

Midwives' clinical decision-making in the management of postpartum hemorrhage: A phenomenological study

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ABSTRACT

Background: Postpartum hemorrhage (PPH) remains one of the leading causes of maternal mortality worldwide. The management of PPH requires rapid and accurate clinical decision-making by healthcare professionals, particularly midwives who serve as frontline providers in maternal care. In addition to clinical competence, emotional responses, teamwork, and personal values may influence midwives' decision-making processes during obstetric emergencies.

Objectives: This study aimed to explore midwives' experiences of clinical decision-making in managing postpartum hemorrhage, with consideration of the role of spirituality in clinical practice.

Methods: This qualitative phenomenological study involved 14 midwives working in delivery or postpartum units who had direct experience managing at least two PPH cases within the previous year. Participants were selected using purposive sampling until data saturation was achieved at the 14th interview. Data were collected through in-depth semi-structured interviews and field notes and analyzed using the Colaizzi phenomenological method. Trustworthiness was strengthened through member checking, source triangulation across participants and hospital contexts, peer debriefing, and an audit trail.

Results: The analysis revealed four major themes describing midwives' experiences in managing PPH: (1) emotional responses in life-threatening situations, (2) rapid clinical decision-making based on standard operating procedures (SOP) in critical conditions, (3) midwives' leadership and teamwork within health system limitations, and (4) the integration of spiritual values as a source of strength and professional meaning in clinical practice.

Conclusions: Midwives' experiences in managing postpartum hemorrhage represent a dynamic process involving emotional regulation, adherence to clinical protocols, teamwork, and spiritual coping. The integration of clinical competence and psychosocial support plays an important role in supporting effective clinical decision-making during obstetric emergencies.

KEYWORD: *clinical decision-making; maternal emergency; midwives; postpartum hemorrhage; phenomenology*

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INTRODUCTION

Postpartum hemorrhage (PPH) remains the leading cause of maternal mortality worldwide (1). The World Health Organization reports that approximately one quarter of maternal deaths are caused by hemorrhage, especially within the first 24 hours after delivery (2). In Indonesia, postpartum hemorrhage also ranks as the leading direct cause of maternal mortality (3). This condition indicates that PPH is an obstetric emergency that requires a rapid, appropriate, and coordinated response to prevent hypovolemic shock and death (4).

Midwives play a strategic role as frontline health workers in maternal care. In many situations, especially in type C and D hospitals, midwives are the initial decision makers before specialists arrive (4,5). Decision-making in cases of postpartum hemorrhage is time-critical and requires rapid clinical reasoning, adequate technical skills, and composure under emotional pressure (2,6). Such situations test not only clinical competence but also leadership capacity and teamwork skills (7).

Most studies on PPH focus on clinical aspects, such as risk factors, pharmacological management, the effectiveness of uterotonics, and the

availability of facilities and referral systems (8,9,4). Other studies assess the competence of health workers in handling obstetric complications. However, research exploring the subjective experiences of midwives in dealing with PPH is still limited (10). Limited evidence explains how midwives interpret emergency cues, determine clinical priorities, apply existing SOPs, and adapt their decisions when facing obstacles such as limited resources, delayed referral, restricted access to blood products, or delayed physician availability. In fact, these experiences are important for understanding how midwives perceive pressure, professional responsibility, and the decision-making process in emergencies (11).

In addition to clinical aspects, the spiritual dimension in midwifery practice has not been studied in depth (12). This principle positions health practice not only as a medical act but also as a form of worship and humanitarian service rich in moral and spiritual values. In emergencies such as PPH, spiritual values can serve as a source of calm, moral reinforcement, and an ethical basis for decision-making (13). However, how these values are integrated into daily clinical practice, especially in

critical situations, has not been systematically described in scientific literature (14).

Based on these gaps, this study aims to explore midwives' experiences in managing postpartum hemorrhage and to understand how spirituality influences clinical decision-making in emergencies. Specifically, this study examined how midwives make rapid decisions, implement SOPs, negotiate clinical and system-level obstacles, and construct professional meaning during PPH management. Through a phenomenological approach, this study is expected to contribute to the development of a midwifery practice model that balances clinical competence and spiritual values to improve the quality of maternal services.

