ASTEEC Conference Proceeding: Applied Science
1th International Conference on Obstetricians Participating in Training for Innovative Measures to Advance Leadership 2024 (OPTIMAL 2024)
24 Agustus 2024 (Online)

Case Study on Increasing Breast Milk Production in Postpartum Mothers with Non-Pharmacological Therapy through Papaya Consumption in the Palangka Raya Watershed 2024

Dessy Hertati[1], Stefanicia[2], Mustika Ayu Lestari[3]

[1]Bachelor of Midwifery Study Program, STIKES Eka Harap, Palangka Raya, Indonesia
[2]Bachelor of Midwifery Study Program, STIKES Eka Harap, Palangka Raya, Indonesia
[3]Midwifery Professional Study Program, Universitas Qamarul Huda Badarudin, Lombok, Indonesia

[*]Corresponding author: dessyhertati01@gmail.com

Abstract

Background: Breast milk is the main food for infants, but breastfeeding mothers often face challenges, with the primary issue being insufficient breast milk production, which causes the baby to be fussy and cry frequently. This leads mothers to panic and easily resort to giving pre-lacteal foods such as formula milk, honey, coconut water, bananas, and rice water. Objective: to be able to provide midwifery care to postpartum mother Mrs. E P2A0, 6 hours postpartum, in the KIA room at the UPTD Puskesmas Pahandut, Palangka Raya City. Methodology: The type of research used is descriptive qualitative with a case study approach. Design using field observation. The method of data collection is through interviews and documentation analysis of midwifery care. Data analysis is obtained from case study research by creating a narrative from the results of observations and descriptive analysis of midwifery care, assessment, formulating diagnoses, planning, implementing, and evaluating midwifery care. This research was conducted in April 2024. Result: The mother is willing to try complementary alternative medicine to increase breast milk production by consuming papaya, as its lactagogum content is a substance that can enhance and smooth the production of breast milk. Additionally, the saponin and alkaloid substances in papaya can influence prolactin hormones, thereby facilitating the smooth process of breast milk release. It has a high nutritional content, including enzymes, vitamins A, B, C, and E, pantothenic acid, folic acid, minerals such as magnesium and potassium, as well as dietary fiber. Giving papaya to breastfeeding mothers in amounts of 2-3 pieces three times a day (400-500 grams/day) for seven consecutive days is beneficial for increasing breast milk production. During the follow-up visit in the postpartum period, the mother reported an increase in breast milk production.

Keywords: Postpartum, Breast Milk, Papaya, Watershed

1. INTRODUCTION

The provision of breast milk is very important for optimal physical and mental growth and development. Breast milk is the first and foremost natural food for infants to achieve optimal growth and development. [1] According to Claudia [2], exclusive breastfeeding should be provided to infants from 0 to 6 months of age without any additional fluids. According to [3], breast milk is the best food for babies after birth, as it has advantages in terms of nutrition, immune system support, psychology, economics, and so on. According to Anisa [4], infants who are breastfed will have antibodies against E. Coli in their stool at high concentrations, thereby reducing the risk of the infant contracting infectious diseases.

According to WHO data (2018), the global coverage of exclusive breastfeeding was only about 36% during the period from 2007 to 2014. According to data from the Indonesian Ministry of Health in 2019, the success rate of exclusive breastfeeding in Indonesia reached only 74.5% of the total number of infants in the country. The percentage of exclusive breastfeeding for infants aged 0-6 months was 71.58% in 2021. This figure shows an improvement from the previous year, which was 69.62%. The Central Statistics Agency reported in 2021 that the percentage of exclusive breastfeeding coverage for infants under 6 months in Central Kalimantan Province in 2020 was only 52.98%, and in 2021 it increased to 55.98%. The Health Profile Report of Palangka Raya City in 2020 indicated that the exclusive breastfeeding coverage in 2020 only reached 45.82%, still far from the target of

80%. According to the health profile report of Palangka Raya City in 2019, among the 10 main community health centers in Palangka Raya City, three of the centers with the lowest coverage were Jekan Raya Community Health Center, Menteng Community Health Center, and Kayon Community Health Center, all of which are located in the Jekan Raya sub-district. In the coverage area of Jekan Raya Community Health Center, out of 310 infants aged 0-6 months, only 8 infants (2.58%) received exclusive breastfeeding. At Menteng Community Health Center, out of 815 infants aged 0-6 months, only 50 infants (6.13%) received exclusive breastfeeding, while at Kayon Community Health Center, out of 711 infants aged 0-6 months, 67 infants (9.42%) received exclusive breastfeeding.

One of the reasons for not achieving exclusive breastfeeding is the insufficient production of breast milk, leading mothers to provide supplementary food to their babies. The smooth availability of breast milk in breastfeeding mothers will support the success of exclusive breastfeeding for 6 months, thereby helping the baby to grow and develop well. Some types of food that can increase breast milk production include papaya or papaya carica. Papaya or Carica Papaya is one of the fruits that contains Lactagogum. Lactagogum is a substance that can enhance or facilitate the flow of breast milk. In addition, papaya also contains vitamin A, polyphenols, and steroids that influence prolactin reflexes to stimulate the alveoli, which actively work in the formation of breast milk, also promoting the smooth production of breast milk. The provision of papaya (Carica Papaya) to breastfeeding mothers can stimulate an increase in the secretion and quantity of breast milk production. Papaya contains vitamin A at a level of 365 mg per 100 grams, while the vitamin A content in 100 grams of banana heart is 170 mg. Thus, the vitamin A content in papaya is higher than that in banana heart. The advantages of papaya include its higher vitamin A content compared to banana heart, its easy availability, and its relatively low price.

