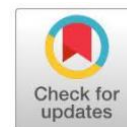


## Midwives' perceptions of patient safety and their impact on patient outcomes: systematic review



Fajar Rubianti<sup>1</sup>, Budi Aji<sup>2</sup>, Joko Mulyanto<sup>3</sup>

<sup>1</sup>Department of Public Health, Faculty of Health Sciences, Universitas Jenderal Soedirman, Indonesia, [fajar.rubiyanti@mhs.unsoed.ac.id](mailto:fajar.rubiyanti@mhs.unsoed.ac.id)

<sup>2</sup>Department of Public Health, Faculty of Health Sciences, Universitas Jenderal Soedirman, Indonesia, [budi.aji@unsoed.ac.id](mailto:budi.aji@unsoed.ac.id)

<sup>3</sup>Department of Public Health, Faculty of Health Sciences, Universitas Jenderal Soedirman, Indonesia, [joko.mulyanto@unsoed.ac.id](mailto:joko.mulyanto@unsoed.ac.id)

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### ABSTRACT

Patient safety is a global health priority, particularly in maternity care, where midwives are central to ensuring safe maternal and neonatal outcomes. Yet, their own perceptions of safety remain underexplored. This systematic literature review aimed to synthesise evidence on midwives' perceptions of patient safety and examine how these perceptions influence maternal and neonatal outcomes. The review followed PRISMA 2020 guidelines and used the JBI Critical Appraisal Checklist for quality assessment. Literature searches were conducted in PubMed, Scopus, ScienceDirect, and Google Scholar for studies published between 2020 and 2025. Eligible studies included quantitative research exploring midwives' safety perceptions and related outcomes. From 250 identified records, four studies met the inclusion criteria. Findings revealed that midwives' perceptions of safety were shaped by staffing adequacy, work environment, managerial support, and communication systems. Understaffing of registered midwives was associated with an 11% increase in harmful incidents, and high patient turnover with a 19% increase in adverse events. Structured feedback and leadership-driven action planning improved teamwork climate and job satisfaction. Positive work environments correlated with stronger safety culture and intent to remain in the profession. Additionally, communication tools supporting woman-centred care enhanced shared decision-making and improved labour experiences. Midwives' perceptions of safety reflect real systemic risks and can serve as early indicators of maternal care quality. Strengthening staffing levels, fostering supportive organisational cultures, and promoting woman-centred practices are critical to enhance both patient outcomes and workforce stability.

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### Corresponding Author:

Fajar Rubianti  
Universitas Jenderal Soedirman  
Department of Public Health, Postgraduate Program, Faculty of Health Sciences, Jenderal Soedirman  
University, Jalan Dr. Soeparno Karangwangkal, Banyumas, Indonesia 53123  
Email: [fajar.rubiyanti@mhs.unsoed.ac.id](mailto:fajar.rubiyanti@mhs.unsoed.ac.id)

### INTRODUCTION

Patient safety has become a top priority within healthcare systems worldwide in recent decades. According to the World Health Organization (WHO), unsafe healthcare practices, such as medication errors, delayed emergency responses, inadequate infection prevention,

and surgical mistakes, result in approximately 134 million adverse events each year in hospitals across low- and middle-income countries, contributing to around 2.6 million deaths annually.(1) In maternity care, unsafe practices may manifest as delayed detection of preeclampsia, inappropriate administration of oxytocin, poor infection control during delivery, or failure to respond promptly to postpartum hemorrhage. These examples illustrate how systemic weaknesses in patient safety directly endanger maternal and neonatal health, underscoring the urgency of comprehensive safety strategies in midwifery practice.

Patient safety culture refers to the shared values, beliefs, and norms within a healthcare organization that shape staff attitudes and behaviors toward preventing harm. Core components of safety culture include effective communication, teamwork, non-punitive incident reporting, and continuous organizational learning.(2) In midwifery, these components are particularly critical because midwives frequently act as the first responders in labor and delivery wards, often in settings where specialist physicians are not readily available. A strong safety culture enables midwives to adhere to protocols, communicate effectively with other professionals, and make timely clinical decisions. In their profession, midwives' perceptions of patient safety culture therefore influence not only their compliance with safety standards but also maternal and neonatal outcomes.(3,4)

