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Analysis Of Factors Associated With The Incidence Of Breast Milk Dams In Post-Partum Mothers

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ABSTRACT

Breast milk Dam is caused by the discharge of milk that is not smooth because the baby is not breastfeeding often enough, increased production, late breastfeeding, the relationship with the baby (*bonding*) is not good, and can also be due to restrictions on breastfeeding time. To determine the frequency distribution of knowledge, frequency of breastfeeding, frequency of breastfeeding position, and frequency of the state of the nipple with the incidence of breast milk dams in *postpartum mothers* DI Tiara Medistra Clinic. This type of research uses analytical survey research methods with the *cross-sectional approach*. The population in this study was all *postpartum mothers* at the Tiara Medistra Clinic in July 2024 as many as 49 people. The sampling technique in this study is *total sampling*. Analysis in the study is univariate and bivariate analysis. Bend of breast milk occurred in 36.7% of respondents with *inverted nipple shape*, 30.6% of respondents with less knowledge, 40.8% of respondents with less frequency of breastfeeding, and occurred in 26.5% of respondents with wrong breastfeeding position. There is a meaningful relationship between knowledge, frequency of breastfeeding, breastfeeding position, and nipple shape with breast milk dams. It is expected that the research site, Tiara Medistra Clinic, will continue to improve the quality of health services and conduct health promotion.

Keywords: knowledge, frequency of breastfeeding, breastfeeding position, and nipple shape with breast milk Dam

INTRODUCTION

The postpartum period (puerperium) is the most vulnerable time for experiencing pain. One of the causes of pain in postpartum mothers is problems in the lactation process. During this period, knowledge of breastfeeding techniques is very important. Incorrect breastfeeding methods can prevent optimal milk flow, leading to breast milk engorgement (dams). Even mothers with good knowledge may still experience milk dams if they fail to apply what they know.

The postpartum period is also a critical time for health workers to conduct ongoing monitoring. Inadequate care can lead to various maternal health issues and may even result in

serious postpartum complications, such as puerperal sepsis. Poor or absent breast care may cause blockages in the milk ducts, resulting in breast milk dams. Additionally, the use of tight bras and unclean nipple conditions can contribute to ductal blockages. (1).

The postpartum period is a time at risk for complications, especially within the first three days after childbirth. Postnatal health services are provided from 6 hours up to 42 days after delivery. Data shows that 81.9% of mothers received postpartum care during the first 6 hours to 3 days after childbirth (KF1), 51.8% during the 7 to 28 days period (KF2), and 43.4% during the 29 to 42 days period (KF3). However, the national rate for mothers who completed all three recommended postpartum visits (complete KF) was only 32.1%. (2).

Health problems in postpartum mothers can have far-reaching impacts on various aspects of life and are considered one of the indicators of a nation’s progress in implementing health services for the community. Maternal health issues also affect the well-being of the newborn, as the baby will not receive optimal care from the mother. Consequently, this may lead to an increase in infant morbidity and mortality rates. (3).

The exact prevalence of breast milk dams remains uncertain. According to the Ministry of Health of the Republic of Indonesia (2008), based on data from the National Health Research and Development Agency, the incidence of breast milk dams among breastfeeding mothers in Indonesia was reported at 16%, particularly among working mothers. Breast milk dams are caused by inadequate milk flow, which may result from infrequent breastfeeding, overproduction of milk, delayed initiation of breastfeeding, poor mother-infant bonding, or imposed restrictions on breastfeeding schedules. (4).

In general, breastfeeding problems occur in the first two weeks of the puerperium. At this time, the supervision and attention of health workers is needed so that breastfeeding problems can be solved immediately, so that they do not become difficult or cause breastfeeding failure (5).

The accumulation of breast milk in the milk ducts is caused by insufficient milk expression or ineffective sucking, and may also result from a mother's lack of knowledge about proper breast care. Other contributing factors include poor latch during breastfeeding, limited frequency or duration of breastfeeding. Additionally, breast milk dams can occur due to inadequate breast care during pregnancy. This condition may be exacerbated by the narrowing of the lactiferous ducts or if the mother has nipple abnormalities, such as flat, inverted, or elongated nipples. If left untreated, breast milk dams can cause the breasts to become swollen, red, and painful, and may develop into firm lumps inside the breast. These

symptoms typically arise during the first 1–3 weeks postpartum as a result of continued blockage in the milk ducts. (6).

Based on Amelia's research on factors that affect the incidence of breast milk dams in *post partum mothers* in RSIA Siti Fatimah Makassar that most *post partum mothers* who experience breast milk dams are influenced by factors not breastfeeding *on-demand* and nipple abnormalities are quite influential on the incidence of breast milk dams.