Based on the delivery recap results in the register book at the VK room of the UPTD Puskesmas Pahandut in April 2024, there were 17 mothers who gave birth. When asked by the writer, all six postpartum mothers expressed their desire to breastfeed their babies. However, in their previous experiences, some had failed to provide breast milk for various reasons, such as feeling that their milk supply was low, not having milk come in during the early days after giving birth, having fussy babies, and being advised by family members to give formula instead. Postpartum mothers may not be aware that there are certain fruits that can enhance breast milk production, one of which is papaya. Based on that background, the author is interested in taking the case report "How Midwifery Care is Provided to Postpartum Mother Mrs. E P2A0 Six Hours Postpartum at UPTD Puskesmas Pahandut, Palangka Raya City 2024."

2. METHODS

The type of research used is descriptive qualitative with a case study approach. Meanwhile, the design employs field observational methods. Data collection methods were carried out through interviews and analysis of midwifery documentation. Data analysis was obtained from case study research by creating a narrative from the results of observations and descriptions of midwifery care, assessments, formulating diagnoses, planning, implementing, and evaluating midwifery care. This research and case study assessment was conducted in April 2024 at the KIA Room of the UPTD Puskesmas Pahandut in Palangka Raya. This health center is located not far from the Kahayan River Basin in Palangkaraya, Central Kalimantan, and many of its residents still live and carry out their daily activities along the river.

3. RESULTS AND DISCUSSION

3.1 Article Review

Table 1. *Article Summary*

No	Journal	Title	Purpose	Research Method	Results	Reason for Choosing Article
1	**Writers:** Iin Prima Fitriah, Faridah BD, Lisa rahmawati, Putri Gamara [10] **Year of Publication:**	*Consumption of Papaya by Breastfeeding Mothers and the Increase in Breast Milk Production in the Working Area of Silaping Health Center, Pasaman Barat*	The aim of this research was to determine the effect of papaya consumption on breastfeeding mothers regarding the increase in breast milk production in	This type of research is quantitative with a quasi-experimental design. The sampling technique is purposive sampling and the design is one group pretest posttest. The research was conducted in April 2020. The population in this	The results of the study showed that the average breast milk output before consuming papaya was 20.44 cc with a standard deviation of	The results of the research and its discussion can be used in midwifery care. It is hoped that this research can serve

		2022 **Country:** Indonesia **Journal Name:** JIK (Jurnal Ilmu Kesehatan) **Database:** Google Scholar		the Working Area of the Silaping Health Center, Pasaman Barat in the year 2020.	study consists of all breastfeeding mothers, totaling 63 individuals, in the working area of the Silaping Health Center in Pasaman Barat. Data analysis was conducted using univariate and bivariate analysis with dependent t-tests through computerization.	6.772. The average breast milk output after being given papaya was 34.52 cc. Based on the study results, the difference in average breast milk output before and after consuming papaya was 14.75 cc, with a standard deviation of 4.328 cc. The results of the t-test statistical analysis showed a p-value of 0.000, which means at $\alpha = 0.05$. Conclusion Based on the results obtained regarding the influence of papaya consumption on the increase in breast milk production.	as a foundation for adding to the literature on midwifery and can be one of the alternatives for increasing breast milk production in further studies.
2		**Writers:** Nursitiyaroh Ani Barus [11] **Year of Publication:** 2023 **Country:** Indonesia	The Influence of Papaya Fruit Consumption on Increasing Breast Milk Production in Nursing Mothers at the Kutabumi Community Health Center, Pasar Kemis District, Tangerang - Banten.	Purpose of the Writing: to determine the effect of papaya fruit consumption on the increase of breast milk production in breastfeeding mothers at the Kutabumi Health Center,	Research Method: This study is a pre-experimental research with a pretest-posttest design without a control group. The independent variable in this research is the provision of papaya fruit, while the dependent variable is the increase in breast milk production. The	The results of this study indicate that the paired sample t-test yielded a Sig. (2-tailed) value of 0.00 < 0.05, which allows us to conclude that there is a difference in the amount of	The results of the research and its discussion can be used in midwifery care. It is hoped that this can be used as a

		Journal Name: Health Information: Jurnal Penelitian **Database :** Google Scholar		Pasar Kemis District, Tangerang-Banten.	total number of respondents in this study is 60 respondents, consisting of mothers who have infants aged 0-6 months with recorded low breast milk production.	breast milk production before and after. Thus, the results of this study can be concluded that there is an influence of giving papaya fruit on the increase of breast milk production in breastfeeding mothers at the Kutabumi Health Center, Pasar Kemis District, Tangerang Banten.	guideline in complementary midwifery actions in non-pharmacological treatment, so that it can be socialized, especially for women with insufficient breast milk.
3		**Writers:** Zulia Putri Perdani, Eriyono Budi Wijoyo, Hera Hastuti, Astrie Merlinda [12] **Year of Publication:** 2021 **Country:** Indonesia **Journal Name:** Jurnal JKFT: Universitas Muhamadiyah Tangerang **Database :** Google Scholar	The Effectiveness of Papaya Fruit Administration on Increasing Breast Milk Production in Nursing Mothers at Cikokol Health Center, Tangerang City.	Objective: To determine the effectiveness of papaya fruit consumption on increasing breast milk production in breastfeeding mothers at Cikokol Health Center, Tangerang City..	The type of quantitative research with a quasi-experimental method using a one group pretest posttest design. A sample size of 18 breastfeeding mothers with children aged 0-6 months was selected using purposive sampling technique, and data analysis was conducted using the parametric test Paired Sample T-Test with a confidence level of 95% ($\alpha = 0.05$).	The research results indicate that there is effectiveness in the provision of papaya fruit in increasing breast milk production in nursing mothers, with a p-value of 0.000. The conclusion is that papaya fruit is effective in enhancing milk production.SI.	The results of the research and its discussion can be used in midwifery care.