Despite their central role, midwives encounter persistent challenges in ensuring safe care. Many facilities, especially in resource-limited contexts, lack structured patient safety protocols, resulting in underreporting of adverse events, insufficient institutional learning, and poor adherence to guidelines.(5) Staffing shortages and excessive workloads create fatigue and burnout, which directly impair the quality of care and increase the likelihood of errors.(6,7) Equally important, effective interprofessional communication is not always achieved; unclear delegation, lack of feedback, and fragmented teamwork heighten risks of mismanagement during obstetric emergencies.(8) Studies confirm that communication breakdowns are among the leading contributors to preventable harm in obstetrics, particularly in high-pressure clinical environments.(6,9)

Another structural barrier is the persistence of a blame culture within many healthcare systems. Midwives, like other professionals, often fear punitive consequences when reporting mistakes or near misses, which discourages transparency and prevents lessons from being learned. Low reporting rates delay systemic improvements and perpetuate unsafe practices.(10,11) Consequently, fostering a non-punitive environment is crucial to encourage open reporting and to implement corrective measures effectively.(12,13) These issues, insufficient protocols, workload pressure, poor collaboration, and a culture of blame, collectively compromise both the safety culture and midwives' confidence in delivering safe care.

However, while practice-level challenges are widely acknowledged, research focusing specifically on midwives' own perceptions of patient safety remains limited. Much of the existing literature discusses patient safety culture from a broad nursing or multidisciplinary perspective, often grouping midwives together with other health workers. This generalization overlooks the unique responsibilities, contexts, and decision-making environments that characterize midwifery. Consequently, there is still a gap in understanding how midwives themselves perceive patient safety, how these perceptions shape their behavior, and how they ultimately affect maternal and neonatal outcomes. Addressing this gap is essential because midwives frequently operate at the frontline of maternal healthcare, particularly in low-resource settings, where their perceptions directly translate into clinical practices.

Improving patient safety in midwifery requires interventions that address both individual competencies and organizational systems. Training should not only strengthen clinical skills but also build capacity in communication, emotional intelligence, conflict resolution, and leadership, skills that enhance collaboration and reduce risks of

miscommunication.(2,14) Equally, organizational measures such as participatory safety feedback, supportive supervision, and leadership engagement are vital for sustaining positive perceptions of safety and encouraging proactive safety behaviors. (4,15).

Given these realities, a systematic review is necessary to synthesize current evidence. To date, no systematic review has comprehensively examined midwives' perceptions of patient safety and their association with maternal and neonatal outcomes. While previous reviews have explored patient safety culture in general nursing or hospital contexts, the midwifery perspective remains underexplored. This article, therefore, addresses an important gap by systematically reviewing empirical studies on midwives' perceptions of patient safety, highlighting how these perceptions affect clinical outcomes, and identifying strategies to strengthen safety culture in maternity care. Such synthesis is critical to inform evidence-based policies, guide targeted interventions, and support progress toward global maternal and neonatal health goals.

## METHOD

This study employed a Systematic Literature Review (SLR) to examine midwives' perceptions of patient safety and their impact on maternal and neonatal outcomes. The guiding research question was: *"How do midwives perceive patient safety culture, and how do these perceptions influence maternal and neonatal health outcomes?"* The SLR approach was selected to ensure systematic identification, evaluation, and synthesis of evidence, thereby minimising bias and enhancing transparency and replicability.

A comprehensive search was conducted in PubMed, Scopus, ScienceDirect, and Google Scholar. Keywords included *"midwives' perception"*, *"patient safety"*, *"maternal care"*, and *"patient outcomes"*. In PubMed, Medical Subject Headings (MeSH) such as *"Midwifery"*, *"Patient Safety"*, and *"Maternal Health Services"* were also applied. Search terms were adapted to each database, and the complete search strings are presented in the Appendix. The search was limited to articles published between 2020 and 2025 to capture the most recent and relevant evidence.

Eligibility criteria required studies to: (1) focus on midwives' perceptions of patient safety; (2) establish a link between perceptions and maternal or neonatal outcomes (e.g., safety, complications, quality of care); and (3) adopt a quantitative design with structured methodology. Exclusion criteria included review articles, protocols, pilot studies, qualitative-only research, or studies that did not connect perceptions with outcomes.

