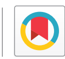

Review Paper

Maternal' Lived Experiences of Their Near-miss Events: A Metasynthesis of Qualitative Studies

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ABSTRACT

Background: Maternal near-miss (MNM) experiences have long-term and significant effects on the mothers and their families. Examining the nature of MNM may clarify the problems it causes for mothers. Therefore, this study aimed to explain the experiences of MNM events using a qualitative review.

Methods: Qualitative studies were reviewed using a search strategy encompassing the MEDLINE, Web of Science, the Cochrane Library, Scopus, and Magiran databases, with searches conducted up to August 2024. The key search term was 'near miss,' in combination with terms related to obstetric experience, including 'maternal,' 'pregnant,' and 'women'. Studies were included if they were qualitative and focused on near-miss experiences. Two authors independently evaluated the quality of the selected studies using the critical appraisal skills programme (CASP) tool for qualitative research. Out of 97938 studies identified, 16 met the inclusion criteria. Thematic analysis was used to synthesize the research.

Results: Review produced three overarching themes: perception of quality of care, physical, mental, and spiritual experiences, and disturbance in emotional, social, and economic well-being. The subcategories of perception of quality of care included "mismanagement of the medical team," "lack of access to health care facilities," "communication problems between the medical team and the patient," and "patient awareness."

Conclusion: Based on the results, the healthcare system should focus on improving the quality of care, and family members should pay more attention to emotional well-being and ensure comprehensive health insurance coverage to help address the economic concerns of treatment and complications.

Keywords: Maternal near-miss (MNM), Experience, Quality of care, Review

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Introduction

Maternal mortality rate is a key indicator of the effectiveness of maternal and child healthcare [1]. Although maternal mortality is a critical concern, maternal morbidity occurs at a significantly higher rate. Consequently, maternal near-miss (MNM) has been proposed as a more effective indicator for evaluating and enhancing maternal health services [2]. Analyzing maternal mortality within health centers is crucial for identifying systemic weaknesses or failures and implementing necessary improvements in maternal care treatments [3]. Reducing maternal mortality is a key development goal of the third millennium. To achieve this objective, countries must establish accurate data on the causes and rates of maternal mortality [4].

During a MNM, a mother's life can be at risk due to serious problems with her heart, lungs, kidneys, blood, liver, or brain. Heart problems may include severe shock or cardiac arrest. Breathing difficulties could involve needing help from a machine to breathe, or severe pneumonia. Kidney problems may lead to decreased urine output or kidney failure. Blood clotting problems, liver issues, such as jaundice, and neurological problems, such as seizures, coma, or stroke are also possible. In severe cases, surgery to remove the uterus may be required to stop life-threatening bleeding or infection [5].

In developing countries, the rate of mothers who give birth in hospitals and experience severe acute maternal complications has been 4-8% [6]. It has been found that performing too many cesarean sections is one of the causes of MNM [5]. The lack of facilities in people's treatment systems significantly affects the occurrence of MNM [7]. In a study, postpartum hemorrhage is mentioned as the leading cause of maternal mortality worldwide, and the investigation and analysis of the cause of hemorrhage can increase women's survival [3]. In a systematic study, the estimate of the MNM due to organ dysfunction was 0.42% based on mantel criteria (part of the broader framework for evaluating multiple organ dysfunction syndrome or multi-organ failure), and the rate of emergency hysterectomy was 0.039%. The meta-regression results showed that the rate of emergency hysterectomy increased by about 8% per year [8]. Anemia is a primary contributor to maternal death. Notably, a substantial proportion of MNM cases occur prior to hospital admission, leading to enduring psychological and emotional consequences for the affected women [2].

The examination of lived experiences among women surviving MNM with significant complications during pregnancy or childbirth is increasingly acknowledged as a critical tool for assessing the quality of maternity care [9]. By exploring MNM experiences, it is possible to formulate patient-centered clinical guidelines, which can optimize service delivery, promote standardization, mitigate unnecessary interventions and associated harm, reduce healthcare expenditures, and ultimately enhance the overall effectiveness of the health system [10]. The occurrence of an MNM event presents a profound stressor for mothers, who often juggle multiple responsibilities as mothers, wives, and family caregivers [11]. From a clinical perspective, MNM cases demand intensive physical care, with a primary emphasis on preserving maternal life. However, this acute focus on physiological stability can result in the inadvertent neglect of patients' psychological and spiritual well-being [12]. Consequently, mothers may develop severe post-traumatic stress disorder, necessitating specialized mental and emotional support. Moreover, the communication of MNM-related information, which represents 'bad news,' can trigger significant distress in patients and their support networks [1]. As noted earlier, healthcare providers may focus on preserving the mother's life, whereas mothers may experience profound discomfort from residual physical impairments or perceive deficiencies in their treatment. This divergence in perspectives during MNM events reveals a significant gap between mothers' lived experiences and healthcare professionals. A comprehensive understanding of these experiences is essential to bridge this gap and enhance the quality of care. Since numerous qualitative studies have explored mothers' experiences of near-death events, a qualitative review methodology is well-suited to integrate and synthesize these findings. Therefore, this study aimed to investigate the lived experiences of mothers with MNM events using a metasynthesis of qualitative studies.