3.1.1 Midwifery Care Outcomes

Based on the assessment of midwifery care for Mrs. E P2A0, 6 hours postpartum, conducted on April 22, 2024, at 09:00 AM WIB in the KIA Room of the UPTD Puskesmas Pahandut in Palangka Raya City, the subjective data obtained indicates that the mother stated she gave birth 6 hours ago, is experiencing abdominal cramps, and wants to breastfeed her baby but feels her breasts are empty.

The examination results based on objective data show that the mother's general condition is good, with blood pressure at 110/70 mmHg, temperature at 37.3 ºC, pulse at 88 beats per minute, and respiration at 24 breaths per minute. The breast examination is clean, with prominent nipples and colostrum already present. The fundal height is two fingers below the umbilicus, contractions are strong, the bladder is empty, and there is normal bleeding with a laceration, but it is only grade I, just a scrape, with no active bleeding and no need for stitches.

Based on the subjective and objective data, an analysis of the obtained data was conducted, namely P2A0 postpartum 6 hours with the issue of the mother being worried because her breasts feel empty and she wants to breastfeed her baby smoothly. Her needs include information and education about the mechanism of breast milk production and how to increase breast milk production. The management actions that can be taken in the midwifery care for Mrs. E are as follows:

1. Informing the mother and family of the examination results that the mother's condition is good, with the examination results showing that the mother's general condition is good: Blood Pressure: 110/70 mmHg, Pulse: 88 beats/min, Respiratory Rate: 24 breaths/min, Temperature: 37.6 °C, clean breasts, prominent nipples, colostrum has already come out, fundal height is 2 fingers below the umbilicus, strong contractions, empty bladder, normal bleeding with laceration but only grade I, just a scratch, no active bleeding, and no need for stitches.
Rationalization: Patients have the right to know everything related to their current condition, the planned actions to be taken, and the risks of those actions [14].
Evaluation: "The mother and family are aware of the examination results."

2. Informing mothers about the factors that can lead to a decrease in breast milk production, which are influenced by several aspects, including social and cultural changes, psychological factors, the mother's physical condition, the increasing promotion of formula milk, healthcare personnel factors, the mother's diet, the baby's birth weight, and the use of contraceptives.
Rationalization:
Breast milk production is greatly influenced by psychological factors because a mother's feelings can hinder or enhance the release of oxytocin. When a mother is in a state of stress, sadness, low self-confidence, and various forms of emotional tension, it can decrease breast milk production. Therefore, mothers who are breastfeeding should not be overly burdened by household chores, office matters, and other responsibilities [15].
One of the factors contributing to breastfeeding failure is often related to the mother's psychological state during the early days of the breastfeeding process. Mothers may feel anxious that the breast milk produced is insufficient to meet the baby's needs and that the flow is not smooth. Based on the phenomenon observed, it was found that many instances of breastfeeding on the first day were hindered due to ineffective milk production and ejection, as evidenced by 34.5% of mothers initiating breastfeeding within less than 1 hour and 13% within less than 48 hours. Breastfeeding within half an hour after delivery can prevent a decrease in prolactin hormone levels in the mother's bloodstream, allowing colostrum to be released more quickly on the first day. If the baby does not suckle within an hour after birth, prolactin levels will drop, making it difficult to stimulate prolactin, resulting in less smooth milk production, and breast milk may only be released on the third day or later. The cause of low breast milk production after childbirth is minimal stimulation of the prolactin hormone, which plays a role in the smooth production of breast milk [18].
Evaluation: "Mother understands the explanation given."

3. Informing mothers about the need for breast milk in infants, which is the volume of colostrum between 150 - 300 ml/24 hours. Although the amount of colostrum may seem small by our standards, the volume of colostrum in the breast is close to the stomach capacity of a baby who is 1 - 2 days old. Transition milk is the milk that comes out after colostrum and before mature milk, specifically from the fourth day to the tenth day. For two weeks, the volume of breast milk increased significantly and its color and composition changed. Then mature breast milk is secreted on the tenth day and onwards.
Rationalization: According to Marmi [19], breast milk is classified into three stages, namely:

a. Colostrum Colostrum is the first milk that is produced. Colostrum is secreted by the mammary glands from the first day to the fourth day after childbirth. Colostrum is a thick, sticky fluid that is yellowish in color. Colostrum contains high levels of protein, minerals, salts, vitamin A, nitrogen, white blood cells, and antibodies compared to mature breast milk. In addition, colostrum still contains low levels of fat and lactose. The main protein in colostrum is immunoglobulin (IgG, IgA, and IgM), which is used as an

antibody to prevent and neutralize bacteria, viruses, fungi, and parasites. Although the amount of colostrum that comes out may seem small by our standards, the volume of colostrum in the breast is close to the stomach capacity of a baby aged 1 to 2 days. The volume of colostrum is between 150 – 300 ml per 24 hours. Colostrum is also an ideal laxative to clear out unused substances from the intestines of newborns and prepare the digestive tract for the food that will come for the baby.

b. Transition or Transitional Breast Milk
Transitional breast milk is the milk that comes out after colostrum and before mature milk, specifically from day four today ten. For two weeks, the volume of breast milk increased significantly and its color and composition changed. The levels of immunoglobulin and protein decrease, while fats and lactose increase.

c. Mature Breast Milk
Mature breast milk is secreted on the tenth day and thereafter. Mature breast milk appears white in color. The composition of mature breast milk is relatively constant and does not clump when heated. The milk that flows first or during the first 5 minutes is called foremilk. Foremilk is more watery. Foremilk has low fat content and is high in lactose, sugar, protein, minerals, and water.