MATERIALS AND METHODS

This study used a qualitative approach with a phenomenological design. This approach was chosen to explore and understand the meaning of midwives' experiences in handling postpartum hemorrhage, as well as how spirituality is integrated into the clinical decision-making process. The study was conducted at PKU Muhammadiyah Hospital in Surabaya and Siti Fatimah Hospital in Tulangan. Data collection was conducted from December 25, 2025, to January 27, 2026. A total of 14 midwives participated in the study. All participants worked in delivery or postpartum units and had direct experience

in managing PPH cases. Participants were selected using purposive sampling, with consideration of relevant clinical experience. The inclusion criteria were midwives with at least 2 years of work experience who had managed at least 2 cases of postpartum hemorrhage in the past year. Exclusion criteria included midwives who did not participate in the online Zoom interview after three rescheduling attempts, as agreed with the researcher. Recruitment continued until informational redundancy was reached; data saturation was considered achieved after the 14th interview, as no new substantial codes, categories, or themes emerged from the final interviews.

Data were collected through in-depth interviews using semi-structured interview guides. Questions focused on midwives' experiences when dealing with PPH cases, clinical decision-making processes, team dynamics, implementation of SOPs, challenges encountered during emergency care, and the role of spiritual values in service delivery.

Each interview lasted 50-70 minutes, was recorded with the participant's consent using a voice recorder, and was then transcribed verbatim. In addition to interviews, the researcher used field notes to document nonverbal expressions and situational context. Data analysis was conducted using Colaizzi's (1978) phenomenological method with the following stages: Reading all transcripts

repeatedly to gain a comprehensive understanding, identifying significant statements related to the experience of dealing with PPH, formulating the meaning of each significant statement, grouping meanings into theme clusters, compiling a comprehensive description of the phenomenon under study, identifying the fundamental structure of the experience, and conducting member checking with several participants to ensure that the interpretation results were consistent with their experiences.

The trustworthiness of the data in this study was maintained through several strategies to ensure the quality and reliability of the research findings. Credibility was ensured through member checking, in which participants reviewed the researcher's interpretations to confirm that they reflected their experiences, and through source triangulation, which compared information from multiple participants.

Source triangulation was conducted by comparing narratives from the 14 midwives across the two study hospitals and across different levels of education and clinical experience. The triangulation process showed convergence in four key areas: emotional pressure during massive bleeding, reliance on SOP-based stabilization, the importance of teamwork under system constraints, and the use of spirituality as a source of coping and professional meaning. Minor variations were

mainly related to differences in resource availability, referral procedures, and specialist accessibility; these variations were incorporated into the theme of system constraints rather than treated as contradictory findings.

Dependability was maintained by systematically documenting the entire research process through an audit trail, so that the data collection and analysis processes could be clearly traced. Furthermore, confirmability was achieved through peer debriefing to reduce potential researcher bias and ensure that data interpretation was grounded in field findings. Transferability was supported by presenting a detailed contextual description of the participants' characteristics and the research setting, enabling readers to assess the applicability of the findings in similar contexts.

However, the spiritual dimension identified in this study should be interpreted within the specific religious, cultural, and organizational contexts of the participating hospitals. Therefore, the findings related to spirituality are not intended to be broadly generalized to all midwifery or healthcare settings, particularly those with different belief systems, institutional values, or sociocultural backgrounds. Instead, these findings may be transferable only to similar contexts where spiritual values are integrated into clinical practice and professional meaning. This study has obtained ethical approval from the Health

Research Ethics Committee of the Faculty of Medicine, Nursing, and Public Health, Gadjah Mada University, number KE/FK/2039/EC/2025 dated December 24, 2025.

All participants signed informed consent forms before the interviews were conducted.

RESULTS AND DISCUSSION

The characteristics of the study participants are presented in **Table 1**. A total of 14 midwives participated in this study. The table summarizes the participants' demographic characteristics, including age, education level, and years of work experience.

Table 1. Frequency distribution of participants' characteristics

Characteristics	Category	n (%)
Age (years)	25 – 30	5 (35.7)
	31 – 35	5 (35.7)
	36 – 40	4 (28.6)
Midwifery Education Level	Diploma (D3)	8 (57.1)
	Bachelor(S1)	6 (42.9)
Years of Work Experience	2 – 5	4 (28.6)
	6 – 10	6 (42.9)
	> 10	4 (28.6)

Most participants were aged 25–30 years (35.7%) or 31–35 years (35.7%), followed by those aged 36–40 years (28.6%). The majority of participants held a Diploma in Midwifery (57.1%), while 42.9% had a Bachelor's degree in Midwifery. Regarding work experience, most participants had 6–10 years (42.9%), followed by those with 2–5 years and more than 10 years, each representing 28.6% of

participants. The thematic analysis of interview data identified several themes that describe midwives' experiences in managing postpartum hemorrhage. These themes reflect emotional responses, clinical decision-making processes, teamwork within system limitations, and the integration of spirituality in clinical practice. The themes, subthemes, and categories are presented in **Table 2**.

