

# THE INFLUENCE OF POSTPARTUM MOTHERS' KNOWLEDGE ON THE INCIDENCE OF BREAST MILK ENGORGEMENT IN BATAM CITY

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Received : 01 March 2026

Accepted : 25 March 2026

Received : 10 March 2026

Accepted : 30 March 2026

## Abstract

For a mother, giving birth to baby is a very happy event as well as a heavy event, full of challenges and anxiety. Problems that occur during breastfeeding include blockage of the milk ducts which causes pain, fever, palpable red breasts, painful lumps or swelling and hardened breasts, also known as breast milk dams. In mothers who experience breast milk dams, breastfeeding will be hampered because the mother feels pain and pain in the breast so that the mother is afraid or lazy to breastfeed. The purpose of this study was to determine how postpartum mother's knowledge about breastfeeding techniques with the incidence of breast milk dam. This research is a cross sectional study, the research site is in PMB X Batam City, the research population is postpartum mothers. Sampling was carried out using a total sampling technique, the number of samples was 85 respondents, the instrument used was a questionnaire in the form of a checklist sheet that had been tested for validity, namely chi-square analysis. The results obtained showed a good knowledge of 31.7%, who experienced breastfeeding dams 71.8% The results of statistical tests with Chi-Square obtained p value = 0.000 <0.05 it can be concluded that Ho is rejected, meaning that there is a relationship between knowledge of postpartum mothers About Breastfeeding Techniques With the Incidence of Breast Milk Dams. Suggestions to improve services for mothers and babies from pregnancy to breastfeeding.

**Keywords:** *Postpartum Mother, Breastfeeding Technique, Breast Engorgement*

## INTRODUCTION

The birth of a child will cause a fundamental challenge to the structure of family interactions. For a mother, giving birth to a baby is a very happy event as well as a heavy one, full of challenges and anxiety (Hidayat, 2019). A mother who has just given birth will experience changes in her life because of the presence of her baby. The first priority at that time was to provide breast milk as food for the baby. The provision of Mother's Milk (ASI) for newborns is one of the efforts to prevent death and malnutrition in infants and toddlers (Manggabarani S, Hadi AJ, Said I, 2019). Breast milk is the most perfect food for babies, where the nutritional content is according to the needs of optimal growth and development. Breast milk contains substances for the development of intelligence, immune substances (prevents the body from various diseases) and can undergo a loving relationship between mother and baby. The benefits of breastfeeding for mothers can reduce bleeding after childbirth, accelerate the speed of recovery of the mother, such as uterine involution, delay pregnancy, and reduce the risk of breast cancer. (Dr. Utami Roesli, 2019). According to WHO, the number of breastfeeding mothers is high in developing countries and when we talk about the decline in the number of breastfeeding mothers, many things affect the burden of life or stress experienced by many women. There are other reasons that are no less important that cause mothers not to give breast milk, including cracked nipples, mothers complain that their breasts are too full and feel sore (milk dams) and mastitis.(UNICEF, 2018). Problems that occur during breastfeeding include blockage of the milk ducts which causes pain, fever, palpable red breasts, painful lumps or swelling and hardened breasts, which are also known as breast milk dams. This event is usually caused because the collected milk is not removed, resulting in a blockage. Symptoms that often appear when breast milk dams occur include swollen breasts, breasts feel hot and hard and the mother's body temperature increases. If this situation continues, it can lead to mastitis and breast abscess (Rutiani, 2020). Breast milk dam is breast milk that is not immediately removed which causes blockage of venous and lymphatic flow so that the flow of milk becomes blocked and suppresses the mother's milk channel so that there is an increase in venous and lymph flow which causes swollen breasts. The impact of breast milk dams, namely static on the lymph vessels, will result in intraductal pressure which will affect various segments of the breast, so that the pressure of the

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entire breast increases, as a result, the breasts often feel full, tense, and painful even though it is not accompanied by fever. The breast loops are wider, making it difficult for the baby to suck. In mothers who experience dam breastfeeding, breastfeeding will be hampered because the mother feels pain and soreness in the breast so that the mother is afraid or lazy to breastfeed. This results in the baby not being breastfed adequately, so that the milk collects in the lactiferous ducts which causes swelling. Breast milk dams are not fed adequately, eventually mastitis occurs (Rosyid and Sumarmi, 2017). The latest World Health Organization (WHO) data in 2020 in the United States the percentage of breastfeeding women who experienced breast milk dams on average reached 87.05% or as many as 8572 postpartum mothers from 12,915 people, in 2019 mothers who experienced breast milk dams were 7993 people from 11,734 people and in 2018 there were 6843 mothers who experienced breast milk damming out of 9,792 people (WHO, 2021).