Methods

Synthesis methodology

A systematic review of qualitative studies was conducted using the meta-synthesis method. In this study, thematic synthesis techniques were used to analyze the approach. Thematic synthesis is performed in three stages: line-by-line coding of the text, formation of descriptive themes, and production of analytical themes [13]. We included qualitative studies where the focus was on women who experienced a near-miss event. The key search term was "near miss" OR (experience AND (obstetric* OR matern* OR pregnant *OR woman OR women and "qualitative" (Table 1).

Table 1. Search strategy and keywords used in review

Database	key Search
PubMed, date: 12 August 2024, otal retrieved: 15942	"near miss" OR (experience AND (obstetric* OR matern*OR pregnant *OR woman OR women)
Web of Science date: 12 August 2024, Total retrieved: 295	"near miss" OR (experience AND (gravid*OR pregnant* OR obstetr*OR woman OR women OR matern *)
Cochrane Library date: 12 August 2024, Total retrieved: 377	"near miss" OR (experience AND (gravid*OR pregnant *OR obstetr*OR woman OR women OR matern*)
Scopus date: 12 Agust 2024, Total retrieved: 16328	"near miss" OR (experience AND (gravid*OR pregnant *OR obstetr*OR woman OR women OR matern*)
Magiran date: 12 August 2024, Total retrieved: 81324	"near miss" OR (experience AND (obstetric*OR matern*OR pregnant*OR woman OR women)

Inclusion and exclusion criteria

The inclusion criteria included mothers' near-death experiences, which were mentioned in the title, abstract, or body of the article. Documents requiring full-text review were thoroughly studied. The exclusion criteria included studies on near-loss of an infant, non-Persian or non-English articles, conference abstracts, letters to the editor, case reports, and quantitative studies.

Data sources

Electronic search strategy

Studies were identified by searching electronic databases. Search were conducted to August 2024 in the MEDLINE database through PubMed, the Social Science Citation Index (SSCI) via Web of Science, the Cochrane Library, Scopus, and Magiran without date restrictions using the search strategy (Table 1).

Study screening methods

In conducting this review, we followed the guidelines reported in the enhancing transparency in reporting the synthesis of qualitative research (ENTREQ) statement to increase transparency in reporting the synthesis of qualitative evidence [14].

Study characteristics

The quality of each qualitative study was independently evaluated by two authors using the critical appraisal skills program (CASP) tool [15]. The appraisal focused on several key criteria, including: The clarity of research aims, the appropriateness of the chosen qualitative methodology, the alignment of study design with research objectives, the suitability of the sampling strategy, the effectiveness of data collection in addressing research questions, the researchers' attention to their relationship with participants, adherence to ethical standards, the rigor of data analysis, the clear presentation of findings, and the overall value of the research (Table 2).

Studies were selected for inclusion by two independent researchers. Out of 97938 studies identified, 16 met the inclusion criteria (Figure 1). The full text of all eligible documents was reviewed in detail. Two researchers extracted data from the studies included in the analysis using a pre-prepared data extraction form. Any disagreement was resolved by referring to the third author and their consensus.

Two authors independently extracted data regarding study setting, sample, methods, data collection tools, analysis, and results (Table 3). Separately, they created an Excel file to document reported experiences, applying the thematic analysis method [13].

In the initial coding round, emerging themes were synthesized into descriptive themes. Descriptive themes are extracted from the initial codes that are close to the original concept in the studies. After obtaining the descriptive themes, they were interpreted, and the analytical themes were derived. Two researchers independently applied initial coding, manually sorting text units into codes and descriptive themes until analytical themes emerged. Discrepancies in thematic analysis were resolved through discussion and consensus, with input from a third author. MAXQDA software, version 24 and Word were used for data extraction (Table 4).

Two authors abstracted the MNM experiences reported in the included studies, illustrated by descriptive themes, and developed key recommendations for the appropriate treatment of patients with MNM experiences. This process was first performed independently by each author and then reviewed with a third author until consensus was reached.

