

Midwives' Roles in Stunting Prevention Through Support During the First 1,000 Days: A Phenomenological Study

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ABSTRACT

Background: Stunting remains a major public health challenge in Indonesia, requiring continuous prevention throughout the first 1,000 days of life. Midwives occupy a strategic position in providing maternal and child healthcare, yet their lived experiences in delivering community-based stunting prevention remain insufficiently explored locally.

Research Objective: This study explored midwives' roles, experiences, strategies, and challenges in preventing stunting through maternal support during the first 1,000 days.

Methods: A descriptive phenomenological study was conducted in Jeneponto Regency, South Sulawesi, Indonesia, from November to December 2024. Fifteen midwives were recruited using purposive sampling. Data were collected through semi-structured in-depth interviews and analysed using Colaizzi's seven-step method. Trustworthiness was ensured through member checking, peer debriefing, reflexivity, and an audit trail.

Results: Five themes emerged: continuity of midwifery care; midwives as educators and behavioural-change agents; family and sociocultural influences; community-based collaboration; and structural barriers and adaptive strategies. Midwives provided clinical care, nutritional counselling, family engagement, cultural negotiation, growth monitoring, and interprofessional coordination. However, poverty, geographical barriers, workload, limited resources, and inconsistent family participation constrained continuous support.

Conclusion: Midwives are central to integrated stunting prevention across the first 1,000 days. Strengthening staffing, transportation, professional development, family involvement, and multisectoral collaboration is necessary to deliver continuous, culturally responsive, and equitable maternal-child care.

Keywords: Midwives; Stunting; Phenomenology.

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BACKGROUND

Stunting remains a major public health problem that threatens children's survival, growth, cognitive development, and future productivity (Zhang et al., 2022). It is defined as impaired linear growth, indicated by a height-for-age below minus two standard deviations from the World Health Organization Child Growth Standards (Yuliawati et al., 2024). Stunting is not merely a consequence of inadequate food intake it is a multidimensional condition associated with maternal malnutrition, anemia, adolescent pregnancy, recurrent infections, inadequate antenatal care, poor sanitation, limited access to health services, suboptimal breastfeeding, inappropriate complementary feeding, poverty, and sociocultural practices (Widuri et al., 2020). The most critical period for preventing stunting is the first 1,000 days of life, beginning at conception and continuing until a child reaches two years of age. Nutritional and developmental disturbances during this period may produce long-term consequences that are difficult to reverse. Therefore, continuous maternal support from pregnancy through childbirth, the postpartum period, breastfeeding, and early childhood is essential (Winarni et al., 2024).

Globally, stunting continues to affect millions of children, particularly those living in low- and middle-income countries (Widjaja et al., 2024). The 2025 Joint Child Malnutrition Estimates reported that approximately 150.2 million children under five, or 23.2% of the global population in this age group, experienced stunting in 2024. Asia accounted for approximately 51% of the global burden, while Africa accounted for 43%. These figures indicate that progress in reducing stunting remains insufficient and uneven across regions. Stunting also reflects structural inequalities because children from poor households, remote communities, and populations with limited access to nutritious food, clean water, education, and quality healthcare face greater risks (Wendt et al., 2021). Consequently, stunting prevention requires integrated interventions that address nutritional, clinical, behavioral, environmental, social, and cultural determinants throughout the first 1,000 days of life (Widiastuti et al., 2024).

At the national level, stunting remains a strategic health and development concern in Indonesia. The 2024 Indonesian Nutritional Status Survey reported that the national prevalence of stunting declined from 21.5% in 2023 to 19.8% in 2024 (Supadmi et al., 2024). Although this decline demonstrates meaningful progress, approximately one in five Indonesian children is still affected (Surmaini et al., 2024). Considerable disparities also persist between provinces, districts, and socioeconomic groups, with several areas in eastern Indonesia experiencing a particularly high burden (Thorbecke, 2023). These conditions demonstrate that national achievements do not automatically represent equitable improvements at the community level. Moreover, stunting frequently begins during pregnancy and becomes more visible after children reach six to twelve months, when breastfeeding, complementary feeding, infection prevention, growth monitoring, sanitation, and family caregiving become increasingly influential. Sustained support must therefore continue beyond pregnancy and childbirth (Tosepu & Ningsi, 2024).

