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Knowledge, Practice, and Implementation of Maternal, Perinatal Death Review Among Healthcare Workers from Four Selected Secondary Hospitals Kebbi State, Nigeria

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Abstract

Maternal and Perinatal Death Reviews (MPDR) are essential tools for reducing maternal and neonatal mortality by identifying and addressing causes of death. Sub-Saharan Africa, including Nigeria, faces high maternal and perinatal mortality, exacerbated by inadequate healthcare infrastructure, cultural beliefs, and poor health-seeking behaviours. In Nigeria, particularly in rural areas like Kebbi State, MPDR implementation is insufficient due to a lack of awareness, engagement, and logistical barriers. This study assessed healthcare workers' knowledge, attitudes, and practices regarding MPDR in four secondary health facilities in Kebbi. The study involved 80 healthcare workers and used both qualitative and quantitative methods, including structured questionnaires and interviews. Findings revealed significant awareness of MPDR but highlighted gaps in training, experience, and institutional support, with many workers lacking confidence in conducting reviews. Barriers to effective implementation included insufficient training, lack of resources, and time constraints. Facilitators, such as better training, resources, and administrative support, could help overcome these challenges. The study recommended the establishment of an MPDSR bill, hiring more healthcare professionals, mandating MPDSR in all secondary facilities, and organizing regular training on quality care and MPDSR. Implementing these recommendations could improve maternal and neonatal care, reduce preventable deaths, and strengthen MPDR practices in Kebbi State and similar settings.

Keywords*: Kebbi State, Maternal and Perinatal Death Reviews, Secondary Health Facilities.*

Introduction

The World Health Organization (WHO) defines maternal death as the death of a woman while pregnant or within 42 days of termination of pregnancy, from any cause related to or aggravated by the pregnancy or its management, but not from accidental or incidental causes (WHO, 2019). Perinatal mortality encompasses both stillbirths and early neonatal deaths, occurring from 28 weeks of gestation to 7 days after birth. Maternal and perinatal mortality remain significant public health challenges globally, with disproportionate burdens in low- and middle-income countries. Nigeria, as the most populous country in Africa with appropriate population of 230 million, contributes substantially to these mortality rates [38]. According to the World Health Organization WHO, Nigeria accounted for approximately 23% of global maternal deaths, with a maternal mortality ratio of 917 per 100,000 live births in 2017[39]. This figure is significantly higher than the global target set by the Sustainable Development Goals (SDGs) of less than 70 per 100,000 live births by 2030, United Nations [50], 2015. Maternal and perinatal death surveillance and response (MPDSR), or any related form of audit, is a systematic process used to prevent future maternal and perinatal deaths. While the existence of MPDSR policies is routinely measured, measurement and understanding of

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policy implementation have lagged in understanding factors influencing MPDSR implementation in low/ middle-income countries (LMIC). In the past 15 years, there has been momentum to strengthen clinical audit practice for maternal and perinatal deaths, including the development of global technical guidelines. Many low/middle-income countries (LMIC) have adopted national guidelines; however, few have robust MPDSR systems. WHO [38] MPDSR Systems: Technical guidance. A growing number of studies have investigated the implementation of MPDSR in selected countries, and some reviews have explored implementation factors for maternal death reviews or perinatal death audits separately.

