Learned. *Global Health: Science and Practice* 5(3):345-354. <https://doi.org/10.9745/GHSP-D-17-00130>
- Sombié I, Média ZC, Savadogo LBG, Somé DT, Bamouni SF, Dadjoari M, Sanon-Ouédraogo D (2018). La lutte contre la mortalité maternelle au Burkina Faso est-elle adaptée pour réduire les trois retards? *Santé Publique* 30(2):273. <https://doi.org/10.3917/spub.182.0273>
- World Health Organization (WHO) (2015). Trends in maternal mortality: 1990 to 2015: Estimates by WHO, UNICEF, UNFPA, World Bank Group and the United Nations Population Division.