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Perceptions and attitudes of mothers affected by neonatal mortality regarding newborn care in Tshopo Province, Democratic Republic of the Congo

Ramazani-Tabora, J.[1], Atuba, P. M.[2], Ramazani-Bongolu, B.[1], Mulongo, E. K.[3], Ngbolua, K. N.[3], Mawunu, M.[3], Mbungu, R. M.[3], & Tshimungu, F. K.[2]

[1]*Higher Institute of Medical Techniques of Kisangani, Kisangani, Democratic Republic of the Congo*
[2]*Higher Institute of Medical Techniques of Kinshasa, Kinshasa, Democratic Republic of the Congo*
[3]*University of Kinshasa, Kinshasa, Democratic Republic of the Congo*

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Correspondence to:
Emmanuel Kitete Mulongo
emmanuel.kitete@unikin.ac.cd

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ABSTRACT

Introduction
Neonatal mortality remains a major public health challenge, particularly in settings where timely and appropriate management of neonatal illness is limited. Understanding maternal perceptions and responses to neonatal illness is essential for designing interventions that are locally acceptable and effective.

Purpose
This study explored the perceptions and attitudes of mothers who experienced neonatal loss regarding newborn care in Tshopo Province, Democratic Republic of the Congo.

Methods
A qualitative descriptive study was conducted among 22 mothers who had experienced neonatal mortality. Participants were recruited using snowball sampling, and data were collected through semi-structured interviews conducted in French, Swahili, or Lingala. Interviews were audio-recorded, transcribed verbatim, and analyzed manually using thematic content analysis to generate themes, categories, and subcategories.

Results
Three major thematic areas emerged. *First*, mothers reported multiple barriers to neonatal care, including socioeconomic constraints, geographical distance, limitations in health facility capacity, and cultural practices such as reliance on traditional medicine and spiritual interventions. *Second*, the relationship between mothers and healthcare providers was described as central to care-seeking; although providers were recognized as important actors, participants reported dissatisfaction related to perceived negligence, delays in treatment, poor communication, and concerns about provider competence. *Third*, respondents proposed solutions focused on structural and institutional improvements, including free or subsidized neonatal care, improved facility equipment, continuous training and fair remuneration of healthcare workers, and increased community education on neonatal health.

Conclusion
Mothers who experienced neonatal loss in Tshopo Province identified interconnected economic, structural, and sociocultural barriers influencing neonatal care-seeking and outcomes. Their perspectives highlight the need for policies that reduce financial and geographical barriers, strengthen health system capacity, and improve caregiver–mother interactions. Community-based education and culturally responsive strategies are essential to promote timely utilization of neonatal services and improve newborn survival.

INTRODUCTION

Neonatal mortality (NM), defined as the total number of deaths occurring from birth to the 28th day of life (Feirouz et al., 2021), remains a major public health problem (Dol et al., 2023). Its frequency is high and accounts for nearly half of all deaths among children under five years of age (Apanga et al., 2024).

According to the World Health Organization (WHO, 2024), the number of newborn deaths was 2.3 million in 2022 and 2.28 million in 2023 (Cao et al., 2025), with substantial disparities across regions (Gu et al., 2026). In sub-Saharan Africa, the neonatal mortality rate was approximately 28 per 1,000 live births in 2021 (Zoungrana-Yameogo et al., 2021), which remains higher than in other regions of the world.

Neonatal mortality also remains high in the Democratic Republic of the Congo (Atuba et al., 2023), with an estimated rate of 47 deaths per 1,000 live births (Mabola Tsinu et al., 2024). In a study conducted in 2022 in Kisangani, the capital of Tshopo Province, a neonatal mortality rate of 333 deaths per 1,000 live births was reported (Ramazani Tabora et al., 2022).

Neonatal mortality is not random. Studies suggest that improved management of complications may contribute to its prevention (Berhanu et al., 2021). Several factors contribute to neonatal deaths, including limited access to early obstetric and neonatal care within the first 24 hours (Apanga et al., 2024), inadequate prenatal care (Girma et al., 2022), and limited birth planning by parents (Tessema & Tesema, 2020). Major causes of neonatal death in developing countries include birth asphyxia, infections, and low birth weight or prematurity (Matendo et al., 2011). In addition to these clinical and health system factors, recent research has highlighted the role of community perceptions of neonatal illness and healthcare, which may influence care-seeking behavior and contribute to delayed treatment during the first 28 days of life.

