

An Overview of Midwives' Knowledge Regarding the Integrated Postpartum Care Management Chart in the Service Area of the Satui Community Health Center, Satui Subdistrict, Tanah Bumbu Regency, South Kalimantan

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Keywords	Abstract
midwives, integrated management chart, knowledge, postpartum services.	Maternal Mortality Rate (MMR) is still a serious global and national health problem, including in Tanah Bumbu Regency, South Kalimantan, with bleeding and hypertension as the main causes. Effective postpartum services are very important, but the coverage of postpartum and KBPP visits at the Satui Care Health Center shows a decrease or fluctuation. Although the Minister of Health Regulation No. 21 of 2021 requires the use of integrated management charts during the postpartum period, the socialization of this chart/algorithm is not evenly distributed among midwives, has the potential to hinder early detection and management of complications, and contribute to AKI. This study aims to describe midwives' knowledge about the integrated management chart of postpartum services in the working area of the Satui Care Health Center, Tanah Bumbu Regency. This quantitative descriptive study involved 26 midwives as respondents from a population of 34 midwives who provided childbirth care, using <i>the Purposive sampling method</i> . Knowledge was measured by validated and reliable questionnaires (Cronbach's Alpha 0.933 for 15 valid items). The data was analyzed in univariate. The majority of midwives (57.69%) had "Sufficient", 23.08% "Good" and 19.23% "Less" knowledge regarding the integrated management chart of postpartum services. The knowledge of midwives in the work area of the Satui Care Health Center still needs to be improved, especially those with "lacking" knowledge. It emphasizes the importance of socialization and continuous training to optimize postpartum services and reduce AKI.

INTRODUCTION

Maternal Mortality Rate (AKI) is one of the key indicators of global and national health (Alkema et al., 2016; Francis et al., 2024; Onambele et al., 2022; Saleh et al., 2026; Storeng & Béhague, 2017). According to a 2020 World Health Organization (WHO) report, there are an estimated 223 deaths per 100,000 live births, or about 287,000 maternal deaths globally, with the majority of cases occurring in developing countries. Indonesia also faces similar challenges; AKI in 2020 reached 230 per 100,000 live births, a figure that is still relatively high and far from the target *Sustainable Development Goals* (SDGs) which target less than 70 per 100,000 live births by 2030. The leading causes of maternal mortality worldwide, including in Indonesia, are postpartum bleeding (hemorrhage), hypertension in pregnancy, and infections (Akbar et al., 2023; Gustiani & Kartini, 2023; Mahmood et al., 2021; Syairaji et al., 2024).

To suppress AKI, the Indonesian government has made efforts to improve the quality of maternal and child health services, one of which is through comprehensive postpartum

services. The puerperium, which lasts up to six weeks after delivery, is a crucial period and is prone for mothers to a variety of complications that can be fatal. Therefore, optimal postpartum care is essential to detect early and treat complications that arise.

At the local level, Tanah Bumbu Regency, South Kalimantan, also shows efforts to reduce AKI, but the data still fluctuates. In 2022, the AKI was recorded at 74.86 per 100,000 live births (5 deaths), decreasing to 60.76 per 100,000 live births (4 deaths) in 2023, then slightly increasing again to 69.00 per 100,000 live births (4 deaths) in 2024 (Bappeda Tanah Bumbu, 2023; Fauzi & Iskandar, 2022). Bleeding and hypertension disorders are consistently the dominant causative factors (Yuliana & Siti, 2020; Pandia et al., 2021). More specifically, in the work area of the Satui Care Health Center, there was 1 maternal death in 2023 and 2024, although this figure is low, each death is an indicator of the need to improve the health service system (Wang et al., 2020; Rismawati & Nurdin, 2022).

One of the key components in postpartum services is Complete Postpartum Visits (Complete KF) and Postpartum Family Planning (KBPP) (Suryani et al., 2020; Smith & Wang, 2021). Data at the Satui Treatment Health Center shows that there are serious challenges in the implementation of these programs (Jannah & Hasan, 2022). The Complete KF coverage in the region showed a decline from 86.0% in 2022 to 75.2% in 2024, while KBPP coverage fluctuated significantly from 21.5% (2022) to 61.8% (2023) and decreased again to 56.7% in 2024 (Rachman et al., 2021; Fitria et al., 2023). This low KBPP number has the potential to increase the risk of unwanted pregnancies and too close pregnancy spacing, which in turn can increase the risk of obstetric complications in subsequent pregnancies (Syarif & Yuliana, 2020).