For example, a structured literature review of accountability mechanisms for maternal and newborn health in sub-Saharan Africa found MPDSR the most common mechanism for performance accountability [35]. A systematic review of facility-based perinatal mortality audits in LMIC in 2009 identified 10 low-quality evaluations with mortality outcome data. A literature review conducted in 2015 on facility-based perinatal audits explored enablers and barriers according to the health system building blocks. While there are valuable contributions to the literature, these previous reviews did not consider implementation theory to assess the implementation of MPDSR nor the full range of types of maternal and/or perinatal death reviews. Implementation theory allows for more complex interventions to be unpacked and examined. This approach enables the exploration of issues, such as trust, credibility, relationships, and hierarchies, to understand factors that support or hinder implementation. Interventions seeking to improve facility-based care are often ongoing processes that are complex, fluid, and context-specific. A variety of factors, including context, can influence the implementation of these types of interventions. With rising attention to facility-based maternal and newborn healthcare, more needs to be understood about implementing MPDSR. The situation is even worse in developing countries like Nigeria, where disparities exist across regions, geographical location, and socioeconomic class. Maternal and perinatal indices provide an understanding of the functionality of the health systems, and the development of a nation and impact on the growth of every nation and economy. Unfortunately, despite numerous interventions, maternal and child health indices are still unacceptably poor, especially in low- and middle-income countries. Until Every Newborn Action Plan (ENAP) was initiated in 2012 and subsequently the Sustainable Development Goals (SDGs) targeting newborns in 2015, little attention was given specifically to newborns who account for a significant proportion of infant deaths. Sadly, stillbirths are still neglected with rudimentary strategies of prevention and no targets set towards halting these deaths, even by the SDGs. Although the Millennium Development Goals (MDGs) achieved a 45% reduction in Maternal Mortality, many middle and low-income countries, including Nigeria, made insignificant contributions to that success [38]. In 2017, there were 295,0000 maternal deaths with a Maternal Mortality Ratio (MMR) of 211 per 100,000 live births globally, NDH 2018 [50]. MMR in the least developed countries was 415 per 100,000 live births compared to Europe and New Zealand, which recorded MMRs of 10 and 7 deaths, respectively, in the same year. Most of these deaths occurred in Sub-Saharan Africa and Asia, which accounted for 86% of these deaths; of this proportion, 66% occurred in Africa alone. Nigeria is one of two countries accounting for one-third of the global maternal deaths [16]. A woman in Nigeria has a 1 in 22 lifetime risk of dying from pregnancy, childbirth, or postpartum. In 2018, the country recorded an MMR of 814 deaths per 100,000 live births and a Perinatal Mortality Ratio (PMR) of 39/1000 live births [38]. This is a far cry from achieving the SDGs, which aim to

reduce maternal mortality to less than 70 per 100,000 live births and the Neonatal Mortality Rate to less than 12 deaths per 1000 live births by 2030 [38]. Simple clinical interventions have proven to play a significant role in reducing the morbidity and mortality associated with women and children. However, this is strongly dependent on a functional healthcare system embedded with reliable monitoring and evaluation of health activities at the communities and facilities. Maternal and Perinatal Death Surveillance and Response (MPDSR) is an accountability framework based on accurate and consistent monitoring of comprehensive health reports involving stakeholder review of data. It is a cost-effective and superior approach that permits the routine identification, notification, quantification, mapping, and determination of causes and prevention of all maternal and perinatal deaths.

Every year, about 287,000 women die of pregnancy-related causes worldwide, with more than one-tenth of them in Nigeria alone, bringing the maternal mortality ratio in Nigeria to as high as 545 per 100,000 live births, NDHS 2018 [50]. For each of these maternal deaths, about 18 other women suffer various morbidities, some with long-term socioeconomical, physical and psychological consequences. WHO [39] Maternal Mortality Fact sheet. Documented studies have shown high maternal mortality rate is high in Nigeria, with considerable regional variations between the southern and northern regions [34]. In the northwest region, the mortality rates are reported to be six times higher than in the southwest, which has the lowest rate, while the maternal mortality rates are higher in rural areas than in urban areas [14]. To obtain detailed epidemiological data on MPDSR was explained [29], which revealed the correlation between MDSR and the influence of different 'cultural factors' relating to MPDSR that is dependent on individual, institutional and policy levels. At the micro level, it revealed the individual's willingness to 'self-correct' requires commitment of staff towards conducting audits themselves, accepting open discussion with peers and taking forward the actions recommended. Likewise, at the macro level, it requires a supportive policy and political environment towards the initiative and support implementation approach [29].

The high maternal mortality rate recorded in Nigeria can be attributed to low utilization of maternal health services (MHS), which have been documented in most studies, with variation in the level recorded. Based on Nigeria Demographic Health Survey 2008 reported that 85.1% of the mothers, while in Osun State, southwestern Nigeria, last delivery in a health facility was 49.1% In contrast to the report from Kaduna state northwest Nigeria of 18.4%, and local study in a peri-urban settlement of 27.6% [38]. The observed variation in the studies conducted in the southern and northern regions of Nigeria is an indication of existing factors that influence the utilization of healthcare facilities. The low level of healthcare facilities utilisation and high maternal and perinatal mortality rate recorded in northern Nigeria may be attributed to a high level of illiteracy, economic instability and insecurity. The high maternal and perinatal mortality rate in sub-Saharan Africa impacts families, societies, and nations, thus prompting the WHO initiative on SBG and a reduction in the mortality rate through data towards a preventive and control approach. Epidemiological data on MPDRS served as a template for preparedness in early possible detection and prevention. Available data have shown that most of the women died in the third trimester or after delivery and presented in an unstable state in the facility. Such observation advises healthcare facilities for adequate birth preparedness for complication readiness and the necessity for more concerted effort in improving the quality of care during pregnancy, delivery, and the postpartum period. Therefore, such facilities must be well equipped with improved manpower strength to offer

Emergency Obstetric Care (EOC) services within a few hours of presentation to save more lives. In both years, toxaemia in pregnancy and PPH accounted for most deaths, a reported by the WHO, which states that PPH, sepsis, toxemia and unsafe abortion account for 75% of maternal deaths. Similarly, findings from MPDSR in Ogun state showed that 43.4% and 36.9% of maternal deaths were as a result of hemorrhage and eclampsia/pre-eclampsia, respectively [8].