Screening and selection were conducted manually by two independent reviewers, who examined titles, abstracts, and full texts against eligibility criteria. Discrepancies were resolved through discussion until consensus was reached. No automation or machine learning tools were used. Quality appraisal was performed using the Joanna Briggs Institute (JBI) Critical Appraisal Checklist for Analytical Cross-Sectional Studies, applied independently by two reviewers.

Data extraction followed a standardised form capturing study design, sample characteristics, healthcare setting, and key variables relating to midwives' safety perceptions (e.g., staffing adequacy, workload, communication, incident reporting, leadership, safety culture).

Data synthesis was conducted thematically, grouping findings into domains such as staffing, organisational culture, work environment, communication, and woman-centred care. Where available, quantitative outcomes (e.g., incidence rate ratios, correlation coefficients, p-values) were presented narratively to illustrate effect sizes.

## RESULTS

A total of 250 records were initially identified through database searching. After removing 14 duplicates, 236 records were screened by title and abstract, from which 89 were excluded for not meeting the criteria. Of the remaining 147 reports, 134 were excluded

because they involved the wrong population. Thirteen full-text articles were assessed for eligibility, but nine were excluded due to the absence of patient safety outcomes, lack of focus on midwives' perceptions, or inappropriate output. Ultimately, four studies were included in the final synthesis (Figure 1).

Overall, the review shows that only a limited number of studies directly addressed midwives' perceptions of patient safety. These studies consistently highlighted that staffing adequacy, supportive work environments, managerial support, and effective interprofessional communication play crucial roles in shaping perceptions of safety and improving maternal and neonatal outcomes.