Midwives occupy a strategic position in this continuum because they are often the health professionals closest to women, infants, families, and communities (Sulistiawan & Bai, 2024). Their responsibilities include providing antenatal care, identifying maternal nutritional risks, administering iron supplementation, educating families, supporting safe childbirth, promoting early initiation of breastfeeding and exclusive breastfeeding, guiding complementary feeding, monitoring child growth, conducting home visits, and coordinating referrals. Midwives may also function as educators, advocates, counsellors, and community facilitators who connect mothers with cadres, nutritionists, nurses, physicians, village governments, and social-support programmes (Sudigyo et al., 2023). However, the implementation of these roles may be influenced by workload, limited

resources, fragmented services, geographical barriers, family participation, local beliefs, and the quality of interprofessional collaboration (Sittadewi et al., 2024).

Previous studies have predominantly measured stunting prevalence, maternal knowledge, nutritional intake, intervention effectiveness, and statistical relationships between risk factors and stunting (Sitaresmi et al., 2023). Other studies have discussed midwives' roles descriptively or examined isolated services, such as antenatal care, breastfeeding education, and growth monitoring. Consequently, limited evidence explains how midwives experience and interpret their roles across the complete continuum of the first 1,000 days, how they maintain relationships with mothers and families, and how institutional and sociocultural conditions shape their daily practices (Siburian et al., 2020). This represents an important research gap because programme indicators may document service coverage without revealing the lived realities, challenges, adaptations, and meanings underlying service delivery (Shaney et al., 2020).

The novelty of this study lies in its phenomenological exploration of midwives' lived experiences in providing continuous maternal support from pregnancy until the child reaches two years of age. Instead of examining a single intervention, it conceptualises midwifery care as a relational and continuous process connecting maternal health, nutrition, breastfeeding, infant feeding, growth monitoring, family engagement, and community collaboration. Accordingly, this study aims to explore and interpret midwives' experiences, roles, strategies, challenges, and perceived support needs in preventing stunting through maternal assistance during the first 1,000 days of life, thereby generating contextual evidence for strengthening midwifery practice and community-based stunting-prevention policies

METHODS

This study employed a qualitative research design with a descriptive phenomenological approach (Diana et al., 2022) to explore midwives' lived experiences in preventing stunting through continuous maternal support during the first 1,000 days of life. This approach enabled an in-depth understanding of how midwives perceived, interpreted, and implemented their professional roles from pregnancy through childbirth, the postpartum period, breastfeeding, complementary feeding, and child growth monitoring until the age of two years. The study was conducted at community health centres, integrated health posts, and selected villages in Jeneponto Regency, South Sulawesi Province, Indonesia, from November to December 2024.

A total of 15 midwives participated in this study. Participants were recruited using purposive sampling to ensure that they possessed relevant knowledge and direct experience in maternal and child health services and stunting-prevention programmes. The inclusion criteria were registered midwives who had worked in maternal and child health services for at least two years, were directly involved in supporting mothers and children during the first 1,000 days of life, had experience implementing community-based stunting-prevention activities, and voluntarily agreed to participate by providing written informed consent. Midwives who held exclusively administrative positions, were on extended leave during the data-collection period, or were unable to complete the interview were excluded. The interviews with 15 participants generated sufficiently rich information and achieved thematic saturation, as no substantially new themes emerged from the final interviews.

Data were collected through individual, face-to-face, semi-structured, in-depth interviews. The interview guide was developed according to the research objectives and relevant literature on midwifery care, maternal and child nutrition, and stunting prevention. Open-ended questions explored the participants' understanding of stunting; their experiences in supporting women during pregnancy, childbirth, and the postpartum period; breastfeeding and complementary-feeding counselling; child growth monitoring;

family and community engagement; interprofessional collaboration; and the sociocultural and institutional challenges encountered during programme implementation. Probing questions were used to clarify responses and obtain richer descriptions of the participants' experiences.