Maternal and perinatal death review and documentation of the causes and circumstances surrounding maternal death play a significant role in improving the quality of health care services for other pregnant women and their unborn babies. Emphasizing review and documentation would provide better insight into the causes and contributory factors of mortality, and it would promote better service delivery, funding, and policies, which would improve maternal health indices in the state. The majority of the perinatal deaths were stillbirths, further emphasizing the neglect of stillbirths; a quarter of these stillbirths were fresh stillbirths, indicating poor management of labour. Also, birth asphyxia accounted for the majority of early neonatal deaths, which could indicate delayed presentation and/or poor neonatal resuscitation. The proportion of low-birth-weight babies could explain early neonatal death, especially as a result of prematurity. This finding is similar to other studies conducted in South Africa, where the major causes of early neonatal deaths were prematurity and birth asphyxia, accounting for 48.7% and 40.6% of deaths, respectively [35]. In addition, a study conducted in public health facilities in Abuja Municipal also showed that Birth asphyxia, neonatal infection, and prematurity accounted for 34%, 20%, and 17.3% of perinatal deaths, respectively [16]. Congenital anomaly also accounted for a significant proportion of early neonatal deaths in Gombe state, unlike Sokoto state, which had no deaths from congenital anomaly. This therefore signifies the need to improve prenatal health care services in Gombe State [8].

The situation in Kebbi State, located in northwestern Nigeria, poses a serious public health problem as the highest maternal mortality ratio in the country, with an estimated 1,025 per 100,000 live births [2]. Data collected from studies from low- and middle-income countries (LMICs) have shown that 85% [30] have a national policy to review all maternal deaths; however, fewer than half are implementing MPDSR as per WHO guidelines. Detailed implementation of the guidelines properly would have resulted in 35% maternal and 30% perinatal mortality reduction rates [16].

Materials and Methods: Study Site, Design, and Period

The study was conducted in four (4) secondary health facilities (General Hospital Argungu, Zuru, Yauri, and Sir Yahaya Memorial Hospital) over four (4) months, located in each of the three senatorial zones (Kebbi North, Kebbi South, and Kebbi Central) and across the four emirate councils (Argungu, Zuru, Yauri, and Gwandu Emirates) of Kebbi State, Nigeria. These facilities have been selected to represent public institutions, providing a comprehensive view of the healthcare landscape in the region.

Study questionnaire with detailed information on MPDRS- from socio-demographics, information of informant age, gender, educational background, duration of employment in the facilities, functionality of MPDRS, and KAP in the facilities. A pilot study was conducted to validate the information in the questionnaire and the study's objectives. The data collection was conducted over four months (August-November 2024). The 4 facilities of 4 LGAs were purposely selected to cover the 4 emirates of the state, using a structured questionnaire. 80 Health care workers (Nurses, midwives, and Doctors) self-

administered the questionnaire to the volunteer informants identified in the facilities.

Study Population and Sample Size

The information was obtained from the healthcare workers (Nurses, Midwives, Nurses/Midwives, and Doctors) working in the maternity unit of the facility of the four (4) selected hospitals, including the head of the maternity unit and the Obstetrics and Gynaecology department. 100 questionnaires were administered to 100 healthcare workers of the four selected secondary hospitals.

Data Collection and Analysis

Data was entered into the study database according to the questionnaire coding, and all respondents had voluntary oral consent.

Ethical Considerations

The ethical clearance for the study was obtained from the research and ethics committee of the Kebbi State Ministry of Health. The ethics committee approved the use of written and oral consent obtained from respondents. The data collected in this research did not include any personal information from respondents. The questions in the tools gathered data on the current knowledge, attitude, practice, and state of implementation of the MPDSR process.

Before key informant interviews, participants were asked to give their voluntary oral consent to participate, given that the research presents no more than minimal risk of harm to respondents. Confidentiality and anonymity were maintained.

Results

The analysis begins with the socio-demographic characteristics of the respondents, followed by sections addressing the factors influencing healthcare workers' engagement, challenges faced, and potential strategies for improvement. 100 questionnaires were distributed, and 80 were successfully retrieved, representing a response rate of 80%.

