

KNOWLEDGE AND ATTITUDE OF MIDWIVES REGARDING THE ENHANCEMENT OF BREAST MILK PRODUCTION (ASI) THROUGH LACTATION MASSAGE

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Abstract

Inadequate breast milk production for newborns might result in impaired growth and development. Enhancing breast milk production can be achieved by lactation massage, a therapeutic technique including massage movements on the breast area that stimulates lymphatic and blood circulation, increases milk production, and alleviates issues related to blocked milk ducts. The applicability of this scientific findings to health services is limited; therefore, midwifery support is essential in enhancing breast milk production with lactation massage. Midwives can utilize their expertise to perform lactation massage, thereby enhancing breast milk supply and promoting the effectiveness of exclusive breastfeeding. This study aimed to ascertain the correlation between midwives' knowledge and attitudes on the enhancement of breast milk production by lactation massage. The method used was cross-sectional, and the target population consists of midwives attending Harapan Bersama Polytechnic. Utilizing a total sampling technique involving 11 individuals. Data were acquired by surveys and subsequently analyzed using the chi-square method. The study's results yielded a P value of 0.04 ($<\alpha 0.05$), indicating a correlation between midwives' knowledge and attitudes on the enhancement of breast milk supply via lactation massage, with an odds ratio of 0.33. Midwives' knowledge and abilities must be improved in order to use lactation massage to boost the supply of breast milk.

Keywords: Attitude, Knowledge, Lactation Massage, Midwife.

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1. Introduction

Breast milk (ASI) contains all essential elements required by an infant during the initial six months of life, including lipids, carbohydrates, proteins, vitamins, minerals, and water. ASI comprises bioactive components that enhance the infant's underdeveloped immune system and facilitate nutrient

digestion and absorption, while also providing advantages as an anti-infective, immunomodulatory, and anti-inflammatory agent that influences both long-term and short-term health, thereby playing a crucial role in the development and growth of infants [1].

The numerous advantages of breast milk are occasionally disregarded during

breastfeeding. This is due to complications in the breastfeeding process, including breast engorgement, obstructed milk ducts, mastitis, and others, which adversely affect milk production, leading to premature cessation of nursing [2].

UNICEF data shows that exclusive breastfeeding in the world is only around 48% with the highest prevalence in South Asia at 60% and the lowest in North America at 60% [3]. In Indonesia, exclusive breastfeeding in 2023 was 63.9%, while in Central Java it was 64.3%, this figure decreased compared to the previous year of 65.7% [4]. Almost all babies are given breast milk, but in practice there are most who are given breast milk with additional water, other foods besides milk, other types of milk such as formula milk or complementary foods. Giving breast milk accompanied by other foods/drinks shows that breast milk cannot meet the baby's needs [3].

Breast milk production that is insufficient to meet the baby's needs can result in stunted growth and development, so that mothers' understanding and health workers' skills regarding breast milk sufficiency are needed to support the lactation process [5].

Lactation massage is one of several methods to enhance breast milk production. Lactation massage is a therapeutic technique including massage movements on the breast area, which stimulates lymphatic and blood circulation, enhances breast milk production, and alleviates issues related to blocked milk ducts [2].

Previous research shows that massage therapy can increase breast milk production, and is also useful for increasing overall breast enlargement and reducing the increase in breast surface temperature [6]. Other studies have shown that integrated breast massage can resolve blocked breast duct problems more quickly, with less pain, and a more significant reduction in the size of the blockage, there were no cases of recurrent breast problems, and it did not cause post-massage hematoma [2].

The existence of scientific evidence that shows the benefits of lactation massage, does not immediately apply to health services, so midwife support in efforts to increase breast milk production with lactation massage is needed. With the knowledge possessed by midwives, midwives can practice lactation massage as an effort to support the success of exclusive breastfeeding by increasing breast milk production. Research by Kholifah et al (2024) states that there is an influence of the role of midwives through Islamic-based oxytocin massage videos on the smoothness of breast milk [7].

The role of midwives is demonstrated through support for attitudes in the implementation of lactation massage, attitudes themselves are influenced by knowledge [8]. However, previous research has focused more on the knowledge of postpartum mothers [9,10], research on midwife knowledge is rarely conducted, even though the key for postpartum mothers to understand good and correct massage techniques can be realized if the midwife's knowledge is also good. Currently, not all midwives in Tegal apply lactation massage either as an initial effort to release breast milk or as an effort to increase breast milk production, so this study was conducted with the aim of "finding out the relationship between midwives' knowledge and attitudes in efforts to increase breast milk production through lactation massage".

2. Methods

This research employed a quantitative methodology that utilized an analytical survey approach and a cross-sectional design. The research aimed to ascertain the correlation between independent and dependent variables. The independent variable was the midwife's knowledge of lactation massage, while the dependent variable was the midwife's attitude towards using lactation massage to enhance breast milk production.

