

# The Importance of Using Bra Breast Care (BBC) to Overcome Nipple Problems in Postpartum Mother in Praktik Mandiri Bidan (PMB)

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**Submission date:** 03-Apr-2023 10:10AM (UTC+0700)

**Submission ID:** 2054121552

**File name:** problem\_in\_post\_partum\_mothers\_in\_praktik\_mandiri\_bidan\_PMB.pdf (617.81K)

**Word count:** 3583

**Character count:** 18461

## The Importance of Using Bra Breast Care (BBC) to Overcome Nipple Problems in Postpartum Mothers in Praktik Mandiri Bidan (PMB)

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### Abstract

*Mother's Milk is the best food for newborns and is the only healthy food that babies need in the first months of life. Breastfeeding has many benefits for both mother and baby. One of the obstacles to breastfeeding is problems with the mother's breasts because it gives difficulties for the baby to breastfeed, including flat, sunken and blistered nipples. Research conducted by Jannah, et al (2018) that the duration of successful breastfeeding in the intervention group given the BBC was a minimum of 3 and a maximum of 6 days, while in the control group given a nipple puller it was longer, namely a minimum of 6 days and a maximum of 22 days. The statistical test results showed that there was a significant difference in the mean duration of successful breastfeeding in mothers with inverted nipples given the BBC modification with a  $p=0.00$ , the mean difference being 9.4. This means that the use of the BBC modification can accelerate the success of breastfeeding in mothers with inverted nipples 9.4 times compared to mothers with nipple puller intervention. This community service activity method uses an approach to increasing knowledge, skills through webinar zoom meetings and training. The results of filling out the pre and post test questionnaires showed that the average pretest value was 66, 76 to 85.44 with an increase in knowledge of 21.86%. In conclusion, there is an increase in the knowledge and skills of alumni to produce BBC which can be seen in the video on the process of making the BBC and there is an additional type of service at PMB, namely BBC marketing. It is recommended that PMB and alumni open businesses and have an entrepreneurial spirit so that they can create job opportunities for other alumni and provide services to breastfeeding mothers who have problems with flat, sunken and chafed nipples.*

**Keywords:** Bra Breast Care (BBC), Nipples, Postpartum Mothers

### A. Introduction

Mother's Milk (ASI) is the best food for newborns and is the only healthy food that babies need in the first months of life [1], [2]. Breastfeeding has many benefits for both mother and baby. The benefits of breastfeeding for mothers are reducing the risk of ovarian and breast cancer, helping to smooth milk production, as a natural method of preventing pregnancy in the first six months after birth, and helping to lose more weight quickly after pregnancy. While some of the benefits of breastfeeding for infants are protection against gastrointestinal infections, reducing the risk of infant death from diarrhea and infection, a source of energy and nutrition for children aged 6 to 23 months, and reducing mortality among malnourished children [3]

However, not all mothers can give exclusive breastfeeding to their babies. Exclusive breastfeeding is breast milk that is given to babies from birth for six months, without adding or replacing it with other food or drinks (except drugs, vitamins and minerals) (Ministry of Health Republic of Indonesia, 2018) [4]–[6]. Babies who get exclusive breast milk (ASI) have 14 times less likely to die than babies who are not breastfed [7], [8]. Optimal breastfeeding is so important that it can save the lives of more than 820,000 children under the age of 5 every year. Data from the World Health Organization (WHO) in 2019 around 41% of babies get exclusive breastfeeding, while WHO targets at least 50% of babies to get exclusive breastfeeding in 2025 (WHO, 2019) [9].

The Ministry of Health is targeting an increase in the target of exclusive breastfeeding to 80%. However,

exclusive breastfeeding in Indonesia is still low, only 74.5%. Indonesian Health Profile data, the coverage of babies who receive exclusive breastfeeding in 2018 is 68.74% (Ministry of Health, 2019). One of the obstacles to breastfeeding is problems with the mother's breast because it makes it difficult for the baby to suckle. Breast problems that affect the success of breastfeeding include flat, sunken and chafed nipples. At breasts with flat or sinking nipples, the baby's mouth will have difficulty holding a good attachment, sucking, and swallowing milk.

