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The Influence of Breastfeeding Position Education on the Effectiveness of Breastfeeding in Primary Mothers

Kristin Natalia¹Aiga Luthfiyah²

Midwifery Faculty, Institut Kesehatan DELI HUSADA Deli Tua

Keywords : *Breastfeeding education, Primiparous mothers, Breastfeeding position, Breast milk.*

Abstract : *Correct breastfeeding position plays a crucial role in the success of exclusive breastfeeding. Primiparous mothers often experience difficulties due to limited knowledge and skills related to proper breastfeeding techniques. This study aimed to analyze the effect of breastfeeding position education on breastfeeding effectiveness among primiparous mothers. A quasi-experimental design with a two-group pretest–posttest approach was used involving 30 primiparous mothers at Sembiring General Hospital. The intervention group received structured breastfeeding position education, while the control group did not. Statistical analysis using the Wilcoxon Signed Rank Test showed a significant improvement in breastfeeding effectiveness in the intervention group ($p < 0.05$). These findings indicate that breastfeeding position education significantly improves breastfeeding effectiveness among primiparous mothers.*

1 INTRODUCTION

The role of primiparous mothers in breastfeeding requires special attention. First-time mothers need adequate support and education regarding correct breastfeeding techniques, including proper breastfeeding positions. Appropriate positioning not only affects maternal comfort but also significantly influences the infant's ability to effectively suckle breast milk. Lack of understanding of proper breastfeeding positions may result in various problems such as breast pain, blocked milk ducts, and decreased breast milk production (Aini et al., 2023).

According to UNICEF and the World Health Organization (WHO), exclusive breastfeeding for the first six months of life can prevent approximately 1.3 million deaths among children under five years of

age. A study conducted in Ghana and published in the *Journal of Pediatrics* reported that early initiation of breastfeeding could prevent 16% of neonatal deaths, and this percentage increased to 22% when breastfeeding was initiated within the first hour after birth. WHO data in 2023 indicated that the global exclusive breastfeeding rate was 38%, while the global target is to reach 50% by 2025.

Data from the Indonesian Ministry of Health (2023) showed that the coverage of exclusive breastfeeding was 69.70% in 2022 and increased slightly to 70.01% in 2023, placing Indonesia at rank 49 out of 51 countries. The Indonesian Health Survey (SKI) in 2023 reported that exclusive breastfeeding among infants aged 0–6 months was 68.6%, which is still below the national target of 80%. In 2024, the percentage of infants receiving exclusive breastfeeding in North Sumatra was 66.42%, also

below the target of 80%. Data from the Deli Serdang District Health Office.

2 RESEARCH METHODS

This study employed a quasi-experimental design with a two-group approach. In quasi-experimental research, sampling is not conducted randomly; instead, existing groups with relatively similar characteristics are used, namely the intervention group and the control group.

The study utilized a two-group pretest–posttest design. Both groups were assessed before the intervention (pretest), followed by the administration of the intervention to the intervention group, and then reassessed after the intervention (posttest). The pretest and posttest scores were compared to determine the effectiveness of the intervention. The study aimed to evaluate the effect of breastfeeding position education on breastfeeding effectiveness at Sembiring General Hospital in 2025.

Data collection methods were used to ensure the validity and reliability of the information obtained. These methods included standard operating procedures (SOPs), observation sheets, in-depth interviews, and questionnaires.

The study involved 30 breastfeeding primiparous mothers with infants aged 0–6 months, consisting of 15 mothers in the intervention group and 15 mothers in the control group. Respondent characteristics such as age, education, and occupation were included in the analysis.

3 RESULTS

The respondents’ characteristics included age, education, and occupation. A total of 30 primiparous mothers participated in the study, with 15 in the intervention group and 15 in the control group.

Table 1. Characteristics of Primiparous Mothers at Sembiring General Hospital in 2025.

Character istics	Category	Interve ntion Group (n=15)	Control Group (n=15)
Age	<20 years old	2 (13,3%)	1 (6,7%)
	20-30 years old	10 (66,7%)	13 (86,7%)
	>30 years old	3 (20%)	1 (6,7%)
Education	SMP	2 (13,3%)	2 (13,3%)
	SMA	9 (60%)	11 (73,3%)
	Collage	4 (26,7%)	2 (13,3%)
Occupatio n	Housewife	10 (66,7%)	13 (86,7%)
	Private Employee	3 (20%)	1 (6,7%)
	Civil Servant	2 (13,3%)	1 (6,7%)
Total		15 (100%)	15 (100%)

Based on age distribution, most respondents in the intervention group were aged 20–30 years (66.7%), while in the control group, the majority were also aged 20–30 years (86.7%). Regarding education level, most respondents in the intervention group had completed senior high school (60%), while 73.3% of respondents in the control group had the same education level. In terms of occupation, the majority of respondents in both groups were housewives,

accounting for 66.7% in the intervention group and 86.7% in the control group.