Table 1. Socio-Demographic Characteristics of Respondents

Gender of Respondent		
Male	38%	27
Female	63%	45
Age Groups		
Under 25	10%	7
25-34	38%	27
35-44	36%	26
45-54	14%	10
55 & above	3%	2
Educational Status		
First Degree	71%	51
Postgraduate	28%	20
Consultant	1%	1
Work Experience		
1-5 years	35	43.75%
6-10 years	25	31.25%

11-15 years	10	12.5%
More than 15 years	10	12.5%

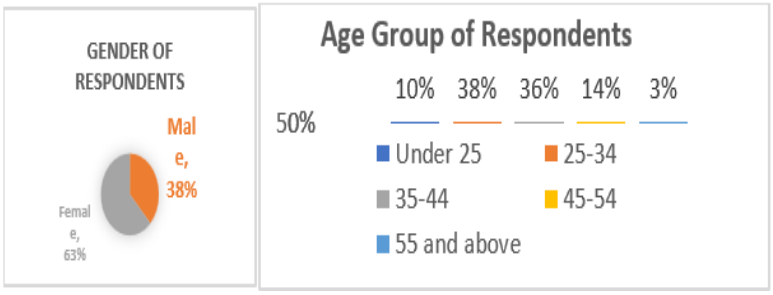


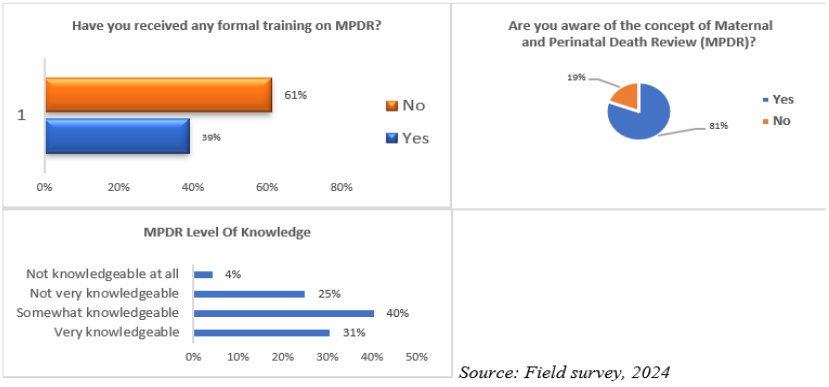
Figure 1. Age and Gender of Respondents

Source: field survey, 2024

The findings in Table 1 above reveal that most respondents (38%) are within the 25-34 age group, and a smaller proportion (3%) are aged 55 and above. A higher percentage of respondents are female (63%). Nurses and midwives constitute the largest group (85%) of respondents, followed by doctors (15%). Most respondents have 1-5 years of experience (43.75%), followed by those with 6-10 years (31.25%).

Table 2. Knowledge and Awareness of MPDR

Are you aware of the concept of Maternal and Perinatal Death Review (MPDR)?		
Yes	81%	58
No	19%	14
Have you received any formal training on MPDR?		
Yes	39%	28
No	61%	44
Rate your level of knowledge about MPDR?		
Very knowledgeable	31%	22
Somewhat knowledgeable	40%	29
Not very knowledgeable	25%	18
Not knowledgeable at all	4%	3



Source: Field survey, 2024

Figure 2. Formal Training and Awareness on the Concept of MPDR

Source: Field survey 2024

The data in Table 2 highlights that a significant majority (81%) of respondents are aware of the concept of MPDR/MPDSR, while 19% are not aware, also over half of the respondents (61%) have not received formal training on MPDR, while 31% of respondents rate themselves as very knowledgeable about MPDR, the majority (40%) identify as somewhat knowledgeable. A smaller proportion (25%) is not very knowledgeable, and 4% report no knowledge at all.

Table 3. Experience Conducting and Perceived Importance of MPDSR in Improving Health

Do you have experience in conducting MPDRS?		
Yes	44%	32
No	56%	40
Do you believe MPDR is important for improving maternal and perinatal health outcomes?		
Agree	29%	21
Strongly Agree	67%	48
Neutral	4%	3
Disagree	0%	0
How confident are you in your ability to conduct MPDSR?		
Confident	44%	32
Not confident	15%	11
Neutral	39%	28
Not confident at all	1%	1

