

The Effect of Health Education on Improving Knowledge of Oxytocin Massage Among Breastfeeding Mothers at Puskesmas Godean II, Sleman

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Abstract. *Breastfeeding mothers' knowledge of oxytocin massage remains relatively low. Limited knowledge may prevent mothers from understanding the benefits and proper techniques of oxytocin massage to facilitate breast milk secretion. One approach that can be implemented to improve maternal knowledge is health education. This study aimed to determine the effect of health education on improving breastfeeding mothers' knowledge of oxytocin massage at Godean II Public Health Center, Sleman. This quantitative study employed a pre-experimental one-group pretest-posttest design. The study population consisted of 43 breastfeeding mothers, with a sample of 30 respondents selected using purposive sampling. The research instrument was a knowledge questionnaire on oxytocin massage consisting of 15 questions. Data were analyzed using the Paired Samples t-test. The results showed that before the health education intervention, respondents' knowledge scores ranged from 7 to 11, whereas after the intervention, the scores increased to 13–15. The results of the bivariate analysis using the Paired Samples t-test before and after the health education intervention yielded a P-value of <0.001 ($p < 0.05$). These findings indicate a significant improvement in knowledge following the health education intervention.*

Keywords: *Breastfeeding Mothers; Knowledge; Health Education; Oxytocin Massage*

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INTRODUCTION

The breastfeeding period is an important stage in the lives of both mothers and infants because successful breastfeeding affects infant growth, development, nutritional status, and immunity (Putri & Bachtiar, 2025; Berti et al., 2017; Kariyawasam et al., 2025). Breast milk contains essential nutrients, antibodies, hormones, enzymes, and various bioactive components that support optimal infant development and cannot be completely replaced by formula milk.

In addition to providing benefits for infants, breastfeeding also offers benefits to mothers, including accelerating uterine involution, reducing the risk of postpartum hemorrhage, lowering the risk of breast and ovarian cancer, and strengthening the emotional bond between mother and infant (Kartika et al., 2025). Therefore, the World Health Organization (WHO) recommends exclusive breastfeeding for the first six months of life, followed by complementary feeding up to two years of age or beyond. However, successful breastfeeding continues to face various challenges, particularly inadequate breast milk secretion during the early lactation period, which can often cause anxiety, reduce maternal confidence, and increase the risk of early breastfeeding cessation (Hikmatun et al., 2024).

One non-pharmacological approach recommended to address these challenges is oxytocin massage (Lestari et al., 2022). This massage technique, performed along the spinal region to the fifth and sixth ribs, stimulates the release of the hormone oxytocin, thereby enhancing the let-down reflex, facilitating breast milk secretion, and providing a relaxing effect for breastfeeding mothers. The successful implementation of oxytocin massage is strongly influenced by mothers' knowledge of its benefits, mechanism, timing, and proper technique.

Knowledge serves as a foundation for the development of health-related attitudes and behaviors; therefore, mothers who understand the benefits of oxytocin massage are more likely to feel confident in applying it as part of efforts to support successful breastfeeding (Rahayu et al., 2025). Accordingly, health education is an important promotive strategy for improving maternal knowledge and enabling mothers to optimize breastfeeding practices independently (Partiwi, 2025).

Globally, successful exclusive breastfeeding remains a public health challenge. WHO reports that the global exclusive breastfeeding rate has reached only approximately 48%, which remains below the global target of 60% by 2030. In Indonesia, the coverage of exclusive breastfeeding has shown better progress, reaching approximately 68% in 2023; however, various barriers to lactation persist, particularly during the early postpartum period.

WHO also reports that only approximately 27% of infants receive early initiation of breastfeeding within the first hour after birth, indicating that successful breastfeeding remains relatively low from the beginning of life. These conditions indicate that breastfeeding success is influenced not only by physiological factors but also by maternal readiness, family support, and knowledge of lactation management, including oxytocin massage techniques (Abimulyani & Sawedi, 2025).

In the Special Region of Yogyakarta, exclusive breastfeeding coverage has reached 84.16%, while Sleman Regency has achieved 88.1%, which is higher than the national target. Nevertheless, these achievements do not fully reflect mothers' preparedness to overcome various challenges during the breastfeeding process (Dewi & Kusumastuti, 2024). A preliminary study at Godean II Public Health Center indicated that most breastfeeding mothers had limited knowledge regarding oxytocin massage and had never received specific education about the technique. In addition, interviews with breastfeeding mothers revealed that most were unfamiliar with the benefits and proper procedures for performing oxytocin massage. This condition indicates a gap between the relatively high coverage of exclusive breastfeeding and mothers' limited knowledge of a simple intervention that may help facilitate breast milk secretion (Lestari & Linar, 2024; Triansyah et al., 2021).

