

THE EFFECTIVENESS OF DEMONSTRATION-BASED COUNSELING IN IMPROVING BREAST CARE KNOWLEDGE AMONG PREGNANT WOMEN

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ABSTRAK : EFEKTIVITAS KONSELING BERBASIS DEMONSTRASI TERHADAP PENINGKATAN PENGETAHUAN PERAWATAN PAYUDARA PADA IBU HAMIL

Latar Belakang: Perawatan payudara (breast care) selama kehamilan merupakan langkah penting dalam mempersiapkan ibu menghadapi proses menyusui. Namun, masih banyak ibu hamil yang belum memiliki pengetahuan memadai mengenai cara melakukan perawatan payudara yang benar. Edukasi kesehatan dengan metode demonstrasi dinilai lebih efektif karena memberikan pengalaman belajar langsung dan mempermudah pemahaman peserta. Penelitian ini bertujuan untuk mengetahui efektivitas konseling berbasis demonstrasi terhadap peningkatan pengetahuan perawatan payudara pada ibu hamil di wilayah kerja Puskesmas. Metode: Jenis penelitian yang digunakan adalah kuasi-eksperimen (quasi experiment) dengan rancangan one group pretest-posttest design, yang dilaksanakan di Desa Geulumpang Payong, Kecamatan Blangpidie. Populasi penelitian berjumlah 30 orang, yaitu seluruh ibu hamil yang berdomisili di desa tersebut, dan teknik pengambilan sampel dilakukan secara total sampling. Instrumen penelitian berupa kuesioner dengan skala Guttman digunakan untuk mengukur tingkat pengetahuan ibu hamil. Analisis data dilakukan menggunakan uji non-parametrik Wilcoxon Signed Ranks Test setelah uji normalitas dan homogenitas dilakukan. Hasil: Hasil uji analisis menunjukkan nilai $Z = -4,830$ dengan $p\text{-value} = 0,000$ ($p < 0,05$), yang berarti terdapat perbedaan signifikan antara skor sebelum dan sesudah penyuluhan. Kesimpulan: Metode demonstrasi terbukti efektif dalam meningkatkan pengetahuan ibu hamil tentang perawatan payudara, dan direkomendasikan bagi tenaga kesehatan untuk menerapkannya dalam kegiatan edukasi antenatal.

Kata Kunci : Breast care, Demonstrasi, Ibu hamil

ABSTRACT

Background: Breast care during pregnancy is an important step in preparing mothers for breastfeeding. However, many pregnant women still lack adequate knowledge about how to perform proper breast care. Health education using the demonstration method is considered more effective because it provides a hands-on learning experience and facilitates participant understanding. This study aims to determine the effectiveness of demonstration-based counseling in improving breast care knowledge among pregnant women in the Community Health Center (Puskesmas) work area. Methods: The type of research used was a quasi-experimental study with a one-group pretest-posttest design, conducted in Geulumpang Payong Village, Blangpidie District. The study population consisted of 30 people, namely all pregnant women domiciled in the village, and the sampling technique was total sampling. The research instrument, a questionnaire with a Guttman scale, was used to measure the level of knowledge of pregnant women. Data analysis was performed using the non-parametric Wilcoxon Signed Ranks Test after normality and homogeneity tests were performed. Results: The analysis test results showed a Z value of -4.830 with a $p\text{-value}$ of 0.000 ($p < 0.05$), which means there was a significant difference between the scores before and after the counseling. Conclusion: Thus, the demonstration method has proven effective in improving pregnant women's knowledge about breast care, and it is recommended for health workers to implement it in antenatal education activities.

Keyword: Breast care, Demonstration, Pregnant women

INTRODUCTION

Breast care *during* pregnancy is an important aspect of breastfeeding preparation because it helps mothers recognize and anticipate various

problems that can hinder the lactation process after delivery (Johnson & Strube, 2011). Breast preparation during pregnancy includes education and clinical examinations so that mothers are more

physically and psychologically prepared to breastfeed their babies (Parry et al., 2019) . A breast examination should be performed at the first antenatal visit by performing a visual inspection and palpation to assess symmetry, contour, and nipple condition, as well as detecting any masses or other abnormalities that require follow-up (Alipour, 2020) .

This examination is useful for early detection of abnormalities such as breast hypoplasia, nipple retraction, or other structural abnormalities that can affect milk production and release, so that mothers can receive early counseling and treatment (Alipour, 2020; Kam et al., 2021) . In addition to physical examinations, antenatal education such as training in breastfeeding positions, attachment techniques, and colostrum expression exercises has been shown to increase mothers' confidence in their breastfeeding abilities and reduce the risk of early formula use (Demirci et al., 2019; Foudil-Bey et al., 2021) .

