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THE EFFECT OF OKETANI MASSAGE ON BREAST MILK PRODUCTION

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ABSTRACT

Insufficient milk production is oftenly being a problem for postpartum mothers. It also experienced by postpartum mothers at Clinic "A". According to Central Bureau of Statistics's data for 2019-2021, it was found that exclusive breastfeeding coverage in Indonesia was 71.58%, exclusive breastfeeding coverage in West Java was 76.46% and exclusive breastfeeding coverage in Bandung Regency was 64.84%. When compared with the target set by the Ministry of Health of the Republic of Indonesia, which is 80%, so, the achievement of exclusive breastfeeding at the Indonesian level hasn't meet the target. Breast milk production is influenced by the hormones prolactin, oxytocin, and endorphins. The method that can be used to release these hormones is by doing oketani massage. This research method is quasi-experimental with one group pretest-posttest design. The sample in this study were postnatal mothers amounted 30 respondents. Data analysis used was paired t test because the data were normally distributed. The results of this study found that there was significant difference before and after the oketani massage with p value: 0.000. The conclusion of this study is that the application of oketani massage is effective to increase milk production. It is hoped that the application of oketani massage can be carried out in practice areas and in educational institutions to make oketani massage into the puerperium stage midwifery care semester lesson plans to increase breast milk production.

Keywords: Oketani Massage, Breastfeeding

INTRODUCTION

Breast milk is the first and main food for babies. Government Regulation No. 33 of 2012 concerning Exclusive Breastfeeding states, that every baby must receive exclusive breastfeeding, which is the breast milk that is given to babies from birth to 6 months, without additional food and drinks except for vitamin and mineral drugs. Based on data from the World Health Organization (WHO) in 2016 the coverage of exclusive breastfeeding in the world was only 36%. This achievement is still below the exclusive breastfeeding coverage target set by WHO, which is 50%. (WHO, 2017) According to Central Bureau of Statistics's data for 2019-2021, it was found that exclusive breastfeeding coverage in Indonesia was 71.58%, exclusive breastfeeding coverage in West Java was 76.46% and exclusive breastfeeding coverage in Bandung Regency was 64.84%. (Central Bureau of Statistics, 2019-2021). When compared with the target set by the Ministry of Health of the Republic of Indonesia, which is 80%, the achievement of exclusive breastfeeding at the Indonesian level hasn't meet the target. (Ministry of Health RI, 2017)

Exclusive breastfeeding provides benefits for babies, including preventing baby malnutrition, increasing body resistance, increasing cognitive intelligence in babies, preventing gastrointestinal infections (vomiting and diarrhea), preventing respiratory tract infections and preventing the risk of death. The impact if exclusive breastfeeding is not given to babies is respiratory tract infections, digestive tract infections (vomiting and diarrhea), increasing the

risk of death, decreasing the development of cognitive intelligence, and increasing the risk of malnutrition (Puspita, 2016).

Exclusive breastfeeding is also beneficial for mothers, the baby's sucking on the breast will stimulate the formation of oxytocin by the pituitary gland. Oxytocin works by helping uterine involution and preventing postpartum bleeding in mothers, as well as delaying menstruation so that it can reduce the prevalence of iron deficiency anemia in mothers who have just given birth, the incidence of mammary carcinoma in breastfeeding mothers (Sidi, 2009). As a result of mothers who do not breastfeed, it can increase the risk of breast cancer, ovarian cancer, and obesity which can trigger various degenerative diseases that can trigger high postnatal AKI (Yuliarti, 2010).