Given the complexity of these determinants, there is a need for studies that not only rely on statistical data but also explore neonatal mortality qualitatively. Some authors note that neonatal mortality studies can describe population-level outcomes while also serving as indicators of healthcare quality (Feirouz et al., 2021). Despite persistently high neonatal mortality in the Democratic Republic of the Congo, limited evidence exists regarding how mothers who have experienced neonatal loss perceive illness causes and barriers to care.

Therefore, the objective of this study was to explore the perceptions and attitudes of mothers who experienced neonatal mortality regarding newborn care, in order to identify barriers to care and inform context-appropriate interventions aimed at improving neonatal health outcomes in Tshopo Province, Democratic Republic of the Congo.

METHODS

Study Design

A qualitative descriptive study was conducted to explore the perceptions and attitudes of mothers who experienced neonatal mortality regarding newborn care in Tshopo Province.

Study Setting

This study was conducted in Tshopo Province. Since 2015, Tshopo Province has been one of the 26 provinces of the Democratic Republic of the Congo following the division of the former Orientale Province. The capital city is Kisangani. The province is divided into seven territories and includes 23 health zones. Eight health zones were selected for this study: Makiso, Mangobo, Lubunga, Kabondo, Yakusu, Wanieru, Yahisuli, and Banalia.

Study Population and Justification for Participant Selection

This study included mothers who had experienced neonatal deaths in Tshopo Province. Although mothers are not healthcare professionals, they are direct witnesses to events surrounding neonatal illness and death. Their experiences are essential for identifying gaps in neonatal care, including barriers that may not be recognized by healthcare providers, such as cultural beliefs and expectations regarding care.

Inclusion criteria

Participants were eligible if they:

a) were mothers who had lost at least one child between birth and the 28th day of life;
b) had lived in Tshopo Province for at least two years;
c) provided free and informed consent to participate in the study.

Exclusion criteria

Participants were excluded if they:

a) were unable to communicate in French, Swahili, or Lingala;
b) were not lucid at the time of the interview.

Sampling Procedure

Snowball sampling was used. Participants were identified through three channels:

a) hospitals, through collaboration with maternity wards to access neonatal death records;
b) death registers, through consultation of official documents to identify mothers concerned;
c) community networks, through involvement of local associations to facilitate outreach.

After identification either at the hospital or in the community, an appointment was scheduled with the participant at a mutually agreed time and location. Approximately 15 mothers refused to participate; no reasons were provided.

Number of Participants

A total of 22 mothers were included based on data saturation. Saturation occurs when additional interviews no longer yield new information and the volume of collected data becomes sufficient. Saturation is not determined by a fixed sample size but by the depth of the data and the analytical process (Rahimi & Khatooni, 2024).

Data Collection Technique

Semi-structured interviews were used because they allow in-depth exploration of emotions, perceptions, and attitudes related to neonatal loss. Interviews provided detailed personal accounts necessary to understand subjective experiences that cannot be adequately captured through quantitative methods.

Interviews were audio-recorded using the voice recorder function on Android smartphones.

Data Collection Process

After administrative authorization, eligible mothers were contacted. The study objectives and procedures were explained, and informed consent was obtained. Interviews were conducted face-to-face to establish trust.

Sample questions included: *How do you recognize when a newborn is sick? What difficulties did you encounter in obtaining medical care for your child? What is the first thing you do when your newborn becomes ill? How would you describe your experience with healthcare providers? Who helps you when your child is sick? In your opinion, what should be done to prevent newborn deaths?*

Interviews were conducted in French, Swahili, or Lingala. The interview guide was developed in French and translated into Swahili and Lingala by two sworn translators from the Faculty of Arts at the University of Kisangani. The translated versions were validated by health experts, including members of the supervisory team, to ensure clarity.

Each interview lasted approximately 11 minutes. Participants gave permission for recording, and the phone was placed in airplane mode to prevent interruptions.

Role of the Researchers

Researchers adopted an empathetic approach to foster trust. As there were no pre-existing relationships with participants, familiarity bias was minimized. Empathy was essential given the sensitive nature of neonatal loss.