Table 2. Mean Pretest and Posttest Scores in the Intervention and Control Groups.

Group	Indicator	N	Std. Deviation	Mean	Median	Min	Max
Intervention	Pretest	15	1,558	6,00	7,00	4	8
	Posttest	15	0,756	9,00	9,00	8	10
Control	Pretest	15	1,082	5,80	6,00	4	7
	Posttest	15	0,834	7,47	8,00	6	9

In the intervention group, the mean pretest score was 6.00 with a standard deviation of 1.558, which increased to a mean posttest score of 9.00 with a reduced standard deviation of 0.756. This indicates a significant improvement in breastfeeding effectiveness following the intervention, along with more consistent outcomes among participants.

In the control group, the mean pretest score was 5.80, which increased to 7.47 at posttest, with standard deviations of 1.082 and 0.834, respectively. Although improvement was observed, the increase was smaller compared to the intervention group.

Table 3. Shapiro–Wilk Normality Test Results.

Group	Indicator	Shapiro-Wilk				
		Mean	Median	Min	Max	P-value
Intervention	Pretest	6,00	7,00	4	8	0,004
	Posttest	9,00	9,00	8	10	0,007
Control	Pretest	5,80	6,00	6	9	0,006
	Posttest	7,47	8,00			0,034

All data in both groups showed p-values below 0.05, indicating that the data were not normally distributed. Therefore, non-parametric statistical tests were applied. The Wilcoxon Signed Rank Test was used to analyze differences between pretest and posttest scores within each group.

Table 4. Wilcoxon Test Results for the Intervention Group.

	N	Mean Rank	Sum of Ranks	P-value
Posttest - Prettest	Negative Ranks	0 ^a	.00	0,001
	Positive Ranks	13 ^b	71.00	
	Ties	2 ^c		
	Total	15		

The Wilcoxon Signed Rank Test showed a significant difference between pretest and posttest scores in the intervention group ($p = 0.001$). Thirteen respondents demonstrated positive rank differences (posttest scores higher than pretest scores), while no respondents showed negative differences, and two respondents had equal scores.

Table 5. Wilcoxon Test Results for the Control Group.

	N	Mean Rank	Sum of Ranks	P-value
Posttest - Prettest	Negative Ranks	0 ^a	.00	0,003
	Positive Ranks	11 ^b	66.00	
	Ties	4 ^c		
	Total	15		

The control group also showed a statistically significant difference between pretest and posttest scores ($p = 0.003$). However, the number of

respondents with increased scores and the strength of improvement were lower compared to the intervention group.

4 DISCUSSION

Overall, the characteristics of respondents in both groups were relatively homogeneous, which strengthens the validity of the findings and suggests that differences in outcomes were attributable to the educational intervention rather than baseline characteristics.

Previous studies have reported similar findings, indicating that breastfeeding education interventions significantly improve breastfeeding skills among postpartum mothers, although data distribution often remains non-normal due to variability in baseline skills (Putri et al., 2021; Oktaviani et al., 2023).

The Wilcoxon test results demonstrated that structured breastfeeding position education had a strong positive impact on breastfeeding effectiveness among primiparous mothers. Although improvements were also observed in the control group, these may be attributed to indirect exposure to information from healthcare staff or personal experience rather than structured education.

These findings are consistent with previous studies showing that breastfeeding education should be a mandatory component of postpartum care to improve exclusive breastfeeding success and reduce breastfeeding-related complications (Rahayu & Puspitasari, 2020; WHO, 2020).

5 CONCLUSION

Based on the results of this study involving 30 primiparous mothers at Sembiring General Hospital in 2025, the following conclusions can be drawn:

1. Breastfeeding position education significantly improves breastfeeding effectiveness among primiparous mothers, as indicated by the increase in mean scores from 6.33 to 8.87 in the intervention group.
2. The Wilcoxon Signed Rank Test showed that most mothers in the intervention group experienced significant improvement in breastfeeding skills, with no decrease observed.
3. Although the control group also showed improvement, the magnitude of improvement was lower and not supported by structured educational intervention.
4. Breastfeeding position education is more effective than no education, particularly in improving latch quality, maternal comfort, and overall breastfeeding success.

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