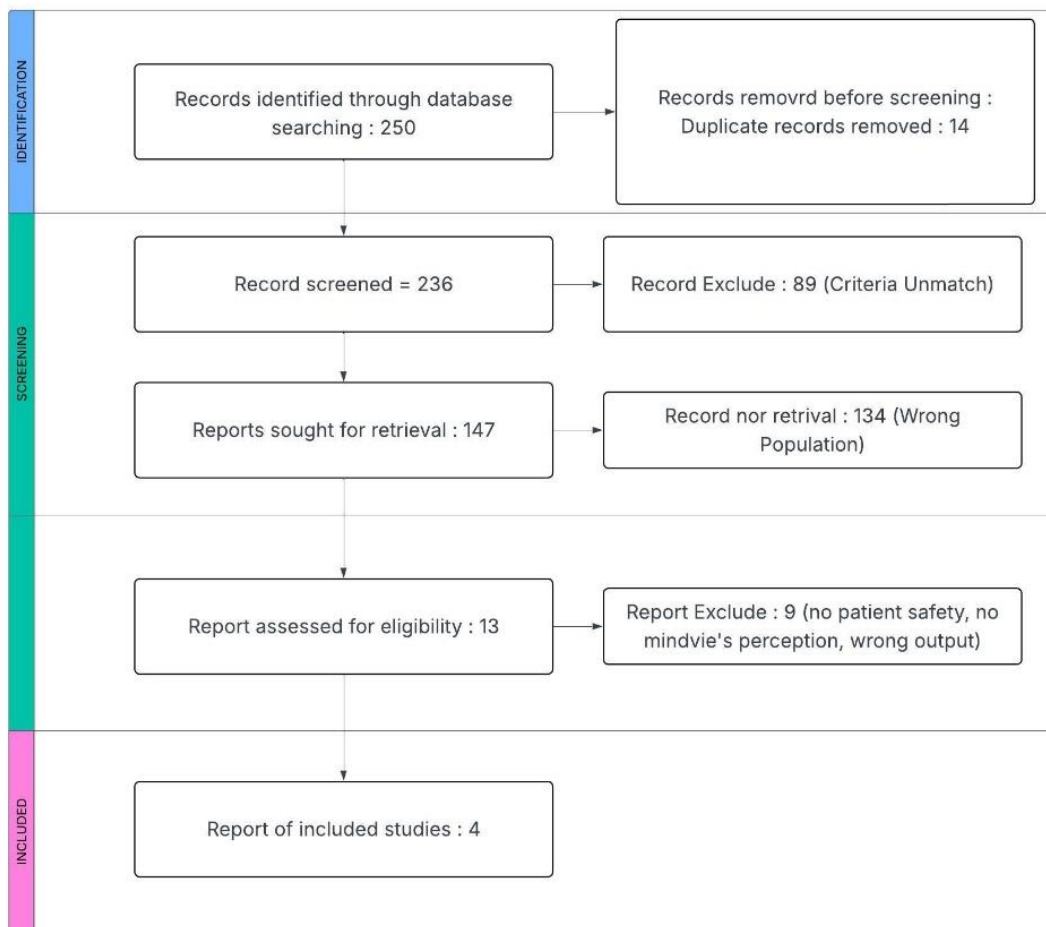


Figure 1. Flowchart of the Review Process

Following the study selection process (Figure 1), the methodological quality of the four included studies was assessed using the Joanna Briggs Institute (JBI) Critical Appraisal Checklist for Analytical Cross-Sectional Studies (16). The appraisal focused on eight criteria, including clarity of inclusion criteria, validity of exposure measurement, identification and management of confounding factors, reliability of outcome measurement, and appropriateness of statistical analysis. The results of this appraisal are summarized in Table 1.

Table 1. Critical Appraisal of Included Studies

Author (Years)	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8
Turner et al. (2023)	Y	Y	Y	Y	Y	Y	Y	Y
B. Edgar (2021)	Y	Y	Y	Y	U	N	Y	Y
Gracia et al. (2023)	Y	Y	Y	Y	U	N	Y	Y

Author (Years)	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8
V. Stulz (2024)	Y	Y	Y	Y	Y	N	N	Y

#### JBI Critical Appraisal Checklist Criteria:

- Q1 Were the criteria for inclusion in the sample clearly defined?
- Q2 Were the study subjects and the setting described in detail?
- Q3 Was the exposure measured in a valid and reliable way?
- Q4 Were objective, standard criteria used for measurement of the condition?
- Q5 Were confounding factors identified?
- Q6 Were strategies to deal with confounding factors stated?
- Q7 Were the outcomes measured in a valid and reliable way?
- Q8 Was an appropriate statistical analysis used?

Based on the JBI Critical Appraisal, all four included studies met the minimum quality threshold of at least four “Yes” responses, indicating sufficient methodological rigor to be included in this review. While certain limitations were noted, such as incomplete reporting on confounding factors or statistical analysis in some studies, the overall appraisal confirms that the selected articles are methodologically sound and provide reliable evidence for synthesis.

**Table 2.** Characteristics of Included Studies

Researcher (Full Title)	Country	Study Design	Sample Size	Main Focus	Result
Vaismoradi et. al (The association between midwifery staffing and reported harmful incidents: a cross-sectional analysis of routinely collected data) (5)	UK	Cross-sectional (analysis of routinely collected data, nested in a longitudinal study)	106,904 maternal admissions across 3 maternity services	Association between midwifery understaffing and harmful incidents affecting mothers and babies	Understaffing of registered midwives was associated with an 11% increase in harmful incidents (IRR 1.110, 95% CI 1.002–1.229). High patient turnover increased incidents by <b>19%</b> . Understaffing of maternity assistants was not significant.

Researcher (Full Title)	Country	Study Design	Sample Size	Main Focus	Result
Edgar et. al (Safety attitudes build safety culture: Nurse/midwife leaders improving healthcare using quantitative data)(17)	Australia	Cross-sectional (pre- and post-survey over two years)	1,328 nurses/midwives (2019), 1,217 nurses/midwives (2020) across 8 hospitals and 45 community sites	To determine the safety attitudes of nurses and midwives and assess improvement after facilitated feedback and action planning	Five of six domains improved significantly (Teamwork Climate, Safety Climate, Job Satisfaction, Perceptions of management, Working Conditions; all $p < 0.001$ ). Stress Recognition decreased slightly. Facilitated feedback and action planning were linked to improved safety attitudes.
Garcia J. (Exploring the relationship between midwives' work environment, women's safety culture, and intent to stay)(18)	Spain	Cross-sectional survey	218 midwives from 15 autonomous communities	To explore the relationship between midwives' work environment, women's safety culture, and intent to stay	Findings: 1) Work environment positively correlated with safety culture dimensions ( $r = 0.43$ , $p < 0.001$ ). 2) Midwives with a better perceived work environment reported a stronger patient safety culture. 3) Intent to stay was associated with a supportive work environment and positive safety culture. 4) Shift work and workload influenced perceptions. The authors concluded that a supportive work environment fosters patient safety culture and retention of midwives
Stulz et al. (A survey on the perceptions of midwives, women, and support persons on the	Australia	Cross-sectional survey (quantitative + qualitative open-ended questions)	41 women, 37 support persons, 42 midwives (N=120 total)	To explore perceptions of women, support persons, and midwives regarding the	Findings: 1) 55% of midwives believed the resource influenced women's choice of support persons. 2) 72% of women did not