Data Processing and Analysis

Thematic analysis was conducted in three stages:

(i) familiarization through repeated reading of transcripts;
(ii) coding by identifying significant statements;
(iii) theme development by grouping codes into categories and subcategories, followed by refinement.

Verbatim transcription enabled content analysis, and themes were summarized in tables for clarity. Data analysis was conducted manually.

Triangulation was conducted through independent coding by multiple researchers and discussions to compare interpretations. Domain experts were consulted to validate categories and themes.

To maintain anonymity, participants were coded as **Resp01**, **Resp02**, etc.

Reliability and Validity

Credibility was enhanced through triangulation, including cross-checking mothers' testimonies with those

of healthcare providers collected separately. Independent coding by another researcher also supported validity. Participant feedback was considered to strengthen interpretation.

Ethics and Informed Consent

Participants were informed of the study objectives, anonymity, confidentiality, and their right to withdraw at any time. Ethical approval for this study was obtained from the Ethics Committee of the Higher Institute of Medical Techniques of Kinshasa (ISTM-KIN), Democratic Republic of the Congo (24/CBE/ISTM/KIN/RDC/PMBBL/2023, dated 29/11/2023). All procedures were conducted in accordance with ethical standards, including informed consent and confidentiality.

Reflexivity

Researchers considered how their positionality, including gender, might influence data collection and interpretation. Given that the researchers were men working in a sensitive context involving maternal experiences and neonatal loss, this may have affected emotional disclosure. To reduce bias, researchers repeatedly reviewed transcripts and reflected on their interpretations to ensure findings remained grounded in participants' narratives.

RESULTS

Characteristics of Respondents

Participants were aged 18 to 35 years, with parity ranging from 1 to 6. Most respondents had secondary education and lived in rural areas. Most neonatal deaths occurred during the first week of life, and all deaths occurred between birth and the 25th day after birth.

Table 1:
Characteristics of Participants (N = 22)

ID	Age *(years)*	Parity	Education level	Residence	Time of neonatal death *(days)*
Resp01	25	2	Primary	Rural	7
Resp02	33	3	None	Rural	0
Resp03	27	2	Primary	Urban	8
Resp04	19	1	Secondary	Rural	10
Resp05	28	2	Secondary	Urban	2
Resp06	26	4	Secondary	Urban	4
Resp07	33	5	Primary	Rural	4
Resp08	32	4	Primary	Rural	19
Resp09	29	2	University	Urban	5
Resp10	25	2	Primary	Rural	7
Resp11	33	3	None	Rural	15
Resp12	27	2	Primary	Urban	8
Resp13	18	1	Secondary	Rural	2
Resp14	28	2	Secondary	Urban	1
Resp15	26	4	Secondary	Urban	6
Resp16	33	5	Primary	Rural	2
Resp17	32	4	Primary	Rural	6
Resp18	29	2	University	Urban	25
Resp19	28	2	Secondary	Urban	2
Resp20	26	4	Secondary	Urban	4
Resp21	35	6	Secondary	Rural	9
Resp22	32	4	Primary	Rural	21

Note: Time of neonatal death is expressed in days after birth.

Thematic Analysis

Six main themes emerged: (i) perceptions of neonatal illness; (ii) barriers to accessing care; (iii) attitudes and decisions regarding illness; (iv) relationships with healthcare providers and perceived quality of care; (v) the roles of family and community; and (vi) suggestions for improving neonatal care.

Perceptions of Neonatal Illness

Respondents identified fever, persistent crying, weight loss, pallor, convulsions, refusal to breastfeed, and vomiting as warning signs of neonatal illness. Perceived causes included congenital or maternal infections, birth-related conditions, witchcraft or curses, and poor hygiene or lack of vaccination. Mothers frequently relied on diagnoses provided by healthcare providers as well as community interpretations.

Table 2:
Perceptions of Neonatal Illness

Sub-theme	Brief explanation	Illustrative quotes
Observed symptoms	Fever, convulsions, continuous crying, pallor, weakness, refusal to nurse, vomiting.	"His body is getting hot… he's starting to tremble" (Resp04). "The baby isn't nursing" (Resp10). "He was vomiting green" (Resp20).
Perceived causes	Maternal infections, poor birth conditions, witchcraft, lack of hygiene, lack of vaccination.	"Sometimes the mother has malaria and the child can catch it" (Resp01). "I thought it was bad luck" (Resp10). "Maybe it's the work of witches" (Resp14).
Recognition/diagnosis	Diagnosis perceived as made by healthcare providers, relatives, or the mother herself.	"It was the healthcare provider who informed me" (Resp09). "I saw myself that he had a fever" (Resp16).