Breast milk (ASI) is the best source of nutrition for babies because it contains complete nutrients needed for optimal growth and development, and provides protection against various infectious diseases (WHO/UNICEF, 2012) . Exclusive breastfeeding until six months of age is the most effective way to ensure a child's health and survival (UNICEF & WHO, 2021) . Exclusive breastfeeding is the provision of only breast milk without additional food or drink, not even water, for the first six months of a baby's life, except for medications, vitamins, and minerals (WHO, nd) . The success of exclusive breastfeeding is greatly influenced by the mother's readiness to breastfeed, one of which is through breast care carried out during pregnancy. Breast care plays a role in maintaining breast hygiene and elasticity, improving blood circulation, and stimulating the mammary glands to produce optimal milk (Foudil-Bey et al., 2021; Piro & Ahmed, 2020) .

Complaints such as pain or sore nipples during breastfeeding are generally caused by improper attachment, so prevention through antenatal counseling and breast care during pregnancy is an important step (Kent et al., 2015; Thompson et al., 2016) . However, many pregnant women still do not carry out breast care due to lack of knowledge or guidance from health workers, so a systematic prenatal education program is needed to improve breastfeeding readiness and lactation success (Fata & Rahmawati, 2016; Shafaei et al., 2020) .

Improving the skills of pregnant and postpartum women in performing breast care can be done in various ways , one of which is through

demonstration methods. Demonstrations have been proven effective in increasing understanding because they are direct, concrete, and involve active participant involvement, thus increasing interest and practical skills (Astuti & Surasmi, 2016) .

Based on preliminary interviews with 10 pregnant women in the village, two reported no visible breast milk production, one experienced an inverted nipple (nipple retraction), and seven reported not knowing how to properly care for their breasts. These findings indicate that pregnant women's knowledge and skills regarding breast care are still low. Therefore, intervention is needed in the form of health education that focuses on breast care from pregnancy. One of the methods considered most appropriate is the demonstration method, because pregnant women learn breast care techniques directly through observation and practice. The demonstration method has also proven to be easier to understand, engaging participants, and helping improve their independent practice skills. Based on this phenomenon, the researchers were interested in conducting a study entitled "The Effectiveness of Demonstration Method Counseling on Improving the Knowledge of Pregnant Women in Geulumpang Payong Village , Blang District, Pidie."

RESEARCH METHODS

This study was a quasi-experimental study with a one-group pretest-posttest design (Sugiyono, 2011) . The study was conducted in Geulumpang Payong Village, Blangpidie District, in 2022, with a population of 30 people, namely all pregnant women residing in the village. Sampling was carried out using a total sampling technique (Dahlan, 2016) .

The research data consists of primary data and secondary data. Primary data was obtained directly from respondents by measuring the level of knowledge of pregnant women about breast care before and after being given counseling using the demonstration method. Meanwhile, secondary data was obtained through documentation and literature studies from various relevant sources that support the analysis and discussion of research results.

The instrument used in this study was a questionnaire with a Guttman scale to measure the level of knowledge of pregnant women regarding breast care. The Guttman scale was chosen because it can provide clear measurement results (true or false), thus more objectively describing changes in respondents' knowledge levels after being given counseling intervention using the demonstration method.

Data analysis was performed using the non-parametric Wilcoxon Signed Ranks Test, which was

previously performed with prerequisite tests in the form of data normality and homogeneity tests. The normality test was performed using the Kolmogorov–Smirnov and Shapiro–Wilk tests at a significance level (α) of 0.05, and the test results showed that the data were not normally distributed (Dahlan, 2014).

RESEARCH RESULTS

Respondent Characteristics

Based on the table above, it can be seen that the majority of respondents were aged between 20-30 years, namely 27 people (90%), with a high school education background of 23 people (76.6%), and working as housewives of 24 people (80%).

Table 1
Frequency Distribution of Respondents Based on Characteristics in Geulumpang Payong Village, Blang Pidie District in 2022

Respondent Characteristics	f	%
Age		
20-30 years	27	90
31-45 years	3	10
Education		
Advanced (D3,S1)	5	16.7
Intermediate (SMP,SMA)	23	76.6
Basic (SD)	2	6.7
Work		
civil servant	4	13.3
Private	2	6.7
housewife	24	80

Data Normality Test

The normality test is used as one of the prerequisite tests for conducting the non-parametric analysis test Wilcoxon Signed Ranks Test.

Table 2
Normality Test of Pregnant Women's Knowledge Data Before and After Counseling with the Demonstration Method

	Kolmogorov-Smirnov			Shapiro-Wilk		
	Statistics	df	Sig.	Statistics	df	Sig.
Pretest	.187	30	.009	.915	30	.020
Posttest	.215	30	.001	.882	30	.003

Based on the table above, the results of the normality test using the Kolmogorov–Smirnov test show that the significance value for the pretest data is 0.020 ($p < 0.05$) and for the posttest data is 0.009 ($p < 0.05$). This indicates that both data are not normally distributed, so data analysis was continued using the non-parametric Wilcoxon Signed Ranks Test.