Breast milk production is influenced by the prolactin and oxytocin hormones. Smooth milk production is influenced by many factors such as, frequency of breastfeeding, baby's birth weight, gestational age at birth, maternal age and parity, stress and acute illness, early initiation of breastfeeding, presence of smokers, alcohol consumption, breast care, use of contraceptives and nutritional status. In Indonesia, the release of prolactin and oxytocin hormones can be stimulated by various methods that can be used as an option for mothers who experience problems during breastfeeding, such as oxytocin massage, prolactin massage, marmet massage, breast care and so on. One type of breast massage that is being heavily promoted by Japan and has been implemented as a support program for exclusive breastfeeding in Bangladesh and has proven successful in its implementation is oketani massage. The movements in Oketani massage and breast care are useful to accelerate the milk ejection reflex. In addition, it is also an effective way to increase the volume of breast milk. An obstacle in giving breast milk early on the first day after giving birth is a little milk production. The mother's emotional state related to the mother's oxytocin reflex can affect milk production by around 80% to 90%. Mother's emotional condition in good condition, comfortable and without pressure will be able to increase and facilitate milk production.

Oketani massage can stimulate the strength of the pectoralis muscle to increase milk production and make the breasts softer and more elastic so that it is easier for the baby to suck milk, while for oxytocin massage the spinal massage action starts from the 5th - 6th nerves to the scapula which will accelerate the work of the parasympathetic nerves to convey commands to the back of the brain so that oxytocin comes out. One effort that can be done to stimulate the hormones prolactin and oxytocin in the mother after giving birth is to do oxytocin massage.

Previous studies have been carried out by several researchers, specifically by Mahdizadeh et al, 2015 showed that the success rate of breastfeeding was higher, mothers who had Oketani management applied were also more confident. Yuliati et al's research (2017) explains that oketani massage will cause the mammary glands to become more mature and wide so that milk production can increase. Research by Jamzuri, et al (2019) okaytani massage can increase maternal oxytocin levels. Research by Tasnim, et al (2019), stated that oketani massage increases comfort and satisfaction in breastfeeding for mothers. Research by Dehghani, Mahsa, et al (2017) stated that Oketani massage can increase baby's weight. Research by Tasnim, et al (2019), stated that oketani massage increases baby's satisfaction with breastfeeding.

Based on the results of deep interviews, it was found that out of 10 postpartum mothers, 3 of them had not been able to expel their first breast milk, so they had difficulty in breastfeeding because of the little amount of milk that came out. In connection with the statement above, the researchers are interested in conducting a study entitled The Effect of Oketani Massage on Breast Milk Production at Clinic "A" in 2021.

RESEARCH METHOD

This research used a quasi-experimental research with one group pretest-posttest design. This research was conducted at the clinic "A" Arjasari Region, data collection was taken on April 19th - June 08th 2021. The sample in this study used 30 post partum mothers who were given oketani massage. In this study, the independent variable was oketani massage, while the dependent variable in this study was milk production.

The instrument used in this study for the independent variable, which is the oketani massage technique, was used by the standard operating procedures of the Indonesian Ministry of Health. Researchers observed milk production before and after the intervention. The data collected is primary data. The analysis of the data used in this study was a paired t-test, which was used to determine the difference in breast milk production before and after the oketani massage.

The research flow begins with giving informed consent to the respondents regarding the oketani massage that will be carried out. Respondents were postpartum mothers who came to the afifah clinic on the third day after giving birth and then being asked about the production of breast milk by pumping before being given treatment. Then the respondents were taught the oketani massage. Patients were told to do oketani massage 2 times a day with a duration of 15-20 minutes. Then on the 5th day the respondents were checked regarding the release of breast milk by making home visits.

Ethics in this study includes Informed Consent, which is giving consent sheets to respondents who have been given an explanation of the aims and objectives of the case study. Confidentiality: Information that has been collected by the subject is guaranteed confidentiality. The data will only be presented or reported to those associated with the case study and will not be published. Benefits: Provide care and comfort during pregnancy by being given warm compress care so as to reduce pain in the back and lower abdomen. Justice: All pregnant women are treated fairly and given equal rights without discrimination. All pregnant women who were not given comprehensive care were given an explanation that this was in accordance with the inclusion criteria. Principles and fairness need to be maintained by the author with honesty, openness and prudence. The principle of justice is that all pregnant women receive the same treatment and benefits regardless of gender, religion, ethnicity, and so on.