According to the 2018 Indonesian Demographic and Health Survey Data, it was stated that there were 35,985 postpartum mothers who experienced breast milk dams or (15.60%) postpartum mothers, and in 2019, 77,231 postpartum mothers experienced ASI dams or (37.12%) mothers. postpartum (Kemenkes RI, 2019). The increase in the incidence of breast milk dams greatly affects the postpartum period because of the inability to provide breast milk to their babies. One of the reasons for not achieving exclusive breastfeeding is that the baby does not get enough breast milk and increases milk production, late breastfeeding, poor relationship with the baby (bonding), and it can also be due to the limitation of breastfeeding time so that there can be inflammation in the mother's breast and palpation feels hard, sometimes feels pain and is often accompanied by an increase in the mother's body temperature, and there are signs of redness and fever (Manuaba, 2018).

Breast milk dams occur due to several factors, including the wrong technique in breastfeeding, the nipple sinks, the baby cannot suck the nipple and areola, the mother does not breastfeed her baby as often as possible or the baby is not actively sucking. (Rukiah AY, 2018). Research (Halina, 2019) says that improper breastfeeding techniques can result in sore nipples and breast milk not coming out optimally so that it affects subsequent milk production or the baby is reluctant to breastfeed. Researchers assume by preventing the occurrence of sore nipples can reduce the risk of swelling of the breasts, because nipples that are not blistered make mothers and babies want to breastfeed comfortably so that they do not hinder the release of breast milk.

According to (Anggareni, 2019), the incorrect position of the baby's head can cause the baby's sucking to be wrong, because the nipples and areola do not enter all of the baby's mouth. This can result in sore nipples. The occurrence of sore nipples can be a risk of swelling in the breast. Postpartum mothers must ensure that the attachment is correct so that the risk of swelling in the breasts, namely nipple blisters, does not occur. The purpose of this study was to find out how postpartum mother's knowledge about breastfeeding techniques with the incidence of breast milk dams in PMB X Batam City in 2021.

## RESEARCH METHODS

The research method used is analytic. This study was to determine the relationship between mother's knowledge of breastfeeding techniques with the occurrence of breast milk dams. The research design used is a cross sectional approach. The number of samples in this study were 85 mothers with the sampling technique used, namely total sampling at PMB X Batam City in 2021. Knowledge data was collected using questionnaires, knowledge was carried out using instruments in the form of questionnaires that had been tested for validity and reliability, and analyzed using bivariate analysis.

## RESULT

**Table of Frequency Distribution of Respondents' Knowledge About Breastfeeding Techniques**

No	Knowledge	N	%
1	Good of knowledge	27	31,7
2	Lack of knowledge	58	68,3
	Total	85	100

Based on the results of the table of respondents' knowledge about breastfeeding techniques, it can be explained that the number of respondents as many as 85 people obtained results, respondents for good breastfeeding techniques were 27 people (31.7%) and breastfeeding techniques were lacking as many as 58 people (68.3%).

**Table of Frequency Distribution of Respondents Experiencing Breastfeeding Dam**

No	Breast Engorgement	N	%
1	Experienced	61	71,8
2	Not Experience	24	28,2
	Total	85	100

Based on the results of the table of respondents who experienced Breast Engorgement, it can be explained that the number of respondents as many as 85 respondents obtained results, did not experience breast engorgement as many as 61 people (71.8%) and for ASI dams not occurring as many as 24 people (28.2%).

**Table of Relationships between Knowledge of Postpartum Mothers About Breastfeeding Techniques with the Incidence of Breastmilk Dams**

Knowledge	Breast Engorgement						<i>p value</i> 0,000
	Not Experience	%	Experienced	%	Total	%	
Good of knowledge	5	8,6	53	91,4	58	100	
Lack of knowledge	19	70,4	8	29,6	27	100	
	24	47,9	61	52,1	85	100	

The results of the table of the relationship between postpartum mother's knowledge about breastfeeding techniques and the incidence of breast milk dams can be seen by the number of respondents as many as 85 people. The results obtained showed as many as 27 respondents with good knowledge, 8 respondents (29.6%) of whom experienced breast engorgement and 19 respondents (70.4%) did not experience breast breast engorgement. Meanwhile, the respondents who had less knowledge were 58 respondents, 53 respondents (91.4%) of them experienced breast breast engorgement and 5 respondents (8.6%) did not experience breast milk dams. The results of statistical tests with Chi-Square obtained  $p \text{ value} = 0.000 < 0.05$ , it can be concluded that  $H_0$  is rejected, meaning that there is a relationship between postpartum mother's knowledge about breastfeeding techniques and the incidence of breast engorgement in PMB X Batam City in 2021.