Based on the results of the initial Survey that researchers conducted in May 2024 at the Tiara Medistra clinic by interviewing 10 *post-partum mothers*, the results were obtained that there were 5 *post post-partum mothers* who experienced breast milk dams. Based on the results of direct interviews with respondents, it is known that respondents do not often breastfeed their babies because respondents have flat milk nipples as much as 1 person, there is 1 respondent who experiences submerged nipples, and 1 respondent states that his milk does not come out smoothly so that mothers replace it with formula milk.and 1 respondent did not know the correct breastfeeding position.1 respondent said they breastfed less than 8 times.

This is a problem so that researchers are interested in conducting research on factors related to breast milk dams in postpartum mothers *post partum* di at the Tiara Medistra Clinic in 2024.

RESEARCH METHODS

This study employed an analytical survey method aimed at exploring how and why a particular phenomenon occurs, followed by an analysis of the dynamic correlation between phenomena—both risk factors (independent variables) and outcome factors (dependent variables). A cross-sectional approach was used, in which the measurement of both causes and effects was conducted simultaneously. (7).

This study was conducted at the Tiara Medistra Clinic on the grounds that there are cases of breast milk dams in *post partum mothers*. The study was conductedfrom May 20 to July 24.

The population refers to the entire group or subjects under study. In this research, the population comprised all postpartum mothers at Tiara Medistra Clinic in July 2024, totaling 49 individuals. The sample is a subset of the population that possesses the same characteristics as the population and serves as the object of research. The sampling technique used in this study was total sampling, involving all 49 postpartum mothers.

Data analysis in this study involved both univariate and bivariate analyses. Univariate analysis was conducted for each individual variable obtained from the research results. Bivariate analysis was carried out to examine the relationship between the independent

variables—namely postpartum mothers' knowledge, breastfeeding frequency, breastfeeding position, and nipple condition—and the dependent variable, which is the occurrence of breast milk dams in postpartum mothers.

RESEARCH RESULTS

Table 1. Frequency distribution of knowledge, frequency of breastfeeding, breastfeeding position, State of nipples and breast milk dams of respondents in the Tiara Medistra Clinic in 2024

No.	Variable	amount (f)	percentage *(%)*
knowledge			
1	Not	21	42.9
2	Enough	19	38.8
3	Good Enough	9	18.4
frequency of breastfeeding			
1	Not	26	53.1
2	Good	23	46.9
breastfeeding position			
1	Wrong	30	61.2
2	right	19	38.8
State of Putting			
1	go into (*Inverted*)	22	44.9
2	flat (*Flat*)	19	38.8
3	prominent (*Normal*)	8	16.3
ASI Dam			
1	experienced	20	40.8
2	not experienced	29	59.2
	total	**49**	**100.0**

Based on the tableabove, it can be seen the frequency distribution of knowledge, frequency of breastfeeding, breastfeeding position, nipple shape and breast milk dam at the Tiara Medistrataun 2024 Clinic. From these data it can be seen that the knowledge of respondents with less category is the highest at (42.9 %) or as many as 21 people, then as many as 19 people (38.8%) respondents have sufficient knowledge and the rest as many as 9 respondents

(18.4%) have good knowledge.

Based on the variable frequency of breastfeeding can be seen that *post partum mothers* at Tiara Medistra Clinic in breastfeeding are in the category of either giving breast milk to their babies as much as 12 times or more or in accordance with the wishes of the baby (*on demand*), namely as many as 23 people (53.1%) and the remaining 26 people (46.9%) in less category. For breastfeeding position variables from Table 4.3 above, it can also be seen that as many as 19 people (38.8%) *postpartum mothers breastfed* their babies with the correct breastfeeding position, while as many as 30 people (61.2%) mothers breastfed with the wrong position.

The condition of the nipples obtained data as many as 8 people (16.3%) postpartum mothers *post partum*at Tiara MedistraClinic have a prominent nipple shape (*normal*), as many as 19 people (38.8%) have a flat nipple shape (*flat*) and as many as 22 people (44.9%) respondents have a nipple shape that goes into (*inverted*).

