



## Mother knowledge of lactation massage at PMB Rahmiyati

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ARTICLE INFO	ABSTRACT
<p><b>Article history:</b>            Received 08 September 2025            Accepted 14 February 2026            Published 28 February 2026</p> <p><b>Keywords:</b>            Lactation massage            Maternal knowledge            Exclusive breastfeeding            Postpartum mothers            Indonesia</p>	<p><b>Background:</b> Exclusive breastfeeding (EBF) is crucial for infant health, yet coverage in Banjarmasin, Indonesia, remains below national targets. Lactation massage is an effective technique to address common breastfeeding problems, but its success may be hindered by inadequate maternal knowledge.</p> <p><b>Objective:</b> This study aimed to describe the knowledge of postpartum mothers regarding lactation massage at an independent midwifery practice (PMB Rahmiyati) in Banjarmasin.</p> <p><b>Method:</b> A quantitative descriptive study with a survey approach was conducted. The sample comprised 35 postpartum mothers recruited using total sampling. Data were collected using a validated and reliable questionnaire on lactation massage knowledge, adopted from Putri (2022). Knowledge scores were categorized as good (76-100%), fair (56-75%), or poor (<math>\leq 55\%</math>). Data were analyzed using descriptive statistics (frequency and percentage).</p> <p><b>Results:</b> The study found that 20 respondents (57.1%) had good knowledge of lactation massage. However, a substantial combined proportion of 42.9% had either fair (20.0%) or poor (22.9%) knowledge. This knowledge gap existed despite the majority of mothers being in the optimal reproductive age (85.7%), having a senior high school education (91.4%), and being unemployed (68.6%).</p> <p><b>Conclusion:</b> While more than half of the mothers demonstrated good knowledge, a significant portion still lacks adequate understanding of lactation massage. These findings underscore the urgent need for continuous, structured educational interventions by health workers to empower all mothers, particularly in utilizing effective lactation management strategies.</p>

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### 1. Introduction

Breast milk (Air Susu Ibu - ASI) is the primary source of nutrition produced by a mother for her infant. It contains carbohydrates, fats, proteins, vitamins, minerals, digestive enzymes, and hormones. Furthermore, breast milk is rich in immune cells, such as macrophages, and bioactive molecules that support infant health and development (Londhe et al., 2022). It is given without any additional foods or liquids, with the exception of vitamins, mineral



supplements, or medications. While there is variation in maternal diet, breast milk generally provides adequate nutrition, although supplementation with certain vitamins like D and K may be necessary (Antonov et al., 2024). Bioactive compounds in breast milk, such as oligosaccharides, support optimal infant growth and development (Lugonja et al., 2024). The volume of breast milk produced can vary daily, with an adequate supply typically ranging from 750 to 1200 ml per day, sufficient to meet an infant's needs (Manshanden et al., 2025; Yusti, 2023). A mother's nutrition and lifestyle directly impact the quality and composition of her breast milk, highlighting the importance of maternal health during lactation (Kumar & Lukman, 2019).

The World Health Organization (WHO) has set a global target to achieve 70% exclusive breastfeeding (EBF) coverage by 2030 (WHO, 2023). In Indonesia, EBF coverage was reported at 38% in 2019, increasing to 67.96% by 2022 (Andhika, 2022; Andini et al., 2025; Hidayati et al., 2024). Despite this progress, these figures remain below the national target of 80% set by the Indonesian Ministry of Health (Prihatini et al., 2023).

Regionally, data from the Badan Pusat Statistik (BPS, 2025) indicates that EBF coverage in South Kalimantan has shown an increasing trend, rising from 60.27% (2021) to 64.59% (2022), and further to 65.69% (2023). Although this positive trend is encouraging, it still falls considerably short of the 80% target. In Banjarmasin City specifically, data from the South Kalimantan Provincial Health Office for 2021 reported EBF coverage at only 64.5%. This implies that 35.5% of infants in Banjarmasin City did not receive exclusive breastfeeding (Dinas Kesehatan Kota Banjarmasin, 2023). This low achievement rate signals an underlying problem in breastfeeding practices that requires immediate attention.

Low rates of exclusive breastfeeding can be attributed to various factors, including poor maternal self-efficacy and cultural practices, lack of family support, lactation issues such as perceived insufficient milk supply, barriers within the healthcare system, and inadequate maternal knowledge (Kartinazahri et al., 2023; Meher & Zaluchu, 2024; Safira & Luthfiyana, 2024; Santoso et al., 2023; Sinaga & Siregar, 2020). One intervention to address lactation challenges is breast care. Breast care aims to improve blood circulation and prevent blocked ducts, thereby facilitating milk flow. Lactation massage is recognized as an effective method of breast care (Ladyvia, 2025; Utami et al., 2024; Wahyuningsih et al., 2023).