The population consists of midwives from the city and district of

Tegal who participated in training activities at Harapan Bersama Polytechnic, utilizing a total sampling technique. We gathered primary data by having midwives complete a questionnaire before the training.

In this study, the scale used is a nominal scale that categorizes knowledge as follows: good knowledge is indicated by a score of ≥ 75 , sufficient knowledge by a score between 56 and 75, and poor knowledge by a score of less than 56. While the attitude of midwives is divided into positive if they apply lactation massage to increase breast milk and negative if they do not apply lactation massage to increase breast milk. The assessment of attitudes is based on the experience of midwives handling breastfeeding mothers' cases. The questionnaire includes 25 questions assessing knowledge and 2 questions evaluating midwives' attitudes towards lactation massage. The answer choices in the questionnaire use the Guttman scale with yes and no answer choices; if the answer is correct, then a score of 1 is given, and if the answer is wrong, then a score of 0 is provided.

Data collection was conducted in May 2024 with 12 respondents, with a limited number of samples, so the existing sampling used total sampling. Before data collection, respondents were asked to fill out an informed consent form stating their willingness or unwillingness to be respondents in this study. Data collection was also written anonymously to maintain respondent confidentiality. We then subjected the collected data to univariate and bivariate analysis. The relationship test used chi-square.

3. Results and Discussion

This research aimed to determine the relationship between midwives' knowledge and attitudes in efforts to increase breast milk production through lactation massage and was completed with the following results:

Table 1. The Characteristics of Respondents

No	Variables	F	%
1.	Age		
	a. ≤ 35 years	7	58.33%
	b. > 35 years	5	41.67%
	Total	12	100%
2.	Education		
	a. Diploma 3	9	75%
	b. Diploma 4	1	8.33%
	c. Professional midwife	2	16.67%
	Total	12	100%
3.	Length of working		
	a. ≤ 10 years	2	16.67%
	b. 11 - 20 years	7	58.33%
	c. ≥ 20 years	3	25%
	Total	12	100%
4.	Year of Graduation		
	a. 2006	1	8.33%
	b. 2010	1	8.33%
	c. 2011	4	33.33%
	d. 2012	3	25%
	e. 2022	1	8.33%
	f. 2023	2	16.67%
	Total	12	100%
4.	Knowledge		
	a. Good	3	25%
	b. Enough	9	75%
	Total	12	100%
5.	Attitude		
	a. Positive	6	50%
	b. Negative	6	50%
	Total	12	100%

The table above indicates the characteristics of the respondents: 58.33% are over 35 years old, 75% have completed a Diploma Three as their highest level of education, and 33.33% graduated from midwifery education in 2011. Additionally, 58.33% of midwives have between 11 to 20 years of work experience.

In addition to the data above, midwives' knowledge of lactation massage shows that 75% of their knowledge is sufficient, and the midwives' attitudes towards the application of lactation massage as an effort to increase breast milk production are 50% positive and 50% negative.

Knowledge itself is influenced by internal factors (education and age) and

external factors (work and experience) [11]. In this case, midwives possess certain factors, with the majority in this study being over 35 years old and holding a Diploma Three as their highest education, along with more than 10 years of work experience. Additionally, several policies regarding the extension of the Registration Certificate (STR) have required midwives to enhance their knowledge by attending seminars or training activities, resulting in a generally adequate understanding of lactation massage among them. Attitude itself is a product of the socialization process, where individuals react to the stimuli they encounter. When an attitude is directed toward a specific object, it indicates that the adjustment to that object is shaped by the social environment and the individual's willingness to respond. An attitude necessitates an existing tendency to react to social objects, which, when combined with other situational and dispositional factors, influences and directs the individual's actual behavior [12].

According to this survey, most midwives had positive sentiments regarding the use of lactation massage services, while some did not. Alongside the internal factors affecting midwives, such as their knowledge and time

availability, there are environmental factors concerning the perception of the policy prohibiting the application of complementary therapies in health services, as well as the belief that numerous alternative efforts can enhance breast milk production. The outcome aligns with the three components of attitude as outlined by Azwar (2011), encompassing the cognitive component associated with beliefs, ideas, and concepts. The cognitive component describes the object and at the same time relates it to other objects around it. The affective component concerns a person's emotional life, which has an assessment that can be positive or negative. The emotional system that causes feelings of pleasure or displeasure, fear or not. The conation component, which is a tendency to behave. These three components do not function independently; rather, they interact in a complex manner, demonstrating that humans operate as a cognitive system. This demonstrates the interdependence of a person's thoughts and feelings [12].