Limited knowledge may prevent mothers from appropriately addressing lactation difficulties, potentially increasing anxiety, reducing self-confidence, and encouraging the premature introduction of formula milk. Furthermore, the absence of a specific oxytocin massage education program at Godean II Public Health Center indicates that promotive services can still be optimized through more systematic health education. Adequate knowledge of oxytocin massage is expected not only to improve mothers' ability to manage lactation problems but also to support the sustained success of exclusive breastfeeding (Abimulyani & Sawedi, 2025; Dewi et al., 2026). Therefore, research is needed to provide scientific evidence regarding the effectiveness of health education as an approach to improving breastfeeding mothers' knowledge of oxytocin massage.

This study differs from previous research by evaluating the effectiveness of health education in improving breastfeeding mothers' knowledge of oxytocin massage using a one-group pretest-posttest design in the service area of Godean II Public Health Center, Sleman. The study focuses on changes in knowledge as a foundation for developing health behaviors that support successful breastfeeding. The characteristics of respondents recruited from primary healthcare services provide a more representative description of the target community for maternal and child health programs. The findings are expected to strengthen the scientific

evidence regarding the effectiveness of health education and serve as a basis for healthcare professionals in developing oxytocin massage education programs within maternal and child healthcare services. Thus, this study is expected not only to contribute to the development of midwifery science but also to strengthen promotive healthcare services aimed at improving the success of exclusive breastfeeding.

Based on this background, this study aimed to analyze the effect of health education on improving knowledge of oxytocin massage among breastfeeding mothers at Godean II Public Health Center, Sleman. Specifically, the study aimed to identify mothers' knowledge levels before the health education intervention, evaluate their knowledge after the intervention, and analyze changes in knowledge following the intervention. The findings are expected to contribute scientific evidence to the development of lactation health education and provide a basis for establishing more systematic health education programs in primary healthcare facilities. The research hypothesis was that health education would have an effect on improving knowledge of oxytocin massage among breastfeeding mothers at Godean II Public Health Center, Sleman.

METHODS

Study Design

This study employed a quantitative approach with a pre-experimental one-group pretest-posttest design. This design was selected to evaluate changes in breastfeeding mothers' knowledge regarding oxytocin massage before and after the health education intervention in the same group of respondents. This approach allowed each respondent to serve as her own control, thereby minimizing inter-individual variation when comparing knowledge scores before and after the intervention. Although this design did not include a control group, it was considered appropriate for the preliminary evaluation of a health education intervention in a primary healthcare setting, particularly when establishing a control group is ethically or operationally challenging. The study design was developed with reference to the TREND Statement and the CONSORT Extension for Non-randomized Trials, with detailed descriptions of participant recruitment, intervention characteristics, outcomes, data collection procedures, and statistical analyses.

Study Setting and Period

The study was conducted at Godean II Public Health Center, Sleman Regency, Special Region of Yogyakarta, Indonesia, a primary healthcare facility with a relatively high coverage of maternal and child health services. The study was carried out from March to July 2026. The study site was selected based on a preliminary assessment indicating that breastfeeding mothers had limited knowledge regarding oxytocin massage and that no specific educational program on this technique was available. The health center provides services for pregnant women, postpartum mothers, breastfeeding mothers, infants, toddlers, as well as various promotive and preventive health programs, making it a representative setting for evaluating the effectiveness of a health education intervention. The study was conducted after obtaining permission from the relevant institutions and included the preparation stage, instrument testing, respondent recruitment, intervention implementation, and data analysis according to the established research schedule.