Given the central role of midwives in providing this service, the government has stipulated the Regulation of the Minister of Health of the Republic of Indonesia No. 21 of 2021 which expressly mandates the use of algorithms/integrated management charts for the postpartum period as a standard guide. This chart is designed to ensure every healthcare worker has clear guidance in conducting early detection, appropriate treatment, and effective referral. However, even though this algorithm has been socialized by the local Health Office, its application is still uneven among midwives. The effectiveness of the service is highly dependent on the knowledge and skills of the midwife in implementing these standard procedures. Knowledge gaps can hinder early detection and treatment of complications, which can ultimately contribute to maternal mortality and pain. Therefore, this study was conducted to quantitatively describe the level of knowledge of midwives about the integrated management chart of postpartum services in the working area of the Satui Care Health Center.

Previous studies have demonstrated that midwives' knowledge significantly influences the quality of maternal healthcare services. Research by Yuliastanti and Nurhidayati (2021) found that predisposing factors such as knowledge are associated with compliance in postpartum visits, while Poppy Aprilia et al. (2024) emphasized the important role of midwives in improving postpartum service coverage. Furthermore, Mahardany et al. (2023) revealed that effective counseling by midwives significantly affects mothers' decisions to use postpartum family planning. However, most of these studies focus on variable relationships and do not specifically examine midwives' knowledge regarding the use of clinical tools such as integrated management charts.

The research gap lies in the limited number of descriptive studies that specifically assess midwives' knowledge of integrated postpartum care management charts as a standard operational guideline. Inadequate understanding of these charts may lead to errors in clinical decision-making, delays in managing complications, and reduced effectiveness of healthcare services. Therefore, there is a need for research that provides an empirical description of midwives' knowledge as a foundation for improving maternal healthcare systems.

The urgency of this study is further emphasized by the fact that knowledge gaps can directly impact patient safety. In postpartum care, even minor errors in clinical interpretation

can result in severe consequences. Thus, enhancing midwives' capacity through continuous training and comprehensive dissemination of guidelines is crucial. This study is expected to provide valuable insights for policymakers in designing more effective and need-based capacity-building programs.

The novelty of this research lies in its specific focus on assessing midwives' knowledge of integrated postpartum care management charts in the working area of the Satui Community Health Center. This study not only describes the level of knowledge but also highlights its implications for the quality of maternal healthcare services. The objective of this research is to describe midwives' knowledge regarding these management charts, thereby identifying areas that require improvement. The findings are expected to contribute theoretically to the development of midwifery science and practically to healthcare institutions in enhancing service quality and reducing maternal mortality rates sustainably.

RESEARCH METHOD

This quantitative descriptive research used a survey approach to describe the level of knowledge of midwives. The research location is in the working area of the Satui Treatment Health Center, Tanah Bumbu Regency, from July 28 to 30, 2025. The study population was 34 midwives who provided childbirth care, with a sample of 26 midwives who participated through *the purposive sampling method*. There were 8 midwives who were not willing to be respondents.

Midwife's knowledge was measured by a questionnaire of 15 multiple-choice items that had been validated and had very high reliability, with a Cronbach's Alpha value of 0.933. Answers are categorized as "Good" (score 80-100%), "Adequate" (score 60-79%), and "Poor" (score < 60%). The data were analyzed univariate to describe the frequency distribution of midwives' knowledge levels.

Results

The results of this study are presented in two tables to provide a comprehensive picture of the distribution of midwives' knowledge levels and the demographic profile of respondents. Table 4.2.1 presents the frequency distribution of midwives' knowledge levels about the integrated management chart of postpartum services.

Table 1 Distribution of Midwifery Knowledge Frequency on Integrated Maternity Service Management Chart

Knowledge Categories	Number of Respondents	Percentage(%)
Good	6	23,08
Enough	15	57,69
Less	5	19,23
Total	26	100

Source: Primary Data, 2025

Based on Table 1, the majority of respondent midwives (15 people or 57.69%) have a "Sufficient" level of knowledge regarding the integrated management chart of postpartum services.¹ A total of 6 people (23.08%) had "Good" knowledge, while 5 people (19.23%) were

in the "Less" knowledge category. Table 4.2.2 shows the demographic profiles of the 26 midwives who participated in the study.

