The Effectiveness Of The Combination Neck And Pectoralis Major Muscle Massage To Fluency Of Breast Milk Production On Post Partum Mothers

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AB ST R ACT

Breastfeeding is the optimal way to meet nutritional needs for infant growth, and is an ideal source of nutrition containing antibody substances to protect babies from various infections, viruses and fungi. Many failures in breastfeeding are caused by several factors, one of which is lack of breast milk production, maternal psychology and nutritional factors. Thus, it requires a method of knowledge about supporting techniques to facilitate breastfeeding in postpartum mothers. One of alternatives to facilitate breastfeeding is to do breast care using a method of combining neck massage and pectoralis major muscle massage. This study to determine the effect of combination of neck and pectoralis major muscle massage on the production of breast milk in postpartum mothers 1-3 days conducted at the Mandah Community Health Center. This Quasy experimental study used pre test and post design with control group. The population was all postpartum mothers at Mandah Community Health Center with a sample size of 20 taken by purposive sampling technique. The instrument was an observation on breast milk production. Data analysis using Mann Whitney testwith ap value of 0.003 <α 0.05, meaning that there was the effect of neck massage and pectoralis major muscle massage on the production of breast milk. There was the effect of the combination of neck massage and pectoralis major muscle massage on the production of breast milk in postpartum mothers 1-3 days. Midwives are expected to be able to disseminate and apply the combination method of neck massage and pectoralis major muscle massage as an alternative option to facilitate breastfeeding for postpartum mothers 1-3 days.

I. Introduction

Mother's Milk (ASI) is the most ideal source of nutrition for baby's growth, which contains antibodies to protect babies from various infectious, viral, bacterial and fungal diseases. Smooth breastfeeding will meet the food needs for babies to achieve exclusive breastfeeding (Saleha, 2013). Data from the World Health Organization (WHO) states that infant mortality in Indonesia is mostly related to nutritional factors (55%). Several diseases that arise due to malnutrition, including pneumonia (20%), diarrhea (15%) and perinatal death (23%) can be prevented by breastfeeding (World Health Organization, 2013).

Failure to breastfeed is often caused by the emergence of several things that hinder breastfeeding, including problems with the nipples (28%), working mothers (16%), the influence of formula milk advertising (16%), the influence of the local environment (4%) and, less milk production (32%). Therefore, breastfeeding support is needed from families, communities and health workers to create a healthy and quality generation (Riau Health Office, 2008).

Some of the factors that affect the lack of breast milk production are mothers who experience psychological disorders or anxiety as much as (73.3%). The psychological mental factor of breastfeeding mothers has a very large influence on the breastfeeding process and the smooth

production of breast milk. Mothers who experience stress, feeling depressed and uncomfortable while breastfeeding can inhibit the amount of milk that comes out, as a result, after 2-3 days of giving birth, only a little milk is produced by the mother (Saleha, 2013).

Stimulation in the nipple is the main reason oxytocin is released (Rini and Kumala, 2016). Other methods or techniques that can be used to stimulate the oxytocin reflex other than baby sucking include hot compresses to reduce pain, neck and back massage to relax the mother, light massage on the breast, stimulate nipple skin and help the mother relax (Wiji, 2013). When mothers feel relaxed and satisfied, happy, confident in being able to breastfeed their babies, thinking about their babies with affection and other positive feelings will make the oxytocin reflex work (Asih and Risneni, 2016). Neck and back massage make a big contribution to postpartum mothers. The comfort that the mother feels will help in expressing breast milk, so that the mother will not feel pain either from the baby's sucking on the breast or uterine contractions because the neck and back massage is able to release endorphins which are calming compounds. In a calm state like this, postpartum mothers who are breastfeeding are able to maintain sufficient milk production for their babies (Wiji, 2013). According to Munford (2011), massage is a structured series of pressure or touch of the hands and body parts to manipulate the skin, especially in the muscles by massaging, rubbing, hitting, pressing on the nape and pectoralis major muscles to launch oxygen and make mother feels relaxed. In a calm state like this, postpartum mothers who are breastfeeding are able to maintain sufficient milk production for their babies (Wiji, 2013). According to Munford (2011), massage is a structured series of pressure or touch of the hands and body parts to manipulate the skin, especially in the muscles by massaging, rubbing, hitting, pressing on the nape and pectoralis major muscles to launch oxygen and make mother feels relaxed. In a calm state like this, postpartum mothers who are breastfeeding are able to maintain sufficient milk production for their babies (Wiji, 2013). According to Munford (2011), massage is a structured series of pressure or touch of the hands and body parts to manipulate the skin, especially in the muscles by massaging, rubbing, hitting, pressing on the nape and pectoralis major muscles to launch oxygen and make mother feels relaxed.