Table 2. Evaluating the quality of articles using the CASP method

Study	Clear Statement of Research Objective	Appropriateness of Qualitative Methodology Study Design	Appropriateness of Research Objective	Data Collection to Achieve Research Objectives	Adequate Attention to the Relationship Between Researcher and Participant	Attention to Ethical Considerations	Scientific Soundness	Data Analysis	Clear Statement of Findings	Research Value
Norhayati al. 2017 [1]	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
TorkmannejadSabzevari et al. 2022 [5]	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Malata et al. 2024 [16]	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Abdollahpour et al. 2022 [17]	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Souza et al. 2009 [18]	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Påfs et al. 2016 [19]	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Amegavluie et al. 2022 [9]	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Tunçalp et al. 2012 [20]	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Kwezi et al. 2021 [21]	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Bagambe et al. 2022 [10]	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Abdollahpour et al. 2024 [12]	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Byrd et al. 2022 [22]	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Bauer et al. 2024 [23]			Little							
Javadifar et al. 2023 [24]	Yes	Yes	Yes	Can't say	Can't say	Little	Yes	Yes	Yes	Yes
Hinton et al. 2015 [25]	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Mohammadi et al. 2017 [26]	Yes	Yes	Yes	Little	Yes	Yes	Little	Yes	Yes	Yes

Results

Of the 97938 studies identified, 16 were reviewed. By country, the papers were from the USA (n=1), Iran (n=5), Brazil (n=1), Rwanda (n=2), Malawi (n=1), Malaysia (n=1), Ghana (n=2), and the UK (n=1). The studies combined a variety of methodological approaches, such as grounded theory, phenomenological, and content analysis.

"Perception of the quality of care", "physical, mental and spiritual experiences", and "disturbance in emotional, social and economic well-being" were the three main categories in the recent metasynthesis, which sub-categories for the perception of the quality of care include mismanagement of the medical team, access to health care facilities, communication problems of the medical team with the patient and the patient's awareness. The subcategories of physical, psychological, and spiritual experiences included fears, worries, inability to accept and adapt, endure physical pain and hardship, and loss of function, experience of death, emotional disturbance, religious concerns, and maternal nature. For the emotional, social, and economic well-being category, the subclasses included emotional, economic, and social support.

