

IBU BINTARI; Breastfeeding education to improve skills of post partum

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ABSTRACT

Exclusive breastfeeding is the fulfillment of nutrition given to infants aged 0 to 6 months. The coverage of Exclusive Breastfeeding at Tigo Baleh Community Health Center is 56.5%. The cause of the problem that often occurs is that mothers do not have the ability to breastfeed properly. The impact on babies who are not breastfed will be susceptible to health problems. One of the supporting media for mothers to understand breastfeeding techniques is by using pocket books. The purpose of this study was to determine the effect of providing pocket books on skills in postpartum mothers in the Tigo Baleh Community Health Center Working Area, Bukittinggi City in 2024. This research method is quantitative, using a quasi-experimental design with two groups, namely pretest and posttest with a sample of 32 postpartum women and breastfeeding mothers. The sample of postpartum women with a total sample of 32 people consisting of 16 intervention groups and 16 control groups with purposive sampling technique. The instruments used were questionnaires and checklists. Research data processing uses SPSS with Wilcoxon and Mann-Whitney. The study results showed a difference in pretest-posttest skill scores of 0.000 ($p < 0.05$) in the intervention group, while there was no difference in results in the control group, with a result of 0.002 ($p > 0.05$). The conclusion of this study is that providing a pocket book has an effect on breastfeeding knowledge, skills, and self-efficacy among postpartum mothers in the Tigo Baleh Community Health Center (Puskesmas) working area in Bukittinggi City. It is hoped that the study site can utilize the pocket book in providing education to postpartum and breastfeeding mothers to improve breastfeeding skills.

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1. Introduction

Breastfeeding is a natural process, but it's not always easy, requiring proper knowledge and practice. Data shows that 40% of women stop breastfeeding because they experience pain from sore nipples and breast engorgement ([World Health Organization Regional Office for the Eastern Mediterranean, 2022](#)). Breastfeeding techniques are often neglected, leading mothers to lack understanding of proper management, such as breastfeeding positioning and proper attachment ([Twells et al., 2016](#)). Many factors can contribute to failure in exclusive breastfeeding. One key factor to understand is a mother's confidence in her breastfeeding ability. This confidence refers to a mother's belief in her ability to breastfeed her baby. This includes factors such as whether she decides to breastfeed, how hard she tries, whether she can improve her skills, and how she handles difficult feelings during the breastfeeding process ([Abebe et al., 2025](#)).

UNICEF and the World Health Organization ([WHO, 2024](#)) say that Indonesian communities need to support breastfeeding mothers, especially during the first week of a baby's life, because giving

exclusive breast milk from the start is very important (UNICEF & WHO, 2020). In Indonesia, the rate of exclusive breastfeeding for the first six months of a baby's life has increased from 52% in 2017. Based on IDAI data, it shows that around 90% of mothers in Indonesia breastfeed, while the number of mothers who provide exclusive breastfeeding is still low, namely 20% (UNICEF, 2023). Exclusive breastfeeding coverage in west Sumatera were reached 80.2% in 2023.

The lack of maternal skills in proper breastfeeding. This failure can lead to mothers introducing complementary foods to their babies before they reach six months of age, preventing them from maintaining exclusive breastfeeding. To address this, specific education on exclusive breastfeeding management is needed (Hendaus et al., 2018). According to Law No. 17 of 2023 concerning health, every baby has the right to receive exclusive breastfeeding for the first 6 months of life and continued until the age of 2 years. One of the public health facilities that is close and easy to reach is the Community Health Center, which is a facility for providing health services and education to the community (Jama et al., 2020). Efforts to address breastfeeding issues such as poor milk flow and incorrect positioning, resulting in sore nipples that cause pain and discomfort, include health education aimed at increasing knowledge and understanding of breastfeeding techniques. The material is presented in the book IBU BINTARI (education on breast milk boosters, breastfeeding techniques, and breastfeeding skills).

One of the reasons for failure in exclusive breastfeeding is the lack of proper breastfeeding technique skills in postpartum mothers. Incorrect breastfeeding positioning can lead to several problems, including sore nipples, discomfort, and a slow milk flow, leading to the preference for formula. This is often the case for primiparous mothers. Therefore, education on breastfeeding techniques is essential to enable postpartum mothers to practice proper breastfeeding techniques. Research by (Alafchi & Nazli., 2025) shows changes in respondent responses, both before and after receiving the educational media pocketbook, of 75.15% and 88.84%, respectively.

Researchers wanted to delve deeper into the education of breastfeeding technique skills through the Ibu Bintari pocket book for postpartum mothers in Bukittinggi. This study was conducted on postpartum mothers who had normal deliveries at the Nilam Sari Community Health Center in Bukittinggi. This study aimed to determine the influence of Ibu Bintari on breastfeeding technique skills in postpartum mothers.