Table 2. Themes, subthemes, and categories of midwives' experiences in managing postpartum hemorrhage

Theme	Subtheme	Category
Emotional responses in life-threatening situations	Initial panic and fear	Panic when seeing massive bleeding; Fear of patient deterioration; Anxiety in emergencies
	Sense of professional responsibility	Responsibility for patient safety; Fear of adverse
	Emotional self-control	Controlling panic; Maintaining focus during emergencies; Professional emotional regulation

Rapid clinical decision-making in critical situations	Immediate stabilization	Rapid patient assessment; Emergency stabilization actions; Monitoring vital signs
	Use of clinical protocols	Following SOP guidelines; Structured emergency procedures; Evidence-based interventions
	Clinical reasoning in emergencies	Prioritizing shock management; Identifying causes of bleeding; Decision-making under time pressure
Leadership and teamwork within system limitations	Midwives as first responders	Initiating early management; Independent clinical judgment; Immediate response before physician arrival
	Interprofessional collaboration	Team coordination; Communication with healthcare providers; Shared decision-making
	System constraints	Limited blood supply; Delayed referral process; Limited specialist availability
Integration of spirituality in clinical practice	Personal spiritual coping	Personal prayer; Reliance on faith; Spiritual resilience
	Spiritual support for families	Encouraging family prayer; Providing emotional comfort; Creating a calm atmosphere
	Compassionate communication	Honest explanation to families; Empathetic communication; Maintaining dignity and respect

Source triangulation supported the final thematic structure. Across the 14 participants, accounts consistently showed that PPH was experienced as an emotionally demanding and time-critical event; SOPs were used as the primary guide for early stabilization; teamwork was essential when resources or specialist availability were limited; and spirituality helped midwives maintain calmness and professional meaning. Differences among participants mainly concerned the degree of resource constraints and referral delays, which strengthened the interpretation of the third theme on leadership and teamwork within system limitations.

Data analysis yielded four main themes that describe the structure of midwives' experiences in handling PPH,

namely: (1) emotional turmoil in life-threatening situations, (2) rapid decision-making based on SOPs in time-critical conditions, (3) midwife leadership and team collaboration within system limitations, and (4) integration of Islamic values as a source of strength and professional meaning.

Theme 1: Emotional Turmoil in Life-Threatening Situations

All participants described dealing with PPH as a stressful experience fraught with emotional pressure. Rapid and massive bleeding caused panic, fear of losing the patient, and concern about professional consequences. One participant said:

“Yes, of course I panicked... I was afraid something would happen to the patient.” (B4)

Another participant described the situation as a life-or-death race that demanded a quick response:

"In a life-or-death race, there is definitely fear." (B6)

In addition to the fear of losing a patient, several midwives also expressed anxiety about their professional responsibilities, including the possibility of an audit in the event of an unexpected outcome.

"If something happens, it will end up in an audit..." (B1)

Nevertheless, the midwives emphasized the importance of controlling their emotions to think clearly and act quickly.

"But you have to stay calm, you can't look panicked." (B7)

This theme shows that midwives' initial experiences in dealing with PPH were marked by intense emotional pressure. Still, they tried to transform their panic into professional self-control.

Theme 2: SOP-Based Rapid Decision Making in Time-Critical Conditions

PPH is perceived as an emergency requiring immediate action. In such situations, standard operating procedures (SOPs) serve as the primary guide for clinical decision-making. Participants explained that stabilization measures are carried out simultaneously and systematically:

"We immediately set up two IV lines, oxygen, and close observation." (B8)

The main priority is to treat the shock before investigating the cause of the bleeding.

"Treat the shock first, then look for the cause of the bleeding." (B10)

Several participants stated that SOPs have become an almost automatic pattern of action when dealing with PPH cases.

"We automatically follow the SOP." (B12)

In practice, midwives often take initial action before the specialist doctor arrives, especially when the condition occurs at night or outside of visiting hours.

"The doctor usually comes after we stabilize the patient first." (B11)

Although SOPs provided a clear sequence of action, participants' narratives indicated that implementation was not always linear. Midwives had to adapt SOP-based priorities to the mother's clinical condition, the availability of team members, and the accessibility of supporting resources such as blood products, referral transport, and specialist consultation. Thus, SOPs served as both a technical guide and a decision-making framework requiring situational judgment.

This theme shows that in time-critical situations, midwives rely on priority-based clinical reasoning and SOPs as a rational framework to turn chaotic situations into structured actions.

