

## The study and constraints of breastfeeding mothers in performing endoprine massage and lactation in the working area of the Arjasa Health Center

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### ARTICLE INFO

#### **Keywords:**

Breastfeeding problems,  
Endorphin massage,  
Lactation massage

### ABSTRACT

The lactation process can be problematic due to various factors. These factors can come from the mother, baby, management of breastfeeding and other factors. Factors from the mother can be caused by problems with the anatomy of the mother's breasts and nipples, conditions or diseases suffered by the mother. The failure of the lactation management process can also be caused by the mother's lack of exposure to information on how to breastfeed properly. This research is a quasi-experimental research. It took place from September to February 2022. This study involved 34 breastfeeding mothers and one of the active families, usually as decision makers in that family. This study uses a questionnaire. After that, the intervention of lactation massage and endoprin was given. This study used total sampling and using the McNemar TEST the results were  $0.016 < 0.05$ , so it can be said that there were differences in lactation problems between before and after the intervention. The results of his research, the majority of family representatives strongly agree that they play a role in the success of breastfeeding mothers. In addition, they also need a face-to-face discussion group with health workers about breastfeeding. In carrying out its role as a mother, there are also two main obstacles faced by families in helping breastfeeding mothers, namely less breast milk and mothers who are shy about lactation massage and endhoprin. It is hoped that there will be further research related to how big the survey of the target community for lactation massage and endoprine

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### 1. Introduction

Breastfeeding is a natural process that is not easy to do. The coverage of exclusive breastfeeding cannot be separated from the obstacles that occur in the breastfeeding process, including the wrong belief that there is little milk or breast milk is not sufficient for the baby's needs. This situation is caused by several factors, including the food and drink consumed by the mother, the mother's psychological or emotional condition, abnormal breast shape so that it cannot play a role in the breastfeeding process, the baby's sucking (suction reflex/sucking strength,

sucking duration, and frequency of sucking). ) can also affect milk production. Indonesia itself has made efforts to increase the coverage of breastfeeding including the IMD (Early Breastfeeding Initiation) program and prenatal and postnatal breast care which aims to increase milk production and prevent sore nipples during lactation (Marni, 2012). The lactation process can experience obstacles due to various factors. These factors can come from the mother, baby, management of breastfeeding and other factors. Factors from the mother can be caused by problems with the anatomy of the mother's breasts and nipples, conditions or diseases suffered by the mother (Cadwell & Turner-Maffei, 2011a). Immature breast milk production and post partum mothers are not ready to give breast milk (not confident) as well as factors of the postpartum mother's condition that affect the success of breastfeeding. (Reeder et al., 2014). Breastfeeding management factors can be caused by the mother's lack of understanding about the baby's cues to breastfeed, errors in breastfeeding techniques and breastfeeding scheduling (Cadwell & Turner-Maffei, 2011a). The failure of the lactation management process can also be caused by the mother's lack of exposure to good breastfeeding information. Knowledge is the most dominant factor in exclusive breastfeeding. Good knowledge about exclusive breastfeeding increases exclusive breastfeeding 4.30 times.

New methods introduced to prevent and overcome this problem include Endorphin massage and Lactation. Lactation massage is a massage technique performed on the head or neck, back, spine, and breasts that aims to stimulate the hormones prolactin and oxytocin. The hormones that play a role in the production of breast milk are the hormones prolactin and oxytocin when there is stimulation of the alveoli cells in the breast glands to contract, with the contraction causing milk to come out and flow into the small breast channels so that drops of milk come out of the nipples and enter the baby's mouth, which is called the baby's mouth. let down reflex (Sriyati & Sari, 2015). According to research (Alza & Nurhidayat, 2020) about the effect of endorphins massage on milk production in postpartum mothers with the results that post partum mothers have smoother milk production after endorphin massage is done more than those who do not do endorphin massage and there is an effect of endorphine messages on milk production. Various studies that have been carried out in Indonesia to facilitate breast milk production include the Oxytocin Massage method, Marmet Technique, Warm Compresses, Rolling Massage (back), Endorphin massage, Breast Care, but due to limited information in health services about implementation procedures, these methods only known but rarely given by health workers as care givers to patients (Istiqomah & Henik, 2015).