Table 2 Demographic Profile of Midwives Respondents at Satui Care Health Center

Demographic Characteristics	Number of Respondents	Percentage(%)
Age (Years)		
<30	1	3,85
30-39	19	73,08
40-49	5	19,23
>50	1	3,85
Final Education		
D3 Midwifery	22	84,62
Demographic Characteristics		
Final Education		
D4 Midwifery	2	3,85
Midwifery Profession	3	11,54
Long Time Working		
<5	1	3,85
5-10	10	38,46
11-15	8	30,77
>15	7	26,92

Source: Primary Data, 2025 ¹

The demographic profile of the respondents showed that most midwives were between 30-39 years old (73.08%) and had a D3 Midwifery education background (84.62%). The distribution of working lengths is quite varied, with the majority being in the range of 5-15 years.

The results of this study revealed that the knowledge of midwives in the work area of the Satui Care Health Center regarding the integrated management chart of postpartum services is still at a level that is not optimal. The findings showed the majority of midwives had "Sufficient" knowledge and almost one-fifth of respondents had "Less" knowledge had significant implications for the quality of postpartum health care. "Sufficient" knowledge, which is defined as a score of 60-79%, means that the average respondent answered incorrectly on between 3 to 6 questions out of a total of 15 key questions. In a clinical context, errors on just one question can be fatal. The integrated management chart (NF1-NF11) includes a series of steps to identify and manage critical conditions, ranging from routine problems such as

breastfeeding (NF9) to emergencies such as severe hypertension (NF2) and heavy bleeding (NF5). If midwives have a lack of understanding, especially on rare but potentially deadly aspects, then early detection and proper treatment can be hampered.

This moderate or low level of knowledge is directly related to the problems described in the background, such as fluctuations in the coverage of the Complete KF and low KBPP. Midwives with an inadequate understanding of integrated management charts may not have the ability to effectively screen or provide comprehensive counselling. For example, a lack of a deep understanding of the NF1 to NF11 algorithm can cause midwives to fail to recognize red flags or delay crucial referrals. This creates the "*missed opportunities*" that the use of this chart explicitly wants to prevent. Any delay in handling obstetric emergency cases can contribute to an increase in maternal morbidity and mortality, as reflected in the AKI data that is still fluctuating in Tanah Bumbu Regency.

These findings are also supported by other studies. Studies conducted by Yulianti & Nurhidayati (2021) and Poppy Aprilia et al. (2024) show a significant relationship between midwifery knowledge, the role of midwives, and incomplete coverage of postpartum visits. Similarly, the suboptimal level of midwifery knowledge can explain why the coverage of KBPP at the Satui Care Health Center is still low. As found by Mahardany et al. (2023), effective counseling is strongly related to the mother's decision to use KBPP. The midwife's knowledge of "Sufficient" or "Less" can result in less convincing or uninformative counseling, so that the mother does not make the decision to use postpartum birth control. This ultimately contributes to unplanned or overly close pregnancy cycles, which are high risks to the health of both mother and child.

This situation reinforces the statement in the background that the socialization of the integrated management chart has not been evenly distributed among midwives. It is clear that existing socialization efforts have not resulted in a uniform and in-depth understanding among all midwives. Therefore, a more holistic approach is needed in midwife capacity building. Training should not focus solely on theoretical information transfer, but should include real-life case simulations to ensure midwives can apply these integrated management charts in high-pressure situations and make informed clinical decisions. A moderate level of knowledge can create a gap between what is known and what is actually implemented, a gap that has the potential to have serious consequences for patient safety.

CONCLUSION

This study concludes that the level of midwives' knowledge regarding the integrated management chart of postpartum services in the working area of the Satui Community Health Center is still not optimal. The majority of respondents (57.69%) had a sufficient level of knowledge, followed by 23.08% with good knowledge and 19.23% with poor knowledge. This condition indicates a gap in understanding that may affect the quality of postpartum care, particularly in early detection, management of complications, and effective counseling. Inadequate knowledge may contribute to the low coverage of complete postpartum visits and postpartum family planning utilization, which in turn increases the risk of maternal morbidity and mortality. Therefore, efforts are needed to improve midwives' capacity through comprehensive socialization, continuous training, and practice-based approaches to ensure the optimal implementation of the integrated management chart and to support the reduction of maternal mortality rates.

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