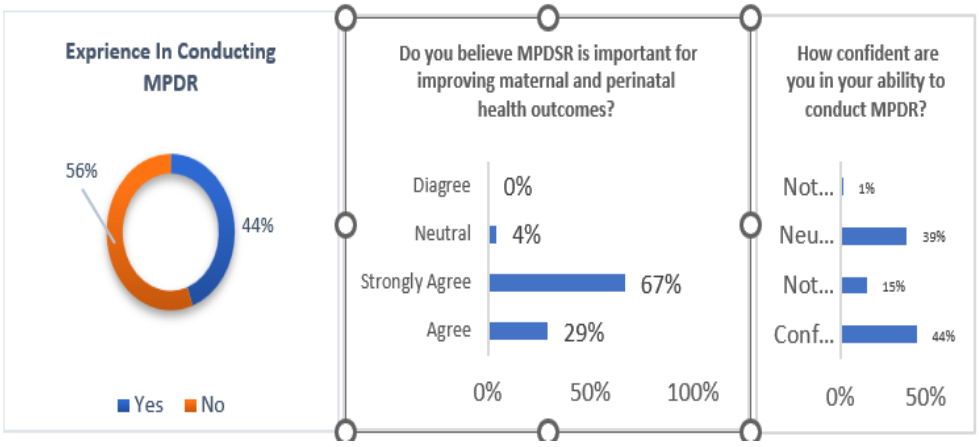


Figure 3. Experience Conducting and Perceived Importance of MPDSR in Improving Health

Source: Field survey 2024

The data in Table 3 highlights that the majority (56%) of respondents do not have experience conducting MPDR, with only 44% having the experience, while 44% have confidence in conducting MPDR, 39% are neutral, 15% are not confident, and 1% are not confident at all. A significant number (67%) strongly agree and 29% agree that MPDR is important for improving Maternal and Perinatal health outcomes, with 0% disagreeing, and only 4% having a neutral decision.

Table 4. Perceived Benefits of MPDR and Confidence in Participating and Conducting MPDSR

What are the perceived benefits of MPDR in your opinion? (Select all that apply.)		
Improved patient care	79%	57
Identification of systemic issues	53%	38
Professional development	61%	44
Enhanced collaboration	54%	39
Others	4%	3
How confident do you feel about participating in or conducting an MPDSR?		
Confident	68%	49
Some confident	25%	18
Not confident at all	7%	5

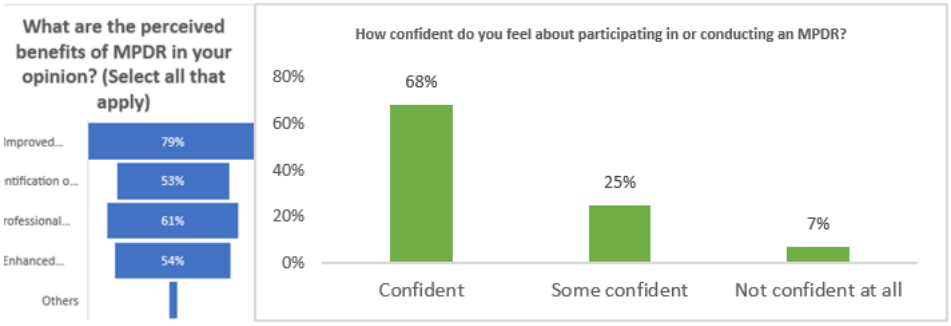


Figure 4. Perceived Benefits of MPDR and Confidence in Participating and Conducting MPDSR

Source: Field survey 2024

Table 4 above shows that a significant number of participants (79%) perceived that MPDR improves patient care, with (61%) perceiving that it can help in professional development, (53%) perceiving that MPDR helps in the identification of systemic issues, 54% perceived that it enhances collaboration among the health care team and only 4% have other perceived benefits. On confidence in participating in or conducting MPDR majority of the respondents (68%) have confidence, with a small percentage of respondents (7%) not having confidence at all, and 25% having confidence.

Table 5. Main Barriers to Initiating MPDR in the Facility

What are the main barriers to initiating MPDR in your facility? (Select all that apply.)		
Lack of time	39%	28
Insufficient training	63%	45
Lack of resources	60%	43
Administrative burden	31%	22
Resistance from staff	19%	14
Other	7%	5
What factors would facilitate the initiation of MPDR in your facility? (Select all that apply.)		
Increased training opportunities	82%	59

Availability of resources	71%	51
Administrative support	54%	39
Positive staff attitude	53%	38
Incentives	42%	30
Other	4%	3

Figure 5. Main Barriers and Facilitators to Initiating MPDR in the Facility

Table 5 above shows that the main barriers to initiating MPDR are insufficient training (63%), lack of resources (60%), lack of time (39%), administrative burden (31%), resistance from staff (19%), and others (7%). Increased opportunities (82%), availability of resources (71%), administrative support (54%), positive staff attitude (53%), and incentives (42%) are factors that would facilitate the initiation of MPDSR at the facilities.

