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Effectiveness of Endorphin Massage for Breast Milk Production to Postpartum Mothers Caesarea Section

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ABSTRACT

Especially if the mother receives general anesthetic during the delivery procedure Sectio Caesarea (SC), the mother frequently isn't able to breastfeed the newborn in the first few hours after birth. The process of breastfeeding is slightly impeded by the state of the abdominal surgery wound. According to the early study's findings, 1 nursing respondent was fluent whereas 4 breastfeeding respondents did not come out of the closet. Therefore, it can be said that certain SC postpartum mothers still have erratic milk production. This study compared the smoothness of milk produced by postpartum SC women after receiving back massages and endorphin massages. Quasy Experiment pretest posttest design group is the study methodology used. The dependent variable is the smoothness of breast milk production, while the independent variable is endorphin massage. There are 17 respondents in the general population, and 10 postpartum SC mothers were selected as samples. The research instrument is an observation sheet, and the sample method is incidental sampling. Wilcoxon test statistical analysis with (0.05). The ethical viability of this study has been evaluated by KEPK RSUD dr. Mohammad Zyn Sampang No.445/561/434.203.100/2022. With a p-value of 0.0083 0.05, the Wilcoxon test results from the study revealed that there were changes in the smoothness of milk production before and after receiving an endorphin massage. Teaching back massage techniques and endorphin massage as an extra therapy to boost the smooth production of breast milk is believed to help health professionals provide better services regarding the production of breast milk without interruption.

Keywords: Endorphin Massage, Breast Milk Production, Sectio Caesarea

INTRODUCTION

The World Health Organization recommends exclusive breastfeeding for newborns from the first day of life until the child is 6 months old (WHO, 2012). Because it contains so many nutrients that are good for a baby's health and growth, breast milk is the best single food for newborns and is crucial for a baby's wellbeing. Colostrum, which contains active immunology including large amounts of IgA, IgM, IgD, IgG, and IgE that serve as antibodies against infectious agents like germs, bacteria, and viruses, can prevent and lower the risk of death in newborns, makes up the majority of breast milk. However, the regular production of breast milk can interfere with exclusive breastfeeding. (Vidayanti et al, 2020).

If the let-down reflex does not manifest, it can be a bit challenging to determine how smoothly breast milk is produced. The let-down reflex (LDR) or milk-ejection reflex

(MER) is a physiological response of the mother's body to the stimulation of the tiny nerves in the breast brought on by the infant sucking the breast. The mother experiencing cramping around the uterus, the infant switching from short to extended sucking patterns, and the mother sensing a tingling sensation in the breast are all indications that milk production is proceeding correctly and smoothly. If a woman experiences one of these symptoms, it means that her milk is flowing regularly and smoothly. (Ediyati, 2020).

The physiological release of milk throughout pregnancy and the release of milk two to three days after delivery can both be considered normal. If the milk is produced for a longer period of time, it falls under the area of pathophysiology and requires more care (Harismi, 2020). Mothers who undergo Sectio Caesarean (SC) surgery or do not give birth naturally frequently experience a decrease in the regular production of breast milk, making it harder for them to exclusively nurse their infants. This is consistent with Chertox and Shoham Vardi's (2017) study, which found that mothers who give birth by SC have a 3 times higher risk of death compared to mothers who give birth naturally, more likely to encounter challenges in smooth milk production because of post-surgery mothers. Both babies born via cesarean section and the procedure still require observation time.. (Dewi et al, 2018).

Nuampa's international research (2021) found data on as many as 491 women who stopped breastfeeding at 9 weeks of age, on the grounds that their milk supply was insufficient or not smooth. Based on the results of Basic Health Research (Riskesdas, 2018) 80% of mothers who experience labor by cesarean section have a higher chance of experiencing problems with the smooth production of breast milk.

Based on a preliminary study in the Irna Mawar Room, dr. Mohammad Zyn, Sampang Regency, it was found that out of 10 Post SC respondents, there were 5 (50%) post partum mothers experiencing problems with breast milk not coming out, 4 (40%) postpartum mothers experiencing non-fluent breastfeeding at the start of breastfeeding, and only 1 (10%)) postpartum mothers do not experience problems in breastfeeding, namely smooth milk production. From the data above, it can be concluded that there are still post *Sectio Caesarea* (SC) mothers who experience non-fluent milk production.

