



#### **Conference Paper**

# The Effect of Giving Lemongrass Aromatherapy Oil and Love Lactation Massage on Breast Milk Production for PostPartum Mothers at Ciomas Health Center

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#### Abstract.

The percentage of exclusive breastfeeding for infants 0-6 months in Banten province in 2019 was 64.4% in line with analysis data on stunting measurements in Ciomas subdistrict of 9.23%, which increased compared to 2020 which was 4.60%. Exclusive breastfeeding is an indicator of program coverage related to stunting that needs attention because the coverage of exclusive breastfeeding is only 31.56%. Seeing the milk production of post partum mothers who were given complementary therapies of love lactation massage and lemongrass aromatherapy. With a descriptive research design and a case study approach, the research samples were 2 postpartum mothers who were examined using an instrument using a questionnaire sheet on the adequacy of breast milk production before and after giving love lactation massage and lemongrass essential oil. Postpartum mothers who have low milk production after being given love lactation massage and lemongrass essential oil for 2 weeks with massage every morning experienced an increase in breast milk production based on 6 aspects that have been assessed, namely based on the mother's condition about the condition of breast milk production and the condition of the baby who has been breastfed. There is an effect of giving love lactation massage and lemongrass essential oil for 4 weeks on the adequacy of breast milk. It is hoped that health workers can recommend love lactating massage and lemongrass essential oil aromatherapy to increase breast milk production in postpartum mothers.

**Keywords:** love lactation massage and lemongrass essential oil, post partum mothers, breast milk production

# **1. Introduction**

The World Health Organization (WHO) recommends breastfeeding for babies in the first hour after giving birth and continuing after the first 6 months of the baby's life. So that babies can meet adequate nutrition by continuing to breastfeed for up to

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2 years.[1]Exclusive breastfeeding is one indicator of program coverage related to stunting that needs attention, In addition to the quality of health services for pregnant women, especially pregnant women, their health is checked at least 4 times (K4) and the coverage of pregnant women getting iron tablets is 90 tablets, pregnant women are KEK, babies 0-6 months do not get exclusive breastfeeding, coverage for young women getting iron tablets, toddlers 6- 59 months getting Vitamin A, complete basic immunization coverage, toddlers with comorbidities, sanitation and clean and healthy living behavior.[2] Based on data on exclusive breastfeeding for babies in Serang Regency in 2019 as much as 114%, but it turns out that in Ciomas District alone 31, 56% of babies do not get exclusive breastfeeding.[3]

One of the efforts to support government programs in preventing stunting is by providing exclusive breastfeeding. Exclusive breastfeeding can be successfully given, one of which is by paying attention to breast milk production. Breast milk production is influenced by several factors including breastfeeding behavior, maternal psychology, maternal physiology, social culture, and maternal nutrition.[4] One of the efforts to influence the physiology and psychology of breastfeeding mothers to increase milk production is by means of complementary therapy, various complementary therapies that are carried out are:aromatherapy, hypnobreasfeeding, cold or warm compresses, herbal use, acupressure, oxytocin breast massage, and others.[5]

The physiological and psychological conditions of postpartum mothers are certainly expected to be in prime condition so that milk production is sufficient, one of the complementary efforts that have been proven to increase milk production through improving the physiological and psychological conditions of the mother is massage, the results of the study state that breast milk production is influenced by the psychological state of the mother. By doing massage, it can release the hormone oxytocin, where the hormone oxytocin can provide comfort to the mother. When the mother is comfortable, the milk production will increase.[6] Likewise with the use of aromatherapy in breast milk production, the results of the study stated that lavender aromatherapy increased milk production.[7]

The complementary therapy used in this study is different from other studies, where in some other studies only one complementary therapy is used to increase breast milk production, while in this study it combines 2 complementary therapies, namely massage with aromatherapy. love lactating massage with the use of essential oil aromatherapy



lemongrass. Love lactation massage is a massage that is done by massaging the neck, chest, back area, and adding some pressure to the acupressure points.[8]

In line with previous research that oxytocin massage in postpartum mothers can provide a relaxing effect as well as previous studies that emphasis on certain acupressure points can increase the volume and composition of breast milk in mothers who experience hypogalactia.[9]

While the use of lemongrass aromatherapy oil contains anti-depressants, namely suppressing depression and stress so that it can cause relaxation. So the combination of complementary therapies is expected to increase milk production.[10] The combination of love lactation massage and lemongrass aromatherapy oil is expected to affect the increase in breast milk production so that researchers are interested in conducting this research.

# 2. Methods and Equipment

### 2.1. Study design

This research is a type of descriptive research with a case study approach.

### 2.2. Sample

The number of samples in this study is 2 postpartum mothers.