Researcher (Full Title)	Country	Study Design	Sample Size	Main Focus	Result
introduction of a support person information resource)(19)				introduction of a support person information resource during labor and birth	change their chosen number of support people, but 83% would recommend the brochure to others. 3) 53% of support persons reported that the resource helped them in their role. 4) Four qualitative themes: value of the information sheet, knowing how to be a support person, connecting midwives with woman-centered care, and choosing the support person. Overall, the resource improved knowledge, confidence, and conversations around support in labor

Findings from the reviewed studies demonstrate a consistent association between midwives' working conditions and both perceived and actual patient safety in maternity services.

One key finding highlights the impact of staffing adequacy. A large-scale study showed that understaffing of registered midwives was associated with an 11% increase in harmful incidents affecting mothers or infants (Adjusted IRR = 1.110, 95% CI: 1.002–1.229), while shortages of maternity care assistants were not significantly linked to increased risk. Importantly, high patient turnover was independently associated with a 19% increase in harmful incidents (Adjusted IRR = 1.190, 95% CI: 1.091–1.299), underscoring how workload fluctuations undermine continuity of care and elevate clinical risk.(5)

Beyond staffing, safety culture interventions also influenced outcomes. In a two-year repeated cross-sectional survey, five out of six domains of the Safety Attitudes Questionnaire (SAQ) improved significantly following facilitated feedback and leadership-driven action planning. Domains such as teamwork climate, safety climate, job satisfaction, perceptions of ward management, and perceptions of senior management all improved ( $p < 0.001$ ). Only the stress recognition domain declined significantly ( $p = 0.035$ ), suggesting that while organizational culture strengthened, awareness of stress-related risks remained underdeveloped.(17)

Work environment quality was another determinant of safety culture and workforce retention. A survey of Spanish midwives reported a moderate positive correlation between perceptions of work environment (PES-NWI) and patient safety culture (HSOPSC) ( $r = 0.43$ ,  $p < 0.001$ ). Midwives perceiving greater managerial support also reported a stronger safety culture ( $r = 0.63$ ,  $p < 0.001$ ). Furthermore, a positive safety culture was linked to intent to stay, with midwives in supportive environments more likely to report willingness to remain in their institutions. Rotating shifts and high workloads, however, were associated with lower perceptions of both work environment and safety culture, reflecting the strain of organizational factors on safety and retention.(20)

Finally, evidence also points to the role of informational tools in supporting safety and woman-centered care. Following the introduction of a support person information resource, midwives reported that it influenced women's choice of support persons (55%)

and improved conversations around labor support. Most women (83%) and support persons (75%) stated they would recommend the resource, and over half of support persons (53%) reported it helped them in their role. Thematic analysis highlighted four domains of benefit: valuing the information sheet, improved knowledge of the support role, a stronger connection between midwives and woman-centered care, and more informed choices of support person. Together, these findings indicate that structured resources enhance communication, role clarity, and empowerment for both women and support persons, ultimately reinforcing safety culture within maternity care.(19)

## DISCUSSION

### Midwives' Perceptions of Patient Safety

The four studies converge on the understanding that midwives' perceptions of patient safety are shaped not only by the technical execution of clinical procedures but also by the broader organisational and cultural environment in which those procedures occur.(5,17,20,19). Safety is described not simply as the absence of adverse outcomes, but as the result of a dynamic system where adequate resources, effective communication, and a supportive work culture intersect to enable consistent, high-quality care.(1)

