



Endorphin Massage with Lavender Oil By husband to Increase Breastmilk Production in Breastfeeding Mother in Malang Regency

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ABSTRACT

Mother's Milk (ASI) is a liquid milk secretion from the breast after the mother gives birth which is very beneficial for the baby. However, the production of breast milk is a bit of an obstacle in breastfeeding. Giving massage to mothers that can increase endorphins is expected to increase breast milk production. The purpose of the study was to determine the effect of endorphin massage using lavender oil by husbands on increasing breast milk production in breastfeeding mothers in Malang Regency. The design used is Pre Experiment by using a design (One Group Pretest Posttest). A sample of 30 respondents was taken by purposive sampling method. Collecting data using interview and observation techniques, test data analysis using the Wilcoxon test. The results showed that those who had smooth breast milk production after endorphin massage were 21 subjects (70%) and 6 subjects (20%) had sufficient milk production and 3 subjects (10%). The results of the analysis using the Wilcoxon test obtained the results of $= 0.000$, which means that there is an effect of giving endorphin back massage using lavender oil by the husband on increasing breast milk production in nursing mothers. With that, the husband's back massage endorphin technique can be used as an alternative to increase milk production.

Keywords: Endorphin massage; Breastmilk Production; Breastfeeding; Postpartum Women

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INTRODUCTION

Breastfeeding has an important role in maintaining the health and survival of babies, because babies who are exclusively breastfed have a better immune system than babies who are not exclusively breastfed. So that babies rarely suffer from disease and avoid nutritional problems than babies who don't. Insufficient breast milk intake results in the baby's nutritional needs being unbalanced. The imbalance in the fulfillment of nutrition in infants will have a negative impact on the quality of human resources which can be seen from the inhibition of optimal infant growth and development.¹

The United Nations Children's Fund (UNICEF) (2013) explains that the high infant mortality rate in Indonesia can be prevented through early breastfeeding and exclusive breastfeeding. This is evidenced by data from the World Health Organization (WHO) in the 2012 Indonesian Health Profile that the IMR in Indonesia is mostly related to nutritional factors, which is 53%. Several diseases that arise due to malnutrition include pneumonia (20%), diarrhea (15%), perinatal death (23%) which is actually a disease that can be prevented by early breastfeeding.²

The importance of breastfeeding for babies is reflected in the recommendations of the World Health Organization (WHO) since 2010 which urges every mother to give exclusive breastfeeding until her baby is six months old. According to data from UNICEF, children who are exclusively breastfed are 14 times more likely to survive the first six months of life than children who are not breastfed. Starting breastfeeding on the first day after birth can reduce the risk of newborn death by up to 45%. Even WHO and UNICEF recommend breastfeeding given until the age of 24 months (WHO, 2009). Research conducted by Sankar et al. (2015) showed that the risk of death in infants who were exclusively breastfed was lower than in infants who were not exclusively breastfed. Similarly, in children, the risk of death for children who are not breastfed for 6-23 months is twice as high as those who are not breastfed.

Exclusive breastfeeding coverage data in East Java province in 2014 was 183,573 (74.0%), in 2015 it was 375,737 (74.1%), in 2016 it was 31.3%, in 2017 it was 76.01%, in 2018 it was 76.98%.² The exclusive breastfeeding coverage data is still below the target set by the province, which is 77%. The data obtained from the Malang District Health Office showed that babies who received exclusive breastfeeding in 2018 were 333 babies (51.3%) then in 2019 there were 340 babies (46.6%). In terms of the number of babies receiving exclusive breastfeeding, there has been an increase, but in terms of percentage, it can be seen that there is a decrease. Exclusive breastfeeding coverage based on the results of the baseline data in Bululawang Village, Bululawang District, Malang in 2019 was 40%. This shows the low percentage of mothers who want to give exclusive breastfeeding to their children or babies for 6 months compared to the target of 50.

Efforts to increase the coverage of exclusive breastfeeding are carried out with various strategies, starting from the preparation of a regulatory framework, increasing the capacity of officers and promoting exclusive breastfeeding. Government regulations have also been promoted, in which there are already duties and responsibilities of the government and local governments in the development of

breastfeeding programs, including establishing national and regional policies, carrying out advocacy and socialization and carrying out supervision related to exclusive breastfeeding.^{1,3}

Low milk production in the first days after giving birth is an obstacle in early breastfeeding. Mothers who do not breastfeed their babies in the first days are caused by anxiety and fear of the lack of milk production and lack of knowledge of mothers about the breastfeeding process . One way to increase breast milk production in nursing mothers is with endorphin massage, which is a light touch and massage technique around the neck, back and arms. First developed by Constance Palinsky which is used to manage pain. This technique can be used to reduce pain during labor, normalize heart rate and blood pressure, increase a relaxed state in the body by triggering a feeling of comfort through the surface of the skin and prevent postpartum stress. Research conducted by Morhen et al. (2012) proved that women who were given a massage in the back area from the neck to the lower border of the scapula around the spine for 15 minutes could increase oxytocin levels in the blood, reduce levels of the hormone adenocorticotropin so that it would stimulate the production of endorphins which are natural pain relievers^{3,4}

The purpose of this study was to analyze the effect of endorphin massage using lavender oil by husbands to increase breast milk production in breastfeeding mothers in Bululawang District, Malang Regency.