Database searching

PubMed
n =15942

Scopus
n = 16328

Web of science
n =95

Cochrane
n = 377

Magiran
81324

82918 References identified after duplicate the screened

82918 Preferences screened (title and abstract)

82853 References excluded
82725 for methodological reasons
123 For tematic issues
5 For participant issues

65 Full text articles accessed for eligibility

49 Full text excluded
30 for in eligible participants
16 for methodological issue or case report
3 for thematic issues

16 Studies included in the meta synthesis

Figure 1. Diagram of articles entering the review

Table 3. Summary of studies in systematic review

Author (s)	No. of Partici-pants	Purpose of the Study	Location of the Study	Methods and Tools	Data Analy-sis Method	Results
Norhayati al. 2017 [1]	30	The experi-ences of women with maternal near miss and their perception of quality of care	Malaysia	Qualitative phenomenologi-cal approach with in-depth interview method	Thematic analysis	The analysis identified four main themes: (i) self-evaluation of the maternal near-death event, (ii) perception of care quality, (iii) willingness to seek healthcare, and (iv) received social support. Self-evaluation encompassed four subthemes: loss of function, emotional disturbance, religious reasoning, and maternal desire. Per-ceptions of care quality included three subthemes: care delivery, healthcare provider-patient communication and relationships, and human and physical resources. Willingness to seek healthcare was characterized by four subthemes: access to healthcare facilities, attitudes toward healthcare, and traditional and cultural influences. Received social sup-port was categorized into two subthemes: emotional and practical support.
Tork-manne-jadSabze-vari et al. 2022 [5]	10	Lived experiences of women with ma-ternal near miss	Iran	Qualitative re-search, data collec-tion using in-depth semi-structured interviews	Conventional content analysis method	The data revealed five main categories: fears and worries, inability to accept and adapt, tolerance of pain and physical and mental hardship, experience of death, and medical team mismanagement.
Malata et al. 2024 [16]	18	Women's experiences of maternal near miss	Malawi	Qualitative phe-nomenological approach Collected data using in-depth interviews	Thematic content analysis	MNM experiences were in four general themes. (a) realization of mnm event; (b) religious beliefs and interpretation of near-death events. c) social and economic aspects of the mnm event. and d) percep-tion of quality of care.
Abdollah-pour et al. 2022 [17]	11	Lived expe-rience of near miss mothers	Iran	Hermeneutic phenomenological method. Data were collected using unstructured interviews	Thematic analysis	"Mother rescued from death" was the main theme, and three sub-themes were extracted, including "distorted psyche on the journey to death", "physical destruc-tion due to a sinister event", and frozen life after revival. These sub-themes, in turn included 12 sub-themes.
Souza et al. 2009 [18]	30	Maternal near-miss syndrome	Brazil	Qualitative studies based on narration, Semi-directed inter-view answered.	Thematic analysis of the manu-scripts	Two main themes emerged: The experi-ence of critical illness and the experience of caregiving. Female survivors exhibited a complex array of responses, suggest-ing the presence of acute stress-related disorders.
Påfs et al. 2016 [19]	18	Women's perspec-tives on access and experiences of care in maternal near miss	Rwanda	Naturalistic qualita-tive study. Interviews	Initial analysis began during fieldwork by coding and summarizing women's nar-ratives and field notes	Poor communication between women and health care providers leads to inad-equate or inappropriate treatment, caus-ing some to repeatedly seek traditional medicine or care in health centers.
Amegav-luie et al. 2022 [9]	11	Women's experiences of surviving severe obstetric complica-tions	Ghana	Qualitative approach with interviews	Thematic analysis	Two main themes and nine sub-themes emerged. Sub-themes: 1. Physical well-being: a) lack of stamina and weakness, b) residual disease, c) pain, d) sleep disturbance, e) permanent infertility. 2. Psychological well-being: a) feeling uncomfortable and worried, b) loss of self-confidence for subsequent pregnancies, c) emotional trauma, d) lack of awareness of the conditions.

Author (s)	No. of Partici-pants	Purpose of the Study	Location of the Study	Methods and Tools	Data Analy-sis Method	Results
Tunçalp et al. 2012 [20]	15	The quality of care of women experiencing severe maternal morbidity	Ghana	Qualitative studies, semi-structured interviews	Thematic analysis	The primary themes associated with traumatic birth experiences were fear of death and concern for fetal loss. For women who experienced fetal loss, this significantly affected their perception and coping mechanisms. Perceptions of quality care emphasized the importance of information, communication, positive attitudes, and adequate human and physical resources.
Kwezi et al. 2021 [21]	16	Women's experience a MNM	Tanzania	Phenomenological, using semi-structured interviews	Thematic analysis	Three main themes evolved: (1) being informed about care and engagement, (2) being involved and being encouraged, and (3) being afraid to ask questions. This study found that good communication with women during caregiving helps women feel appreciated, supported, and cared for.
Bagambe et al. 2022 [10]	27	Women's experiences and perceptions on the impacts of maternal near miss and related complications	Rwanda	Qualitative grounded theory, in-depth interviews	Thematic analysis	Delays in seeking care by women, referral delays by healthcare providers, misdiagnosis, and delays in intervention even at diagnosis.
Abdollahpour et al. 2024 [12]	37	Needs of Women with Maternal Near Miss Experience	Iran	Qualitative, semi-structured in-depth interviews	Conventional content analysis	Analysis of the main category revealed the need for comprehensive support. Eight categories were formed including "psychological", "fertility", "information", "improving the quality of care", "socio-cultural", "financial", "breastfeeding" and "nutrition" from 18 subcategories.
Byrd et al. 2022 [22]	12	Experience of near-miss and maternal sepsis mortality	USA	Phenomenology, semi-structured interviews	Thematic analysis	These women identified communication, patient-provider relationship, staff skills and competencies, provider discrimination, systemic problems, and emotional distress as major factors in their experiences.
Bauer et al. 2024 [23]	20	Near-miss and maternal sepsis mortality	Rwanda	Qualitative studies, semi-structured interviews	Thematic analysis	Four main themes were as follows: (1) lack of awareness of pregnancy-related warning signs and symptoms when to seek care, (2 Lack of awareness of warning signs and symptoms related to pregnancy (3) worrying about not being diagnosed and delayed diagnosis, (4) experiencing long-term complications, and having difficulty in receiving screening and referral for treatment.
Javadifar et al. 2023 [24]	12	Lived experiences of MNM	Iran	Phenomenological, in-depth interviews	Interpretive phenomenological analysis	The resulting study was "life in a vacuum" which was extracted from 3 main themes. The theme of "distorted identity", "intensified fatigue" and "a future under threat".