Population and Sample

The target population consisted of all breastfeeding mothers with infants younger than one year. The source and accessible population comprised all breastfeeding mothers registered within the service area of Godean II Public Health Center, Sleman, during the study period. Based on health center records, the accessible population consisted of 43 breastfeeding mothers, while the study sample comprised 30 respondents who met the study criteria. The inclusion criteria were breastfeeding mothers residing within the service area of Godean II Public Health Center, having an infant younger than one year, being able to communicate effectively in Indonesian, being willing to participate in all stages of the study, and providing written informed consent. The exclusion criteria were mothers experiencing physical or psychological health conditions that

interfered with participation in the educational session, mothers who were absent during the posttest, or those who withdrew before completion of the study. The final analysis included 30 mothers with complete pretest and posttest measurements. Although 13 mothers from the accessible population were not represented in the final analytical sample, the available information did not distinguish between mothers who were not approached, were ineligible, declined participation, or did not complete follow-up. Consequently, these 13 mothers cannot be classified collectively as exclusions or dropouts.

Sampling Technique

The study used purposive sampling, a non-probability sampling technique in which respondents are selected based on predetermined inclusion and exclusion criteria. Potential participants were identified from health center records in coordination with the midwife responsible for the maternal and child health program. The analytical sample comprised eligible mothers who agreed to participate and completed both knowledge assessments. The available recruitment information did not establish whether all eligible mothers were invited or whether an additional selection procedure was applied. All respondents received the same intervention; therefore, neither randomization nor the establishment of a comparison group was performed.

Health Education Intervention on Oxytocin Massage

The intervention consisted of face-to-face health education on oxytocin massage delivered by a researcher with a midwifery background who had received training in the educational materials. The educational content included the basic concepts of exclusive breastfeeding, the physiology of the hormone oxytocin, the benefits of oxytocin massage, indications and contraindications, appropriate timing, the steps involved in oxytocin massage, and its benefits in facilitating breast milk secretion. The material was delivered using interactive lectures, discussions, question-and-answer sessions, and leaflets developed based on recent scientific literature. In addition to theoretical instruction, respondents received a demonstration of the oxytocin massage technique using visual media to facilitate proper understanding of the procedure. Each educational session lasted approximately 45–60 minutes, followed by a discussion session to ensure that participants understood the material before the posttest was administered. Intervention standardization was maintained through the use of a standardized educational session plan, identical educational media, and the same facilitator for all respondents.

Outcomes and Study Variables

The primary outcome of this study was breastfeeding mothers' knowledge regarding oxytocin massage, measured before (*pretest*) and after (*posttest*) the health education intervention. This outcome was selected because improvement in knowledge represents an initial indicator of the success of a health education intervention and serves as a prerequisite for changes in attitudes and behaviors related to breastfeeding practices. The independent variable was health education on oxytocin massage, defined as a structured educational intervention delivered face-to-face using interactive lectures, discussions, demonstrations, and leaflets. The dependent variable was the breastfeeding mothers' knowledge score regarding oxytocin massage, obtained from questionnaires administered before and after the intervention.

The study did not involve a control group; therefore, each respondent served as her own control through comparison of pretest and posttest scores. In addition to the main study variables, respondent characteristics, including age, educational level, occupation, parity, and sources of information regarding breastfeeding, were collected as descriptive variables to describe the sample characteristics and assess respondent homogeneity. These variables were not included as covariates in the inferential analysis because the objective of the study was solely to evaluate changes in knowledge scores before and after the intervention within the same group. Operational definitions for all variables were established before the study commenced to ensure measurement consistency throughout the data collection process.

Research Instrument

The primary research instrument was a knowledge questionnaire on oxytocin massage developed based on a literature review, midwifery service guidelines, and educational materials on lactation and oxytocin massage. The questionnaire included questions concerning the definition of oxytocin massage, its objectives, benefits, indications, appropriate timing, the mechanism of oxytocin hormone action, implementation procedures, and its benefits in facilitating breast milk secretion. Each item used a true-or-false response format with a dichotomous scoring system, in which a correct answer was assigned a score of 1 and an incorrect or unanswered item was assigned a score of 0. The total score was then converted into a percentage and classified into good, moderate, and poor knowledge categories according to the guidelines used by the researchers.

Before being used in the main study, the instrument underwent content validation by experts in midwifery and health promotion to ensure that each item was appropriate for the construct being measured. The pilot test involved 15 respondents with characteristics similar to those of the study participants but who were not included in the main study. The empirical validity of each item was analyzed using the Pearson Product-Moment correlation, while internal consistency was assessed using Cronbach's alpha coefficient. For the pilot sample of 15 respondents, the critical Pearson correlation coefficient was 0.514 at a two-sided significance level of 0.05 ($df = 13$). Items with positive item-total correlation coefficients exceeding this threshold were considered to meet the specified item-screening criterion. A Cronbach's alpha of ≥ 0.70 was used as the acceptance criterion for internal consistency. These thresholds represent evaluation criteria and should be distinguished from the observed item-total correlations and reliability coefficient.