Each interview lasted approximately 45–60 minutes and was conducted in a private and comfortable location agreed upon with the participant. With participants' permission, all interviews were digitally recorded. Field notes were also taken to document nonverbal expressions, contextual circumstances, and the researcher's reflections. Interviews were conducted in Indonesian or the local language preferred by the participants. Audio recordings were transcribed verbatim, while interviews conducted partly in the local language were translated into Indonesian before analysis. Quotations selected for international publication were subsequently translated into English and independently reviewed to ensure that their original meanings were preserved. Data collection and preliminary analysis were conducted concurrently to identify emerging themes and evaluate data saturation.

Data were analysed using Colaizzi's seven-step phenomenological method. First, the researchers repeatedly read all interview transcripts to obtain a comprehensive understanding of the participants' experiences. Second, significant statements concerning midwives' roles in stunting prevention were identified. Third, meanings were formulated from these statements while remaining close to the participants' original accounts. Fourth, the formulated meanings were organised into categories, theme clusters, and overarching themes. Fifth, a comprehensive description of the phenomenon was developed. Sixth, the fundamental structure of midwives' experiences was formulated. Finally, the findings were returned to selected participants for validation. NVivo qualitative data-analysis software was used to organise the transcripts, codes, categories, and themes without replacing the researchers' interpretative analysis.

The trustworthiness of the findings was established through credibility, dependability, confirmability, and transferability. Credibility was enhanced through prolonged engagement with the data, member checking, peer debriefing, and the inclusion of direct participant quotations. Dependability was maintained through an audit trail documenting participant recruitment, data collection, coding, theme development, and methodological decisions. Confirmability was supported through reflexive journaling and independent examination of selected transcripts, codes, and themes by members of the research team. Transferability was facilitated by providing detailed descriptions of the participants, research setting, health-service context, and community-based stunting-prevention activities in Jeneponto Regency.

RESULTS

Participant Characteristics

Fifteen midwives participated in this study and were coded M01–M15 to protect their identities. All participants were registered midwives working in maternal and child health services in Jeneponto Regency, South Sulawesi. They had direct experience providing antenatal, childbirth, postpartum, neonatal, infant nutrition, and child growth-monitoring services. Participant characteristics, including age, educational background, length of professional experience, workplace, and involvement in stunting-prevention programmes, are presented in Table 1.

Table 1.
Characteristics of Informants (n = 15)

Characteristic	Category	Number
Number of participants	Midwives	15
Age	30-40	15
Educational background	Diploma/Bachelor/Professional	15
Length of practice	Midwifery	15
Workplace	3-10 years	15
Involvement in stunting programmes	Community health centre/village/health post	15
	Directly involved	15

The phenomenological analysis generated five major themes: (1) continuity of midwifery care as the foundation of early stunting prevention; (2) midwives as educators and agents of maternal behavioural change; (3) family involvement and sociocultural influences on maternal practices; (4) collaborative action in community-based stunting prevention; and (5) structural barriers and adaptive strategies in delivering maternal support.

Theme 1: Continuity of Midwifery Care as the Foundation of Early Stunting Prevention

Participants perceived stunting prevention as a continuous process beginning during pregnancy and continuing until the child reached two years of age. During antenatal care, midwives assessed maternal nutritional status, monitored weight gain and mid-upper arm circumference, screened for anaemia, provided iron and folic acid supplementation, and counselled mothers regarding dietary diversity.

"Stunting prevention should begin during pregnancy. We monitor the mother's nutritional status, weight gain, and adherence to iron supplementation because the child's growth begins in the womb." (M03)

Support continued after childbirth through early initiation of breastfeeding, exclusive breastfeeding counselling, complementary-feeding education, immunisation, and routine growth monitoring. Participants stated that interruptions in care could result in nutritional risks being detected too late.