Several research results related to the method of increasing breast milk production are the Sebayang research (2017), namely the benefits of neck massage and warm breast compresses on the production of breast milk colostrum in postpartum mothers at the Rosni Alizar Pratama Clinic in Medan. Based on the results of the study, there were differences in the results carried out before and after, namely the expenditure of breast milk. In a study by Intarti Wiwit D, et al in (2015) about the effectiveness of adding pectoralis major and minor muscle strengthening therapy to breast massage on postpartum mother's milk production. The results showed that there was an effectiveness of breast massage on the production of postpartum mother's milk in RSUD Dr. M. Ashari Pemalang. Nurchayati's research (2012) on neck massage on breast milk production in postpartum mothers at Cilacap Hospital is the result of proving the hypothesis with product moment correlation. Based on data analysis from hypothesis testing, it was obtained r count = 0.6726. If N = 30 and (5 %) then the price of r table = 0.361. It turns out that r count > r table (0.6726 > 0.361), so Ho is rejected and Ha is accepted. Then there is a positive relationship and the correlation coefficient between neck massage and breast milk production. According to Suryani, in a study at RSUD KRT Setjonegoro Wonosobo, it showed that based on the results of data analysis, mothers who were given cervical massage and pectoralis major muscle massage tended to experience an increase in breast milk production. So that there are benefits of neck massage and pectoralis major muscle massage on milk production (Suryani, 2014). 361), so Ho is rejected and Ha is accepted. Then there is a positive relationship and the correlation coefficient between neck massage and breast milk production. According to Suryani, in a study at RSUD KRT Setjonegoro Wonosobo, it showed that based on the results of data analysis, mothers who were given cervical massage and pectoralis major muscle massage tended to experience an increase in breast milk production. So that there are benefits of neck massage and pectoralis major muscle massage on milk production (Suryani, 2014). 361), so Ho is rejected and Ha is accepted. Then there is a positive relationship and the correlation coefficient between neck massage and breast milk production. According to Suryani, in a study at RSUD KRT Setjonegoro Wonosobo, it showed that based on the results of data analysis, mothers who were given cervical massage and pectoralis major muscle massage tended to experience an increase in breast milk production. So that there are benefits of neck massage and pectoralis major muscle massage on milk production (Suryani, 2014). Mothers who were given neck massage and pectoralis major muscle massage tended to experience an increase in milk production.

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From several research results, the authors are interested in combining neck massage and pectoralis major muscle massage to smooth breast milk in postpartum mothers 1-3 days. This method can make the mother relax, comfortable and help the reflex of milk ejection, with pectoralis major muscle massage it can stimulate the nerves in the mammary glands so that breastfeeding occurs in postpartum mothers for 1-3 days (Intarti, 2015).

Based on a preliminary survey conducted by researchers in April at the Mandah Health Center through interviews, from 10 postpartum mothers there were 6 mothers of whom experienced breastfeeding that was not smooth and based on the APN assignment for 7 days at the Mandah Health Center UPT there were 4 postpartum mothers who experienced non-fluent breastfeeding. at the UPT Puskesmas Mandah have never used a method to facilitate breastfeeding in postpartum mothers who have breastfeeding problems. Meanwhile, midwives only provide formula milk to meet nutrition before breast milk is produced.