Author (s)	No. of Partici-pants	Purpose of the Study	Location of the Study	Methods and Tools	Data Analy-sis Method	Results
Hinton et al. 2015 [25]	46	patient experience in maternal critical care	UK	qualitative studies using semi-struc-tured interviews	thematic analysis	The findings are presented in three themes: "Placement in the intensive care unit (ICU)", "new motherhood in ICU", "Transfer and follow-up after ICU". The study results highlight the shock of needing critical care for new mothers and the gap between their expectations of birth and what actually happened. The devastation of separation from the baby, the amount of access to the newborn if possible, and the importance of breast-feeding. Transfer problems and the need for more support; the value of follow-up and informing this population of intensive care patients.
Moham-madi et al. 2017 [26]	15	Explores experiences of maternal care among Afghan women surviving near-miss morbidity	Iran	Qualitative studies, interviews	Thematic analysis	Mistreatment in the form of discrimina-tion and insufficient medical attention were key experiences. Financial con-straints, expensive care, lack of health insurance, and low literacy were barriers to accessing care to a lesser extent. The non-physical consequences of MNM affect mothers and families for long periods.

Perception of quality of care

The sub-categories of perception of the quality of care included mismanagement of the medical team, access to health care facilities, communication problems between the medical team and the patient, and patient awareness.

"The first doctor said she should have a cesarean section, but when the shift changed, the next doctor who came said she should have a natural birth [1]".

Mismanagement of the medical team

According to the available documents, the experiences of MNM showed factors, such as delay in diagnosis and implementation of treatment, delay of healthcare providers in transferring the patient to a specialized center, delay in therapeutic intervention, errors and medical malpractice, lack of skill and competence of staff, misdiagnosis, inadequacy of guidelines based on the evidence and protocols, problem in the referral system, inadequacy or lack of emergency management, lack of support and carelessness of the treatment staff **[5, 10, 18, 25]**, discrimination in the provision of services, and the mismanagement of the medical team [26].

Access to health care facilities

According to the experiences of MNM, the lack of human and physical resources in healthcare, distance, difficulty in transportation, high costs of medical care, lack of insurance, and delay in seeking care by women were considered the factors of insufficient access to healthcare facilities [1, 5, 10, 17, 19, 20, 22].

The communication problem of the medical team and informing the patient

Communication problems of the medical team observed in the experiences of MNM included ineffective interpersonal communication between the medical team and the patient [5, 18, 19], lack of information and awareness of the patient due to lack of timely notification, increasing family information to support the mother, the need for information about the patient's current problem, to be informed of the process of care [9, 10, 12, 21], the mother's desire to be involved in treatment and therapeutic interventions, being encouraged to do so [20], the mother's unfamiliarity with treatment and therapeutic interventions, the fear of the mother asking questions from the doctors, [17, 18], and the mother's desire to seek care [1, 5, 24].

Physical, mental, and spiritual experiences

The subcategories of physical, psychological, and spiritual experiences included fears and worries, inability to accept and adapt, endure physical pain and hardship, and loss of function, experience of death, emotional disturbance, religious concerns, and maternal nature.

"I thought I had died, obviously, when I was sleeping, I dreamed that I had gone, it was a desert, how can I say that world? Then a woman came with a black veil and took my hand to get up, but I couldn't get up... [10]".

Fears and worries

Fear of complications and costs, fear of the child being left alone (after the mother's death) and the thought of a motherless child, fear of being alone, fear of the spouse remarrying due to the loss of the uterus or the inability to conceive, loss of hope and anxiety about the subsequent pregnancy, negative feelings about future childbearing, anxiety about the future, emotional trauma, and possible (or actual) loss of the baby [1, 9, 17] were fears and concerns mentioned in the literature based on MNM experiences.

Inability to accept and adapt

Some of the experiences mentioned in the documents included not adapting to the complication, prolonged mourning, not adapting to being deprived of having children, and not adapting to being deprived of the natural process of childbirth [1, 5, 17, 20].

Tolerating physical pain, difficulty, and loss of function

The codes obtained from the documentation of mothers' experiences regarding the tolerance of pain and physical difficulty and loss of function, pointed out to tolerated physical pain, difficult breathing, chest pain, lethargy, weakness, extreme fatigue, lack of energy, limb edema, bleeding, convulsions, reduced level of consciousness, residual disease, sleep disorder, removal of the uterus, permanent infertility, destruction of the physical body due to complications, memory gap, and failure to remember events and interventions during unconsciousness and the need for information [1, 5, 18].

Death experience

It seems that one of the experiences of the mothers was the experience of death, so that they had disturbing thoughts of death during the illness, and sometimes still have them. They experienced facing death, felt the perceived threat of death, and felt the return from death; in other words, they saw death with their own eyes [1, 5, 9, 17, 20].