RESULTS

Before data analysis was done, the authors conducted a data normality test for both treatment groups. The results obtained were that the data were normally distributed with a p value> 0.05 (p: 0.169; p: 0.063), so that the test carried out was a parametric test, namely paired t test.

Table 1. Results of Paired T-Test Analysis on Differences in Breast Milk Production Before and After being given Oketani Massage

Oketani Massage	N	Mean (Minimum-Maksimum)	P
Pre	30	124(101-158)	0,000
Post	30	153 (121-199)	

Based on the table above, it was found that there was a difference before and after being given oketani massage on milk production with a p value of 0.000 (p <0.05). This can be seen from the mean value, which is increasing from 124 to 153.

DISCUSSION

Breastfeeding is the whole process of breastfeeding, starting from the production of breast milk to the process of the baby sucking and swallowing the breast milk (Roesli, 2013). Breastfeeding has many advantages for both mother and baby. Breast milk is the most suitable food for babies' digestive abilities because babies can absorb breast milk well, never get constipated, have diarrhea and give satisfaction to babies. Breast milk is also free from germs because breast milk contains antibodies so that babies who are breastfed won't easily get sick and allergic than babies who are fed with formula milk. Babies who are breastfed will have the opportunity to be hugged by their mothers which can facilitate the establishment of mother-baby affection (attachment).

Oketani massage is a skill management to overcome lactation problems such as insufficient milk production, and breast engorgement. Oketani massage will cause the breasts to become soft, supple and the areola to become more elastic, the lactiferous ducts and nipples to become more elastic. The whole breast becomes more flexible and produces good quality milk because the total solids content, fat concentration and gross energy increase. Ohno, et al (2001) explained that the increase in protein content was caused by an increase in the activity of the protease enzyme stimulated by massage of the mammary tissue and glands. Increased activity of protease enzymes can increase protein synthesis. Oketani massage can also cause the mammary glands to mature and expand, so that there are more milk glands and more milk is produced. Ohno et al (2001) also explained that oketani massage would decrease lipoxygenase activity. Lipoxygenases are enzymes that catalyze the addition of oxygen to unsaturated fats and can influence the development and progression of cancer in humans. (Macheasy, 2014). Foda et al (2004) also explained that oketani massage can increase the production of the hormones prolactin and oxytocin. Prolactin is responsible for the production of breast milk in the alveoli, while the oxytocin hormone can stimulate the mammary glands to secrete breast milk. From the explanation above, it can be concluded that the oketani massage can increase the amount of breast milk production but also improve the quality of breast milk, like the protein and carbohydrate content of breast milk. Yuliati, et al (2017) explained that oktani massage will cause the mammary glands to become more mature and wider so that milk production can increase.

Oketani massage will provide an overall sense of relief and comfort to the respondent, improving the quality of breast milk, preventing sore nipples and mastitis and can improve or reduce lactation problems caused by flat nipples and inverted nipples (Kabir T, 2009) Reflex formation or milk production. Stimulation of the baby's sucking through nerve fibers will stimulate the anterior pituitary to secrete the hormone prolactin into the bloodstream. Prolactin stimulates gland cells to secrete breast milk. The more often the baby sucks, the more prolactin is released by the pituitary, the more milk is produced by the gland cells, so the more often the baby sucks, the more milk is produced, on the other hand, reduced suckling causes less milk production. This mechanism is called the "supply and demand" mechanism.

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CONCLUSIONS AND SUGGESTIONS

The results showed that there was a difference in breast milk production before and after being given oketani massage with p value: 0.000

It is expected that health workers who are in the "A" Arjasari clinic, Bandung Regency need to develop the implementation of oketani massage for postpartum mothers to increase milk production.

It is hoped that educational institutions can make Oketani Massage a superior program for health colleges so that all midwives can play an active role in preventive measures in the care of postpartum mothers so as to reduce the use of formula milk among the community.

It is hoped that further researchers will be able to develop or conduct research with different variables, research scales and research sites related to the effect of oketani massage on breast milk production.

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