According to the results of the Indonesian Demographic and Health Survey (IDHS), Indonesia has a high infant mortality rate (IMR) at 32/1000 live births, which means 32 babies die for every 1000 live births. This figure is still higher than in the Philippines and Thailand, which are 19/1000 and 11/1000 respectively (Kemenkes, 2020). According to the United Nations Children's Fund, early and exclusive breastfeeding can help reduce the high infant mortality rate in Indonesia. This is supported by data from the World Health Organization (WHO) (2003) in the 2019 Indonesian Health Profile which shows that nutritional factors cause 53% of IMR in Indonesia. Malnutrition causes several diseases, including pneumonia (20%), diarrhea (15%), and perinatal death (23%), all of which can be avoided by starting breastfeeding early. In 2018, Indonesia had an exclusive breastfeeding rate of 54.3 percent for infants aged 0-6 months. According to the 2014 Indonesian Demographic and Health Survey (IDHS), 60.0 percent of infants aged 0-6 months in East Java Province are exclusively breastfed. One of the causes of the low coverage of exclusive breastfeeding for infants under the age of six months is that the production of postpartum mother's milk is inhibited in the first days after giving birth, so that most babies receive formula milk at birth. (Kemenkes, 2020). According to the main results of Riskesdas, the proportion of 0-5 months Early Breastfeeding Initiation (IMD) in East Java Province based on residential characteristics in rural areas is 33.6% lower than in urban areas at 40.7% [4]. The coverage of exclusive breastfeeding in Situbondo Regency in 2020 based on monthly reports is 74.2%. This has exceeded 50% of the target set by the province and at the Arjasa puskesmas when referring to the coverage of exclusive breastfeeding (E-graduates) of 84.06% (Dinkes, 2020).

Mothers who breastfeed will not experience obstacles in breastfeeding if from the beginning they have prepared themselves psychologically and know how to breast care (breast care) and proper and correct breastfeeding management (Perinasia, 2018). Other breast treatments are related to problems with the nipples such as nipple sinking and nipple blisters. Nipple shield

treatment is no longer recommended because it can lead to nipple confusion and infection. Manual finger treatment (Hoffman technique) alone or in combination with the use of a pump/needle has been shown to be better in treating sunken nipples (Rathi & Mandliya, 2011). While the treatment for sore nipples is more recommended naturally, namely by applying breast milk before and after breastfeeding (Perinasia, 2018).

Based on the researcher's preliminary survey on 10 breastfeeding mothers, 7 breastfeeding mothers stated that they did not understand the massage techniques they could use during the breastfeeding process, and only received information during pregnancy check-ups and reading MCH books. 3 nursing mothers have seen on youtube. One of the causes of the low knowledge and awareness about exclusive breastfeeding for infants is the lack of support from husbands and families for mothers to breastfeed their babies, this makes the mother psychologically disturbed which can affect breast milk production and one step to be able to overcome these obstacles is to increase promotion about breastfeeding, the importance of exclusive breastfeeding for babies so that mothers are more motivated to give exclusive breastfeeding and husbands and families are also encouraged to provide support to mothers in exclusive breastfeeding (Dinkes, 2020). In addition, the role of the father is also very helpful in the success of exclusive breastfeeding (Ningsih, 2018).

Puskesmas Arjasa already has a class program for pregnant women with presentations of several materials in several meetings. Among these materials there is material on breastfeeding techniques. Based on interviews with puskesmas officers who are in charge of the pregnant women class program, they said that the material provided was only limited to breastfeeding techniques, nothing about breast care or efforts to overcome breastfeeding problems. Whereas breast care during pregnancy and breastfeeding will greatly help mothers in the process of breastfeeding their babies. Based on the above background, the researcher is interested in knowing the study and the constraints of breastfeeding mothers so that they can be given an immediate solution and can give exclusive breastfeeding happily.