Evaluation: "Mother understands the explanation given."

4. Explaining to the mother that the stomach capacity of a baby aged 0-6 months is that in the digestive system of a newborn, the stomach capacity is only 5-7 ml each time they drink. The size of its stomach is the size of a marble, and the walls of the stomach cannot stretch to accommodate more liquid.Therefore, newborns only need colostrum, which is of very perfect quality and quantity to meet the baby's needs.On the third day, the baby's stomach capacity increased to about 22-17 ml, with the stomach size being comparable to the size of his fist, coinciding with the end of colostrum production in breast milk. By the seventh day, the stomach capacity grew to 45-60 ml each feeding, with the stomach size resembling that of a ping pong ball. On the tenth day, the stomach capacity reached 60-81 ml, with the stomach size comparable to that of a large chicken egg.
Rationalization:
The digestive system of infants is very different from that of adults. The condition of the digestive system in infants aged 0-6 months is that their stomach size is still small and their digestive system has not fully developed; therefore, infants aged 0-6 months can only consume breast milk. On the first day after birth, infants can only use carbohydrates as their energy source, and by the third day, they can start utilizing energy from fats and proteins. In the digestive system of a newborn, the stomach capacity is only about 5–7 ml with each feeding. The size of its stomach is the size of a marble, and the walls of the stomach cannot stretch to accommodate more liquid.Therefore, newborns only need colostrum, which is of very perfect quality and quantity to meet the baby's needs.On the third day, the baby's stomach capacity increased to about 22-17 ml, with the stomach size being comparable to the size of his fist, coinciding with the end of colostrum production in breast milk. By the seventh day, the stomach capacity grew to 45-60 ml each feeding, with the stomach size resembling that of a ping pong ball. On the tenth day, the stomach capacity reached 60-81 ml, with the stomach size comparable to that of a large chicken egg. Therefore, giving complementary feeding too early will put more strain on the stomach.
Evaluation: "Mother understands the explanation given."

5. Informing mothers about how to increase breast milk production, the best way for milk to flow well is to ensure that the breast is completely emptied each time you breastfeed. Emptying the breasts will stimulate the breast glands to produce more breast milk. During exclusive breastfeeding, mothers should receive 700 calories in the first 0-4 months, 500 calories in the next 6 months, and 400 calories in the second year.
Rationalization:
a. Efforts to Increase Breast Milk Production

1) In the first week, mothers should breastfeed more frequently to stimulate breast milk production. Increase the frequency of breastfeeding or pumping breast milk. If the baby refuses to breastfeed because they are still full, then pump the breast milk. The production of breast milk is essentially based on demand. If the baby breastfeeds or pumps breast milk more frequently, then more breast milk will be produced.
2) The motivation for providing breast milk as early as possible is within 30 minutes after the baby is born.
3) Fostering a deep bond between the mother and the baby by placing the baby with the mother immediately after birth.
4) A midwife or health worker teaches how to care for the breasts.
5) Offer both breasts to the baby each time you breastfeed.
6) Allow the baby to suck for a long time on each breast.
7) Don't rush to give formula milk as a supplement.
8) Mothers are advised to drink plenty, whether in the form of milk or plain water (8-10 glasses a day) or 1 liter of milk per day to increase breast milk production.
9) The mother's daily food intake should be sufficient and of good quality to support the baby's growth and

maintain the health of both the baby and the mother.

10) Mothers should get plenty of rest and enough sleep.
11) If the amount of breast milk is insufficient, mothers may try using Moloco B12 tablets or other medications as directed by a doctor.
12) Avoid foods that cause bloating such as sweet potatoes, cassava, cabbage, mustard greens, and green onions, as well as stimulating foods like chili, pepper, ginger, coffee, alcohol, and foods high in fat and sugar.
13) The mother must be in a relaxed state. The psychological condition of breastfeeding mothers greatly influences the success of exclusive breastfeeding.
14) Visit a lactation clinic and get an oxytocin massage.

b. Oxytocin Massage To facilitate breastfeeding, mothers can perform an oxytocin massage. An oxytocin massage involves massaging the spine at the 5th-6th ribs up to the scapula, which will accelerate the sympathetic nerve function in stimulating the posterior pituitary gland to release oxytocin.

6. Informing mothers about complementary therapy to increase breast milk production can be done through the consumption of papaya, as the lactagogic properties of papaya can enhance and smoothen breast milk production. Additionally, the saponins and alkaloids in papaya can influence prolactin hormones, thereby facilitating the milk ejection process. Papaya is also rich in nutrients, including enzymes, vitamins A, B, C, and E, pantothenic acid, folic acid, minerals such as magnesium and potassium, as well as dietary fiber. Giving papaya to breastfeeding mothers in amounts of 2-3 pieces three times a day (400-500 grams/day) for 7 consecutive days is beneficial for increasing breast milk production and has many other advantages.