Barriers to Accessing Care

Barriers were categorized into (i) socioeconomic barriers, including lack of money for consultation, medication, or

transport; (ii) structural barriers, including distance to health facilities, perceived poor quality of care, lack of collaboration among health workers, and unclear diagnoses; and (iii) reliance on alternative practices such as traditional medicine, prayer, or spiritual healers.

Table 3:
Barriers to Accessing Healthcare

Sub-theme	Brief explanation	Illustrative quotes
Socioeconomic barriers	Lack of money for consultations, medication, and transportation; neglect linked to poverty.	"If you don't have the means, you stay home" (Resp05). "The first obstacle is the lack of money" (Resp04).
Structural problems	Distance to facilities, poor reception, lack of medication, unclear diagnosis.	"It's very far to get to the hospital" (Resp14). "I wasn't convinced, there were no medications" (Resp19).
Alternative practices	Use of traditional remedies, prayer, or healers due to limited access to resources.	"We started with the traditional treatment" (Resp07). "Some prefer to go to prayer" (Resp04).

Attitudes and Decisions in Response to Illness

Respondents reported that they often initiated home-based care, including self-medication, traditional practices, observation, or prayer, and sought hospital care when symptoms persisted.

Table 4:
Attitudes Toward Neonatal Illness

Sub-theme	Brief explanation	Illustrative quotes
Initial practices	Self-medication (e.g., paracetamol), traditional remedies, observation, prayer.	"Our first reaction is to give paracetamol" (Resp04). "I purged the child" (Resp16).
Access to formal care	Health facility attendance, especially if symptoms persist.	"After two days, I took the child to the hospital" (Resp19). "I took him directly to the hospital" (Resp11).

Relationship With Healthcare Providers and Quality of Care

Although some mothers expressed confidence in healthcare providers, negative perceptions included delays in care, lack of adequate treatment, financial demands, and concerns regarding provider competence.

Table 5:
Relationship With Healthcare Providers and Perceived Quality of Care

Sub-theme	Brief explanation	Illustrative quotes
Positive perceptions	Health workers perceived as competent and welcoming; preference for larger hospitals.	"We feel comfortable with them, they treat us well" (Resp02). "I go to large hospitals where there is equipment" (Resp13).
Negative perceptions	Perceived negligence, delays, financial demands, misdiagnosis, distrust of interns.	"They ask for money first, otherwise they won't treat" (Resp22). "The interns leave too many disabled children" (Resp06).

Roles of Family and Community

Respondents reported that family members provided financial and emotional support, while community members such as neighbors and employers sometimes assisted when resources were insufficient.

Table 6:
Roles of Family and Community

Sub-theme	Brief explanation	Illustrative quotes
Family support	Financial and moral support from husbands and extended relatives.	"My husband gives the most" (Resp11). "My little brother helps me a lot" (Resp04).
Community aid	Neighbors, friends, or employers provide support when families lack resources.	"If we lack money, we go to our employer" (Resp17).

Suggestions for Improving Care

Respondents emphasized government responsibility, including free neonatal healthcare, improved remuneration for healthcare workers, job creation, and strengthening of health facilities through equipment and training. They also proposed community education on prenatal care and hygiene.

Table 7:
Suggestions for Improving Neonatal Care

Sub-theme	Brief explanation	Illustrative quotes
Role of government	Free care, motivating healthcare workers through remuneration, job creation.	"Hospitals must be free" (Resp10). "The government must take care of healthcare workers" (Resp04).
Strengthening health system	Equipment, continuing education, and improved collaboration.	"Equip the hospitals" (Resp04). "That they know how to welcome patients" (Resp13). "Doctors must work together" (Resp20).
Community awareness	Promote antenatal care, vaccination, hygiene, and early consultation.	"We mothers need to start going to ANC" (Resp22). "Mothers need to bring their children to the hospital" (Resp09).
Call to researchers	Encouragement for continued research.	"Find the solution so that this does not happen again" (Resp22).