2. Method

This study used a quantitative research type with a quasi-experimental design with a non-equivalent control group design. The variable in this study was the skills of postpartum mothers. The study location: Bukittinggi city, West Sumatra. The sample of this study was postpartum mothers in the working area of Tigo Baleh Health Center. This study used a purposive sampling technique, selecting 32 postpartum mothers: 16 in the control group and 16 in the intervention group. A sample size of 16 women was required for the intervention group (Govoni et al., 2019). The inclusion criteria in the study were postpartum mothers who had normal delivery, breastfeeding and were willing to participate in the study. The exclusion criteria were postpartum mothers who were not present during the research process. The instrument in this study was a checklist of breastfeeding technique skills. In the implementation of the intervention, consent was obtained before filling out the questionnaire, followed by filling out a pretest with a checklist sheet, then divided into two groups by giving the Bintari mother's pocket book and the control group was not given the Bintari pocket book. This book contains education on breast milk strengthening, nutrition, breastfeeding techniques, and breastfeeding skills.

The intervention was conducted once a week with four 60-minute sessions. The health education program was implemented using a counseling program unit (SAP). The statistical test used was a t-test. A Wilk's normality test was previously performed to assess data normality. After the data were found to be normally distributed, parametric analysis was performed using a paired t-test to analyze the difference in average skills in postpartum mothers before and after the intervention, and an independent t-test to assess differences in breastfeeding skill scores between the two treatment groups.

Table 1. Health Education Schedule

Week	Topic	Time/minutes
I	Nutrition of postpartum	60'
II	ASI Eksklusif	60'
III	Booster ASI	60'
IV	Breastfeeding Technique	60''

Table 2. Breastfeeding Technique

No	Assessment Aspects	Indicator
1	Position of Mother and Baby	a. Baby's head and body are straight b. Baby's body is attached to the mother's body c. Mother supports the baby's entire body d. Baby's face is facing the mother's breast
2	Baby's Attachment	a. Baby's mouth is wide open b. Baby's chin is against the mother's breast c. Baby's nipples are tucked outward d. The areola is tucked into the baby's mouth
3	Sucking and Swallowing	a. Baby sucks slowly and firmly b. Baby is calm and comfortable while breastfeeding c. No pain when feeding d. Swallowing sounds are heard during breastfeeding
4	Adequate Breast Milk	a. Baby urinates more than 6 times b. After breastfeeding, the mother's breasts feel empty c. Baby's weight increases according to growth

3. Results and Discussion

Table 3. Skill in The Intervention Group

Skill	N	Skill					P-value
		Mean	Δ Mean	SD	Min	Max	
Pre-test	16	5.25	8, 63	1.438	3	8	0,000
Post-test	16	13.88		0.342	13	14	

After being given breastfeeding skills training using a Bintari mother, there was a 69% increase in skills, according to the research results. Based on the results of the research conducted ([Abebe et al., 2025](#)) it was found that influencing factors were postpartum counseling, breastfeeding experience, and demonstration of breastfeeding techniques. The prevalence of breastfeeding technique knowledge remained low at 23%. Health education-based breastfeeding knowledge had a significant impact on maternal knowledge, with $p = 0.019$ ([Dam et al., 2023](#)). Breastfeeding technique demonstrations are essential information and skills for pregnant and postpartum women before they go home. Primiparous mothers also need guidance on breastfeeding due to their lack of experience.

Skills are the practical abilities or expertise a person possesses in performing a specific task or activity. They encompass a wide range of abilities from various fields, both physical and mental. Skills can develop through practice, experience, and learning ([Abekah-Nkrumah et al., 2020](#); [Yeboah et al., 2019](#)).

According to ([Idris & Astari, 2023](#)), factors influencing skills are the manifestation of knowledge in action. A person's skill level reflects their level of knowledge mastery. Knowledge itself is influenced by various sources, such as education, experience, and acquired information. This research is in line with research conducted ([Abdulahi M, Fretheim A, Argaw A, 2021](#)). The results of the study showed a change in respondents' scores before being given the pocket book educational media of 75.15% and after being given the pocket book educational media of 88.84%. Respondents' scores after being given the educational media increased compared to those before being given the pocket book.

This research is also supported by research ([Maonga et al., 2016](#)). The results showed that there was an influence of skills and breastfeeding self-efficacy with a pocket book on mothers' breastfeeding knowledge. After being given educational media, the pocket book showed a high effectiveness of providing educational media after 3 meetings, so it can be said that there was an influence on skills

and breastfeeding self-efficacy. Compared to mothers who were not given educational media, negative attitudes towards exclusive breastfeeding were still found.