Rationalization:

Indonesia has many plants with potential as medicinal plants, one of which can be used as a lactagogue. The plants traditionally used to increase breast milk production include papaya fruit, Sauropus androgynus, Pimpinella anisum, basil leaves, thorny spinach, bitter black cumin, moringa, temulawak, and others [22]. The lactagogue content in papaya fruit consists of substances that can enhance and smoothen breast milk production. Additionally, the saponins and alkaloids in papaya can influence prolactin hormones, thus facilitating the smooth process of breast milk release. Papaya is known to have high nutritional content, including enzymes, vitamins A, B, C, and E, pantothenic acid, folic acid, minerals such as magnesium and potassium, as well as dietary fiber [22]. Papaya can increase the secretion and release of breast milk due to its content of lactagogues, saponins, alkaloids, polyphenols, flavonoids, and steroids [22].

According to the research findings [23], giving papaya to breastfeeding mothers in amounts of 2-3 pieces three times a day (400-500 grams/day) for 7 consecutive days is beneficial for increasing breast milk production and has many other advantages. One effective way to increase breast milk production is by consuming papaya. This method is quite easy, as papayas are widely sold in markets across Indonesia at affordable prices. Papaya also has a sweet and refreshing taste, making it suitable for breastfeeding mothers to consume directly without any prior processing. Research findings indicate that papaya has properties that enhance breast milk production; samples studied before and after consuming papaya showed an increase from 5.7 times to 9.75 times.

Evaluation: "The mother understands the explanation and is willing to follow the recommendations given."

7. Informing the mother about the signs of adequate breast milk supply in the baby, which can be observed from the frequency of urination (at least 6-8 times a day) and bowel movements (2-5 times a day), clear yellow urine, the baby being calm and sleeping soundly, and an increase in the baby's weight.

Rationalization: According to Budiati et al., the assessment of breast milk production is categorized into smooth and unsmooth based on indicators from the mother and indicators from the baby.

a) Smoothness of breast milk production from baby indicators. Indicators to assess the smoothness of breast milk in the observation tool include:
   1) Frequency of urination (BAK), a newborn who is adequately receiving breast milk should urinate at least 6-8 times within 24 hours.
   2) Characteristics of urination, clear yellow urine.
   3) Frequency of bowel movements (BAB), with a pattern of 2-5 times per day.
   4) Color and characteristics of bowel movements, in the first 24 hours, the baby excretes dark green, thick, and sticky stools known as meconium, followed by golden yellow stools that are neither too watery nor too thick.
   5) Number of hours the baby sleeps, which should be 2-4 hours with sufficient breast milk.
   6) Baby's weight

A weight loss of 8% is the upper safe limit for weight loss in newborns. A sign of sufficient breast milk in infants is that their weight increases by more than 10% in the first week. (Rini dkk, 2015). Breast milk production is considered smooth if at least 4 out of 6 observed indicators are present in the baby. If the score is less than 4, it is

deemed not smooth [25].
Evaluation: "Mother understands the explanation given."

8. Explaining to the mother that the smoothness of breast milk production is indicated by the mother's indicators, where breast milk production is considered smooth if the observations show at least 5 out of 10 existing indicators. The indicators include:

a. Breasts are engorged with breast milk,
b. The mother is relaxed,
c. Good let-down reflex,
d. Breastfeeding frequency > 8 times a day,
e. The mother alternates between both breasts,
f. Correct latch position,
g. Nipples are not cracked,
h. The mother breastfeeds the baby on demand,
i. The mother appears to have reddened breasts due to fullness,
j. Breasts are empty after the baby feeds until satisfied and falls asleep [26].

Evaluation: "Mother understands the explanation given."

9. Informing mothers about breast care for postpartum mothers that can be done independently or with the help of others. The movements in breast care can stimulate the breast glands, thereby affecting the pituitary gland to release prolactin hormone, which influences the amount of breast milk production, and oxytocin hormone, which affects the release of breast milk. By performing proper breast care, usually in the form of massage using natural materials and tools, it is hoped that mothers will feel more comfortable breastfeeding their babies and avoid breastfeeding issues such as inverted nipples and milk stasis. Mothers can see the steps and methods for breast care in the YouTube video at
https://id.video.search.yahoo.com/search/video?fr=mcafee&ei=UTF-8&p=video+perawatan+payudara&type=E210ID885G0#id=1&vid=38fd1d301e83ecd5b5ceed28cb913216&action=click

Rationalization:
Breast care is an action taken for mothers postpartum to care for their breasts, which can be done independently or with the help of others [27]. Breast care during the postpartum period is a necessity for mothers who have just given birth. Movement in breast care can stimulate the breast glands, thereby influencing the pituitary gland to release prolactin hormone, which affects the amount of breast milk production, and oxytocin hormone, which influences the release of breast milk. By performing proper breast care, usually in the form of massage using natural materials and tools, it is hoped that mothers will feel more comfortable breastfeeding their babies and avoid breastfeeding issues such as inverted nipples and milk stasis.
Evaluation: "Mother understands the explanation given."

10. Informing the mother about the proper and correct breastfeeding technique as outlined in the KIA book by the Ministry of Health of the Republic of Indonesia, 2021, page 29. [30]
Rationalization:
The steps for proper and correct breastfeeding [31] are:

a. Before starting to breastfeed, the nipple and areola should be cleaned first with wet cotton or a little breast milk should be expressed and then applied to the nipple and around the breast area.
b. The baby is placed facing the mother's abdomen/breast.

1) The mother sits or lies down comfortably; if sitting, it is better to use a low chair (this is to ensure that the mother's feet do not dangle) and her back should rest against the chair's backrest.
2) The baby is held at the back of the shoulders with one arm, with the baby's head resting on the mother's elbow (the head should not be tilted back, and the baby's bottom is supported by the palm of the hand).
3) One of the baby's hands is placed behind the mother's body, and the other in front.
4) The baby's belly is pressed against the mother's body, with the baby's head facing the breast (not just turning or tilting the baby's head).
5) The baby's ears and arms are aligned in a straight line.
6) The mother gazes at the baby with affection.

a. The breast is held with the thumb on top and the other fingers supporting underneath, without pressing too hard on the nipple or the surrounding area.
b. Now the baby is stimulated to open their mouth (rooting reflex) by touching their cheek with a milk bottle or by touching the side of the baby's mouth.
c. After the baby opens its mouth, the baby's head is quickly brought close to the mother's

breast, and the nipple along with the areola is placed in the baby's mouth.