METHOD

The research design used was a quasy experiment with one group pre-posttest design approach.⁷ Involving 30 postpartum mothers as respondents consisting of 30 treatment, which were taken by purposive sampling. The statistical test used in this study is wolcoxon test. Data were obtained by The measuring instrument used to obtain breast milk production data is using a breast pump. while the endorphin variable is carried out according to the SOP (standard operating procedure).⁵

RESULTS

Table 1. The Characteristics of respondent

Category	Intervention	
	Frequency	Percentage
Age		
20-35 years	21	70%
<20->35 years	9	30%
Education		
Basic School	27	80%
College	3	10%
Profession		
Working	9	30%
Housewife	21	70%
Paritas		
Primipara	16	55%
Multipara	14	50%
Consumption of drugs to high breastmilk		
Yes	0	0%
Not	30	30%

Based on the table above, it is found that the characteristics of the respondents based on age are dominated by the age of 20-35 years as many as 21 (70%), based on parity most of them are primiparas as many as 11 (55%), based on the education of the respondents most of them have basic education (junior high school, high school). as many as 27 (80%), based on occupation most of the IRT (housewives) as many as 21 (70%), based on consumption of drug to high breastmilk all not consumption 30 (100%).

Table 2. Breastmilk Production before and after the Implementation giving Endorphin Massage Using oil Lavender by husband in Malang City

Breastmilk Production	Treatment	
	Frequency	%
Pre-		
700-800 ml/day	0	0
600-700 ml/day	6	20
500-600 ml/day	24	80
total	30	100%
Post-		
700-800 ml/day	21	70
600-700 ml/day	6	20
500-600 ml/day	3	10
Total	30	100%

Table 2 shows that breastmilk production respondents before mostly in the less category as much as 500-600 ml/day (80%), and after most in the less category as much as 700-800 ml/day (70%).

Table 3. Test Results Data Analysis Effect of Endorphin Massage Using oil Lavender by Husband to Increase Breastmilk Production in Malang City

Test Statistics ^b	Post – Post Intervensi
Z	-4.686 ^a
Asymp. Sig. (2-tailed)	.000

a. Based on positive ranks.

b. Wilcoxon Signed Ranks Test

The results of the statistical test using wilcoxon obtained a p-value ($0.000 < 0.05$), a significance value or p-value (0.000) which means that there is any effect of Endorphin Massage Using oil Lavender by Husband to Increase Breastmilk Production in Malang City.⁷

DISCUSSION

Effect of Endorphin Massage Using oil Lavender by Husband to Increase Breastmilk Production in Malang City

Based on the results of the study, it can be seen that of the 30 respondents who were sampled in this study, almost all (70%) of breastfeeding mothers' milk production was good, breastfeeding mothers' milk production was moderate (20%), and mothers with low milk production were 3 (10%) respondents.

According to Stuart & Sundeen (2014) this massage relaxation action aims to increase control and self-confidence and reduce the stress and anxiety that is felt, the area to do a good massage is the back area. Endorphin massage is a light touch and massage technique that is very important for postpartum mothers to help provide a sense of calm and comfort. Research has shown that this technique increases the release of the hormone endorphine (provides a sense of comfort and calm) and the hormone oxytocin⁵

According to Nurhanifah (2013), giving back massage is more effective than warm breast compresses to increase milk production. This is because, when massaged, the back nerves will stimulate the release of endorphins in the body which will indirectly stimulate the oxytocin reflex. When given a back massage, the back nerve will send a signal to the brain to release oxytocin, which will cause myoepithelial cell contractions that will encourage the release of breast milk because the breast nerve is innervated by the dorsal nerve (dorsal nerve) which spreads along the spine.^{8,9}