Lactation massage is a therapeutic technique designed to enhance breast milk



production and mitigate common breastfeeding difficulties. It involves massaging specific areas, such as the chest, back, and spine, to stimulate the release of the hormones prolactin and oxytocin, which are crucial for milk synthesis and ejection. When the alveolar cells in the mammary glands are stimulated, the resulting contractions propel milk through the ducts and out of the nipple, facilitating the infant's ability to breastfeed effectively (WAKERLEY, 2006; Yulianti et al., 2024).

Maternal knowledge plays a pivotal role in breastfeeding success. Adequate knowledge positively influences a person's attitudes and behaviors in making health-related decisions (Afroz et al., 2024; Ezeogu et al., 2025). In the context of lactation massage, sufficient knowledge is expected to motivate mothers to perform the massage independently or to seek services at healthcare facilities. This is crucial because lactation massage not only helps stimulate milk production and relieve engorgement but also promotes maternal relaxation during breastfeeding. Conversely, a lack of awareness about lactation massage may prevent mothers from proactively addressing breastfeeding problems, ultimately hindering successful EBF.

A preliminary study conducted at PMB (Id: *Praktik Mandiri Bidan*; En: Independent midwifery practice) Rahmiyati in May 2025 revealed that the average monthly number of postpartum visits in 2025 ranged from 34 to 38 women. Interviews with five postpartum mothers indicated that three of them did not practice exclusive breastfeeding, citing insufficient milk production as the primary reason for switching to formula milk. These three mothers reported being unaware of lactation massage and its benefits, and consequently had never attempted it. In contrast, the two mothers who successfully practiced exclusive breastfeeding stated that they had received lactation massage at PMB Rahmiyati.

This preliminary finding suggests a potential link between maternal knowledge of lactation massage and the success of exclusive breastfeeding. However, the specific level of knowledge regarding lactation massage among mothers in this community remains unknown. Therefore, this study aims to describe the knowledge of postpartum mothers about lactation massage at PMB Rahmiyati. The results are expected to provide a foundational understanding for designing targeted health interventions to improve maternal knowledge and practices in lactation management.

## **2. Method**



## Research design

This study employed a quantitative descriptive design with a survey approach. This design was used to provide an overview of maternal knowledge regarding lactation massage at PMB Rahmiyati.

## Participants

The population in this study comprised all postpartum mothers who visited PMB Rahmiyati. Based on the average number of postpartum visits from January to April 2025, the population consisted of 35 postpartum mothers. The sampling technique employed was total sampling, whereby the entire population was included as the study sample. Consequently, the study sample consisted of 35 respondents.

## Data collections

Data were collected using a questionnaire as the primary instrument. The questionnaire assessed knowledge of lactation massage and had been tested for validity, with r-values ranging from 0.583 to 0.735 ( $> r\text{-table } 0.444$ ), and reliability, with a Cronbach's Alpha value of 0.744 ( $> 0.60$ ). The questionnaire consisted of eight questions, with each correct answer assigned a score of 1 and each incorrect answer a score of 0. All scores were then summed and converted into percentages to be categorized into three levels: good knowledge (score 76–100%), fair knowledge (score 56–75%), and poor knowledge (score  $\leq 55\%$ ).

## Data analysis

Data were analyzed descriptively using the Statistical Package for Social Sciences (SPSS) version 26. Categorical data were subsequently presented in the form of frequency distributions and percentages.

## Ethical consideration

This study received ethical approval from the Research Ethics Committee of Universitas Sari Mulia, Banjarmasin, under ethical clearance number 314/KEP-UNISM/VI/2025. Official permission to conduct the research was also obtained from PMB Rahmiyati, as indicated by approval letter number 07/SKK/V/2025.

## 3. Result

The demographic characteristics of the mothers participating in the study are presented in Table 1. The data reveals that the majority of mothers (85.7%) are in the optimal reproductive age range of 20-35 years, while a smaller proportion are either younger than 20 years (11.4%)



or older than 35 years (2.9%). In terms of educational background, the group is predominantly composed of mothers with a senior high school education (91.4%). Furthermore, the employment data shows that most mothers in this sample do not work outside the home (68.6%), with only 31.4% reporting that they are employed.

Table 1. Demographic characteristics of the mothers (n=35)

Characteristics	Frequency (n)	Percentage (%)
<b>Ages</b>		
<20 years	4	11.4
20-35 years	30	85.7
>35 years	1	2.9
<b>Total</b>	<b>35</b>	<b>100.0</b>
<b>Education</b>		
Junior High School	3	8.6
Senior High School	32	91.4
<b>Total</b>	<b>35</b>	<b>100.0</b>
<b>Employment status</b>		
Not working	24	68.6
Working	11	31.4
<b>Total</b>	<b>35</b>	<b>100.0</b>

An overview of the respondents' knowledge regarding lactation massage is provided in Table 2. The findings indicate that more than half of the postpartum mothers (57.1%) possess a good level of knowledge on the topic. However, a combined total of 42.9% of mothers have either sufficient (20.0%) or poor (22.9%) knowledge, suggesting that while a majority are well-informed, a substantial portion of the group still lacks adequate understanding of lactation massage.