Table 6. Provision of Comprehensive Emergency Obstetric and Newborn Care (CEmONC)

Does your facility provide CEmONC signal functions?		
Yes	39%	28
No	61%	44

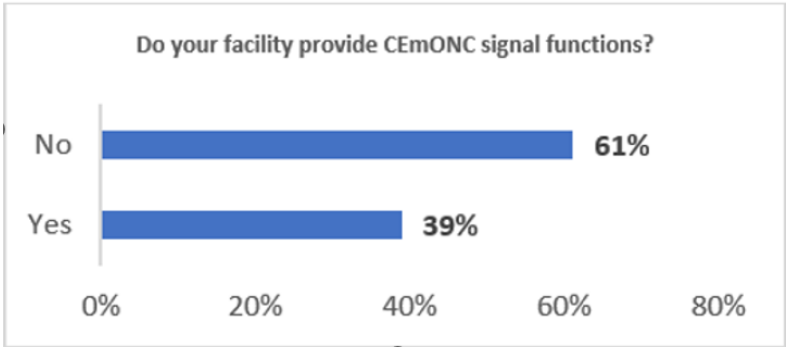


Figure 6. Provision of Comprehensive Emergency Obstetric and Newborn Care

Source: Field survey, 2024

Table 6 above shows that about 61% of the respondents confirmed that they don't provide CEmONC cardinal functions in their facilities, indicative of a deficit in quality service provision, despite being a secondary facility, while 39% of the respondents confirmed the provision of CEmONC services.

Table 7. Availability of a Multi-Disciplinary MPDR Committee

Does your facility have a multidisciplinary MPDR committee?		
Yes	47%	34
No	53%	38

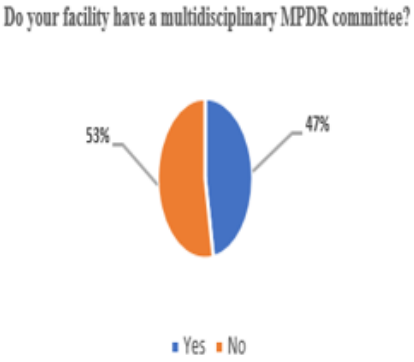


Figure 7. Availability of a Multi-Disciplinary MPDR Committee

Source: Field survey, 2024

Table 7 above shows that only 47% of the respondents confirm the availability of a functional MPDSR committee, while 53% responded that there is no functional MPDSR/MPDR committee.

Table 8. Current Status of Meetings, Surveillance, and Frequency of Meetings

Does your facility currently conduct MPDR?		
NO	56%	40
YES	44%	32
Surveillance of MPDR?		
NO	56%	40
YES	44%	32
How often are MPDR meetings held in your facility?		
Weekly	4%	3
Monthly	26%	19
Quarterly	28%	20
Annually	8%	6
Never	33%	24

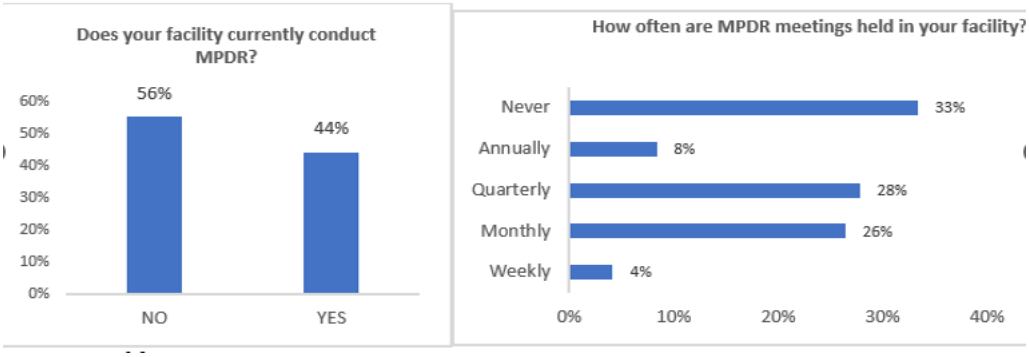


Figure 8. Current Status of Meetings, Surveillance, and Frequency of Meetings

Source: Field survey, 2024

Table 8 above shows the percentage of respondents to the status of meetings in their respective facilities, where 56% responded that there are no current MPDR meetings in the facilities and 44% indicated that the meeting is still held in the facility with 28% of respondents indicating a quarterly meeting, 26% monthly meetings, 4% weekly and 33% never conducts the meeting. 44% of the respondents indicate that the is surveillance for MPD while 56% indicate no surveillance.