Based on the table above that the frequency distribution of respondents based on the mobilization of post sc mothers, it is known that from 30 respondents (100%) the majority of respondents by mobilizing as many as 20 respondents (66.7 %) and a minority of respondents did not mobilize as many as 10 respondents (33.3 %). Distribusi Frequency distribution of respondents based on the nutritional status of post sc mothers, it is known that from 30 respondents (100%)

The majority of respondents with normal nutritional status were 19 respondents (63.3 %) and the minority of respondents with obese nutritional status were 5 respondents (16.7 %). Ddistribution of respondent frequency based *on personal hygiene*ibu post sc, it is known that from 30 respondents (100%) the majority of respondents with *personal hygiene*clean personal hygiene were 22 respondents (73.3 %) and a minority of respondents with unclean personal hygiene were 8 respondents (26.7 %).

Table 2. The relationship of knowledge, frequency of breastfeeding, breastfeeding position, State of nipples with breast milk dams at the Tiara Medistra Clinic in 2024

No.	Variable	Dam ASI				number		of P values
		experienced		not experienced				
		F	%	f	%	f	%	
	knowledge							
1.	Minus	15	30.6	6	12.2	21	42.9	0.38
2.	Enough	12	24,5	7	14,3	19	38,8	

3.	Ok	2	4.1	7	14.3	9	18.4	
	Frequency Of Breastfeeding							
1	Less	20	40.8	6	12.2	26	53.1	0.008
2	Good	9	18.4	14	91.5	23	46.9	
	Breastfeeding Position							
1	Wrong	13	26.5	17	34.7	30	61.2	0.007
2	Correct	16	32.7	3	6.1	19	38.8	
	State Of Putting							
1	*Interted*	18	36.7	4	8.2	22	44.9	0.014
2	*Flat*	8	16.3	11	22.4	19	38.8	
3	Normal	3	6.1	5	10.5	8	16.3	
	Total	**29**	**59.2**	**20**	**40.8**	**49**	**100**	

BerBased on Tabelabove, the results of cross-tabulation between knowledge and breast milk dams at the Tiara Medistra Clinic in 2024 obtained data from 49 respondents 15 respondents (30.6%) experienced breast milk dams and 6 respondents (12.2%) did not experience breast milk dams. A total of 12 respondents (24.5%) experienced breast milk dams and 7 respondents (14.3%) did not experience breast milk dams and mothers who have good knowledge there were 2 respondents (4.1%) experienced breast milk dams and 7 respondents (14.3) did not experience breast milk dams. The results of statistical analysis using *the chi-square test* obtained a probality value of 0.038 so *that* $p < 0.05$ and statistically it can be interpreted that there is a relationship between knowledge and breast milk dams at the Tiara Medistra Clinic in 2024.

Based on the table above, the results of cross-tabulation between the frequency of breastfeeding with breast milk dams in 2024 obtained data from 49 respondents, there were 20 respondents (40.8%)mothers experienced breast milk dams and as many as 6 respondents (12.2%) did not experience breast milk dams, in the frequency of breastfeeding both there were 9 respondents (18.4%) experienced breast a total of 14 respondents (91.5%) did not experience breast milk dams. The results of statistical analysis using *the chi-square test* obtained a probability value of 0.008 or $p < 0.05$ statistically it can be interpreted that there is

a relationship between the frequency of breastfeeding with breast milk dams at the Tiara Medistra 2024 Clinic.

Based on the table above, the results of cross-tabulation of breastfeeding position variables with breast milk dams at the Tiara Medistrat 2024 Clinic obtained data from 49 respondents. Respondents with wrong breastfeeding position there are 13 respondents (26.5%) experiencing breast milk dam and 17 respondents (34.7%) do not experience breast milk dam. While respondents with the correct breastfeeding position, there were 16 respondents (32.7,7%) experiencing breast milk dams, and as many as 3 (6.1%) did not experience breast milk dams. The results of statistical analysis using *the chi-square test* obtained a probability value of 0.007 or $p < 0.05$ so that statistically it can be interpreted that there is a relationship between breastfeeding positions and breast milk dams at the Tiara Medistrat 2024 Clinic.

Based on the table above, the results of cross-tabulation between the state of the nipple and the breast milk dam at the Tiara Medistra Clinic in 2024 obtained data from 49 respondents with the state of putting inverted, there were 18 respondents (36.7) who experienced breast milk dams and 4 respondents (8.2) did not experience breast milk dams, and respondents with keadaan putting flat terdapat) experiencing breast milk dams, and 11 respondents (22.4) did not experience breast milk dams, and respondents with normal putting conditions as many as 3 respondents (6.1) experienced breast milk swaddling and 5 respondents (10.5) did not experience breast milk dams.

The results of statistical analysis using *the chi-square test* obtained *a p value* of 0.014 meaning $p < 0.05{,}05$ so that statistically it can be interpreted that there is a relationship between the state of the nipple and the breast milk dam at the Tiara Medistra Clinic in 2024.