Emotional turmoil

Experiences, such as incessant crying, widespread sadness, feeling lonely, irritability, aggression, feeling hopeless, feeling guilty, getting hurt early, and feeling shifting the center of attention from the woman to the child are signs of emotional disturbance [9, 20].

Religious considerations

During the illness and its complications, according to the literature, the mothers mentioned in their experiences religious attentions, including trust in God Almighty, satisfaction with the determined destiny, reading Zikr and the Qur'an, and calling on Imams [1, 5, 17].

Maternal nature

MNM experiences showed they had tendency to become a mother, and that during illness and painful events; the child was considered as a source of mother's strength and the motivation to survive or continue treatment. Moreover, mothers pointed out that they prioritize their babies' health [5, 17, 18].

Disruption of emotional, social, and economic well-being

For the emotional, social and economic well-being disturbance category, the subcategories included emotional, economic and social support.

"... On the one hand, I feel sad about the limb defect; on the other hand, the high cost of frequent visits to the doctor has caused turmoil for our family [18]"

Emotional support

Mothers expressed the need for emotional support, including the need to express empathy, trust in family members (husband, mother, mother-in-law), and the importance of feeding their baby with breast milk [1, 5, 9, 12, 18].

Economic support

Due to the high cost of medical care, dying mothers had financial constraints and needed economic support. They also called for supportive financial policies and the provision of low-cost services [5, 12, 19, 20].

Table 4. Initial codes, descriptive themes, and analytical themes of qualitative metasynthesis

Analytical Themes	Descriptive Themes	Initial Codes
Perception of quality of care	Medical team management	Delay in diagnosis and treatment, delay in healthcare providers transferring the patient to a specialized center, delay in therapeutic intervention, medical errors and malpractice, lack of skills and competence of staff misdiagnosis, inadequate evidence-based guidelines and regulations, problem in the referral system, inadequate or lack of emergency management, lack of support and inattention of medical staff, discrimination in service provision
	Access to healthcare facilities	Lack of human and physical resources in health care, remoteness, transportation difficulties, and high costs of medical care, lack of insurance, delays in seeking care by women
	Problems with communication between the medical team and the patient and patient awareness	Ineffective interpersonal communication between the medical team and the patient, insufficient information and awareness of the patient due to a lack of timely information, increased family information to support the mother, need for information about the patient's current problem, information about the care process, desirability of the mother to be involved in treatment and therapeutic interventions and being encouraged to do so, mother's alienation from treatment and therapeutic interventions, fear of asking questions by the mother and accompanying doctors, desirability of seeking care from the mother
Physical, mental and spiritual experiences	Fears and worries	Fear of complications and costs, fear of leaving the child alone (after the mother's death) and the idea of a motherless child, fear of being alone, fear of the spouse remarrying, loss of self-confidence for the subsequent pregnancy, negative feelings about having a child in the future, anxiety about the future, emotional trauma, potential (or actual) loss of the baby
	Inability to accept and adapt	Failure to adapt to the complication that has occurred, prolonged mourning, incompatibility with the deprivation of having children, incompatibility with deprivation of the natural process of childbirth
	Tolerating physical pain and hardship and loss of function	Physical pain tolerance, difficulty breathing, chest pain, lethargy, weakness, extreme fatigue, lack of stamina, extremity edema, bleeding, seizures, reduced level of consciousness, residual illness, sleep disorders, removal of the uterus, permanent infertility, destruction of the physical appearance due to complications, memory gaps, inability to remember events and interventions during anesthesia, and need for information
	Death experience	Intrusive thoughts of death, confrontation with death, perceived threat of death, return from death and seeing death
Physical, mental and spiritual experiences	Emotional disturbance	Incessant crying, widespread sadness, feeling lonely, irritability, aggression, feeling hopeless, feeling guilty, getting upset easily, shifting the focus of attention from the woman to the child
	Religious considerations	Trust, Consent with the determined destiny, reciting prayers and the Quran
	Mother nature	Motherhood orientation, child as a source of strength, child as a motivation to survive, child as a motivation to heal, prioritizing the infant's health
Impaired emotional, social, and economic well-being	Emotional support	Expressing empathy, trusting family members, husband, mother, and mother-in-law, importance of breastfeeding
	Economic support	Providing low-cost services, financial constraints, costly care, supportive financial policies
	Social support	Stigmatization, caring for family members, husband, mother, mother-in-law, doing housework and caring for newborn and other children, lack of health insurance

Social support

Mothers need family support included not stigmatizing, taking care of family members, husband, mother, mother-in-law in doing housework and taking care of baby and other children. Also, they need social and insurance support due to the lack of health insurance [1, 5, 18-20].