DISCUSSION

This discussion examines the extent to which the findings of the present study align with or diverge from those reported in previous research. Overall, the results suggest that neonatal mortality in Tshopo Province is influenced by a complex interaction of socioeconomic constraints, structural weaknesses in the health system, cultural interpretations of illness, and relational dynamics between mothers and healthcare providers. These factors shape not only the recognition of neonatal danger signs but also decisions regarding care-seeking and the timing of access to formal health services.

Health-seeking behavior models indicate that decisions to seek care are rarely based solely on clinical severity; rather, they are strongly shaped by perceived risk, trust in the health system, and the availability of material and social resources. In this regard, the findings of this study support the view that neonatal survival is influenced not only by biomedical determinants but also by contextual and social conditions that structure maternal decision-making.

Discussion of Respondents' Perceptions of Neonatal Diseases

Mothers in this study reported several warning signs of neonatal illness, including fever, persistent crying, pallor, convulsions, refusal to feed, and vomiting. These signs are consistent with those commonly reported in clinical and community-based studies on neonatal and infant illness recognition. For example, fever is frequently identified as a major reason for pediatric consultation and emergency admission (Claudius & Baraff, 2010; Wing et al., 2013). Similarly, Athumani (2008) reported that mothers in Dar es Salaam perceived convulsions, breathing difficulties, unconsciousness, and feeding problems as serious signs of childhood illness.

Beyond symptom recognition, respondents described both biomedical and supernatural explanations for neonatal illness. Causes such as maternal infections, congenital problems, and birth complications were frequently mentioned alongside witchcraft, curses, and other mystical interpretations. This coexistence of natural and supernatural etiologies suggests that mothers' understanding of neonatal illness is shaped by a pluralistic health belief system in which biomedical knowledge interacts with cultural cosmology. Comparable findings were reported in Kenya, where communities recognized both natural and supernatural causes of illness in newborns and acknowledged that these explanations may coexist (Odwe et al., 2020).

These findings indicate that newborn health is not perceived solely as a biological state but also as a condition linked to spiritual and social equilibrium. Such interpretations may influence how mothers evaluate illness severity and determine whether biomedical care is necessary. When illness is perceived as mystical, families may initially seek alternative solutions outside the formal health system. This emphasizes the importance of culturally responsive interventions that do not dismiss local belief systems but instead incorporate dialogue and community engagement. Involving traditional and religious leaders may therefore improve the acceptance of biomedical recommendations and encourage earlier consultation in cases of neonatal danger signs.

Discussion of Barriers to Healthcare Access Perceived by Respondents

Mothers identified multiple barriers to accessing neonatal healthcare, including socioeconomic hardship, structural limitations in health services, and the use of alternative practices. These findings are consistent with literature emphasizing that neonatal mortality in low-resource settings is strongly shaped by access barriers rather than medical causes alone.

Financial constraints were frequently cited as a major obstacle, affecting the ability to pay for consultations, medications, and transportation. These results are consistent with the findings of Martinez et al. (2012), who reported that cost is a critical barrier to neonatal care in developing countries. Structural barriers, such as long distances to facilities, lack of medication, inadequate infrastructure, and perceived poor quality of care, were also strongly emphasized. Similar barriers have been described in other contexts, including staff shortages, limited training, and poor hospital infrastructure (Handley & Lorch, 2022; Hendricks-Muñoz & Prendergast, 2007; Holcomb et al., 2021; Kaur et al., 2023; Vail et al., 2018).

In addition to material constraints, respondents described barriers linked to dissatisfaction with the healthcare environment, including poor reception and unclear diagnostic processes. These perceptions suggest that barriers to care extend beyond physical access and financial affordability and include the perceived reliability and responsiveness of the health system. From the mothers' perspective, seeking care may therefore represent not only a financial risk but also an emotional burden, particularly when the likelihood of receiving timely and respectful care is uncertain.

These findings highlight that neonatal care barriers should be understood as multidimensional, involving both

systemic and interpersonal components. Addressing these challenges requires more than expanding resources; it also requires strengthening the organization and credibility of healthcare services so that families perceive formal care as both accessible and worthwhile.