Table 9. Actions Taken After MPDR Meetings

What actions are typically taken after an MPDR meeting? (Select all that apply.)		
Implementation of recommendations	57%	41
Follow-up reviews	50%	36
Staff training	47%	34
Policy changes	28%	20
No action taken	24%	17
Other	4%	3
Availability of a report timeline tracking mechanism?		
Yes	57%	41
No	43%	31
Availability of the annual plan?		
Yes	61%	44
No	39%	28

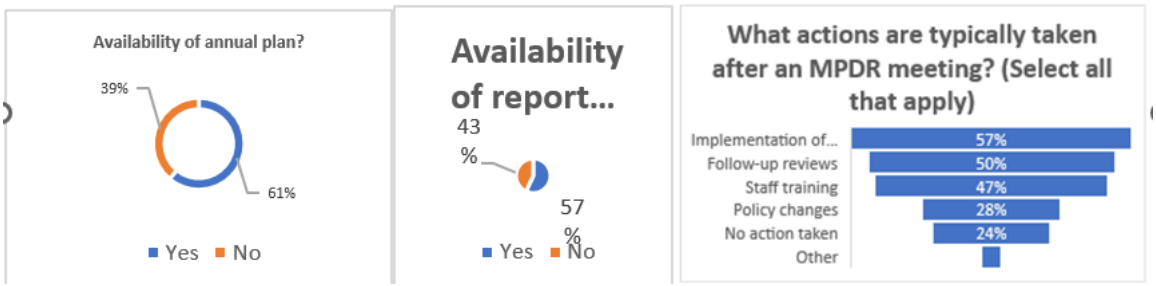


Figure 9. Actions Taken After MPDR, Availability of Tracking Mechanism and Annual Plan

Source: Field survey, 2024

Table 9: shows that 57% of the respondents indicate that recommendations from the MPDSR review meetings are being implemented, 50% also indicate that there are

follow-up reviews, 47% staff training, 28% policy changes, 24% no action taken, and 4% others. On the availability of the report timeline tracking mechanism, 57% of the respondents responded with a yes and 43% no. Regarding the availability of the facility's annual plan, 61% responded with a yes and 39% with a no.

Discussion

Maternal and perinatal mortality remains a major public health problem in sub-Saharan Africa, particularly Nigeria, with a high mortality rate of 512/100,000 live births (NDHS 2018). This public health problem is much more evident in northern Nigeria compared to the southern part, associated with socio-cultural, religious, and other factors such as inadequate infrastructure and skilled personnel. The MPDR Functional and effective MPDS at the hospital level tend to reduce the mortality rate and improve maternal and perinatal health. The objective of the study is to examine KAP and its implementation by healthcare workers at hospital facilities. Most respondents (38%) are within the 25-34 age group, and a smaller proportion (3%) are aged 55 and above, indicative of a youthful workforce (Figure 1). A higher percentage of respondents are female (63%). Nurses and midwives constitute the largest group (85%) of respondents, followed by doctors (15%). Most respondents have 1-5 years of experience (43.75%), followed by those with 6-10 years (31.25%) with only 25% having experience of above 10 years, this is reflective of a young workforce that has a long way to go in the provision of health care service, whose capacity needs to be built to improve the quality of RMNCH services and use MPDR process to improve health policies and outcomes for mothers and newborns (Figure 1).

The data collected from the survey offers valuable insights into the awareness, experience, confidence, and challenges surrounding the Maternal and Perinatal Death Review (MPDR) in healthcare facilities. The respondents, predominantly female (63%) with a significant proportion (38%) in the 25-34 age group, represent healthcare professionals, mostly nurses and midwives (85%), with doctors comprising a smaller portion (15%). This distribution of respondents reflects a general representation of healthcare workers involved in maternal and perinatal health, which is essential for understanding the overall perception and practices surrounding MPDR (Figure 1).

Awareness and Knowledge of MPDR

The majority of respondents (81%) are aware of the concept of MPDR, indicating a solid foundation of understanding among healthcare professionals in the facilities. However, formal training on MPDR remains limited, with only 39% of respondents having received such training, reflecting a significant gap in knowledge transfer. Despite the lack of formal training, 31% of respondents consider themselves "very knowledgeable" about MPDR, and 40% see themselves as "somewhat knowledgeable." This discrepancy between awareness and formal education underscores the need for enhanced training programs to build the capacity of healthcare professionals in this area (Figure 2).