According (Ip, 2016) that health education is a process of activities that convey experiences in theory or practice in order to change the target's attitude where the ability to receive something increases because the senses that transmit knowledge to the brain the most are the sense of sight, which is less than 75% to 87% while for other senses, namely 13% to 25% the results of the study showed a change in respondents before being given pocket book educational media of 75.15% and after being given pocket book media of 88.84%. The value of respondents after being given education increased.

Breastfeeding technique training for health workers must also be optimally implemented because they will provide information to mothers, which will undoubtedly impact their knowledge and attitudes about exclusive breastfeeding practices (Mulcahy et al., 2022). This is also supported by research results (Markwood & Jennifer, 2025) which found limitations in breastfeeding training for health workers, such as varying training standards. Breastfeeding skills training is crucial for health workers to be able to provide effective counseling to mothers.

The impact of education in this study was also determined by comparing respondents' pre-test scores with their post-test scores to determine whether their pre-test scores improved after the education provided by the researchers. The results showed that all respondents experienced improvement, indicating that the education provided significantly increased their knowledge.

This study demonstrated a significant impact on changes in breastfeeding skills and self-efficacy through the provision of a pocket book in the intervention group, thus increasing respondents' interest. This research is in line with research conducted by Ahmad in Fatmasari et al. 2024 which stated that the type of pocket book visual media shows a figure of 75% - 100% categorized as suitable as a health promotion media if the pocket book is packaged completely, contains material, can be carried anywhere, and can be used anytime and anywhere. In addition, health education provided to postpartum mothers is not only beneficial for breastfeeding technique skills but also improves the quality of life of postpartum mothers as a whole, especially in aspects of self-perception and sexual comfort (Alafchi & Nazli., 2025).

Table 4. Skill in the Control Group

Skill	N	Skill					P-value
		Mean	Δ Mean	SD	Min	Max	
Pre-test	16	5.50	2.19	1.211	3	8	0,002
Post-test	16	7.69		1.448	5	10	

The skills of mothers in the Tigo Baleh Community Health Center Working Area of Bukittinggi City before being given the pocket book media in the control group of 16 people with low skills, of course, can be seen from the results of the researcher's checklist, where respondents still lack the skills of correct breastfeeding techniques. This can be seen from the results of the Pre-Test where many respondents did not fulfill the checklist in numbers 1, 3, 4, 8, 12, and 14 the same as the skills provided by the pocket book media.

Table 5. Breastfeeding Skills Problem Aspects (Pretest)

Point	Aspect
1	First, wash your hands
3	Express a small amount of breast milk by placing your thumb and finger together index finger parallel to the edge of the areola, then press towards chest wall and squeeze so that the milk flows out.
4	Apply breast milk to the nipple and surrounding areola.
8	Ask the mother to stimulate the baby to open their mouth (search reflex) by touching their cheek with their nipple or touching the side of their mouth.
12	Release the suction by inserting your little finger into the baby's mouth through the corner of the mouth, or by pushing down on the baby's chin.
14	Burp the baby

For checklist number 1 about washing hands before breastfeeding, there were 6 people who washed their hands or 37.5% and 10 or 62.5% of others forgot to wash their hands or felt that their hands were clean. Point 3 explains how to remove a little breast milk by placing the thumb and index finger.

This research aligns with the research of (Ricci et al., 2023), which found that the use of a booklet on exclusive breastfeeding significantly increased husbands' knowledge, with an average score of 81.405 after the intervention, increasing to 87.923. The results of this study indicate that the use of a booklet can have a positive impact. Education conducted without the use of media and relying solely on verbal communication resulted in participants' recall within three hours of only 70%. This study found a significant difference between those given the booklet and those not given the booklet. However, the effect was not as significant as that of those given the booklet.

4. Conclusion

There was an influence after being given a pocket book media for breastfeeding technique skills, namely a p-value of 0.000. Meanwhile, those who were not given a pocket book media for skills had a p-value of 0.002. These findings underscore the importance of breastfeeding education. Promotive and preventive efforts in breastfeeding-related services and postpartum nutrition, starting early in pregnancy, are crucial for improving maternal and newborn health outcomes. It is recommended that community health centers (Puskesmas) and primary health care facilities consistently provide education on breastfeeding preparation, including nutrition, proper breastfeeding techniques, and examples of breast milk booster foods. Furthermore, counseling policies should not only focus on the mother but also involve the family to support the breastfeeding program. The IBU BINTARI book provides the necessary information, enabling mothers to understand the steps of breastfeeding and, ultimately, boosting their confidence during breastfeeding.

5. Conclusion of Interest

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