II. Method

This study uses a quantitative approach. This research is a quasi-experimental research. The design or design used is a pre test and post design with a control group (Sugiyono, 2010).

The sampling technique in this study was using the purposive sampling technique, namely taking samples from the population according to certain considerations made by researchers, namely based on certain criteria (Hidayat, 2007).

The research instrument used a checklist sheet, an initial observation sheet and a final observation sheet. This research was conducted at the Mandah Health Center, respondents were given an observation sheet to fill out before being given a neck massage and pectoralis major muscle massage. The data collection technique was carried out by selecting samples based on inclusion criteria, namely normal postpartum mothers, first day post partum (6-8 hours), normal baby weight, mothers only giving breast milk.

The variables in this study consisted of independent and dependent variables. The independent variable was neck massage and pectoralis major muscle massage and the dependent variable was the smoothness of breastfeeding. Data analysis is an activity to research, examine, study, compare existing data and make the necessary interpretations. The data analysis used in this research is Univariate and Bivariate.

Univariate analysis is where it is carried out on each research variable, calculating through the frequency distribution of the research results to find out the results which will later be used as a benchmark for discussion and conclusions.

Bivariate analysis is an analysis conducted to determine the relationship between two variables. The analysis of this study was conducted to see the effect of the combination of pectoralis major muscle massage on the smoothness of breast milk in postpartum mothers 1-3 days by using the Mann Whitney test to analyze the differences in the data before being given pectoralis major muscle massage and after pectoralis major muscle massage.

III. Results and Discussions

Table1.DistributionFrequency Based on Characteristics of Respondents

No	Characteristics	(n=20)	
		N	%
1.	Age	1	5
	<20 years	19	95
	20-35 years old		
	Amount	20	100
2.	last education		
	SD	3	15
	Junior High School	10	50
	Senior High School	5	25
	College	2	10
	Amount	20	100
3.	Work	4	20
	Working	16	80
	Doesn't work		
	Amount	20	100

Based on table 1, it can be seen that of the 20 respondents studied, the largest distribution of respondents according to age is the age range of 20-35 years with a total of 19 people (95%), the distribution of respondents according to education is junior high school with a total of 10 people (50 %), and respondents according to occupation are mostly not working with a total of 16 people (80%).

Table 2. Frequency Distribution of Smooth Breastfeeding Before and After Combination of Neck Massage and Pectoralis Major Muscle Massage in Postpartum Mothers at Mandah Health Center

Category	Pretest		Posttest	
	N	%	N	%
Fluent	2	20	9	90
Not smooth	8	80	1	10
Total	10	100	10	100

Based on table 2, it can be seen that before the neck massage and pectoralis major muscle massage were carried out in postpartum mothers at the Mandah Health Center, the majority of the 10 respondents with non-smooth milk production was 80% and after the neck massage and pectoralis major muscle massage were performed on postpartum mothers in Mandah Health Center of 10 respondents majority with smooth breast milk production as much as 90%.

Table 3. The Effect of Combination of Neck Massage and Pectoralis Major Muscle Massage on Postpartum Mothers 1-3 days at Mandah Health Center

Variable	Amount	Mean	SD	*P Value*
Intervention	10	2.80	.632	
Control	10	1.50	.850	0.003

Based on table 3, it was found that the average (mean) smooth flow of breast milk before the neck massage and pectoralis major muscle massage was 1.50 and after the neck massage and pectoralis major muscle massage was done it became 2.80 with a standard deviation (standard deviation) of 0.632 . Based on the Mann-Whitney U statistical test, it shows p value = 0.003 < (0.05) which indicates that there is an effect of a combination of neck massage and pectoralis major muscle massage on the smoothness of breastfeeding in postpartum mothers 1-3 days in the working area of the Mandah Health Center.