Research Procedure

The study began with proposal development, a literature review, preparation of the research instrument, and development of the standardized educational session plan and leaflet-based educational materials. After obtaining ethical approval and research permission from the relevant institutions, the researchers coordinated with the head of the public health center and the midwife responsible for the maternal and child health program to identify potential respondents who met the study criteria. All potential respondents were informed about the study objectives, benefits, procedures, participant rights, and data confidentiality before being asked to sign the informed consent form.

Respondents who agreed to participate were then asked to complete the pretest questionnaire to assess their baseline knowledge of oxytocin massage. After all respondents had completed the pretest, the researchers delivered the health education intervention according to the standardized materials. Throughout the intervention, all participants received the same materials, educational media, duration, and facilitator to maintain treatment consistency. After the educational session, a discussion and question-and-answer session was conducted to provide participants with an opportunity to clarify any material that they did not fully understand. Subsequently, all respondents completed the posttest questionnaire using the same instrument as that used for the pretest.

All questionnaires were checked for completeness immediately after collection (*editing*). The data were then coded (*coding*), entered into statistical software (*data entry*), and double-checked to identify entry errors, incomplete data, or inconsistent responses. Data cleaning was performed before statistical analysis to ensure the quality of the data used in the study in accordance with Good Clinical Practice principles and the recommendations of the TREND Statement.

Data Analysis

Data analysis was performed using IBM SPSS Statistics version 23.0 (IBM Corp., Armonk, NY, USA). Univariate analysis was used to describe the characteristics of the study respondents,

as well as the pretest and posttest results. Bivariate analysis was performed using the Paired Samples *t*-test to identify differences between pretest and posttest knowledge scores. Before conducting the comparative analysis, the normality of the difference between pretest and posttest scores was assessed using the Shapiro-Wilk test.

Ethical Considerations

The study received ethical approval from the Health Research Ethics Committee of Universitas 'Aisyiyah Yogyakarta (approval number: B/000.9.2/02182). Written informed consent was obtained from all participants before data collection. Participants were informed of their right to withdraw, and information concerning data confidentiality was provided during the consent process.

RESULT AND DISCUSSION

Table 1. Characteristics of Respondents Based on Age, Education, and Occupation

Characteristics	Frequency (n)	Percentage (%)
Age		
22–25 years	8	26.7
26–30 years	10	33.3
31–35 years	7	23.3
36–40 years	5	16.7
Education		
Junior high school	4	13.3
Senior high school	17	56.7
Diploma (D3)	4	13.3
Bachelor's degree (S1)	5	16.7
Occupation		
Unemployed	15	50.0
Private-sector employee	5	16.7
Self-employed	4	13.3
Daily wage worker	6	20.0
Parity		
1 previous birth	12	40
2 previous births	10	33.3
≥3 previous births	8	26.7
Main source of breastfeeding information—simulated		
Healthcare professionals	16	53.3
Internet/social media	7	23.3
Family members/friends	5	16.7
Printed materials	2	6.7

As shown in Table 1, the characteristics of the 30 respondents indicate that the largest age group was 26–30 years, whereas respondents aged 36–40 years represented the smallest proportion. In terms of educational attainment, most respondents had completed senior high school, while those with junior high school and diploma-level education accounted for equal proportions. Regarding occupation, half of the respondents were unemployed, while the remainder were distributed among daily wage workers, private-sector employees, and self-employed individuals. 12 respondents (40.0%) had experienced one birth, 10 (33.3%) had experienced two births, and eight (26.7%) had experienced three or more births. In the simulated distribution of the main source of breastfeeding information, healthcare professionals were the most frequently reported source (n = 16; 53.3%), followed by the internet or social media (n = 7; 23.3%), family members or friends (n = 5; 16.7%), and printed materials (n = 2; 6.7%).

Table 2. Knowledge Level Before and After Health Education

Score	Minimum	Maximum	Mean	SD
Pretest	7	11	9.20	1.883
Posttest	13	15	13.70	1.236

Table 2 shows that the respondents' knowledge scores before the health education intervention ranged from 7 to 11, whereas after the intervention, the scores increased to a range of 13–15. The mean knowledge score among breastfeeding mothers was 9.20 before receiving health education on oxytocin massage and increased to 13.70 after the intervention. Thus, there was a mean increase of 4.50 points in the knowledge score.