The results of the test of the relationship between midwives' knowledge and attitudes in efforts to increase breast milk production are as follows:

Table 2. Relationship between Knowledge and Attitude of Midwives

Knowledge	Attitude				P-Value	OR	Odds Ratio	
	Positive		Negative				Lower	Upper
	F	%	F	%				
a. Enough	3	33.3%	6	66.7%	0.04	0.33	0.132	0.840
b. Good	3	100%	0	0				

The results of the bivariate analysis test above indicate that the value of $P = 0.04$ is greater than $\alpha = 0.05$, which means there is a relationship between midwives' knowledge and their attitudes towards increasing breast milk production through lactation massage; midwives with good knowledge are 100% positive or willing to apply lactation massage, while those with sufficient knowledge are mostly negative or do not support its application. The OR value of 0.33 indicates that

midwives with a good level of knowledge are 0.33 times more likely to perform lactation massage to increase breast milk compared to midwives with sufficient knowledge.

Lactation massage is a massage technique performed on the head, neck, back, spine, and breasts that aims to stimulate the hormones prolactin and oxytocin [13]. Previous research states that in patients/clients who undergo lactation massage, the muscles and blood

vessels in their breasts are stimulated so that the production and volume of breast milk increase. In addition, the breasts become clean, soft, and elastic so that babies can easily suckle and avoid the risk of sore nipples [14]. Similar studies have also shown that lactation massage has been proven to increase the volume and production of breast milk [15,16,17].

The above study's results primarily suggest that lactation massage can serve as additional care to enhance the success of exclusive breastfeeding. Lactation massage can be applied if it gets various supports, one of which is the support of a midwife in implementing the lactation massage. If the support of a midwife can increase breastfeeding self-efficacy in the early stages of lactation [18], So it is possible that the number of exclusive breastfeeding achievements will increase if midwives support the implementation of lactation massage to increase breast milk production. To support this, midwives need to have good knowledge about lactation massage.

The results of this study indicate that there is a relationship between knowledge and midwife attitudes in efforts to increase breast milk production through lactation massage, where midwives who have good knowledge, 100%, have a positive attitude, while midwives who have sufficient knowledge, the majority, have a negative attitude in the application of lactation massage. The theory posits that cognitive, affective, and emotional systems influence attitudes [12].

The results of the same study also showed that knowledge influences attitudes. Widayati et al.'s (2023) research showed that knowledge has a relationship with attitudes with a value of $P = 0.000 < \alpha = 0.05$ [19], Al-Fariqi and Setiawan (2020) in their research stated that mothers with good knowledge have a positive (supportive) attitude in implementing health [20], Another study, namely the study by Sirupa et al (2016), also stated that the majority of respondents to the study were knowledgeable and had good attitudes.

This is because the level of knowledge influences how a person behaves [21].

In this study, attitudes were influenced by perceptions regarding the applicability of lactation massage in health services, the potential waiting time for other patients if lactation massage were utilized, and the insufficient reinforcement of midwives' knowledge about lactation massage. This knowledge gap was affected by factors such as the length of practice, work experience, environmental influences, and participation in relevant training. Additionally, some midwives contended that various other methods could be employed to enhance breast milk production.

Basically, work competencies in the field of midwifery have been regulated in the Decree of the Minister of Health of the Republic of Indonesia, such as the competency standards for midwives in providing care for postpartum mothers which include monitoring the condition of patients/clients, and uterine involution, the lactation and breastfeeding process, danger signs for postpartum mothers, counseling for planning the next pregnancy, and follow-up care [22]. The existence of these regulations, especially in the care of the lactation and breastfeeding process, should provide midwives with opportunities to develop knowledge and skills in efforts to increase breast milk production. In addition, midwives also have a role as counselors who are responsible for providing education, information and assessments about exclusive breastfeeding [23]. With the knowledge and attitude of midwives who support the implementation of lactation massage, it is hoped that babies who are given exclusive breastfeeding can increase, but in the implementation of lactation massage, scheduling is required, so that the waiting time for other patients is not too long.

4. Conclusion

The conclusion indicates a relationship between midwives'

knowledge and attitudes toward increasing breast milk through lactation massage. Midwives with excellent knowledge tend to have a positive attitude, whereas those with sufficient knowledge often exhibit a negative attitude regarding the efforts to enhance breast milk production through lactation massage. Furthermore, midwives with good knowledge are 0.33 times more likely to implement lactation massage to boost breast milk production. Therefore, it is essential to enhance the knowledge of midwives, especially for those who have been practicing for a long time, with a specific focus on lactation massage. Additionally, new research findings related to innovative therapies and techniques applicable in midwifery services should be disseminated. This effort should be supported by policies and practical recommendations to ensure midwives receive the necessary support in providing care.

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