"Our responsibility does not end after the mother gives birth. We continue monitoring breastfeeding, complementary feeding, and the child's growth until the age of two years." (M08)

Theme 2: Midwives as Educators and Agents of Maternal Behavioural Change

Participants described health education as an essential component of their role. Education was delivered during antenatal visits, maternal classes, community health-post activities, counselling sessions, and home visits. However, participants recognised that knowledge alone did not always lead to behavioural change.

"Some mothers understand the information we provide, but they cannot always apply it because their household income is limited. Therefore, our advice must be adapted to their actual circumstances." (M05)

Midwives used simple language, repeated counselling, visual materials, and examples of affordable local foods. They also attempted to establish trusting relationships so mothers could openly communicate their difficulties.

"We do not simply tell mothers to provide nutritious food. We show them how locally available foods, such as eggs, fish, vegetables, and beans, can be prepared for their children." (M11)

Theme 3: Family Involvement and Sociocultural Influences

Participants explained that maternal decisions were strongly influenced by husbands, parents, parents-in-law, and other family members. Family support helped mothers attend health services, consume nutritious food, comply with supplementation, and practise recommended infant-feeding behaviours.

"A mother may agree with our recommendations, but decisions at home are sometimes made by her husband or mother-in-law. That is why we also need to educate the family." (M02)

Participants also encountered local beliefs and inherited feeding practices that conflicted with health recommendations, including maternal dietary restrictions and the early introduction of food or drinks to infants.

"Some families believe that certain foods should not be consumed during pregnancy. We cannot reject their beliefs directly; we must explain the health consequences carefully and respectfully." (M14)

Another challenge was the perception that short stature was solely determined by heredity, reducing families' sense of urgency regarding child growth.

"Some parents say that the child is short because the parents are also short. We explain that heredity may play a role, but nutrition, infection, sanitation, and caregiving are also important." (M06)

Theme 4: Collaborative Action in Community-Based Stunting Prevention

Participants viewed stunting prevention as a collective responsibility involving midwives, nutritionists, nurses, physicians, community health volunteers, village authorities, and families. Community health volunteers played an important role in identifying pregnant women, encouraging attendance at integrated health posts, and reporting children at nutritional risk.

"We cannot work alone. Community health volunteers help us identify pregnant women and children who do not attend the integrated health post, especially those living far from health services." (M09)

Collaboration with nutritionists and village authorities also supported nutritional assessment, supplementary feeding, referrals, and community mobilisation. Nevertheless, participants reported that coordination was not always consistent.

"Coordination usually becomes intensive when a programme activity is scheduled, but stunting prevention requires regular communication and follow-up throughout the year." (M13)

Theme 5: Structural Barriers and Adaptive Strategies

Participants identified heavy workloads, inadequate transportation, difficult geographical access, limited educational materials, and low attendance at community health posts as barriers to continuous maternal support. Poverty also restricted families' ability to implement nutritional recommendations.

"The mother may already understand what foods should be given, but sometimes the family cannot afford them. In such situations, education alone is insufficient." (M01)

To overcome these barriers, midwives conducted home visits, communicated through mobile phones, worked with community health volunteers, and provided counselling based on locally available resources.

"When mothers do not come to the health post, we coordinate with the community health volunteer and visit their homes, particularly when the mother or child has nutritional risk factors." (M10)

Participants nevertheless emphasised the need for stronger institutional support, adequate staffing, transportation, continuing education, and integrated monitoring systems.

"Home visits are important, but our workload is already high. We need additional personnel and transportation support so that high-risk families can be monitored consistently." (M15)

Essential Structure of the Findings

The findings demonstrate that midwives experienced stunting prevention as a continuous, relational, and context-dependent form of care throughout the first 1,000 days of life. Their roles extended beyond clinical services to include education, behavioural support, family engagement, advocacy, community mobilisation, and interprofessional coordination. The effectiveness of these roles depended not only on midwives' competencies but also on family participation, sociocultural acceptance, socioeconomic conditions, and the strength of the local health system. Continuous and culturally responsive maternal support therefore emerged as the central meaning underlying midwives' experiences of community-based stunting prevention in Jeneponto Regency.