In the UK, midwives' concerns about being "short-staffed" were validated by quantitative evidence showing an 11% increase in harmful incidents on days with fewer registered midwives, demonstrating that frontline perceptions reliably signal systemic risk.(5) These findings suggest that midwives' subjective perceptions should not be underestimated, as they often anticipate measurable safety issues before they are visible in routine data collection.(5) In contrast, evidence from Australia illustrates that safety perceptions are malleable: when midwives were engaged in structured feedback and supported by leadership, significant improvements were seen across five of six Safety Attitudes Questionnaire domains, indicating that organisational culture can positively reshape perceptions.(17)

This pattern reinforces the argument that midwives' perceptions are responsive to both structural determinants, such as staffing levels, and cultural determinants such as leadership and feedback practices.(17)(5) Moreover, international frameworks on quality of maternal care emphasise that safety encompasses both the provision of effective interventions and the experience of care, including respect, dignity, and emotional support, which aligns closely with the domains highlighted by midwives in these studies.(21) The convergence of local perceptions with global standards strengthens the validity of treating midwives' perceptions as indicators of whether health systems are meeting internationally endorsed benchmarks.(21)

Critically, the consistency of these perceptions across contexts suggests they are generalisable. Spanish midwives, for example, similarly linked patient safety to staffing adequacy, supportive management, and participatory governance, with a stronger safety culture associated with higher intent to stay in the profession.(20) Likewise, in Australia, the introduction of an information resource for support persons reinforced woman-centred care and improved communication during labour, which midwives interpreted as contributing to a safer birthing environment.(19) Cochrane evidence further supports this, showing that continuous support in labour improves both maternal outcomes and the quality of care experience, confirming that midwives' perceptions are closely aligned with interventions that have proven safety benefits.(22)

At the same time, caution is warranted in interpreting perceptions as flawless indicators. Perceptions may be influenced by contextual stressors such as pandemics, high turnover periods, or organisational culture of blame, which can amplify negative views without always correlating to clinical outcomes.(17,23) Self-reported perceptions are also vulnerable to bias, as staff in supportive environments may under-report safety concerns, while those in punitive contexts may over-report issues due to heightened awareness.(24)

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Nevertheless, when triangulated with outcome data and organisational metrics, midwives' perceptions remain a highly valuable early-warning mechanism for systemic vulnerabilities in maternity care.(5,17)

### **Determinants of Midwives' Perceptions Toward Patient Safety**

Structural determinants are most visible in the UK, where staffing adequacy and patient turnover emerged as independent predictors of maternal and neonatal safety outcomes(5). On days with fewer registered midwives, harmful incidents increased significantly, while shortages of maternity care assistants showed no such association, underscoring that safety depends on the presence of adequately trained registered midwives rather than unqualified substitution.(5) This is consistent with international frameworks, including the International Council of Nurses' Patient Safety Position Statement and AWHONN staffing standards, which emphasise that safe perinatal care requires aligning RM staffing levels with patient acuity and workload, rather than relying on less qualified cadres.(25,26)

Cultural determinants are reflected in how organisations approach learning, reflection, and improvement. In Australia, facilitated feedback and ward-level action planning led to significant improvements in perceptions of teamwork, job satisfaction, and safety climate, with measurable gains across multiple domains of the Safety Attitudes Questionnaire.(17) These improvements indicate that organisational culture is a modifiable determinant of safety perceptions, particularly when leadership enables structured reflection and participatory problem-solving.(17) This finding is further reinforced by wider evidence showing that human-factors interventions, such as structured pre-briefings, post-shift debriefings, and speaking-up protocols, improve reliability in maternity services by embedding safer communication into daily practice.(24) Such cultural interventions not only reshape perceptions but also institutionalise behaviours that directly support patient safety.

Environmental and managerial determinants are evident in Spain, where midwives who perceived higher managerial support, adequate resources, and participatory governance also reported stronger safety culture and greater intent to remain in their roles.(20) These findings highlight that perceptions of safety are not only immediate reflections of working conditions but also predictors of professional sustainability, given that workforce retention is closely tied to patient safety outcomes.(20) This linkage echoes broader workforce literature showing that supportive environments contribute to lower burnout, stronger engagement, and better quality of care in maternal health services.(23) By extension, midwives' perceptions function as a sentinel indicator of system resilience, integrating both safety culture and workforce stability.