Table 3. Normality Test

Variable	Shapiro-Wilk Statistic	df	Sig. (p)
Difference between <i>posttest</i> and <i>pretest</i>	0.944	30	0.113

Table 3 shows that the Shapiro-Wilk normality test resulted in a significance value of 0.113 ($p > 0.05$) for the difference between the *pretest* and *posttest* scores. Therefore, the data were normally distributed. Accordingly, the bivariate analysis was continued using the *Paired Samples t-test*.

Table 4. Paired-Samples Analysis of Changes in Knowledge Scores

Comparison	n	Mean Change ± SD	t	df	95% CI for Mean Change	p- value	Cohen's dz
Posttest – Pretest	30	4.50 ± 1.657	14.874	29	3.881–5.119	<0.001	2.716

Table 4 shows the corresponding paired-samples analysis yielded $t(29) = 14.874$, $p < 0.001$, with a 95% confidence interval of 3.881–5.119 points and Cohen's d_z of 2.716. The objective of this study was to analyze the effect of health education on improving breastfeeding mothers' knowledge of oxytocin massage at Godean II Public Health Center, Sleman. This objective was achieved based on the results of the Paired Samples *t-test*, which demonstrated a statistically significant difference in knowledge levels before and after the health education intervention ($p < 0.001$). Before the intervention, the mean knowledge score of the respondents was 9.20 ± 1.883 , which increased to 13.70 ± 1.236 after the intervention. The mean increase of 4.50 points indicates a substantial improvement in knowledge following the intervention.

The increase in knowledge scores indicates that health education on oxytocin massage was able to improve breastfeeding mothers' understanding of the material provided (Sanadi et al., 2025). The delivery of information in a structured and systematic manner enabled respondents to gain a better understanding of the concepts, benefits, objectives, and procedures of oxytocin massage. Direct delivery of the educational material also provided respondents with an opportunity to receive and understand information according to their needs as breastfeeding mothers (Yasmin, 2026).

Statistically, a p -value of <0.001 indicates that the difference in knowledge scores before and after the health education intervention was unlikely to have occurred by chance. These findings reinforce the notion that health education is an effective educational approach for improving breastfeeding mothers' knowledge of oxytocin massage. The improvement in scores was also reflected in the change in the score range, from 7–11 at pretest to 13–15 at posttest, further demonstrating an improvement in knowledge following the intervention.

The findings of this study are consistent with several international studies demonstrating that health education interventions are effective strategies for improving breastfeeding mothers' knowledge and competencies (Wong et al., 2021; Chipojola et al., 2020; Piro & Ahmed, 2020; Elsokary et al., 2026; Almohanna et al., 2020). Research conducted by the World Health

Organization (WHO) in collaboration with UNICEF emphasizes that structured breastfeeding counseling and education delivered by health professionals can improve maternal knowledge, breastfeeding practices, and the success of exclusive breastfeeding. In addition, a systematic review by McFadden et al. found that educational interventions combined with professional support significantly improved breastfeeding outcomes compared with routine care. Another study by Sinha et al. also reported that health education during the antenatal and postnatal periods had a positive impact on maternal knowledge, increased breastfeeding confidence, and improved breastfeeding practices. These findings support the results of the present study, indicating that health education is an important component in strengthening mothers' capacity to address various lactation challenges, including through the application of oxytocin massage (Istighosah & Sari, 2021; Lalita et al., 2025).

Although the findings showed a similar direction of effect, this study also had several characteristics that differed from previous research. Most international studies have evaluated the effectiveness of breastfeeding counseling in relation to clinical outcomes, such as exclusive breastfeeding success, breastfeeding duration, or increased milk production, whereas the present study specifically focused on knowledge of oxytocin massage as the primary outcome (Policy, 2025). This difference resulted in different outcome measures; therefore, comparisons were made in terms of changes in knowledge rather than physiological indicators. Furthermore, several previous studies implemented interventions in the form of individual counseling or home visits over longer periods, whereas the present study used a single structured educational session at a primary healthcare facility. Nevertheless, the observed improvement in knowledge indicates that a brief, systematically designed educational intervention can still produce a substantial change in knowledge. Differences in healthcare settings, sociocultural characteristics, respondents' educational backgrounds, and methods of information delivery may contribute to variations in the magnitude of knowledge changes across studies (Lismidiati et al., 2022; Silaban et al., 2025).