After giving endorphin massage to the mother by the husband, there was an increase in breast milk production, which before giving it was found that 80% of the mothers experienced breast milk insufficiency, after the endorphin massage was carried out by the husband as much as 70% of the mother's milk production increased up to 30-40%. According to researchers, during endorphin massage therapy, the mother felt relaxed from her husband's touch and the aroma of lavender oil used, one mother also said that her breast milk came out during the massage. However, there are also mothers who are confused and tense with endorphin massage therapy, for this the researcher explains to respondents

about the benefits, how to massage so that respondents do not feel confused and tense. By giving this endorphin massage, according to the researchers, it really helps mothers in expediting their breast milk, apart from not requiring money in its implementation, the husband also takes part in the process of giving it so that the mother will feel more cared for, so it will affect the mother's psyche to be calmer so that milk production will also increase.⁹

Endorphins are produced by our bodies naturally. Ways that are done so that endorphins can be released / produced, including relaxation techniques (deep breathing, laughing, smiling, hypnotherapy), exercise (removing chemicals in the body), acupuncture techniques, meditation techniques to positive thinking and massage (massage). Endorphins interact with the opiate receptors in our brain for pain. With the secretion of endorphins, stress and pain will be reduced. Unlike the case with Opiate drugs (morphine, codeine), because endorphins are produced directly by our bodies, so they will not cause addiction or dependence.^{8,9,10}

After doing research for 4 days of giving back massage by the husband, there was an increase in milk production from before the procedure, for example 50 cc, it increased to 80 cc so almost 30%. With this endorphin massage given by the husband, it makes the mother feel more comfortable because it is her partner who does it, thus helping to accelerate the increase in breast milk production coupled with lavender oil which is used in the massage process where this oil contains linalool which has a calming effect. In addition to lavender which contains linalool, candlenut oil also has the same content, but the researchers chose to use lavender oil because it is easier to obtain. During the research process, respondents did this massage using lavender oil that had been given by the researcher and for the procedure for the back massage itself, it was listed in the leaflet distributed by the researcher to the respondent so that the endorphin back massage was carried out according to the SPO (Standard Operating Procedure).

CONCLUSIONS

By giving endorphin massage by the husband, it really helps the mother in expediting her breast milk, besides not requiring costs in its implementation, the husband also takes part in the process of giving it so that the mother will feel more cared for, so it will affect the mother's psyche to be calmer so that milk production will also increase.

REFERENCES

1. Utami SN, Rohmah M, Tuszahroh N. The Efforts to Increase Breast Milk Production Through Hypnobreastfeeding In Pakisaji Sub District Malang Regency. *J Glob Res Public Heal*. 2018;3(2):154-159. doi:10.30994/jgrph.v3i2.66
2. Kemenkes R. *Hasil Utama RISKESDAS 2018*. Jakarta: Badan Penelitian Dan Pengembangan Kesehatan; 2018.
3. Nur Faizah, Nur Hidayat, 2020. *Pengaruh Endorphin Massage terhadap Produksi ASI pada Ibu Post Partum di Puskesmas Somba Opu Kabupaten Gowa Vol. 2, No. 2, Agustus 2020*, pp 93-98, p-ISSN: 2337-9847, e-ISSN: 2686-2883

4. Kurniawan B. Determinan Keberhasilan Pemberian ASI Eksklusif. *J Kedokt Brawijaya*. 2013;27(4):236-240.
5. Vidayanti V. 2015. *Pengaruh Pijat Punggung Menggunakan Minyak Esensial Lavender Terhadap Produksi ASI Pasca Bedah Sesar di RSUD Panembahan Senopati bantul*. *J Med Respati*
6. Astuti FP, Windayanti H, Sofiyanti I. Hypnobreastfeeding dan Motivasi Ibu Menyusui. *Indones J Midwifery*. 2020;3(1):46-50. doi:10.35473/ijm.v3i1.492
7. Yusuf AM. *Metode Penelitian Kuantitatif, Kualitatif & Penelitian Gabungan*. Kencana; 2016.
8. Mckinley EM, Knol LL, Tuner LW, Burnham JJ, Graettinger K. The Prenatal Rating of Efficacy in Preparation to Breastfeed Scale: A New Measurement Instrument for Prenatal Breastfeeding Self-efficacy. *J Hum Lact*. 2019;35(1):21-31. doi:doi: 10.1177/0890334418799047
9. Saudia BEP, Ni NAM. 2017. *Pengaruh endorphin massage terhadap peningkatan produksi ASI pada ibu yang terdeteksi post partum dengan skor Edinburgh Post Partum Depression Scale (EPDS) di Puskesmas Wilayah Kerja Sekota Mataram*. *Jurnal Kesehatan Prima*. Volume 11
10. Sari LP, Salimo H, Budihastuti UR. Optimizing the Combination of Oxytocin Massage and Hypnobreastfeeding for Breast Milk Production among Post-Partum Mothers. *J Matern Child Heal*. 2017;02(01):20-29. doi:10.26911/thejmch.2017.02.01.03