Discussion of Respondents' Attitudes and Decisions Regarding Illness

Respondents reported that they often began by observing the newborn's condition or using self-medication and home-based remedies before seeking care at a health facility, especially when symptoms persisted. This pattern reflects a common response to illness in settings where health services are costly, distant, or perceived as unreliable.

Similar behavior has been reported in Kinshasa, where mothers frequently resorted to self-medication prior to consulting health professionals for fever in children under five (Tshimungu et al., 2023). Comparable trends have also been documented in other contexts (Lendongo Wombo et al., 2023; Mahmood et al., 2024). These practices may reflect the practical realities of daily life, including limited financial means, transport constraints, and uncertainty regarding service quality.

The findings also suggest that mothers play an active role in health decision-making and manage risk based on their assessment of symptom severity, prior experience, and available support. This aligns with evidence that maternal knowledge and attitudes significantly shape health-seeking behavior and child health outcomes (Jinzhou, 2023). However, reliance on home treatment may also delay timely access to appropriate neonatal care, particularly in cases where illness progresses rapidly.

Therefore, interventions should not focus solely on discouraging self-medication, but rather on strengthening maternal capacity to recognize danger signs and seek timely care, while simultaneously improving the accessibility and reliability of health facilities.

Discussion of the Relationship Between Healthcare Providers and Quality of Care

Mothers expressed both positive and negative perceptions of healthcare providers. Some described providers as welcoming and competent, particularly in larger hospitals. However, negative experiences were prominent and included perceived negligence, delays in treatment, demands for payment prior to care, misdiagnosis, and distrust toward interns or inexperienced staff.

These findings underscore the importance of relational quality in maternal experiences of neonatal care. In contexts where mothers are emotionally vulnerable due to illness or loss, interpersonal treatment may strongly influence trust and future health-seeking behavior. Perceived disrespect or financial exploitation may contribute to reluctance to return to facilities or to recommend them to others.

The importance of communication between mothers and health workers has been widely documented. Horwood et al. (2019) emphasized that effective communication is essential for quality newborn care, as it strengthens trust, supports maternal involvement, and improves care experiences. Similarly, Atuba Mamenepi et al. (2024) reported that communication quality may influence the progression and management of chronic disease, reinforcing the broader role of communication in clinical outcomes.

The present study suggests that strengthening neonatal survival requires not only clinical competence and resources but also improvements in respectful care, timely response, and clear communication. These relational elements are central to building trust and ensuring sustained utilization of neonatal services.

Discussion of the Roles of Family and Community

Respondents described family members as essential contributors to neonatal care, providing both emotional support and financial resources. Fathers, grandparents, siblings, and extended relatives were frequently cited as key actors during episodes of neonatal illness. In addition, community support was reported, including assistance from neighbors or employers when families lacked resources.

These findings reflect the strong role of social solidarity in contexts where institutional health coverage is limited. Family networks appear to function as informal safety nets that compensate for gaps in public support. This aligns with the findings of Iganus et al. (2015), who

highlighted the central roles and responsibilities of family members in newborn care across multiple African settings. However, reliance on social networks may also generate inequality, as mothers without supportive families or stable community connections may face greater vulnerability. These results suggest the need for health programs that actively involve families in neonatal education and prevention strategies, while also strengthening community-based systems that can provide consistent support beyond informal personal networks.

Discussion of Suggestions for Improving Care

Mothers proposed several solutions aimed at improving neonatal survival. These included free neonatal healthcare, improved remuneration for healthcare workers, better-equipped facilities, continued training, and stronger community awareness regarding prenatal care, hygiene, and vaccination. These suggestions reflect mothers' recognition that neonatal mortality is linked to systemic failures rather than solely to individual behaviors.

Similar recommendations have been reported in Uganda, where mothers emphasized the importance of reducing costs, improving privacy and space, strengthening family involvement, and maintaining quality of care (Wanduru et al., 2023). The alignment between these findings suggests that mothers' priorities across different low-resource settings often converge around affordability, quality of interaction with providers, and improved institutional capacity.

Notably, respondents also called for broader socioeconomic improvements, including job creation, which highlights that neonatal mortality is closely linked to poverty and structural inequality. This reinforces the importance of intersectoral approaches to health improvement, where neonatal survival is addressed not only through health service reform but also through broader social and economic development.