Finally, interpersonal and woman-centred determinants are highlighted in the Australian evaluation of a support-person information sheet, where clarifying roles and expectations for birth companions enhanced communication between women, their chosen support persons, and midwives, thereby reinforcing shared decision-making during labour.(19) Midwives perceived this resource as a tool that not only informed women but also strengthened collaborative care, aligning with woman-centred philosophies of practice.(19) These findings are congruent with Cochrane evidence showing that continuous support during labour reduces intervention rates and improves maternal satisfaction, demonstrating how even small, perception-shaping tools can generate measurable clinical and experiential benefits.(22)

Taken together, these findings show that midwives' safety perceptions are sensitive to conditions at every level of the health system, from macro-level staffing policies, through meso-level organisational culture and managerial support, to micro-level interpersonal communication during childbirth.(5,17) This multi-layered sensitivity underscores the value of midwives' perceptions as an early-warning indicator of safety risks and as a proxy for evaluating the resilience of maternity care systems.(25)

### **The Impact of Safety Perceptions on Patient Outcomes**

Two primary mechanisms explain how midwives' perceptions of safety translate into measurable effects on patient outcomes: capacity–risk and culture–reliability.(5,17)

The capacity–risk mechanism is most clearly demonstrated in the UK, where midwives' perceptions of low staffing and high patient turnover correlated with quantifiable increases in harmful incidents, including obstetric complications and delayed responses to emergencies.(17) On days when registered midwife staffing fell below the mean, the risk of harm rose by 11%, indicating that midwives' perceptions reliably captured systemic stress points before they escalated into adverse outcomes.(5) This finding highlights the predictive validity of frontline perceptions as an early-warning signal for maternal and neonatal safety risks.(5)

The culture–reliability mechanism is evident in Australia and Spain, where improvements in teamwork, management support, and feedback processes were associated with stronger safety culture and more reliable care delivery.(17,20) When ward-level action planning was implemented and managerial support increased, midwives reported higher confidence in their ability to deliver safe care, and these improvements were reflected in better safety climate scores across multiple domains.(17) Similarly, Spanish midwives who experienced supportive environments and adequate resources also demonstrated stronger intent to remain in the profession, a factor closely linked to continuity of safe care.(20) Together, these findings suggest that positive perceptions of safety not only shape individual confidence but also reinforce collective reliability in maternity units.(17)

These mechanisms resonate with global evidence showing that supportive organisational cultures and continuous interpersonal support during labour improve both clinical and experiential outcomes. For example, a Cochrane review demonstrated that continuous intrapartum support increased spontaneous vaginal birth rates, shortened labour, reduced caesarean and instrumental deliveries, and improved women's satisfaction with care.(22) Such findings reinforce the argument that midwives' positive safety perceptions are not abstract constructs but are directly tied to safer maternal and neonatal outcomes through both systemic and relational pathways.(21,22)

Ultimately, these insights show that perceptions serve as both a mirror and a predictor of patient outcomes: when midwives perceive safety risks, adverse outcomes often follow, and when they perceive strong teamwork and supportive cultures, reliability and positive outcomes increase.(5) This underscores the importance of incorporating midwives' perceptions into monitoring frameworks for maternal health, positioning them as leading indicators of care quality within maternity systems.(21)

### **Enhancing Patient Safety Through the Role of Midwives**

Midwives play a pivotal role in enhancing patient safety because their continuous presence at the bedside positions them as both providers of direct care and sentinels for system-level risks.(21) Unlike other healthcare professionals who may enter and exit the clinical encounter, midwives remain with women throughout labour and birth, enabling them to identify subtle changes in condition and intervene early.(22) This proximity to patients gives midwives a dual function: safeguarding immediate clinical outcomes and contributing to systemic learning about safety risks.(5)

One pathway through which midwives enhance safety is their capacity to advocate for adequate staffing and manageable workloads. Evidence from the UK shows that midwives' recognition of short staffing directly corresponded with higher rates of adverse events, underscoring their value as early-warning indicators for safe workforce planning (5). By voicing concerns about staffing adequacy, midwives contribute to policy debates on workforce ratios, echoing international standards that mandate safe midwife-to-patient ratios as a prerequisite for quality maternal care.(25,26)