DISCUSSION

This study demonstrates that midwives perceive stunting prevention as a continuous process extending from pregnancy until the child reaches two years of age. The five themes show that midwives' contributions are not limited to clinical services but include nutrition education, behavioural counselling, family engagement, cultural negotiation, community mobilisation, and interprofessional collaboration. These findings reinforce the importance of positioning midwives as central actors in the continuum of care during the first 1,000 days of life, particularly in community-based health services in Jeneponto Regency.

The first theme identified continuity of midwifery care as the foundation of early stunting prevention. Participants emphasised that preventive measures should begin during pregnancy through maternal nutritional assessment, anaemia screening, iron supplementation, weight monitoring, and dietary counselling. This finding is consistent with evidence that pregnancy represents the initial and critical phase of the first 1,000 days, during which maternal nutritional and health conditions influence fetal growth and subsequent child development (Hastuti et al., 2024). Maternal undernutrition, inadequate gestational weight gain, anaemia, infection, and insufficient antenatal care may contribute to intrauterine growth restriction and increase the risk of low birth weight and stunting (Hamzah et al., 2024).

The continuity of care described by participants extended beyond childbirth to include early initiation of breastfeeding, exclusive breastfeeding, complementary feeding, immunisation, infection prevention, and growth monitoring (Gausman et al., 2021). This

reflects the World Health Organization's position that optimal nutrition during the first two years of life is essential for healthy growth and development. Exclusive breastfeeding during the first six months and the introduction of safe, nutritionally adequate, and age-appropriate complementary foods from six months constitute important measures for preventing growth failure (Liu & Feng, 2026). The complementary-feeding period is considered a critical window for stunting prevention because children's nutritional requirements increase while their vulnerability to infection remains high (Gani et al., 2021). Consequently, fragmented services between antenatal care, postpartum care, and child health monitoring may result in missed opportunities for the early detection and management of nutritional risks (Freudenreich et al., 2022).

The second theme concerns midwives' roles as educators and agents of maternal behavioural change (French et al., 2021). Participants delivered education through antenatal consultations, maternal classes, integrated health posts, individual counselling, and home visits. Nevertheless, they recognised that knowledge did not automatically translate into preventive behaviour (Fahmida et al., 2022). This finding suggests that conventional health education focused exclusively on delivering information may be insufficient. Mothers' ability to follow health recommendations is influenced by household income, food availability, education, workload, decision-making authority, and family support. A recent Indonesian study similarly showed that maternal knowledge and well-being influenced stunting-prevention behaviours, indicating that behavioural change should be understood within mothers' broader social and economic circumstances (Farahdiba et al., 2023).

Participants adapted their counselling by using simple language, repeated messages, practical demonstrations, and examples of affordable foods available in local communities (Fahimah et al., 2024). Such adaptation represents a shift from standardised information delivery toward person-centred and context-sensitive counselling. Midwives' ability to establish trust is particularly important because mothers may be reluctant to disclose financial difficulties, feeding problems, or nonadherence if they anticipate criticism (Erika et al., 2024). Therefore, effective counselling should involve dialogue, shared problem-solving, and realistic recommendations rather than one-way instruction. Evidence indicates that nutrition education can improve complementary-feeding knowledge and practices; however, its effect may be stronger when education is accompanied by access to appropriate foods, particularly in food-insecure communities (Eshete et al., 2020).

The third theme highlights family involvement and sociocultural influences on maternal practices. Participants reported that husbands, parents, and parents-in-law frequently influenced food choices, healthcare utilisation, breastfeeding, and complementary feeding (Dibley et al., 2020). This finding demonstrates that mothers should not be treated as the sole targets of stunting-prevention programmes. Even when mothers possess adequate knowledge, their ability to implement recommendations may be constrained by household power relations and limited control over financial resources (Dwiyitno et al., 2024). Engaging husbands and senior family members may strengthen maternal support, facilitate timely healthcare utilisation, and create a household environment conducive to appropriate nutrition and childcare (Dwitama et al., 2021).