Strengths and Limitations of the Study

The qualitative design of this study enabled an in-depth exploration of mothers' experiences and perceptions surrounding neonatal mortality. Semi-structured interviews provided detailed narratives that captured emotional, cultural, and structural dimensions of neonatal care-seeking. The diversity of participants in terms of residence and education also contributed to a broader representation of experiences within Tshopo Province.

Nevertheless, several limitations should be acknowledged. *First*, the findings are based on self-reported perceptions and may be influenced by recall bias or subjective interpretation. *Second*, the sample size was relatively small and context-specific, which limits generalizability beyond the study setting. *Third*, the study did not include objective clinical data to compare maternal perceptions with documented medical causes of neonatal death. *Finally*, cultural beliefs and spiritual explanations, although central to interpretation, are difficult to measure and compare systematically across settings.

Despite these limitations, the findings provide valuable insight into maternal experiences and highlight actionable barriers that can inform public health interventions.

Health System Implications

The findings of this study indicate that improving neonatal survival in Tshopo Province requires more than increasing material resources; it requires strengthening the structure, culture, and relational functioning of the health system. Three major reform priorities emerge.

First, structural reforms should focus on decentralizing neonatal services, improving facility readiness, ensuring consistent availability of essential drugs and equipment, and reducing the financial burden on families through free or subsidized neonatal care and transport support. *Second*, relational reforms should emphasize respectful care, empathy, improved communication, and accountability mechanisms that incorporate patient feedback as part of quality assurance. *Third*, cultural reforms should involve integration of neonatal health promotion into community norms through dialogue with families, traditional leaders, and religious institutions.

Taken together, these reforms suggest that reducing neonatal mortality requires an approach that is both system-oriented and community-responsive, addressing the interconnected economic, institutional, and sociocultural determinants of neonatal health outcomes.

CONCLUSION

This study examined the perceptions and attitudes of mothers who experienced neonatal mortality in Tshopo

Province regarding newborn illness and access to care. Mothers identified key warning signs of neonatal illness, including fever, persistent crying, pallor, convulsions, refusal to feed, and vomiting. Perceived causes of neonatal illness reflected both biomedical and sociocultural explanations, including congenital conditions, maternal transmission of disease, complications surrounding birth, poor hygiene or lack of vaccination, and supernatural interpretations such as witchcraft or curses. These explanatory frameworks shaped decision-making and, in some cases, contributed to delayed use of formal healthcare services.

Mothers also described major barriers to accessing neonatal care. These barriers included limited financial resources, long distances to health facilities, inadequate infrastructure and supplies, and dissatisfaction with aspects of care such as delays, poor communication, and perceived lack of professionalism. In response to these constraints, some mothers reported reliance on self-medication, traditional remedies, or spiritual practices before seeking medical attention. At the same time, family members and community networks were frequently described as essential sources of financial and emotional support.

The findings highlight that reducing neonatal mortality in Tshopo Province requires interventions that address not only clinical and infrastructural limitations but also the socioeconomic and relational dimensions of care. Strategies should prioritize improving affordability and accessibility of neonatal services, strengthening health facility capacity through equipment and continuous professional training, ensuring fair and regular remuneration for healthcare workers, and enhancing communication and respectful care practices. Community education on antenatal care, hygiene, vaccination, and early recognition of neonatal danger signs is also necessary, ideally through culturally sensitive approaches that involve families and local leaders.

Future research should expand these findings through quantitative and mixed-methods approaches, including comparative analyses between rural and urban settings, and evaluation of community engagement interventions aimed at improving timely care-seeking and referral pathways.

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Conflicts of Interest: None declared.

ORCID iDs:

Ramazani-Tabora, J.[1]: https://orcid.org/0009-0006-1632-3148
Atuba, P. M.[2]: https://orcid.org/0000-0002-4735-8670
Ramazani-Bongolu, B.[1]: https://orcid.org/0009-0003-9783-1993
Mulongo, E. K.[3]: https://orcid.org/0000-0002-3195-286X
Ngbolua, K. N.[3]: https://orcid.org/0000-0002-0066-8153
Mawunu, M.[3]: https://orcid.org/0000-0001-6658-9223
Mbungu, R. M.[3]: https://orcid.org/0009-0003-6181-0322
Tshimungu, F. K.[2]: https://orcid.org/0000-0002-7240-6195

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