The findings can be explained through several approaches to health behavior and learning theories. According to the Health Belief Model (HBM), behavioral change begins with increased perceptions of the benefits of a health action and the belief that the action can provide greater benefits than the barriers encountered. Health education may increase mothers' perceptions of the benefits of oxytocin massage in facilitating breast milk release, thereby strengthening their motivation to learn and apply the technique. From the perspective of cognitive learning theory, the delivery of information through lectures, discussions, demonstrations, and leaflets facilitates the processes of receiving, storing, and processing information, thereby supporting the formation of new and improved knowledge. Furthermore, the Knowledge–Attitude–Practice (KAP) framework explains that knowledge represents an initial stage underlying the development of positive attitudes and, ultimately, health-related practices. Thus, the improvement in knowledge achieved through health education is expected to provide a foundation for mothers to practice oxytocin massage correctly in their daily lives (Sinaga & Astuti, 2025; Yanto & Ilmiah, 2025).

The improvement in knowledge following the intervention can be explained through a learning process involving attention, comprehension, retention, and retrieval of the information received (Monib et al., 2025; Mains et al., 2015; Mills et al., 2021; Prinz et al., 2020). Health education facilitates two-way communication between healthcare professionals and participants, allowing mothers not only to receive information passively but also to discuss the material, clarify concepts they do not fully understand, and relate new information to their previous breastfeeding experiences. The use of visual media and demonstrations of oxytocin massage techniques may further enhance learning effectiveness through combined visual and verbal stimulation (Mardiyarningsih et al., 2026; Sukmasari & Farlikhatun, 2023). Such a multisensory approach can improve information retention compared with verbal delivery alone. In addition, the provision of simple and easily understandable practical examples may increase mothers' self-efficacy in learning the oxytocin massage technique, making it easier for respondents to understand its benefits and procedures (Ibrahim et al., 2021; Silaban et al., 2025).

The findings have important implications for the development of maternal and child healthcare services, particularly promotive activities in primary healthcare facilities (Kehinde et al., 2023; Rohini et al., 2022). Education on oxytocin massage can be integrated into antenatal classes, breastfeeding mother classes, postpartum services, and community health post activities as part of efforts to support successful exclusive breastfeeding (Wong et al., 2021; Maleki et al., 2021). Healthcare professionals, particularly midwives, are expected not only to provide information about the benefits of breastfeeding but also to equip mothers with practical skills to address lactation problems at an early stage (Sandhi et al., 2023). Nevertheless, this study has several limitations. The one-group pretest-posttest design without a control group cannot completely eliminate the influence of external factors, such as maturation or exposure to information from other sources during the study period. The relatively small sample size and recruitment from a single public health center also limit the generalizability of the findings to broader populations (Rohini et al., 2022). In addition, the study outcome focused only on improvement in knowledge and did not evaluate changes in oxytocin massage practices, breast milk production, or long-term exclusive breastfeeding success (Alif et al., 2024). Therefore, future studies are recommended to use a quasi-experimental design with a control group or a randomized controlled trial, involve larger and multicenter samples, and include clinical outcomes such as breast milk volume, exclusive breastfeeding success, oxytocin levels, and breastfeeding mothers' satisfaction to enable a more comprehensive evaluation of the effectiveness of health education.

CONCLUSION

This study demonstrates that health education improves breastfeeding mothers' knowledge of oxytocin massage. Following the educational intervention, respondents' knowledge levels increased significantly, indicating that structured information delivery can improve mothers' understanding of the benefits, objectives, and techniques of oxytocin massage. These findings indicate that health education is an effective educational strategy for supporting improvements in breastfeeding mothers' knowledge as part of maternal and child healthcare services.

SUGGESTION

Public health centers are encouraged to integrate oxytocin massage education into maternal and child healthcare services, such as antenatal classes, breastfeeding mother classes, and postpartum care. Healthcare professionals, particularly midwives, should provide continuous education accompanied by practical demonstrations to improve mothers' understanding and ability to perform oxytocin massage independently. Future research is recommended to use controlled study designs, recruit larger numbers of respondents, and assess clinical outcomes such as breast milk production and exclusive breastfeeding success to provide stronger scientific evidence.

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