1. Try to ensure that most of the areola can fit into the baby's mouth, so that the nipple is positioned under the palate and the baby's tongue will press the breast milk out from the milk reservoir located beneath the areola.
2. Once the baby starts sucking on the breast, there is no need to hold or support it.
3. Removing the baby from breastfeeding After nursing on one breast until it's empty, it is advisable to switch to the other breast. The way to release a baby's latch is to insert the mother's pinky finger into the baby's mouth through the corner of the mouth or to press the baby's chin down.

a. Burping a baby, The purpose of burping a baby is to release air from the stomach so that the baby does not vomit after feeding. The method of burping a baby is to hold the baby upright against the mother's shoulder and gently pat their back, or alternatively, to lay the baby face down on the mother's lap and gently pat their back.

11. Providing information to mothers about their basic needs during the postpartum period, namely:

a. Nutrition

1) Consuming an additional 500 calories each day.
2) Eating a balanced diet, sufficient in protein, minerals, and vitamins, and consuming fruits and green vegetables.
3) Drinking at least 3 liters every day, especially after breastfeeding.
4) Taking iron tablets during the postpartum period.
5) Taking vitamin, A capsules. (200.000 unit).

As stated in the KIA book by the Indonesian Ministry of Health, 2021, page 31.

b) Ambulation It is recommended to mobilize 2 hours postpartum after a normal delivery. During delivery with anesthesia, the patient should turn to the right and left after 12 hours, then sleep in a semi-sitting position, and get out of bed after 24 hours.

c) Elimination Advising not to hold back urination. The longer urine is held in the bladder, the more it can lead to difficulties in the urinary organs, such as infections. Normal bowel movements every 3-4 hours spontaneously. Defecation (bowel movement) should occur within 3 days postpartum. If there is constipation and coprostasis occurs until skibala (hardened feces) accumulates in the rectum, fever may arise.

d) Personal Hygiene

a. 1)The breast should be cleaned with warm water each time before and after breastfeeding the baby.
b. 2)Wash hands with soap and water before and after cleaning the genital area; do not apply anything to the mother's perineal wound. After using the toilet, dry with tissue and wear cotton underwear that easily absorbs sweat.
c. 3)Clean the vulvar area from front to back after urinating or having a bowel movement with soap and water.
d. 4)Avoid touching the area of the episiotomy or laceration.
e. 5)Change the pad at least twice a day, or whenever it feels wet, dirty, or uncomfortable.

e) Rest Make sure to get enough rest, schedule your breaks during the baby's sleep, as there is a possibility that the mother will have to wake up frequently at night due to breastfeeding.

f) Exercise

a. 1)Pull in the lower abdominal muscles while taking a deep breath in a lying position on your back with your arms at your sides, hold your breath for a count of 5, lift your chin to your chest, and repeat 10 times.
b. 2)Stand with your legs together. Tighten and hold your glute muscles for a count of 5, then repeat 5 times.

g) Sexual

The vaginal walls will return to their pre-pregnancy state within 6-8 weeks. Physically, it is safe to start a marital relationship after the bleeding has stopped.

Rationalization:

A postpartum mother has different basic needs than during her pregnancy, and this must be understood by a midwife in providing her care. As a professional midwife, the care provided is based on the needs of postpartum mothers, not the desires of healthcare workers. Thus, it is hoped that the care provided will be targeted and provide satisfaction for the clients [32].

Evaluation: "Mother understands the explanation given."

12. Explaining to the mother about the warning signs during the postpartum period, which include bleeding from the birth canal, fever lasting more than 2 days, foul-smelling discharge from the birth canal, the mother appearing

sad, gloomy, and crying without reason (Depression), swelling in the face, hands, and feet, or headaches and seizures, as well as swollen, red breasts accompanied by pain.
Rationalization:
Warning signs for postpartum mothers as outlined in the KIA Book by the Ministry of Health of the Republic of Indonesia, 2021, page 28 [30] are:

1. Bleeding from the birth canal
2. Fever lasting more than 2 days
3. Foul-smelling discharge from the birth canal
4. The mother appears sad, gloomy, and cries without reason (depression)
5. Swelling in the face, hands, and feet, or headaches and seizures
6. Swollen, red breasts accompanied by pain

Evaluation: "The mother understands the explanation provided."

13. Informing mothers to provide exclusive breastfeeding to their babies by giving only breast milk for 6 months, as breast milk is the best nutrition, enhances the baby's immune system, boosts intelligence, and strengthens the bond of affection.
Rationalization:
According to [33], the benefits of exclusive breastfeeding for infants are numerous, including:

a. Breast milk as the best nutrition. Breast milk is an ideal source of nutrition with a balanced composition tailored to the needs of the baby during its growth period. Breast milk is the most perfect food, both in quality and quantity.
b. Breast milk enhances the baby's immune system. Newborns naturally receive immunoglobulin (immune substances) from their mothers through the placenta. However, the levels of these substances quickly decrease right after birth. When the levels of immune substances drop, and the baby's body has not yet produced enough, there will be a gap in the baby's immune system. The gap will disappear when babies are given breast milk, as breast milk is a living fluid that contains immune substances that will protect babies from various diseases.
c. Breast milk exclusively enhances intelligence
   The main factor influencing a child's brain growth is the nutrition received during brain development, especially during rapid brain growth. Breast milk, besides being an ideal nutrient with the right composition and highly suitable for the baby's needs, also contains specific nutrients that are crucial for the optimal growth of the baby's brain.
d. ASI exclusively enhances the bond of affection
   Babies who are often held by their mothers while breastfeeding will feel their mother's love. She will also feel safe and at peace, especially because she can still hear her mother's heartbeat that she has known since she was in the womb. The feeling of being protected and loved is what will serve as the foundation for a baby's emotional development and shape a confident personality and a strong spiritual base.
   Evaluation: "The mother understands and will follow the recommendations given."