Theme 3: Midwife Leadership and Team Collaboration within System Constraints

The study results show that midwives play a key role in the initial response to PPH cases. The limited availability of specialists means that midwives are the first to make decisions and coordinate actions in the delivery room.

“Usually, midwives take action first, because doctors are not always available.” (B9)

This leadership is not carried out individually, but through cross-unit team collaboration. Participants described the importance of cooperation with emergency room nurses, ICU nurses, and doctors on duty.

“If it's difficult to insert the IV, we call the emergency room for help.” (B14)

However, midwives also face systemic obstacles, such as delays in accessing blood and referral procedures.

“There is no blood bank; we have to wait for a delivery.” (B8)

Teamwork is seen as a key factor in maintaining patient safety while providing emotional support for midwives.

“If you can't do it alone, you have to work as a team.” (B13)

This theme emphasizes that the experience of handling PPH is not only related to individual competence but is also influenced by the dynamics of the service system and team collaboration.

Theme 4: Integrating Spiritual Values as a Source of Strength and Professional Meaning

The spiritual dimension consistently emerges in midwives' experiences. Spiritual values are integrated through personal prayers, invitations to pray with family members, and empathetic, honest communication.

“I usually pray silently for the patient's safety.” (B4)

Some participants stated that they invited the patient's family to ask for forgiveness or to pray to help create calm in a crisis.

“We invite the family to ask for forgiveness, so that they can be calm.” (B12)

However, spirituality does not replace medical treatment. Midwives emphasized that the main focus remains on clinical stabilization.

“Sometimes there is no time for long prayers; the focus is on treatment first.” (B3)

Spiritual values are also reflected in the way midwives communicate with patients' families, especially in conveying the condition honestly and with empathy.

This theme shows that spirituality serves as both a coping mechanism and a source of professional meaning, thereby strengthening inner peace and moral commitment in clinical decision-making. This study aims to explore midwives'

experiences in managing postpartum hemorrhage and to understand how spirituality is integrated into clinical decision-making.

The findings indicate that these experiences are complex and multidimensional, encompassing emotional, clinical, systemic, and spiritual aspects. To strengthen the interpretation of these findings, the discussion is developed by linking each theme to relevant theories and previous studies. This approach helps clarify how midwives transform emotional pressure into professional action, how clinical protocols guide emergency decision-making, how teamwork supports patient safety, and how spirituality functions as a source of coping and professional meaning (4,9). The demographic characteristics of the participants are summarized in **Table 1**, including age, educational background, and years of professional experience.

Table 2 presents the four themes generated from the data analysis, along with their corresponding subthemes and categories. The first theme shows that midwives perceive PPH as a life-threatening and time-critical event that generates panic, fear of losing the patient, and concern about professional accountability. This finding can be understood through Lazarus and Folkman's Stress and Coping Theory, which explains that individuals facing stressful situations evaluate the threat and mobilize coping strategies to manage emotional and practical demands (15,16). In the context of

PPH, midwives initially experience acute emotional stress, but they subsequently shift toward problem-focused coping by concentrating on immediate clinical actions, stabilization, and patient safety (17,18).

Previous studies have reported that healthcare workers involved in obstetric emergencies often experience psychological pressure due to the risk of maternal death, rapid patient deterioration, and the need to make immediate decisions (19). The present study enriches this evidence by showing that emotional regulation is not merely a personal response but also an essential part of professional competence in emergency midwifery care (20). The ability to control panic, maintain focus, and continue providing structured care demonstrates that clinical experience contributes to the development of resilience and adaptive coping during obstetric crises (5,12).

The second theme emphasizes that standard operating procedures (SOPs) are central to rapid clinical decision-making in PPH management. Participants described that actions such as establishing intravenous access, providing oxygen, monitoring vital signs, administering emergency interventions, and prioritizing shock management were performed quickly and systematically. This finding is consistent with clinical reasoning theory, which emphasizes the importance of using available clinical cues, pattern recognition, and structured judgment to determine

appropriate actions in complex health situations (21,22). In emergencies, SOPs serve as cognitive aids that reduce uncertainty and help health workers maintain a logical sequence of care (1).

These findings are also relevant to the Naturalistic Decision-Making framework, which explains how professionals make rapid decisions in real-life, high-pressure situations by relying on experience, protocols, and recognition of critical patterns (23,24). In this study, midwives did not wait passively for physician instructions; instead, they initiated early stabilization based on established procedures before the specialist arrived. This shows that SOP-based decision-making supports midwives' clinical autonomy while maintaining patient safety (25). Thus, the contribution of this study lies in demonstrating that SOPs function not only as technical guidelines but also as psychological and cognitive anchors that help midwives act rationally under emotional pressure (25,26).