DISCUSSION

The relationship of knowledge with breast milk dams

Knowledge of breast milk and in the form of what respondents know about breast milk dams. As for what the respondents should know about breast milk dams, namely the definition of breast milk, the content contained in breast milk the benefits of breastfeeding for mothers, when should breast milk be given to newborns, what is the meaning of breast milk dams, what are the causes of breast milk dams, what are the signs and characteristics of breast milk dams and what efforts are being made to avoid the occurrence of ASI dams (13). knowledge is the result of knowing and this happens after a person performs sensing of a particular object.

Sensation occurs through the human senses, namely sight, hearing, smell, taste, and touch. (14) .

The results showed that of the 49 respondents in the category of having good knowledge as many as 9 people, 2 respondents (4.1%) experienced breast milk dams and 7 respondents (14.3%) did not experience breast milk dams. For respondents who have sufficient knowledge of as many as 19 people, 12 respondents (24.5%) experienced breast milk dams and 7 respondents (14.3%) did not experience breast milk dams. While for respondents with less knowledge category as many as 21 respondents, there are 15 respondents (30.6 %) experienced breast milk dam and 6 respondents (12.2%) did not experience breast milk dam.

The results of statistical analysis using *the chi-square test* obtained a value *of p<0.05,05* so that statistically it can be interpreted that there is a relationship between knowledge and breast milk dams at the Tiara Medistrat 2024 Clinic.

The results of research at Tiara Medistra clinicshowed that respondents who have good knowledge and then implement the knowledge they have can anticipate the occurrence of breast milk dams, so that the percentage of respondents who experience breast milk dams is quite small. While for respondents who have less knowledge as the results showed that 30.6,6% of respondents experienced breast milk dams. Breast milk dams are caused by milk production that is not smooth, late breastfeeding or due to restrictions on breastfeeding time which is caused by lack of knowledge of respondents.

This study is in accordance with research A. Impartina on the relationship of knowledge of postpartum mothers about breastfeeding techniques with the incidence of breast milk dams. The results of the analysis showed that there is a significant relationship between the knowledge of postpartum mothers with the incidence of breast milk dams.

According to the assumption of researchers, that with the increasing knowledge of postpartum mothers about breast milk dams will encourage breastfeeding mothers to take steps to avoid experiencing breast milk dam events. Where puerperal mothers with good knowledge only slightly experienced breast milk dams, while puerperal mothers with less knowledge as much as 30.8,8% experienced breast milk dams.

Relationship of breastfeeding frequency with breast milk Dam

The results showed that of 49 respondents, as many as 26 respondents with less frequency of breastfeeding, there were 20 respondents (40.8%) experiencing breast milk dams and 6 respondents (12.2%) did not experience breast milk dams. While for the frequency of breastfeeding both as many as 23 respondents are breastfeeding frequency both there and 9

respondents (18.4%) who experienced breast milk dams. While 14 respondents (91.5,5) who did not experience breast milk.

When milk begins to enter in place of colostrum on the day after delivery, the breasts will become larger, heavier and more tender due to increased lymph and blood supply. Pada saat ini akan terjadi bendungan ASI apabila ibu tidak cukup sering menyusui bayinya dalam jarak waktu yang lama dan jika menghentikan penyusuan secara mendadak atau payudara tidak dikosongkan secara memadai (15). Dalam masa laktasi, terjadi peningkatan produksi ASI pada Ibu yang produksi ASI-nya berlebihan. when the baby is full and finished breastfeeding and the breast is not emptied, there is still milk left in the breast. Sebaiknya ibu *Post partum mothers should* give breast milk with a frequency of at least 12 times a day or according to the needs of the baby (*on demand).* Kurangnya frekuensi menyusui akan mengakibatkan payudara menjadi penuh dan akan mengakibatkan bendungan ASI (16).

The results of statistical analysis using *the chi-square test* obtained a value *of p* = 0.008 means *p < 0.05,05* so that statistically it can be interpreted that there is a relationship between the frequency of breastfeeding with breast milk dams in the Tiara Medistrat 2024 Clinic.

This study is in accordance with the research of Ratna Nevyda Ardyan on the relationship of frequency and duration of breastfeeding with the incidence of breast milk dam in puerperal mothers that there is a significant relationship between the frequency and duration of breastfeeding with the incidence of breast milk dam.