## 2. Methods

This research is a quasi-experimental research (one group pretest and posttest design). Taking place between September and February 2022. This study involved 34 breastfeeding mothers and one of the active families usually as decision makers in the family from the Arjasa Health Center Area, Arjasa District, Situbondo Regency. Total sampling is used in the sampling process. The McNemar TEST was used for statistical tests in this study. This study uses a questionnaire learning media, namely by providing explanations and what obstacles are experienced while breastfeeding. After that, the intervention of lactation massage and endoprin was given which can be helped by the families who participated during the gathering. Referring to the current pandemic situation, every week breastfeeding mothers gather at agreed posts. Each post consists of 5-6 breastfeeding mothers while maintaining a distance and implementing health protocols. By using an observation sheet instrument, assessing knowledge and constraints during breastfeeding and the application of lactation massage and endoprin. At the end of the session, the nursing mother filled out an observation sheet to show that she understood and felt the effects of lactation massage and endoprine. Representatives of participating families were given direction and counseling on the importance of nuclear family involvement for the success of exclusive breastfeeding. Observations made are indirect observations. Researchers selected final semester students who met the criteria for being active as enumerators in the activity and were willing to be observers and who signed the consent form. Previously, observers were taught how to fill in the observation sheet in order to anticipate questions from observers that were not understood and would be discussed thoroughly. The researcher's notes were used to fill in the demographic information of the respondents, such as maternal age, maternal age, education, occupation, parity, and education.

### 3. Results and Discussion

#### 3.1 Result

TABLE 1  
DESCRIPTIVE DATA OF RESPONDENTS WITH LACTATION PROBLEMS 2022 (N=34)

Age category	Frequency	Percentage
17-25 year	16	47.06%
26-35 year	18	52.94%
>35 year	0	0.00%
Education	Frequency	Persentase
SD	4	11.76%
SMP	8	23.53%
SMA	17	50.00%
PT	5	14.71%
Work	Frequency	Percentage
Teacher	3	8.82%
Entrepreneur	10	29.41%
Housewife	21	61.76%
Category parity	Frequency	Percentage
Ideal (<= 2 children)	32	94.12%
Not ideal (> 2 children)	2	5.88%

TABLE 2  
PERCENTAGE OF FAMILY NEEDS IN THE SUCCESS OF BREASTFEEDING MOTHERS (N=34)

Family needs for successful breastfeeding after intervention	Frequency	Percentage
Do not agree	3	8.82%
Disagree	5	14.71%
Agree	7	20.59%
Strongly agree	19	55.88%
Total	34	100.00%

TABLE 3  
BEFORE AND AFTER BREASTFEEDING INTERVENTION (N=34)

Before Intervention		After Intervention	
Normal	Troubled	Normal	Troubled
27	7	31	3

TABLE 4  
PROBLEMS THAT BREASTFEEDING MOTHERS COMPLAIN ABOUT AND OBSTACLES FACED BY THE FAMILY (N=34)

No.	Mother's Perception Regarding Problems and Obstacles	f	%
1.	Problems that breastfeeding mothers often complain about		
	A little breast milk	19	55
	Mom is less confident	8	24
	Baby can't breastfeed	7	21
2.	Family constraints in helping breastfeeding mothers		
	Couldn't convince mom	4	12
	Mothers are too quick to give food other than breast milk	3	9
	Mother complains of little milk, baby doesn't want to breastfeed and small nipples	3	9
	Wrong position of breastfeeding mother	3	9
	Mothers are less aware of maternal and infant health	4	12
	Mom is lazy because she's busy	2	6
	Mother is shy about lactation massage and endoprone	9	25
	Little breast milk in working mothers	3	9
	No problem	3	9

TABLE 5  
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Test Statistics <sup>b</sup>	
	Before Intervention and After Intervention
N	34
Exact Sig. (2-tailed)	.016 <sup>a</sup>

a. Binomial distribution used.  
b. McNemar Test

Conclusion: because the p-value = 0.016 < 0.05, it can be said that there are differences in lactation problems between before and after the intervention

### 3.2 Discussion

Based on the results of the general data recapitulation of respondents, it was found that the majority of mothers aged 26 -35 years were 18 people with a percentage of 52.94%. It can be said that productive age dominates the respondents in this study. According to the KBBI, productive age is the age when a person is still able to work and produce something. In this age range, mothers are still able to take good care of themselves and their babies. The health condition that is still excellent also supports the process of the continuity of the mother's life with the arrival of the baby in her daily life.