The third theme shows that midwives' experiences in managing PPH are strongly shaped by leadership, teamwork, and health system limitations. Midwives often became first responders and coordinated early management while waiting for physicians or other units to provide support (4). This finding can be linked to the theory of interprofessional collaboration, which emphasizes shared responsibility, effective communication, role clarity, and coordinated action among healthcare professionals

(27,12). In obstetric emergencies, patient safety depends not only on individual competence but also on the ability of the team to respond collectively and efficiently (28).

Previous studies have shown that effective teamwork in obstetric emergencies is associated with faster response times, better coordination, and improved maternal outcomes. The findings of this study support this evidence by demonstrating that collaboration with emergency room staff, intensive care units, physicians, and other health workers helped midwives overcome practical limitations in the service system (29,24). At the same time, system constraints such as limited blood supply, delayed referral processes, and limited specialist availability created additional challenges for decision-making (14). Therefore, midwives' leadership in this study reflects situational leadership, in which professionals adapt their roles according to the urgency of the clinical situation and the availability of resources (8, 30).

The fourth theme reveals that spirituality is integrated into clinical practice through personal prayer, encouraging family members to pray, and providing empathetic and honest communication. Spirituality did not replace medical intervention; rather, it functioned alongside evidence-based clinical management as a source of inner strength and professional meaning (31,32). This finding is again consistent with Stress

and Coping Theory, particularly meaning-focused coping, in which individuals use beliefs, values, and spiritual resources to maintain hope, emotional stability, and resilience during highly stressful events (15,16).

In obstetric emergencies, spirituality may help midwives manage anxiety, strengthen moral commitment, and maintain compassionate care amid uncertainty and potential loss (33). Previous studies on spiritual care have shown that spirituality can contribute to emotional resilience, professional well-being, empathy, and patient-centered communication among healthcare providers (31,2). The present study supports these findings by showing that spiritual values were expressed not only through personal prayer but also in how midwives communicated with patients' families and interpreted their professional responsibilities (34,12). An important contribution of this study is the finding that spirituality was not merely a personal coping strategy but also part of the moral framework through which midwives understood their clinical role (4). Within the context of Islamic-based healthcare institutions, clinical practice was often perceived as both a professional duty and a form of worship (35). This interpretation gave meaning to the midwives' work and supported ethical decision-making during critical situations (4). However, the participants also emphasized that spirituality did not substitute for medical treatment; the

priority remained clinical stabilization and adherence to emergency protocols.

Nevertheless, the spiritual findings of this study should be interpreted carefully. Because spirituality is closely related to religious, cultural, and organizational contexts, the experiences described by participants may not be directly generalized to all healthcare settings. The role of spirituality in clinical decision-making may differ in hospitals with different religious traditions, institutional values, professional cultures, or sociocultural backgrounds (4). Therefore, spirituality in this study should be understood as a context-dependent factor that complements, rather than replaces, clinical competence and evidence-based practice in PPH management (36).

Overall, the findings of this study contribute to a more holistic understanding of midwives' clinical decision-making in the management of postpartum hemorrhage. The study shows that effective emergency care is shaped not only by technical competence and adherence to SOPs but also by emotional regulation, interprofessional teamwork, leadership, and spiritual resources. By linking clinical decision-making with psychosocial and spiritual dimensions, this study strengthens the contribution of qualitative evidence to maternal emergency care and highlights the need for training programs that integrate technical skills, teamwork simulation, emotional preparedness, and culturally sensitive spiritual support (36,35,4).

CONCLUSION AND RECOMMENDATION

This study shows that midwives' experience in managing postpartum hemorrhage is a complex process involving emotional responses, rapid clinical decision-making guided by standard operating procedures (SOPs), team leadership, and adaptation to service system limitations. In emergencies, midwives experience emotional stress, such as panic and concern for patient safety, but professionally, they can control their emotions and shift to systematic clinical actions. SOPs provide the primary framework for prioritizing actions, while team collaboration and spiritual support help midwives maintain calm and confidence in their decision-making.

Based on the research findings, it is necessary to strengthen obstetric emergency training on a regular basis, including simulations of postpartum hemorrhage management to improve midwives' preparedness and clinical decision-making skills. In addition, strengthening service systems such as team coordination, resource availability, and psychosocial support for health workers needs to be continuously improved to support more effective and comprehensive management of maternal emergencies.

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