Discussion

The findings of the study showed that the quality of care is affected by factors, such as mismanagement of the medical team, difficulty in accessing healthcare facilities, communication problems between the medical team and the patient, and lack of awareness. In addition to these fears and worries, the inability to accept and adapt, endure pain and physical hardship and loss of function, experience of death, emotional turmoil, religious concerns, and maternal nature, among the physical, psychological, and spiritual experiences of mothers who have the experience of MNM. The need for emotional, social and economic support was indicative of the disturbance in the emotional, social and economic well-being of mothers who experienced MNM. Therefore, suggestions are made in the discussion to improve services to these mothers.

To improve the quality of care and prevent mismanagement by the medical team, evidence-based and updated standard guidelines should be used, available at medical and health centers [1, 5, 10]. Continuous and up-to-date training should performed for the medical personnel and team to improve their skills and competence; to reduce errors and medical malpractice, delay in diagnosis, prevent misdiagnosis and the delay of health care providers in transferring the patient to a specialized center, this work will also reduce the delay in therapeutic intervention and emergency management of the problem [5, 10, 18, 20]. The number of personnel should be sufficient to provide care, and experienced personnel must be present in different shifts. Sufficient and healthy hospital facilities and equipment are accessible to the personnel. On the other hand, the communication problems between the medical team and the patient should be resolved, and the awareness of the patients should be increased. Training of communication skills and management of the medical team, including doctors and nurses, should be done. To ensure effective leadership and coordination between the medical team, supervisors, and matrons play a key role in this regard [1, 5, 19, 20]. In the event of a medical error, it is necessary to analyze the root of the problem, learn from it, and inform all personnel to avoid the problem from occurring again. Support continuing medical education [12]. Considering the many problems that arise for patients in the physical, mental, and psychological dimensions, physical problems should be prioritized to prevent physical complications and alleviate pain and suffering. For mental and psychological problems, psychologists and spiritual experts should be consulted to provide the necessary care in this field. Necessary training and counseling should be provided to the husband and important family members who play a role in caring for the mother so that they can have the necessary emotional and social support from the mother [1, 5, 12]. In addition, policymakers in the field of medical sciences should address patients' economic concerns by covering supplementary insurance [12, 19].

Emotional trauma emerged as a concept experienced by women in this study. Similarly, studies showed that women experience intense fear of death and anxiety about losing their babies [5, 20]. The loss of a baby significantly worsens psychological and emotional trauma, leading to more negative emotions. Women with severe complications experienced poorer mental health in the postpartum period. Similar to this study, where reliance and hope in God helped prevent emotional harm, in other studies, religious beliefs were a common coping mechanism [20, 21].

In this study, women's experiences emphasized the importance of clear communication, information, and respectful staff attitudes. Similarly, another study showed that in interactions with patients, some healthcare providers had poor communication, displayed impolite behavior, and showed negative behavior when asked for help [21]. They mentioned feelings of neglect, discrimination, and verbal abuse during care, which aligns with the results of this study. Respectful staff behavior, including active listening, empathy, and attention to patients' needs, is of great importance. Inappropriate, rude, or discriminatory behavior can significantly affect patients' experiences. Training staff in communication and behavioral skills, including empathy, active listening, and conflict management, can help improve the quality of healthcare.

Conclusion

Mismanagement of the medical team, difficulty in accessing healthcare facilities, communication problems between the medical team and the patient, and lack of informing may affect the quality of care. In addition to these fears and worries, the inability to accept and adapt,

endure pain and physical hardship, and loss of function, experience of death, emotional turmoil, religious concerns, and maternal nature were among the physical, psychological, and spiritual experiences of mothers with MNM. The need for emotional, social, and economic support was indicative of disturbances in the emotional, social, and economic well-being of mothers who experienced an MNM.

It is suggested that the medical team improve the communication among themselves and between the medical team and the patient to prevent and reduce complications, such as MNM. During hospitalization, psychological counseling should be provided to alleviate the psychological pain experienced by patients. After discharge from the hospital, insurance support should be provided to reduce economic costs. In addition, family counseling should be conducted to reduce the fear of the husband's remarriage and re-pregnancy.

Limitations and recommendations

The strengths of this study were that a standard search strategy was used across several electronic databases. The main limitation of this study was that the search was restricted to only Persian and English languages. Despite the aforementioned limitation, this review identified a significant number of high-quality studies from Asian and African countries. Therefore, the findings of the review can be largely generalized to these contexts.