When viewed from the results of the education recapitulation of the majority of SMA as many as 17 people (50%). Education is needed to get information, for example things that support health, so that it can improve a person's quality of life. In addition, education is a major factor that plays a role in increasing one's information and knowledge and in general, the higher a person's education, the easier it is to receive information. Therefore, the level of education is often used as a qualification or prerequisite material and is used as a view in distinguishing a person's level of knowledge. Respondents in this study who had a low level of education were some who were able to answer questions correctly and had good knowledge, this proves that a low level of education does not always guarantee having low knowledge, on the contrary, respondents with a low level of education can answer questions correctly. This is true, because they are active in seeking information on their own health, besides that they are also active in checking up with the nearest midwife and regularly coming to the posyandu so that they get information from health workers that can affect their knowledge and some have had experience from previous children about breastfeeding. appropriate for the previous child so that the mother's experience of breastfeeding in the previous child can also affect knowledge.

Based on the results of the questionnaire, respondents with low levels of education had difficulty answering questions about knowledge of breastfeeding, explaining that breastfeeding was lacking and little. There is a relationship between the level of education and knowledge about breastfeeding because the level of education is one of the factors that can affect a person's level of knowledge, where education in the individual will affect the ability to think, then the level of education of a person will affect the level of acceptance and understanding of an object or material. manifested in the form of knowledge. The higher a person's education level will affect the level of mastery of the material that must be mastered in accordance with the goals and objectives. According to Notoatmodjo education will affect a person's cognitive in increasing knowledge. Mothers with higher levels of education are believed to have increased knowledge because of the information they get both in the field of formal and non-formal education, and with higher education, mothers will tend to seek information both from other people and from the mass media. Meanwhile, in this study, the lack of education level will hinder the mother's attitude in seeking and understanding the information as well as the mother's actions or responses to the information she gets so that it can be because the mother has difficulty understanding and difficult to receive information about the studies and constraints of breastfeeding that has been given.

The results of the research that has been done, it was found that most of the respondents who were housewives were 21 people (61.76%). Based on the results of interviews conducted by researchers, mothers who are busy working only focus on their work and do not interact with their co-workers too often because of work demands that must be on time, so that there is no information about breast milk that mothers get. Mothers who are busy working also never attend the health counseling that has been given by the health workers so they always miss the opportunity to attend the health counseling given. Mothers who are busy working usually leave their children with their parents and their parents also take care of and take their grandchildren to the posyandu so that those who understand information about breastfeeding are the parents of the child's mother. On the other hand, non-working mothers are mothers who do not work for income and only carry out their functions as housewives. Housewives have a lot of time to pay attention to their diet, and come to the posyandu more regularly than working mothers so that mothers who do not work have many opportunities to get information from health workers when there is counseling at the posyandu. The function and role of the mother in the household is important in health efforts, especially family nutrition, because the main function of a housewife as a mother for her child is automatically a mother. (Dewi Andariya Ningsih, 2018).