Experience and Confidence in Conducting MPDR

Although 44% of respondents have experience conducting MPDR, a larger proportion (56%) lack experience. Notably, 44% of respondents express confidence in conducting MPDR, with 39% remaining neutral. This suggests that while some healthcare professionals feel competent in MPDR practices, a significant portion still requires further support to build confidence in executing these reviews effectively. The majority of respondents (96%) agree or strongly agree that MPDR is crucial for improving maternal and perinatal health

outcomes, highlighting the importance of this tool in enhancing care quality (Figure 4).

Perceived Benefits of MPDR

The perceived benefits of MPDR are largely positive, with the most common benefits being improved patient care (79%), professional development (61%), and the identification of systemic issues (53%). These benefits align with the objectives of MPDR in improving care and outcomes for mothers and babies. Confidence in participating in or conducting MPDR is high, with 68% of respondents feeling confident, which is encouraging, but again, the remaining 32% could benefit from further development to increase participation and ownership of MPDSR initiatives (Figure 4).

Barriers and Facilitators for MPDR Implementation

A major challenge in initiating MPDR at healthcare facilities is insufficient training (63%) and lack of resources (60%). These barriers indicate a systemic issue in the healthcare environment that needs to be addressed to ensure the effective implementation of MPDR practices. However, there is also strong support for solutions, with 82% of respondents identifying increased training opportunities as a key facilitator. Additionally, the availability of resources (71%) and administrative support (54%) are also crucial factors in promoting MPDR. These results suggest that addressing training gaps and ensuring adequate resources and support at the institutional level are essential for the successful initiation and sustainability of MPDSR practices (Figure 5).

Facility-Level Challenges and Practices (Provision of CEmONC Cardinal Functions)

Interestingly, 61% of respondents report that their facility does not provide Comprehensive Emergency Obstetric and Newborn Care (CEmONC), a critical service for improving maternal and newborn health outcomes. This gap in service provision may compound the difficulties in improving MPDR practices. Additionally, only 47% of respondents confirm the presence of a functional multidisciplinary MPDR committee, which is vital for effective collaboration and action following MPDR meetings. Furthermore, 56% of facilities report no MPDR meetings, and 56% also indicate no surveillance of MPDR data, signalling gaps in the continuity and integration of MPDR into routine practice (Figure 6).

Action Taken Post MPDSR Meetings

Although 57% of respondents indicate that recommendations from MPDSR meetings are being implemented, and 50% report follow-up reviews, there remains a significant portion of respondents (24%) who report no action taken after meetings. This highlights the importance of ensuring that MPDSR findings lead to tangible improvements in care and service delivery. The availability of annual plans (61%) and report timeline tracking mechanisms (57%) suggest that some facilities are attempting to integrate MPDSR into broader quality improvement frameworks, but these processes must be more consistently followed to yield long-term benefits (Figure 9).

Significance of the study: How have your study's findings contributed to the reduction of maternal and perinatal mortality? The study has contributed to the reduction in maternal and perinatal Mortalities as it has clearly identified and outlined the gaps in the implementation of the MPDSR, the study further provided an analysis of the knowledge deficit of the front-line healthcare workers, with about (56%) of respondents not having experience in conducting MPDSR (Figure 3), as such could not use the data in the facility to audit death and make recommendations for improving the health outcomes with only 44% having the experience, while 44% have confidence in conducting MPDSR, 39% are neutral, 15% not confidence and 1% not confident at all (Figure 4).

Despite the understanding of the significance of the MPDSR in the study facilities, the implementation is low, and a significant number (67%) strongly agree and 29% agree that MPDSR is important for improving Maternal and Perinatal health outcomes, with 0% disagreeing, and only 4% having a neutral decision.

First, discuss the socio-demographic of the informant involved in your study- compare your findings with other published works (Figure 4).

These findings suggest that while awareness of MPDSR is relatively high, there is a need for more consistent and frequent training to enhance knowledge and effective engagement in MPDR activities. Further analysis will examine the factors influencing engagement in MPDR and associated challenges.

Reporting and tracking of maternal and perinatal deaths and government initiatives to reduce preventable deaths remain a major challenge in Nigeria. It is commonly accepted that the causes of maternal, neonatal, and infant mortality are preventable through systematic public health education and strengthening of the health system blocks, which deal with the three delays: delay in seeking care, delay in access to health care, and delay in receiving quality care. Achieving the latter is pivoted in maternal, newborn, and child death audits and response to recommendations from the audits, but despite these evidence-proven interventions, healthcare workers still find it difficult to audit deaths and implement recommendations to reduce the burden, especially of similar causes.

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