14. Informing the mother about things to avoid during the postpartum period, such as discarding the first breast milk (colostrum) because it is very beneficial for the child's immunity, cleaning the breasts with alcohol/povidone iodine/red medicine or soap because it could be ingested by the baby, exercising in a prone position, tying the abdomen too tightly, and applying leaves to the genitals because it can cause infection.
Rationalization: Things that should be avoided by mothers during childbirth and the postpartum period as stated in the KIA Book by the Ministry of Health of the Republic of Indonesia, 2021, page 28.
Evaluation: "The mother understands and will follow the advice given."

15. Collaborating with doctors in administering pharmacological therapy.
Rationalization: The existence of effective cooperation and collaboration among healthcare professionals such as doctors, nurses, midwives, nutritionists, and pharmacists is a key element in providing effective healthcare services and ensuring patient safety. [34]
Evaluation: "Collaboration has been implemented."

16. Administering medication to the mother as per the doctor's recommendation. The medication therapy provided by the community health center is as follows: Paracetamol 3 times a day, Amoxicillin 500mg 3 times a day, Livron B-Plek once a day, and Vitamin A once a day (2 capsules).
Evaluation: "The mother understands the explanation given and is willing to take the medication as advised."

17. To inform that a minimum of 4 postpartum visits should be conducted, the mother will receive a home visit

on the 6th day of the postpartum period, or the mother can go directly to the health center or midwife to check her condition.
Rationalization: In the national program policy for the postpartum period, at least 4 visits should be conducted. This is to assess the status of the mother and newborn baby, as well as to prevent, detect, and address any issues that arise.
Postpartum care for mothers begins 6 hours to 42 days after childbirth, provided by healthcare professionals with a minimum of 4 postpartum visits.

a. First: 6 hours – 2 days after delivery
b. Second: 3 – 7 days after delivery
c. Third: 8 – 28 days after delivery
d. Fourth: 29 – 42 days after delivery

Evaluation: "The mother understands when to have a follow-up check."
18. Conducting documentation of the care provided
Rationale: Midwifery documentation aims to identify the client's health status in order to record the client's needs, plan, implement actions, and evaluate actions [36].

4. CONCLUSIONS

After the author conducted midwifery care for the postpartum mother, Mrs. E, 6 hours after delivery at the UPTD Puskesmas Pahandut, several conclusions were drawn as follows:

a. The assessment of Mrs. E revealed subjective data collected on April 22, 2024, at 09:00 WIB in the KIA Room of UPTD Puskesmas Pahandut, Palangka Raya City. The subjective data indicated that the mother stated she gave birth 6 hours ago, is experiencing abdominal cramps, and wants to breastfeed her baby, but her breasts feel empty.
b. The examination results based on objective data show that the mother's general condition is good, with blood pressure: 110/70 mmHg, temperature: 37.3 ºC, pulse: 88 beats/minute, and respiration: 24 breaths/minute. The results of the breast examination are clear, the nipples are prominent, colostrum has already been released, the fundal height is two fingers below the navel, there are strong contractions, the bladder is empty, normal bleeding is present with a laceration, but it is only grade I, just a scrape, there is no active bleeding and no need for stitches.
c. The interpretation of the data obtained from the obstetric diagnosis indicates P2A0, 6 hours postpartum, with the issue of the mother being worried because her breasts feel empty and she wants to breastfeed her baby smoothly. Her needs include information and education about the mechanism of breast milk production and ways to increase breast milk production.
d. The management carried out includes providing information and education about the mechanism of breast milk production and ways to increase it, specifically through non-pharmacological therapy by consuming papaya.
e. The evaluation and care provided to Mrs. E showed that she understood the explanations given and was willing to follow the recommendations. No potential problems arose. During the follow-up visit in the postpartum period, the mother reported an increase in breast milk production.

ACKNOWLEDGEMENTS

Thank you to the Chairman of STIKES Eka Harap, the Chairman of LPPM STIKES Eka Harap, the Head of the Bachelor of Midwifery Study Program, the clinical supervisors, and all parties involved in the creation of this case study research.