The method that is often used to treat inverted or flat nipples is by using a Nipple Puller. The Nipple Puller is a simple tool that is made using a syringe as a base material and is modified by cutting the tip of the syringe with the needle and moving the syringe puller towards the cut. The blunt end is placed over the nipple and slowly withdrawn so that the nipple comes out and is done regularly every morning, afternoon and evening 10 times. However, several articles state that many mothers complain that using a nipple puller is painful and causes pain in the nipple area and can cause blisters due to pulling from this modified syringe.

One effort that can be used to overcome breastfeeding problems due to flat or sunken nipples is through the use of a nipple shield [10]–[12]. Nipple shield is a nipple shield made of silicone with a shape resembling a nipple with a diameter of 13 mm and a thickness of 0.5 mm [13], [14]. This nipple shield can be washed using soap and water then dried and/or sterilized by boiling for 10 minutes (Manerkar, et.al, 2016). Research conducted by Parrella, et.al. (2015), found that when using a nipple shield there were no signs of bacterial and fungal growth on the nipples. This study also found that there was no growth of fungi and bacteria in breast milk.

Research Manerkar, et.al. (2016) found that the use of a nipple shield can increase the success of breastfeeding in postpartum mothers by 80% after 28 days of use, and there is an average baby weight gain of 420 grams. Research results Power, et.al. (2004) 88% of mothers who used nipple shields reported successful breastfeeding, and after 2 weeks of use the babies were able to breastfeed normally [15].

The results of research conducted by Indrayani (2016), the use of a nipple shield can stimulate the nipples to elongate and stand upright on their own. Research by Aloysius and Lozano (2007), nipple shields can be used as an aid for mothers who experience cracked or chafed nipples, flat or inverted nipples, as well as premature babies. This study recommends that mothers who have breastfeeding problems use a nipple shield.

Some experts claim that nipple shields are thought to reduce breastfeeding and cause the breasts to not empty completely after breastfeeding. Babies who are breastfed with the help of a nipple shield tend to have nipple confusion, and it has an effect on reducing milk production, causing early weaning (Chow, et.al. 2015). Research Manerkar, et.al. (2016) also showed that there are some drawbacks to nipple shields, namely the inconvenience of using nipple shields because their use is troublesome, besides that, nipple shields can cause trauma to the nipples due to shifting during use. Therefore, it is necessary to modify the nipple shield in combination with a bra as a support. The modified nipple shield in this study was named Bra Breast Care (BBC).

Research conducted by Khogulungul Jannah, Hanifa and Epti Yorita (2018) found that The results of the bivariate analysis showed that the duration of successful breastfeeding in the intervention group that was given the BBC was a minimum of 3 and a maximum of 6 days, while in the control group that was given a nipple puller it was longer, namely a minimum of 6 days and a maximum of 22 days. The statistical test results showed that there was a significant difference in the mean duration of successful breastfeeding in mothers with inverted nipples given the BBC modification with a value of  $p = 0.00$ , the mean difference being 9.4. This means that the use of the BBC modification can accelerate the success of breastfeeding in mothers with inverted nipples 9.4 times compared to mothers with nipple puller intervention.

*Bra Breast Care* is a nipple shield that is combined with a special breastfeeding bra to make it easier for breastfeeding mothers who have problems with flat or immersed nipples in breastfeeding their babies. Use The nipple shield is useful for helping mothers to continue breastfeeding even though their nipples are chafed. This nipple shield will coat the nipples and areola well so that the baby remains comfortable while breastfeeding, but the mother feels less pain. By modifying the nipple shield and special bra for breastfeeding into Bra Breast Care (BBC), it is hoped that it will make it easier for mothers to breastfeed and help increase breastfeeding success.