Participants also encountered dietary restrictions, early infant feeding, and beliefs that short stature was primarily hereditary. These beliefs should not be interpreted simply as ignorance because they are often embedded in inherited knowledge, family experience, and community identity. Directly rejecting such beliefs could weaken trust between health workers and families. The negotiation strategies described by midwives therefore represent an important form of culturally responsive care. Midwives can acknowledge local perspectives while explaining biomedical risks and offering acceptable alternatives. Cultural barriers have also been identified as important influences on stunting prevention

in Indonesian communities, suggesting that programmes designed without attention to local meanings may have limited effectiveness (Debela et al., 2020).

The fourth theme shows that community-based stunting prevention depends on collaboration among midwives, community health volunteers, nutritionists, nurses, physicians, village governments, and families. Community health volunteers were especially important in identifying pregnant women, encouraging attendance at integrated health posts, conducting follow-up, and reporting children at nutritional risk. This finding is consistent with evidence that Indonesian health volunteers contribute to anthropometric measurement, growth monitoring, nutrition counselling, early risk detection, and coordination between families and formal health services (Widiasih et al., 2025). Their proximity to households enables them to identify families who may otherwise remain outside the reach of routine services (de Pee et al., 2021).

However, participants reported that collaboration was sometimes activity-based rather than continuously maintained. Inconsistent communication, unclear responsibilities, and fragmented referral feedback may undermine continuity of care. Interprofessional collaboration should therefore be institutionalised through regular case discussions, shared monitoring systems, clearly defined responsibilities, and coordinated home visits. Previous evidence from Indonesia has emphasised that collaboration is fundamental to stunting prevention because its determinants extend beyond the capacity of a single profession or health programme (De Moura et al., 2024). Village governments should also be involved in addressing nonmedical determinants such as sanitation, food insecurity, transportation, and social protection.

The final theme concerns structural barriers and midwives' adaptive strategies. Heavy workloads, inadequate transportation, difficult geographical access, limited educational materials, and irregular attendance at integrated health posts constrained the delivery of continuous support. These challenges indicate that stunting prevention cannot rely exclusively on individual midwives' commitment. Although home visits, telephone communication, flexible counselling, and coordination with community health volunteers helped maintain service continuity, such strategies may be difficult to sustain without institutional resources.

Economic hardship was a particularly important barrier because families could understand nutritional recommendations but remain unable to obtain diverse and nutritious foods (Erika et al., 2024). This finding confirms that stunting is not merely an individual behavioural problem but also a manifestation of social and economic inequality. Indonesia's stunting prevalence decreased to 19.8% in 2024, but geographical and socioeconomic disparities remain substantial, particularly in eastern regions (Damastuti et al., 2022). Accordingly, nutrition-specific interventions delivered by midwives should be integrated with nutrition-sensitive interventions addressing poverty, food security, clean water, sanitation, women's empowerment, and access to healthcare.

Overall, the findings extend the understanding of midwives' roles by conceptualising stunting prevention as continuous, relational, culturally negotiated, and structurally conditioned care. The effectiveness of midwifery support depends not only on professional competence but also on family participation, community networks, interprofessional coordination, and health-system capacity. Strengthening stunting prevention in Jeneponto Regency therefore requires continuing professional development for midwives, adequate staffing and transportation, culturally responsive educational resources, integrated maternal-child monitoring, stronger referral feedback, and sustained collaboration with community health volunteers and village authorities. These measures would enable midwives to provide more equitable and continuous support throughout the first 1,000 days of life.

CONCLUSION

Midwives play a central role in preventing stunting through continuous maternal support from pregnancy until the child reaches two years of age. Their roles encompass clinical care, nutrition education, behavioural counselling, family engagement, cultural negotiation, growth monitoring, and interprofessional collaboration. However, their effectiveness is influenced by family support, socioeconomic conditions, local beliefs, workload, geographical accessibility, and health-system resources. Therefore, local health authorities should strengthen midwives' capacity through continuing education, adequate staffing, transportation support, integrated monitoring systems, and sustained collaboration with families, community health volunteers, nutritionists, and village governments to ensure culturally responsive and continuous stunting-prevention services throughout the first 1,000 days of life.

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