As for other factors that affect the smooth production of breast milk, namely the mother's food factor where if the mother's nutrition is less than needs can result in a decrease in the amount of breast milk, the baby's sucking factor can stimulate the hypothalamus gland to stimulate prolatin, the frequency of breastfeeding is related to the ability to stimulate hormones in the breast glands, history disease can interfere with the lactation process, psychological factors can reduce the smooth production of breast milk, husband or family support will greatly help the success of a mother to breastfeed, birth weight is related to sucking power, frequency and duration of breastfeeding compared to larger babies, breast care if carried out will produce sufficient breast milk, the type of delivery during normal delivery the mother can immediately carry out Early Breastfeeding Initiation (IMD) while during SC deliveries the mother has difficulties because there are still side effects of anesthesia, the gestational age at delivery also has an effect because na babies are very weak and unable to suck effectively, consumption of cigarettes will interfere with the hormones prolactin and oxytocin for milk production, consumption of alcohol can

inhibit oxytocin production, improper breastfeeding techniques cannot empty the breasts optimally thereby reducing the smooth production of milk, hospitalization makes it easier for babies to breastfeed more often and the frequency is more frequent, and contraceptive pills can affect the mother's hormones for breastfeeding (Marmi, 2015).

Meanwhile, if the problem of non-current breastfeeding is not handled, it will cause permanent cessation of milk production. This is caused by the oxytocin reflex not being stimulated which has an impact on the absence of the release of the hormone prolactin for mothers to produce milk (Astuti et al, 2017). If breast milk is not produced, it will have an impact on the baby being born, including the risk of stomach-intestinal infections, constipation, allergies and decreased immunity to disease, the baby will also experience *jaundice* because the bilirubin in the baby's blood is still high (Nurjannah et al, 2013).

Various ways can be done to help smooth milk production. One of them is Endorphin massage, massage that can be done around the neck, back and arms can provide a feeling of comfort and calm, so that it can stimulate endorphins and oxytocin hormones. These two hormones play a role in stimulating the release of breast milk so that they can help expedite milk production (Alza & Megarezky, 2020). Based on research conducted by Febriyanti (2020) it shows that after endorphin massage, postpartum mothers produce more breast milk than mothers who do not receive endorphin massage.

METHOD

This research method is *Quasy Experiment pretest posttest with control group design* . The independent variable is back massage and endorphin massage while the dependent variable is the smoothness of breast milk production . The total population is 17 respondents, the number of samples is 10 Postpartum *SC mothers* . The sampling technique uses *incidental sampling* , the research instrument uses an observation sheet. Statistical test using the *Wilcoxon test* with α (0.05). This research has been tested for ethical eligibility by KEPK RSUD dr. Mohammad Zyn Sampang No.445/561/434.203.100/2022.

FINDING AND DISCUSSION

Frequency Distribution based on Mother's Age postpartum SC

Table 1.1 Frequency Distribution of Post *Sectio Caesarea Maternal Age* at the Regional General Hospital dr. Mohammad Zyn Sampang in January 2022.

Age	Endorphin Massage Group	
	Frequency	Percentage (%)
20-25	2	20.0
26-30	4	40.0
31-36	4	40.0
Total	10	100

Source: Primary Data 2022

Based on table 1.1, we get data from the results of the frequency distribution that in the group of mothers with endorphin massage postpartum SC mothers almost half of postpartum SC mothers aged 26-30 were 4 mothers (40.0%) as well as mothers aged 31-36 as many as 4 mothers (40.0%)).

Frequency Distribution based on Mother's Education postpartum SC

Table 1.2 Distribution of the Education Frequency of Post *Sectio Caesarea Mothers* at the Regional General Hospital dr. Mohammad Zyn Sampang in January 2022.

Education	Endorphin Massage Group	
	Frequency	Percentage (%)
Primary school	2	20.0
Secondary school	6	60.0
College	2	20.0
Total	10	100

Source: Primary Data 2022

Based on table 1.2, we get the results of the distribution of the education frequency of mothers in the Endorphin massage group, the majority of postpartum SC mothers in high schools were 8 mothers with a percentage (80.0%) .

Frequency Distribution based on Mother's Occupation postpartum SC

Table 1.3 Frequency Distribution of Mother's Occupation Post *Sectio Caesarea* at the Regional General Hospital dr. Mohammad Zyn Sampang in January 2022.

Work	Endorphin massage group	
	Frequency	Percentage (%)
IRT	5	50.0
civil servant	2	20.0
Private	1	10.0
Farmer	2	20.0
Total	10	100

Source: Primary Data 2022

Based on table 1.3, the results of the Frequency Distribution found that the occupation of the mothers in the endorphin massage group was mostly housewives, with 5 mothers (50.0%).