According to the researchers ' assumption, the frequency of breastfeeding has an effect on the occurrence of breast milk dams. Puerperal mothers who breastfeed at least 12 times a day or according to the needs of their babies (*on* demand) have little potential to experience breast milk dams, while puerperal mothers with a frequency of breastfeeding less than 12 times a day have a greater potential to experience breast milk dams.

Relationship of breastfeeding position with breast milk Dam

The results showed that of the 49 respondents there were 30 respondents with the wrong breastfeeding position there were 13 respondents (26.5) who experienced breast milk dams as many as 17 respondents (34.7) who did not experience breast milk dams. While 19 respondents with the correct breastfeeding position, there were 16 (32.7,7%) who experienced breast milk dams and as many as 3 people (6.1%) did not experience breast milk dams.

The wrong breastfeeding position will be able to create discomfort for the baby so that the baby does not suckle properly. In addition, the wrong breastfeeding position will also result in perlukaan on the nipple. This Perlukaan lead to pain for mothers who are breastfeeding and

this will cause the mother to be reluctant to breastfeed her baby if it happens that the breastfeeding process is not optimal. Breastfeeding is a scientific process and sometimes looks very, very simple, but if done the wrong way will cause nipple blisters, milk does not come out perfectly so that there will be damming of milk .

A comfortable position for feeding is very important. Blisters on the nipples and breasts are an abnormal condition in breastfeeding, but the most common cause of blisters is improper position and attachment to the breast.

The results of a study at Klinikthe Tiara Medistra clinic showed that 61.2% of incorrect breastfeeding positions resulted in breast milk dams. The results of statistical analysis using *the chi-square test* obtained a value *of p* = 0.007 or *p < 0.05,05* so that statistically it can be interpreted that there is a relationship between breastfeeding positions and breast milk dams at the Tiara Medistra Clinic in 2024.

According to the assumption of researchers, that the position of breastfeeding has an influence on the occurrence of breast milk dams. Mothers who breastfeed their babies in the correct position experience very little breast milk dams, while mothers who breastfeed in the wrong position have a greater chance of breast milk dams.

Relationship of the state of the nipple with the breast milk Dam

The results showed that of 49 respondents, 22 respondents had nipple shape sink /enter into (*inverted*) there are 18 respondents (36.7%) experienced breast milk dam and as many as 4 respondents (8.2%) did not experience breast milk dam. While respondents have a state of flat nipples (*flat*) as many as 8 respondents (16.3%) experienced breast milk dams and as many as 11 respondents (22.4) did not experience breast milk dams. While for respondents who have a prominent nipple condition (*normal*) as many as 8 people, as many as 3 respondents (6.1%) who experience breast milk dams. While 5 respondents (10.5) did not experience breast milk dam

Breast milk dam (*Engorgement*) occurs due to narrowing *of the duct lacteferi* or by glands are not emptied completely or because of abnormalities in the nipple. With The Shape of the nipple that sinks will cause difficulty for the baby to suckle his mother, so this will affect the amount of milk released which if not proportional to the production of breast milk will cause breast milk to be full which can be a dam of breast milk. Breast milk dam occurs due to narrowing *of the duct lacteferi* caused incomplete emptying of the breast.

This study is in accordance with Amelia's research on factors that affect the incidence of breast milk dams in *post-partum mothers*, that nipple abnormalities susuare quite influential on the incidence of breast milk dams.

The results of statistical analysis using *the chi-square test* obtained a value *of p*= 0.008 or *p < 0.05* so that statistically it can be interpreted that there is a relationship between the shape of the nipple and the breast milk dam in the working area of the Binjai Serbangan Health Center in Asahan Regency in 2024.

According to the researchers, as a result of poor nipple shape in this case The Shape of a flat nipple and nipple shape sink will make it difficult for the baby to suck breast milk well, so according to the authors dith nipple shape sink or flat will cause difficulty for the baby to suckle on his mother, so this will affect the which if not comparable with the production of breast milk will cause the damming of breast milk.

CONCLUSION

Based on the results of research conducted on factors related to the breast milk dam of postpartum mothers *post partum* di at the Tiara Medistra Clinic in 2024, the following conclusions can be drawn:

1. From the results obtained that breast milk dam occurs in 36.7% of respondents with nipple shape that goes into (*inverted*), 30.6% of respondents with less knowledge, 40.8% of respondents with less frequency of breastfeeding and occurs in 26.5% of respondents with the wrong breastfeeding position.
2. From the results of statistical tests using *the chi square* test with a confidence level of 95% with ③ = 0.05 obtained *p value* < 0.05 shows that there is a meaningful relationship between knowledge, frequency of breastfeeding, breastfeeding position and nipple shape with breast milk dam.

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