Based on the results of research from 20 respondents, the average value (mean) of Smooth Expenditure of breast milk in postpartum mothers who performed a combination of neck massage and pectoralis major muscle massage was higher than that of postpartum mothers who did not do a combination of neck massage and pectoralis major muscle massage. that is equal to 2.80 with a standard

deviation (standard deviation) of 0.632. Based on the Mann-Whitney U statistical test, it shows a P value of 0.003, which means that p-value < (α) indicates that there is an effect of a combination of neck massage and pectoralis major muscle massage on the smoothness of breast milk in postpartum mothers 1-3 days in the working area of the Mandah Health Center.

The results of this study can be concluded that there is an effect of a combination of neck massage and pectoralis major muscle massage on the smoothness of breast milk in postpartum mothers 1-3 days. This is in line with the research conducted by Hidayati at Haji Adam Malik Hospital in 2008 on the effect of breast care on the production of breast milk for post partum mothers.) of the 15 samples used. One of the things that can be done for breast care is breast massage. The benefits of breast massage are to facilitate circulation of blood flow and help hormone secretion and stimulation of glandular tissue in the breast. (Varney, 1997).

The results of research conducted by Nurchayati at Cilacap Hospital in 2012 showed the benefits of nape massage (massage of the neck) on the release of postpartum mother's milk. The results of research conducted by Astina and Irda Ayu at BPS Jambi city in 2017 showed the effect of neck massage and pectoralis major muscle massage on the timing of breastfeeding in primigravida postpartum mothers.

Neck pain that occurs in postpartum mothers does cause discomfort that can affect the breastfeeding process. Neck massage contributes to hormonal balance. While the intact relationship between the hypothalamus and pituitary will regulate prolactin and oxytocin levels in the blood. These hormones are essential for the initiation and maintenance of milk supply during lactation.

According to Munford (2001), massage is a structured series of pressure or touch of the hands and body parts to manipulate the skin, especially in the muscles by massaging, rubbing, hitting, pressing on the nape of the neck with the pectoralis major muscle to launch oxygen and make the mother feel relaxed. Neck massage and pectoralis major muscle massage can affect milk production. In the neck massage and pectoralis major muscle massage, there are still inhibiting factors from mothers who do not understand and understand, the condition of mothers who lack knowledge. There are factors that support breastfeeding, namely nutrition, adequate rest and husband's support (Suharto, 2011).

Massage The pectoralis major muscle has a purpose to facilitate the release of breast milk. Pectoralis major muscle massage carried out in the breast area makes blood vessels vasodilate so that blood flow becomes smooth. Each blood vessel has receptor ends, which when massaged can cause stimulation to be received by the receptor ends. Then the ends of these receptors carry stimuli to the bloodstream leading to the brain, in the brain there is a part called the hypothalamus. This hypothalamus receives stimulation carried by existing motor nerves, after which the hypothalamus stimulates the anterior pituitary gland to produce the hormone prolactin which plays a role in milk production. Stimulation that comes from the baby's sucking is continued to the posterior pituitary (neurohypophysis) which is then released oxytocin. Oxytocin causes contraction of the cells that will squeeze the milk that has been produced.

In this study, the smoothness of breast milk as a result of giving neck massage and pectoralis major muscle massage significantly affected the smoothness of breast milk with p value < (0.05). The results of this study and the assumptions of this study were also strengthened by the Sebayang study which showed that there was an increase in the volume of breast milk production in mothers before and after being given neck massage and breast muscle massage with warm compresses. In this study, it was stated that neck massage has an influence on milk production, neck massage does not directly stimulate the oxytocin reflex or let down reflex, but neck massage stimulates directly the source of tension and stress (Sebayang, 2017).

IV. Conclusion

The results of the research conducted on the effect of the combination of neck massage and pectoralis major muscle massage on the smoothness of breastfeeding in postpartum mothers 1-3 days in the Mandah Health Center Work Area, Indragiri Hilir Regency, with 20 respondents based on the Mann-Whitney U statistical test showing a P value of 0.003, which meaning that p-value < (α) indicates that there is an effect of a combination of neck massage and pectoralis major muscle massage on the smoothness of breastfeeding in postpartum mothers for 1-3 days in the work area of the Mandah Health Center.

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