Frequency Distribution Based on Parity of postpartum SC mothers

Table 1.4 Table of Frequency Distribution of Post *Sectio Caesarea Parity Mothers* at the Regional General Hospital dr. Mohammad Zyn Sampang in January 2022.

Parity	Endorphin massage group	
	Frequency	Percentage (%)
Primipara	4	40
Multipara	6	60
Total	10	100

Source: Primary Data 2022

Based on table 1.4, the results of the Frequency Distribution found that the parity of Post *Sectio Caesarea mothers* in the endorphin massage group was mostly from postpartum SC mothers with multipara parity of 6 mothers with a percentage (60.0%).

Custom Data

Frequency Distribution Based on Fluency in Breast Milk Production before and after endorphin massage

Table 1.5 Frequency Distribution of Smooth Breast Milk Production before and after the endorphin massage for Post *Sectio Caesarea mothers* at the Regional General Hospital dr. Mohammad Zyn Sampang in January 2022.

No	Pretest	Posttest	Difference	Information
1.	6	8	2	Fluent
2.	0	4	4	Not smooth
3.	8	10	2	Fluent
4.	4	8	4	Fluent
5.	8	10	2	Fluent
6.	4	8	4	Fluent
7.	14	14	0	Fluent
8.	4	6	2	Not smooth
9.	8	8	0	Fluent
10.	0	4	4	Not smooth
Means	5,6	8	2,4	
Minimum	0	0	0	
Maximum	14	14	4	
Wilcoxon Signed Rank Test	Asymp sig. (2-tailed) : 0 .0083			

Source: Primary data January 2022

Based on table 1.5, it was found that out of 10 postpartum SC mothers who had experienced endorphin massage , they experienced non- fluent milk production with a mean of 5.6 after having endorphin massage in postpartum SC mothers at dr.

Mohammad Zyn Sampang , the mother's milk production is mostly smooth with a mean of 8.

Data Normality Test Results *p value* < 0.05 so that the data is not normally distributed so to find out the effectiveness of endorphin massage on the smooth production of breast milk using the *Wilcoxon Signed Rank Test* obtained a value of 0.0083 or *ρ-value* < 0. 05 which means there is an effect of endorphin massage on the smooth production of breast milk for post SC mothers.

The Effectiveness of Endorphin Massage on the Smooth Milk Production of Postpartum *Sectio Caesarea Mothers* at dr. Mohammad Zyn Sampang.

Based on data analysis, it was found that there were differences in the smooth production of breast milk for postpartum *Sectio Caesarea mothers* at dr. Mohammad Zyn Sampang before and after endorphin massage with a value of 0.0083 or *p-value* <0.05 . With the characteristics of 6 out of 10 postpartum SC mothers before having endorphin massage experienced non-smooth milk production with a mean of 5.6 after having endorphin massage 7 out of 10 postpartum SC mothers mother's milk production was mostly smooth with a mean of 8.

Endorphin massage is a light massage that can be done on the neck, back and arms to make you feel comfortable and calm. Giving endorphin massage with the aim of increasing milk production is quite effective , because when massage is done it will stimulate endorphin hormones to come out of the body which will indirectly stimulate the oxytocin and prolactin reflexes. The hormone oxytocin plays a very important role in stimulating the release of breast milk, this hormone is often also called love because its presence is strongly influenced by the mother's mood. While the hormone prolactin functions to stimulate milk production and breast growth.

This is in line with research conducted by Febriyanti (2020) which showed that after endorphin massage, postpartum mothers produce more breast milk than mothers who do not receive endorphins, and endorphins have an impact on milk production. The results of this study are in accordance with Dewi's research (2017), which showed that there were differences in the smoothness of milk production between the control groups, namely mothers who received endorphin massage interventions had the opportunity to experience smooth milk production 0.2 times more compared to subjects who did not receive treatment, whereas according to Erniyati (2018), the volume of breast milk for postpartum mothers who were given endorphin massage interventions was greater than that for postpartum mothers in the control group.

CONCLUSSION

Based on the results of the research and discussion on the effectiveness of the smooth production of breast milk before and after being given an endorphin massage for post- *section caesarea mothers* at RSUD dr. Mohammad Zyn Sampang , it can be concluded that there is an influence on smooth production before and after being given an endorphin massage to post SC mothers. It is hoped that the results of this study can be a source of information and a reference for improving service programs to improve services regarding the smooth production of breast milk by providing health services during ANC and teaching post-sectio caesarean mothers to do endorphin massage.

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