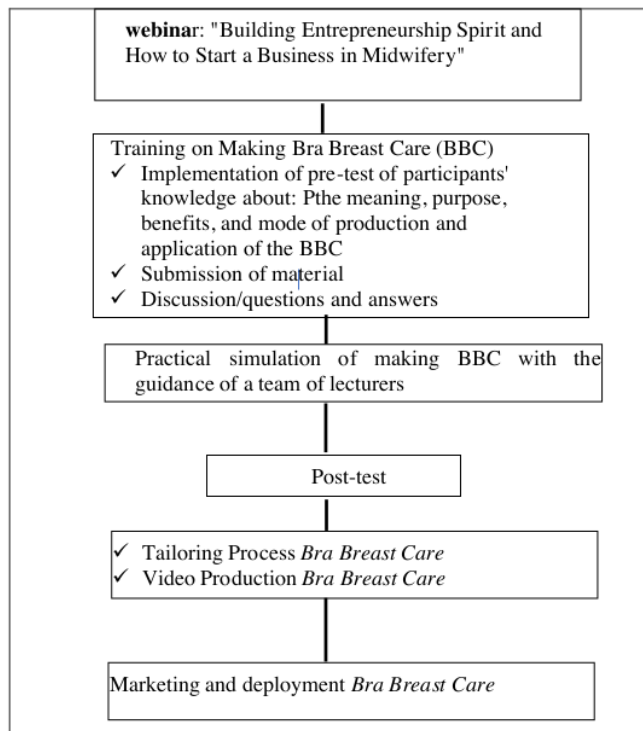
*BBC* designed by attaching a nursing bra and nipple shield using velcro as an adhesive. In addition, the nipple shield that is attached to the bra can also be removed to make it easier for the mother to clean the breast milk attached to the nipple shield. *Nipple shields* it can be washed using soap and clean water, it can

also be sterilized by boiling it in water for 10 minutes and then letting it dry.

Based on the profile of the City of Bengkulu (2030), out of a total of 4064 babies born, only 3306 babies (81.3%) received exclusive breastfeeding. One of the causes of low exclusive breastfeeding is breastfeeding problems, namely inverted or flat nipples that affect the success of exclusive breastfeeding. The results of a preliminary survey at BPM Ocik Lestari, SST in January 2021, 2 out of 4 post-partum mothers had breastfeeding problems, namely flat and sunken nipples, so mothers immediately gave formula milk to newborns, due to difficulties with normal breastfeeding, so breast milk not out. Based on the problems and studies above, as a lecturer from the Bengkulu Ministry of Health Polytechnic intends to organize Community Service with the title Empowerment of Business Partners in the Implementation of Bra Breast Care to Overcome Nipple Problems in Postpartum Mothers at the Bengkulu City Independent Midwife Practice (PMB) as a form of support for efforts to develop human resources in society and the embodiment of the Tri Dharma of Higher Education.

**B. Method**

Community service activities were carried out with 25 participants, namely midwives who carried out Independent Midwife Practice activities as many as 5 people, 10 alumni of applied midwifery degrees, 10 alumni of the midwifery profession. This community service activity method uses an approach to increasing knowledge, skills and fostering an entrepreneurial spirit in PMB and alumni through webinars and training activities and is carried out by a team of lecturers at the Ministry of Health Poltekkes, assisted by students by implementing health protocols.



**Figure 1.** Flow Chart of Community Service Implementation

Information

1. Conducting webinar activities with the theme "Building an Entrepreneurship Spirit and How to Start a Business in the Midwifery Sector" resource person Corien Akwari Febrianti, S.Psi.,MM from the

Corien Center HR Development Institute (Training, Psychological Test, Bimbel, Umroh, EO and Outbound)

2. Training activities about meaning, purpose, benefits, and method of production and application of the BBC with alumni sources who have conducted research on the effectiveness of Bra Breast (BBC) in increasing the success of breastfeeding in mothers with flat, inverted and chafed nipple problems.
3. BBC production practice simulation under the guidance of a team of lecturers
4. Pre and post test by giving questionnaires to participants before and after training
5. The sewing process and the making of BBC sewing videos
6. Provide BBC to PMB to be marketed and applied to breastfeeding mothers with flat, inverted and chafed nipples

**C. Result and Discussion**

Community service activities will be carried out in September 2022 starting with obtaining permits from the City Health Office and conducting outreach to PMB and alumni. This community service activity received enthusiasm from alumni and PMB to become participants. This activity received support from PMB Susi Irma who prepared a place for training activities.