Table 2. Postpartum mothers' knowledge of lactation massage (n=35)

Knowledge Level	Number (n)	Percentage (%)
Good	20	57.1
Sufficient	7	20.0
Poor	8	22.9
<b>Total</b>	<b>35</b>	<b>100.0</b>

#### 4. Discussions

The results showed that more than half of the respondents, namely 20 mothers (57.1%), had good knowledge of lactation massage. Meanwhile, a considerable cumulative proportion of 42.9% of mothers had fair knowledge (20.0%) and poor knowledge (22.9%). This



distribution indicates that although more than half of the mothers possessed adequate understanding, a significant proportion still lacked proper knowledge of this important technique, despite lactation massage playing a crucial role in breastfeeding success. This finding aligns with recent studies stating that maternal knowledge of lactation management, including lactation massage, is an important determinant of exclusive breastfeeding behavior (Afrinis et al., 2020; Kamila & Pratiwi, 2025). The knowledge gap among more than two-fifths of these respondents highlights a critical area requiring focused health interventions. This confirms that although services such as lactation massage are available at PMB Rahmiyati, information dissemination may not have reached all mothers effectively, or the information provided may require reinforcement through sustained educational efforts (Lestari et al., 2023; Natarelli et al., 2024; Zulfiana et al., 2024). This condition is concerning because breastfeeding challenges often emerge during the early postpartum period, and adequate knowledge would empower mothers to seek and implement appropriate solutions such as lactation massage (Hikmatun et al., 2024; Mendes et al., 2022; Musni et al., 2024; Witt et al., 2016).

The demographic profile of respondents presented in Table 1 provides important context for interpreting the level of knowledge about lactation massage. The majority of mothers were within the optimal reproductive age of 20–35 years (85.7%) and had completed senior high school education (91.4%). A senior high school education level can be a double-edged sword; on one hand, it provides a basic capacity to receive and process health information, but on the other hand, it may be insufficient for understanding the physiological mechanisms of lactation in depth without targeted health education. Research confirms that maternal education does influence the ability to access health information; however, specific knowledge about lactation is more determined by exposure to counseling than by formal education level alone (Neves et al., 2021; Wako et al., 2022). The finding that the majority of mothers were not employed (68.6%) could theoretically provide more time and opportunity to focus on the breastfeeding process and seek information about lactation massage. However, the existence of a knowledge deficit in this group indicates that availability of time alone does not guarantee the acquisition of good knowledge without structured educational initiatives from health workers. Findings from several researchers confirm that informational support from health workers has a more dominant influence on breastfeeding practices



compared to other sociodemographic factors (Dinour et al., 2024; Gökduman-Keleş et al., 2023).

The significant proportion of mothers with poor knowledge of lactation massage (22.9%) is a finding that warrants serious attention, given the well-documented benefits of lactation massag (Anasari et al., 2023; Nurjanah & Rofika, 2023; Romadhoni et al., 2023; Yusti, 2023). Lactation massage is a therapeutic technique aimed at increasing breast milk production by stimulating the hormones prolactin and oxytocin through massage of the chest, back, and spinal areas, thereby facilitating the infant's ability to breastfeed. Recent research by Agustia & Camelia (2025) demonstrated that lactation massage is significantly effective in increasing breast milk production in postpartum mothers. Hanifah et al. (2024) also reported that lactation massage not only increases breast milk production but also provides a relaxation effect that facilitates smooth milk ejection. When mothers lack adequate knowledge of these benefits, they may not recognize early signs of lactation problems as conditions that can be addressed. This can lead to delayed intervention, increased discomfort, and a greater likelihood of early breastfeeding cessation. A study by Kera et al. (2023) identified that low maternal knowledge of lactation management correlates with high rates of formula feeding. The preliminary study findings at PMB Rahmiyati itself confirmed this, where three out of five mothers interviewed did not practice exclusive breastfeeding because they reported being unaware of lactation massage, while the two mothers who successfully practiced exclusive breastfeeding had received lactation massage at the healthcare facility.

Based on the findings of this study, it is imperative for health workers at PMB Rahmiyati and similar primary healthcare facilities to strengthen their educational initiatives. The data indicate that although services such as lactation massage are available and utilized by some mothers, understanding of its purpose and benefits is not universally held. The integration of structured health education, possibly with repetition, during antenatal and postnatal visits could significantly improve maternal knowledge. Such educational programs should encompass not only the "what" and "why" aspects of lactation massage but also include practical demonstrations to empower mothers and their families.

## 5. Conclusion

More than half of the mothers at PMB Rahmiyati demonstrated good knowledge of lactation massage. However, a substantial proportion (42.9%) still possessed fair and poor



knowledge. This knowledge gap, particularly within a population that is predominantly educated and unemployed, highlights the need for continuous educational interventions by health workers to empower all mothers in managing their lactation health effectively.

## 6. Conflict of interest

All authors declare no conflict of interest.

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