In table 3 the percentage of family needs in the success of breastfeeding mothers, the majority strongly agree 55.88%. Respondents strongly agree that the family plays a role in the success of breastfeeding in their family. Table 4 shows that the most common problems that breastfeeding mothers complain about to cadres are low milk supply (55%). Meanwhile, the main obstacle faced by families in helping breastfeeding mothers was shy mothers with lactation massage (25%). Preparation for breastfeeding can be done during pregnancy by doing breast care. Breast care in pregnant women is generally carried out at > 34 weeks of gestation because if it is carried out at a gestational age of less than 34 weeks, there is a risk of uterine contractions which can cause premature labor. Breast care during pregnancy aims to facilitate milk production, prepare the mother physically, mentally and psychologically, which is related to the mother's physical condition in this case the breast condition, making the breasts strong, nipples protruding and flexible, not easy to blister which can interfere with the breastfeeding process, so that the baby birth can function properly when needed for the success of exclusive breastfeeding (Wiknjastro, 2016). The treatment given to increase milk production during labor is Early Breastfeeding Initiation (IMD). IMD is skin-to-skin contact by helping mothers start breastfeeding their babies in the first hour after the baby is born in an effort to provide warmth to the baby. (Sukma et al., 2017). Lactation education during the puerperium begins after the baby is born up to six weeks postpartum, including breast care, nutrition, correct breastfeeding position/technique, and oxytocin massage. Breast care during the puerperium besides being able to help produce milk production, another benefit is to prevent sore nipples (Wiknjastro, 2016). Another effort in the success of exclusive breastfeeding is to provide care for postpartum mothers with correct breastfeeding techniques. Correct breastfeeding technique can stimulate the hormone prolactin which is produced by the anterior pituitary and oxytocin which is produced by the posterior pituitary so that breast milk can automatically run more smoothly, providing comfort to the mother because it can reduce nipple pain and blisters, reduce breast swelling, reduce milk blockage, stimulate release. the hormone oxytocin, maintains milk production when mother and baby are sick (Burianova et al., 2017). The low milk production in the first days after giving birth becomes an obstacle in giving breast milk early. The lack of smooth production and expenditure of breast milk in the first days after giving birth can be caused by a lack of stimulation of the hormones prolactin and oxytocin which play a very important role in the smooth production and expenditure of breast milk. (Bobak et al., 2012). There are several ways to help expedite the release of mother's milk at the beginning of breastfeeding, so the mother can do breast care, breastfeeding father and one of them is oxytocin reflex massage. Oxytocin massage is a way to stimulate the breasts to speed up the production and release of breast milk. Oxytocin massage is an action taken by families, especially husbands for breastfeeding mothers in the form of back massage on the mother's back to increase the oxytocin hormone (Widuri, 2013). The importance of the family being given education also plays a very important role in the success of exclusive breastfeeding because the care provided to women is a form of continuity of care. Continuity of Care in midwifery services is a service through a continuous service model for women throughout pregnancy, birth and the post partum period.



Because all women are at risk of complications during the prenatal, natal and postnatal periods (Ningsih, 2017).

The benefits of breastfeeding and breastfeeding for babies are getting all the nutrients needed for babies, namely carbohydrates, proteins, fats. Breast milk also contains probiotics which are good for baby's digestion and baby colostrum is rich in natural antibiotics for baby's immunity (Patel et al., 2013). In long-term development, children who are breastfed have better brain intelligence than children who are not exclusively breastfed (Girard et al., 2017). The process of breastfeeding in mothers can strengthen the bonding between mother and baby, stabilize the hemodynamics of the baby, stimulate the baby's five senses, and is good for the baby's emotional development. (Pickler et al., 2015). Breastfeeding can also prevent cancer in the mother (Schüz et al., 2015) save family expenses, and reduce plastic waste (Leissner et al., 2020). All the benefits of breastfeeding and breastfeeding can only be conveyed and convinced by the family to the mother if the family has good basic knowledge about breastfeeding. In addition, the family needs to be trained to deal with minor complaints of breastfeeding mothers, such as complaints of little breast milk or mothers who lack self-confidence.

Insufficient breast milk, sore nipples, lack of self-confidence, and babies who don't want to breastfeed are the most common problems that breastfeeding mothers complain about to their families based on the results of this study. These problems can be overcome with good knowledge and strong motivation. The size of a baby's stomach on the first day of birth is only the size of a marble, therefore the baby's need for breast milk is still very little. So that the milk produced in the first days of life, especially the first to the seventh day, is still very little according to the baby's needs (Natasha K Sriraman, 2017). Thus, low milk production at the beginning of life is not an obstacle for breastfeeding mothers because along with the daily sucking of the baby, breast milk will continue to be produced. Breast milk production is very dependent on two main hormones, namely prolactin which works when the baby's milk continues to be used (emptying the breasts), and oxytocin which is influenced by the mother's emotional state. When the mother is stressed, it can inhibit the work of the oxytocin hormone (Stuebe et al., 2013). Nipple blisters are greatly influenced by the position and attachment of the baby's mouth when feeding. Basically, when the attachment is correct i.e. most of the areola goes into the baby's mouth so that the nipple hits the softer soft palate, it will not injure the mother's nipple. (Puapornpong et al., 2017). Likewise, the mother's self-confidence must be continuously built and the belief that every mother can breastfeed and every baby is able to breastfeed well. Families need to be equipped with how to communicate effectively in order to influence mothers and families to provide good nutrition for babies. In addition, working mothers need to be equipped with basic knowledge of how to breastfeed because work is not a barrier to successful breastfeeding (Sun et al., 2017). Based on the results of the study, the effect of increasing knowledge of breastfeeding mothers through demonstrations in Lamongan Arjasa Village, Situbondo Regency. Lactation massage can be used as an educational medium for breastfeeding mothers and can have a positive impact on exclusive breastfeeding (Ningsih et al., 2021).