Webinars are held on the following day Tuesday, September 20, 2022 via Zoom Meeting with the theme "Building Entrepreneurship Spirit and How to Start a Business in the Midwifery Sector" resource persons from the Corien Center HR Development Institute (Training, Psychotest, Bimbel, Umroh, EO and Outbound). After the presentation of the material, a question and answer session was held and listening to the experiences of each PMB on how to start a business to open a midwifery clinical practice.

The training activities were held on Tuesday, 11 October 2022 with the theme at PMB Susi Irma Novia, SST, with the address Pasar Minggu RT 06, RW 02 Kel. Behind the cottage Kec. The queen of samban, Bengkulu City. Prior to being given the training material each participant was given a questionnaire to assess their initial knowledge of the BBC. Next is the presentation of material about meaning, purpose, benefits, and method of production and application of the BBC with alumni sources who have conducted research on the effectiveness of Bra Breast Care (BBC) in increasing the success of breastfeeding in mothers with flat, inverted and chafed nipples, followed by discussion and question and answer, the participants were very enthusiastic as seen from the many questions.

The activity continued with a simulation of making and using BBC for breastfeeding mothers who have problems with flat, inverted and chafed nipples. After the implementation of the training, a post-test questionnaire was given to find out the increase in participants' knowledge about Bra Breast Care with the following results:

**Table 1.** Knowledge of training participants about Bra Breast Care to Overcome Nipple Problems in Postpartum Mothers

Knowledge level	Pre-test Mean Score	Re value post-test mean	Difference	Percentage increase
Correct answer	66.76	85.44	18.68	21.86%

Based on table 1, it can be seen that there was an increase in the average participant knowledge score from the pre and posttest questionnaire measurements.

Based on the results of filling out the pre and posttest questionnaires, it was found that the average pretest score was 66.76 to 85.44 with an increase in knowledge of 21.86%. Based on these results that there is increase in knowledge from before and after being given material about the meaning, purpose, benefits, and method of production and application of the BBC. This is in accordance with the theory according to Notoatmodjo (2012), knowledge is the result of human sensing, or the result of knowing someone about an object through the senses they have (eyes, nose, ears, and so on). So knowledge is a variety of things that are obtained by someone through the five senses. In the Big Indonesian Dictionary (2011), knowledge is something that is known to be related to the learning process.

Activity results This community service is also in accordance with the theory put forward by Arikunto, 2013 that the way to measure the level of knowledge is by asking questions, then an assessment of a value of 1 is carried out for a correct answer and a value of 0 for an incorrect answer. Based on the ratio data scale, the range of knowledge scores is 0 to 100.

After conducting webinars and training, the next stage is carrying out the sewing process and making a BBC sewing video which is carried out at the tailor's house. BBC marketing activities resulting from stitches were given to five PMB midwives as community service participants, each midwife received 5 BBC which were ready to be sold for use in nursing mothers who had problems with nipples whether flat, sunken or abrasions.



**Figure 2.** Implementation of the Webinar Tuesday 20 September 2022 with the theme of Building an Entrepreneurship spirit and how to start a business in the Midwifery sector and presenting speakers, namely Mrs. Corien Akwari Febrianti, S.Psi, MM. Owner and Founder of Corien Center HR Development Institute



**Figure 3.** BBC making training at PMB Susi Irma Novia, SST which was attended by 25 alumni and 4 community service team members



**Figure 4.** The BBC Tailoring Process is a nipple shield that is combined with a special breastfeeding bra to make it easier for mothers who have chafed, flat or immersed nipples to breastfeed their babies in the city of Bengkulu

#### D. Conclusion

Based on the results of community service activities, it can be concluded that the expected goals can be achieved, namely: Implementation of a webinar with the theme Building an Entrepreneurship Spirit and How to Start a Business in the Midwifery Sector, There is an increase in the knowledge of alumni and Midwives who carry out the Independent Midwife Practice (PMB) towards efforts to increase Exclusive breastfeeding through the use of Bra Breast Care (BBC) with an average pretest score of 66.76 to 85.44 with an increase in knowledge of 21.86%. After participating in training and simulations for making the BBC, there was an increase in the alumni's skills to produce BBC, which can be seen in the video on the process of making the BBC. There was an additional type of service at PMB, namely BBC marketing.

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