REFERENCES

[1] Larasati, N. N., & Wahyuningsih, H. P. Factors related to the incidence of stunting in toddlers aged 25-59 months at the integrated health post in the Wonosari II health center area in 2017 (Doctoral dissertation, Poltekkes Kemenkes Yogyakarta). 2018.
[2] Claudia, U. G. Description of changes in knowledge about exclusive breastfeeding in pregnant women between before and after counseling using leaflet media at the Parigi Health Center, Pondok Aren District in 2018 (Bachelor's thesis, Jakarta: Faculty of Health Sciences, UIN Syarif Hidayatullah). 2018.
[3] Nuzulia, F. The relationship between family support and exclusive breastfeeding in infants in Bebengan Village, Boja District, Kendal Regency. Journal of maternity nursing, 1(1). 2013.
[4] Anisa. Factors related to the incidence of Stunting in toddlers aged 25-60 months in Kalibaru Village, Depok,

[Thesis]. Depok: Faculty of Public Health, University of Indonesia. 2012.
[5] Nugraheni, D., Nuryanto, N., Wijayanti, H. S., Panunggal, B., & Syauqy, A. Exclusive Breastfeeding and Energy Intake Related to the Incidence of Stunting in Children Aged 6–24 Months in Central Java. Journal of Nutrition College, 9(2), 106-113. 2020.
[6] Palangkaraya City Health Profile. 2019.
[7] Manuaba, IAC., I Bagus, and IB Gde. Obstetrics, Gynecological Diseases and Family Planning for Midwife Education. Second edition. Jakarta: EGC. 2010.
[8] Sarwono.2010. Obstetrics. Jakarta: Bina Pustaka Sarwono Prawirohardjo Foundation. 2010.
[9] Santoso, B. H. Successful Cultivation of California Papaya in Yards and Plantations. Yogyakarta: Lily Publisher. 2017.
[10] Siagian, D. S., Herlina, S., & Sidoretno, W. M. Vitamin A Content in Green Papaya Fruit: A Solution to Increase Breast Milk Production. In Proceedings of the National Seminar: Annual Scientific Meeting of the Karya Husada Health Polytechnic Yogyakarta (Vol. 1, No. 1, pp. 129-134). 2019.
[11] Fitriah, I. P., Faridah, B. D., Rahmawati, L., & Gamara, P. Consumption of Papaya Fruit in Breastfeeding Mothers and Increasing Breast Milk Production in the Work Area of the Silaping Pasaman Barat Health Center. Jik Journal of Health Sciences, 6(1), 72-77. 2022.
[12] Nursitiyaroh, N., & Barus, A. The Effect of Giving Papaya Fruit on Increasing Breast Milk Production in Breastfeeding Mothers at the Kutabumi Health Center, Pasar Kemis District, Tangerang-Banten. Health Information: Research Journal, e1291-e1291. 2023.
[13] Perdani, Z. P., Wijoyo, E. B., Hastuti, H., & Merlinda, A. The Effectiveness of Giving Papaya Fruit on Increasing Breast Milk Production in Breastfeeding Mothers at the Cikokol Health Center, Tangerang City. JKFT Journal, 6(2), 39-47. 2021.
[14] Siringoringo, V. M., Hendrawati, D., & Suharto, R. Regulation of Legal Protection of Patient Rights in Health Legislation in Indonesia. Diponegoro Law Journal, 6(2), 1-13. 2017.
[15] Sari, Y. R., Yuviska, I. A., & Sunarsih, S. Factors that influence exclusive breastfeeding in infants aged 0-6 months. JKM (Jurnal Kebidanan Malahayati), 6(2), 161-170. 2020.
[16] Setianingrum, R. NURSING CARE FOR POSTPARTUM MOTHERS WITH THE APPLICATION OF ACUPRESSURE POINTS FOR LACTATION TO IMPROVE BREAST MILK PRODUCTION AT ROEMANI MUHAMMADIYAH HOSPITAL, SEMARANG (Doctoral dissertation, Universitas Muhammadiyah Semarang). 2018.
[17] Yundelfa, M. The Effect of Length & Temperature of Breast Milk Storage and Method of Thawing Frozen Breast Milk on Breast Milk Protein Content. Lentera'Aisyiyah Health Journal, 2(1), 12-18. 2019.
[18] Aprilina, H. D., & Suparti, S. Combination of breast care and marmet technique on post-cesarean breast milk production in the Flamboyan Room of Prof. Dr. Margono Soekarjo Purwokerto Regional Hospital. MEDISAINS Journal: Scientific Journal of Health Sciences, 14(2). 2016.
[19] Marmi. Postpartum Midwifery Care and Breastfeeding. 2017.
[20] Syah, H. M. Comparison of the Level of Knowledge of Primigravida and Multigravida Pregnant Women About Exclusive Breastfeeding at the Ciputat Health Center, South Tangerang City, Banten Province. Repository [Thesis]. uinjkt. ac. id. 2016.
[21] Sutanto, A. Postpartum Midwifery Care and Breastfeeding Theory in Professional Midwifery Practice. Yogyakarta: Pustaka Baru Press. 2018.
[22] Istiqomah et al. The Effect of Papaya Fruit on Smooth Breast Milk Production in Breastfeeding Mothers in Wonokerto Village, Peterongan Health Center Area, Jombang, 2014. Edu Health Journal, Vol. 5 No.. 2015.
[23] Sebayang, W. B. The Effect of Papaya Fruit Consumption (Carica Papaya L.) on Increasing Breast Milk Production. Imelda Midwifery Scientific Journal, 6(1), 13-16. 2020.
[24] Saragih, I. S. (2015). Family Support in Implementing Oxytocin Massage to Increase Breast Milk Production in Postpartum Mothers in the Medan Johor Health Center work area. Thesis: University of North Sumatra.
[25] Rini, S., & Rohayati, R. The incidence of diarrhea in infants with breastfeeding. Sai Betik Nursing Scientific Journal, 11(2), 153-157. 2015.
[26] Budiati, T. et al. Increasing Breast Milk Production in Postpartum Mothers. Jakarta. 2011.
[27] Nugroho, et. Al, Postpartum Midwifery Care Textbook (Askeb 3). Yogyakarta: Nuha Medika. 2014.
[28] Maritalia, D. et al. Pregnancy Midwifery Care (Paridah (ed.); Pe Printing). Syiah Kuala University Press. 2021.