Based on table 5 using the McNemar TEST, the results obtained because the  $p$ -value = 0.016 < 0.05, it can be said that there are differences in lactation problems between before and after the intervention. so it can be said that there is a positive difference between the results of the study. Lactation problems are also related to the technique/process of breastfeeding (Perinasia, 2018) (Cadwell & Turner-Maffei, 2011). The condition of the sore nipples in the mother in this study was influenced by the incorrect way of breastfeeding, including body position and the way the baby sucked while breastfeeding. Mothers also do not routinely apply breast milk before and after breastfeeding. Research result (Prananingrum, 2014) also supports that there is a relationship between breastfeeding techniques and the incidence of sore nipples in mothers who have babies 0-7 days ( $p = 0.022$ ), where 65.6% of mothers practice wrong breastfeeding techniques and 56.3% of mothers experience sore nipples. How to breastfeed that is not right can cause sore nipples and milk does not come out optimally. Hegar et al stated that good breastfeeding skills include correct breastfeeding technique, breastfeeding position and proper attachment of the baby to the breast (Hegar et al., 2004). The results of the research of Ramadhani, et al showed that there were still few mothers who consulted about body position (28.2%) and the position of the baby's mouth (17.9%). (Rahmadani et al., 2012). According to Perinasia, the position and attachment of breastfeeding are

important things that determine the success of the breastfeeding process. The position of the baby when breastfeeding should be parallel / facing the mother's stomach and the correct attachment is that most of the areola enters the baby's mouth. In addition, applying breast milk before and after breastfeeding can prevent and overcome the problem of sore nipples because breast milk can function as a natural disinfectant that can keep the nipple moist. (Perinasia, 2018). Breast care will help identify and treat problems according to the mother's condition. Swollen breasts can be overcome by doing a cabbage compress for 20-30 minutes (Novita, 2011) which is proven to be effective in reducing swelling in the mother's breast. Insufficient release of breast milk can cause breast milk dam (engorgement). This occurs due to narrowing of the lactiferous ducts or by the glands not being completely emptied or because of abnormalities in the nipple. (Reeder et al., 2014). Various efforts can be made to prevent breastfeeding failure, including by increasing the knowledge and understanding of mothers, communities and health workers about the importance of breastfeeding and breastfeeding techniques. In addition, it is necessary to provide facilities that support breastfeeding mothers in the workplace and in public places, increase the number of motivators and lactation/breastfeeding counselors and breastfeeding support groups, and develop regulations and supervision that support successful breastfeeding. The results of the research by Khayati, Rachmawati and Nasution (2013), explained that the support of health workers through the provision of information with the behavior of breastfeeding mothers had a significant relationship. The support of health workers has a very large role in supporting the success of breastfeeding. Research result (Narula & Kuswandi, 2015), stated that the level of knowledge had a significant relationship with the success of lactation techniques,  $p$  value = 0.000 ( $p < 0.05$ ).

#### 4. Conclusion

The majority of family representatives strongly agree that they play a role in the success of breastfeeding mothers. In addition, they also need a face-to-face discussion group with health workers about breastfeeding. In carrying out its role, there are also two main obstacles faced by families in helping breastfeeding mothers, namely less breast milk and shy mothers with lactation massage and endoprine. It is hoped that there will be further research related to how large the survey of the target community for lactation massage and endoprine is in order to be able to provide breastfeeding education and breastfeeding discussion groups managed by health workers (especially breastfeeding counselors) and carried out continuously (such as once every month) with direct meetings to discuss problems faced by mothers. Natural resources in helping breastfeeding mothers and getting the right solutions and sharing experiences, so that they can motivate the family and become a forum for consulting on unknown problems to help breastfeeding mothers succeed.

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