**DISCUSSION**

During pregnancy, the breasts are prepared for lactation. Breast enlargement occurs with the addition of the vascular and lymphatic system around the breast so that it becomes large, hardened and painful to the touch. Meanwhile, the concentration of hormones that stimulate breast development during pregnancy decreases rapidly after the baby is born. The time it takes for these hormones to return to pre-pregnancy levels is partly determined by whether the mother is breastfeeding or not (Prasetyono, 2019) Failure in the breastfeeding process is often caused by the emergence of several problems for the mother and the baby. For some mothers who do not understand this problem, breastfeeding failure is often considered a problem for their children (Nuraeni, 2018).

Maternal breastfeeding technique factors are also very influential on the incidence of breast milk dams. Correct breastfeeding technique is how to give breast milk to the baby with the attachment and position of the mother and baby correctly. Improper breastfeeding technique can cause nipple blisters, milk does not come out optimally so that it affects subsequent milk production or the baby is reluctant to breastfeed (M J Renfrew, D Craig, L Dyson, F McCormick, S Rice, S E King, K Misso, E Stenhouse, 2019) Breast milk dams occur due to swelling in the breasts due to increased venous and lymph flow, causing milk damming and pain accompanied by an increase in body temperature. In general, after giving birth, the mother's breasts enlarge, feel hot, hard, and uncomfortable. Enlargement is due to increased blood supply to the breast along with the production of milk. Usually this lasts for

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several days. This condition is normal and nothing to worry about. However, sometimes the enlargement is painful so that the mother is not free to wear a bra or let any object touch her breasts (Rina, 2021). During lactation there is an increase in the mother's excessive milk production. If the baby is full and finished breastfeeding and the breast is not emptied, then there is still milk remaining in the breast. The rest of the milk if not removed can cause breast milk dam. Breasts that experience swelling or breast milk dams are very difficult for the baby to suckle because the breasts are more prominent, the nipples are flatter, and difficult for the baby to suck. Therefore, before feeding the baby, breast milk must be squeezed by hand or pumped first so that the nipple is softer so that the baby can suck it easily. (Rachmadewi and Khomsan, 2019) Milk dams can occur on the 2nd or 3rd day when the breasts have produced milk. Dams are caused by the production of milk that is not smooth, because the baby is not breastfeeding often enough, production increases, breastfeeding is late, the relationship with the baby is not good, and can also occur due to restrictions on breastfeeding time. (Fitriahadi and Utama, 2018). At the beginning of the puerperium if the baby is not suckling properly, or later if the glands are not completely emptied, there is damming of milk. Breasts are hot and hard to the touch and painful, body temperature does not rise. The nipples may flatten and this makes it difficult for the baby to suckle. Sometimes the release of milk is also blocked because the lactiferous ducts are narrowed due to enlarged veins and lymph vessels (Elsa R. J. Giugliani, 2020)

Several factors that affect breast milk dam are improper breastfeeding technique, incomplete emptying of the mother, ineffective baby sucking, long and deep nipples, knowledge, experience and the most dominant role of health workers in providing counseling on how to breast care. The impact of breast milk dam if it continues it can lead to mastitis and breast abscess (Rahmawati *et al.*, 2019) The incidence of breastfeeding dams that occur in mothers with good knowledge is due to several factors, namely, improper breastfeeding application techniques can be seen based on the questionnaire that the researchers attached that more than half of the respondents answered incorrectly about breastfeeding until the breasts were empty whether it would cause breast milk dams, it can be concluded that the majority of mothers do not completely empty their breasts when breastfeeding so that there is still milk remaining in the breasts. According to (Maryunani A, 2020) If the baby is full and finished breastfeeding and the breast is not emptied, then there is still milk remaining in the breast. The rest of the milk if not removed can cause breast milk dam. And this also happens to mothers who lack experience in breastfeeding, namely mothers who are having children for the first time or are pregnant for the first time (primigravida). Scheduled breastfeeding will result in less good, because the baby's sucking is very influential on the stimulation of further milk production. By breastfeeding without a schedule, according to the needs of the baby will prevent breastfeeding problems. Working mothers are encouraged to breastfeed more often at night. If you are fed frequently at night, it will trigger milk production (Suradi, R., Hegar, B., Partiw, A.N. and N.S., dan Ananta, 2020).

## CONCLUSION

Based on the results of research that has been carried out at PMB X Batam City regarding "Knowledge of Post Partum Mothers with the Incidence of Breast Milk Dams at PMB X Batam City in 2021" the following conclusions were obtained:

1. Mother's knowledge of breastfeeding techniques showed that mothers who had good knowledge were as much as (31.7%).
2. The incidence of breast milk dams in mothers is (71.8%).
3. There is a significant relationship between knowledge of postpartum mothers and the incidence of breastfeeding dams with  $p$  value = 0.000 < 0.05.

## SUGGESTION

It is recommended to further improve training for health workers in counseling about breast milk dams and help problems that occur in early pregnancy until after delivery by increasing health education programs regarding nutrition for pregnant women, lactation management, breast care, baby care and the umbilical cord.

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