Ethical Considerations

Compliance with ethical guidelines

This study was approved by the Ethics Committee of Sabzevar University of Medical Sciences, Sabzevar, Iran (Code: IR.MEDSAB.REC.1403.104).

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Authors' contributions

Conceptualization and supervision: Mostafa Rad, Narjes Frohar; Methodology: Mostafa Rad, Marzieh Torkmannejad Sabzevari and Mohammadreza Shegarf Nakhaie; Data collection, investigation, and writing: All authors.

Conflict of interest

The authors declared no conflicts of interest.

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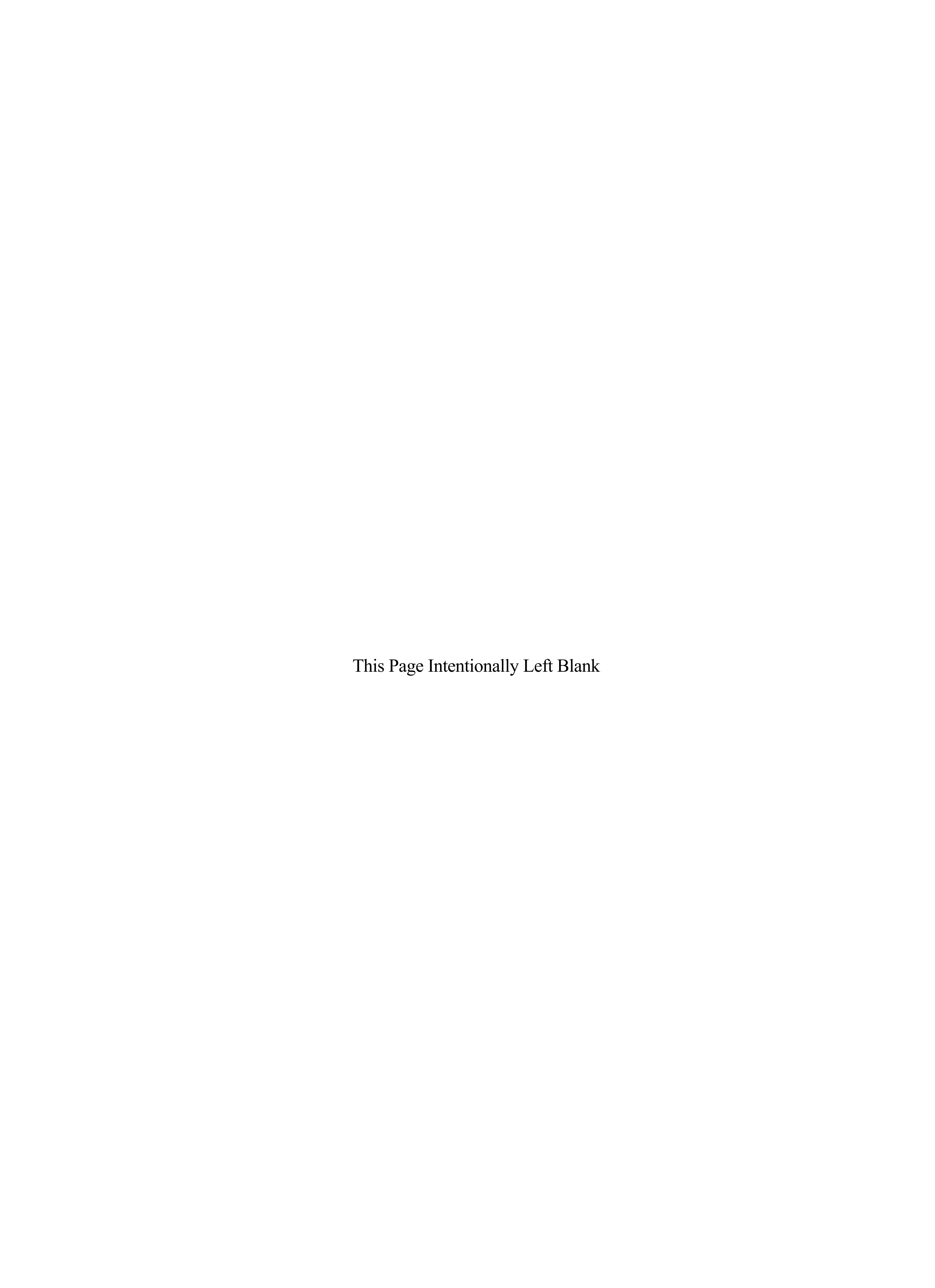

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