Wilcoxon Signed Ranks Test Results

Based on the table above, it is known that of the 30 respondents who participated in the breast care demonstration activity, all (100%) experienced an increase in their level of knowledge. The analysis results using the Wilcoxon Signed Ranks Test obtained a Z value of -4.830 with a p-value of 0.000 ($p < 0.05$). This finding indicates a significant difference between the scores before and after the counseling, so it can be concluded that the demonstration method is effective in improving pregnant women's understanding of breast care.

Table 3
Results of the Wilcoxon Signed Ranks Test on the Knowledge Scores of Pregnant Women Before and After Counseling with the Demonstration Method

	n	mean	Z	Sig. (2-tailed)
Posttest Score < Pretest Score	0	0		
Posttest Score > Pretest Score	30	15,5	4,830	0,000
Posttest Score = Pretest Score	0	0		

DISCUSSION

The significant increase in knowledge scores after the counseling intervention suggests that the demonstration-based approach was effective because it actively engaged participants in the learning process. Unlike conventional lecture-based counseling, the demonstration method integrates visual exposure, direct practice, and interactive communication, which enhance cognitive processing and retention of information.

Several specific components likely contributed to the effectiveness of the intervention. First, the **visual component** allowed pregnant women to observe the correct techniques of breast care, reducing abstract understanding and misconceptions. Second, the **hands-on practice element** enabled participants to directly apply what they learned, reinforcing procedural knowledge. Third, the **interactive discussion component** provided opportunities for clarification, feedback, and correction of incorrect practices. These elements align with Kolb's (1984) experiential learning theory, which emphasizes that learning is more effective when individuals engage in concrete experience, reflective observation, conceptualization, and active experimentation.

The findings of this study are consistent with previous research. Lumbiganon et al. (2016) reported that face-to-face antenatal education incorporating practical components significantly improved maternal knowledge and readiness for breastfeeding. Similarly, Gao et al. (2022) demonstrated that interactive prenatal education with professional guidance enhanced mothers' mastery of breastfeeding techniques and reduced the risk of nipple trauma. Compared to lecture-only approaches, demonstration-based education appears to produce stronger cognitive and practical outcomes because it combines theoretical explanation with skill rehearsal.

An additional finding of this study was that participants showed rapid improvement even within a relatively short intervention period. This suggests that structured, skill-oriented counseling may produce immediate cognitive gains. However, the study did not measure long-term retention of knowledge, which could be explored in future research to determine the sustainability of the intervention's impact.

In line with these results, research conducted by Lisa and Putri (2018) on the Effect of Demonstrations on Breast Care Skills in Third Trimester Pregnant Women in the Jeulingke Community Health Center Work Area, Syiah Kuala District, Banda Aceh also showed a significant

increase in the skills of pregnant women before and after being given a breast care demonstration intervention with a p value = 0.000 (Lisa & Putri, 2019).

In addition to impacting cognitive aspects, demonstration methods also play a role in increasing the self-efficacy of pregnant women. Hamranani et al. (2021) showed that increased maternal knowledge regarding breastfeeding practices significantly correlated positively with self-efficacy in implementing breastfeeding behaviors after delivery. This increased self-confidence is important because it influences the mother's emotional and behavioral readiness to implement correct breastfeeding techniques after delivery.

Researchers assume that the effectiveness of this method is due to the active involvement of pregnant women in the learning process. Through demonstrations, mothers not only passively receive information but also observe, imitate, and directly practice the correct steps for breast care. This visual and practical learning process strengthens participants' memory and understanding, making the information easier to apply in real life. Furthermore, the direct interaction between health workers and participants during the demonstrations allows for immediate feedback that helps clarify any errors or doubts. Therefore, the combination of active involvement, visual learning, and direct guidance is a key factor contributing to the improvement of pregnant women's knowledge regarding breast care.

CONCLUSION

This study concludes that demonstration-based counseling significantly improves pregnant women's knowledge of breast care. The integration of visual components, hands-on practice, and interactive communication enhances understanding and practical readiness in preparation for breastfeeding. These findings suggest that the demonstration method can serve as an effective strategy in antenatal health promotion programs.

However, as this study employed a one-group pretest–posttest design without a control group, the ability to establish causal relationships remains limited. Therefore, future research is recommended to examine the long-term impact of this intervention and to evaluate its effectiveness using more rigorous study designs, such as randomized controlled trials (RCTs), in order to strengthen the scientific evidence.

SUGGESTION

Health workers are expected to implement the demonstration method in antenatal education activities, particularly those related to breast care and breastfeeding preparation, as this method has been shown to be more effective than conventional lectures.

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