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Midwives also strengthen safety through their contributions to organisational culture. In Australia, midwife-led participation in structured feedback and ward-level action planning significantly improved teamwork, job satisfaction, and safety climate, demonstrating that when midwives are empowered as partners in improvement initiatives, organisational reliability increases.(17) This finding is consistent with human-factors research showing that maternity units that encourage midwives to speak up, debrief, and engage in shared decision-making experience fewer communication breakdowns and safer clinical handovers.(24)

Beyond organisational structures, midwives enhance safety through their role in fostering woman-centred care. The Australian study evaluating a support-person information sheet showed that midwives used the resource to initiate conversations about preferences, clarify roles, and strengthen shared decision-making, thereby creating safer and more supportive birthing environments.(19) These findings align with Cochrane evidence that continuous midwifery support during labour reduces unnecessary interventions and improves maternal satisfaction, further demonstrating how midwives' relational role enhances both clinical and experiential dimensions of safety.(22)

Finally, midwives' perceptions and practices contribute to system resilience over the long term. Spanish midwives who reported supportive management and adequate resources were more likely to express intent to stay in the profession, indicating that positive safety culture not only improves immediate care but also secures a stable workforce for the future.(20) Workforce retention is itself a safety strategy, since consistent and experienced staffing reduces variability in care and ensures the preservation of institutional knowledge.(23)

Taken together, these findings show that midwives enhance patient safety through multiple, intersecting roles: as advocates for structural adequacy, as culture-builders within organisations, as relational partners with women, and as stabilisers of the professional workforce.(5,17,20,19) This multi-level impact positions midwives not only as caregivers but also as critical actors in the design and sustainability of safer maternity systems worldwide.(21)

This review shows that midwives' perceptions of patient safety are strongly shaped by staffing adequacy, organisational culture, managerial support, and woman-centred communication.(19) These perceptions reliably reflect systemic risks, as understaffing was linked to an 11% increase in harmful incidents, while supportive feedback and governance improved safety culture scores.(5) Evidence also indicates that positive perceptions promote professional retention and strengthen system resilience, aligning with global frameworks that define safe maternity care as both clinically effective and respectful.(23)

Several limitations should be acknowledged. First, the review included only four quantitative studies published between 2020 and 2025, which restricts the breadth of evidence and may omit earlier relevant literature.(5) Second, the search strategy was limited to selected databases and not registered on PROSPERO, increasing the risk of selection bias.(27) Third, variations in study design, measurement tools, and settings (UK, Australia, Spain) limit comparability and preclude meta-analysis. Finally, midwives' perceptions, while valuable, are self-reported and may be influenced by contextual factors such as workload peaks or organisational culture of blame, which complicates causal interpretation.(23)

For practice, midwives' perceptions should be systematically incorporated into routine safety monitoring as early-warning indicators of risk(5). For policy, safe staffing ratios, participatory leadership, and investment in supportive work environments must be prioritised to align with international safety standards.(25,26) For research, future studies should adopt multinational and longitudinal designs, register protocols, and integrate both perceptions and outcome measures to test causal pathways and generalizability.(17) By

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addressing these gaps, midwives' perceptions can be fully leveraged as a systemic resource for building safer, more resilient maternity care systems worldwide.(21)

## CONCLUSION

This systematic review shows that midwives' perceptions of patient safety are shaped by structural conditions such as staffing adequacy, organisational culture, managerial support, and woman-centred practices. These perceptions are not merely subjective views but reflect real system performance, linking shortages and workload pressures to higher clinical risk while highlighting the positive influence of leadership, feedback, and supportive work environments.

The review suggests that midwives' perspectives can serve as valuable early indicators of health system resilience and patient safety. For practice and policy, strengthening staffing levels, fostering participatory cultures, and embedding structured feedback are essential strategies to enhance quality of care. For research, further longitudinal and multinational studies are needed to clarify causal pathways and expand the evidence base. By recognising midwives' perceptions as both reflections of current conditions and predictors of future outcomes, health systems can move towards safer, more sustainable maternity care.

## AUTHOR CREDIT STATEMENT

All authors contributed substantially to the conception and design of the study, literature search, data screening, and critical appraisal of included articles. The first author drafted the manuscript, while all co-authors contributed to revising it critically for important intellectual content. All authors approved the final version of the manuscript and agree to be accountable for all aspects of the work.

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## DECLARATION OF COMPETING INTEREST

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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