### 2.3. Data collection procedure

A sample of 2 postpartum mothers who will be assessed for the adequacy of breast milk production before and after the love lactation massage with lemongrass aromatherapy oil is used. Before the intervention, a pre-test was carried out first to measure the amount of breast milk production. Love lactation massage using lemongrass aromatherapy oil is done every morning for 2 weeks. After the intervention, a post test was carried out in the form of measuring breast milk production. The research flow is after obtaining approval from the respondents and conducting an assessment, followed by filling out the breast milk production observation sheet before the love lactation massage treatment using lemongrass aromatherapy oil. Then the next day until the 14th day, a love lactation massage was carried out using lemongrass aromatherapy oil and then an observation



of breast milk production was carried out using an observation sheet based on the mother's milk production, while in infants the condition of the baby who had been breastfed consisted of 6 questions with a value of 1 if the answer was yes. and a value of 0 if the answer is 'no".

### 2.4. Instrument

The instrument used is a questionnaire as an observation sheet, by observing the results of the score of the breast milk production observation sheet. The tools used are a chair/gym ball to lean on, towels and lemongrass aromatherapy oil.

#### 2.5. Data Analysis

Data analysis was carried out qualitatively by collecting detailed and in-depth information using a complementary midwifery approach in the form of massage techniques on the breasts of postpartum mothers. The results of data analysis are displayed in the form of frequencies and simple calculations.

### **3. Results**

The following is the result of a case study conducted on 2 breastfeeding mothers with little milk production as respondents :

#### 3.1. Respondent 1

Data collection on 12 December 2021 at 09.00 WIB. Subjective data Mrs. A 28 years old P2A0 3 days postpartum, historythis birth Mrs. A gave birth spontaneously on December 9, 2021 at 06.00 WIB, female gender, weight 3000 grams, PB 50 cm, crying loudly, angry skin without any abnormalities. This is the second delivery of Mrs. A, the mother said the milk production was still low. Objective data obtained Blood Pressure 110/70 MmHg, pulse 88 x/minute, Rr 22 x/minute, symmetrical examination of the left and right breasts, soft consistency, no tumor, prominent mammary areola. Examination of the abdomen TFU 2 fingers below the center, well contracted, round like a ball. Vaginal examination bleeding was normal, there was no perineal wound.



#### 3.2. Respondent 2

Data collection on December 12, 2021 at 11.00 WIB. Subjective data Mrs. M 26 years old P2A0 3 days postpartum, historythis birth Mrs. M gave birth spontaneously on December 9 at 11.15 WIB female gender, weight 3000 grams, PB 50 cm, crying loudly, skin redness without any abnormalities. This is the second delivery of Mrs. M, the mother said the milk production was still low. Objective data obtained blood pressure 110/70 MmHg, pulse 82 x/minute, Rr 24 x/minute, symmetrical examination of the left and right breasts, soft consistency, no tumor, prominent mammary areola. Examination of the abdomen TFU 2 fingers below the center, well contracted, round like a ball. Vaginal examination normal bleeding, grade 2 perineal wound.

As for the breast milk production score before and after Love lactation massage using lemongrass aromatherapy oil, it can be seen in the following table :

| No | Respondent      | Before<br>intervention | After intervention (Day 1 until 14) |    |    |    |    |    |    |    |    |         |         |         |         |         |
|----|-----------------|------------------------|-------------------------------------|----|----|----|----|----|----|----|----|---------|---------|---------|---------|---------|
|    |                 |                        | D1                                  | D2 | D3 | D4 | D5 | D6 | D7 | D8 | D9 | D<br>10 | D<br>11 | D<br>12 | D<br>13 | D<br>14 |
| 1  | Respondent<br>1 | 3                      | 3                                   | 3  | 4  | 4  | 4  | 5  | 5  | 5  | 5  | 6       | 6       | 6       | 6       | 6       |
| 2  | Respondent<br>2 | 2                      | 2                                   | 3  | 3  | 4  | 4  | 5  | 5  | 5  | 5  | 5       | 5       | 6       | 6       | 6       |

TABLE 1: Scores before and after Love lactation massage using lemongrass aromatherapy oil.

The observation sheet based on the results of the study consisted of 6 aspects that were assessed, namely based on the assessment of the mother and baby, the mother who was assessed on the production of breast milk, while in the baby the condition of the baby who had been breastfed. In the mother, the aspects that were assessed were 1) the condition of the mother's breasts being tense before breastfeeding seen by palpation of the breast area to determine the condition of the mammary glands which were full of milk, 2) Let down reflex, good reflex seen milk coming out of the breast, 3) the frequency of breastfeeding the baby. at least 8 times a day, this can be asked to the mother, 4) the baby urinates for 24 hours at least 6-8, this can be asked to the mother how many times to change diapers in a day, 5) the condition can be asked directly to the mother. 6) Frequency of defecation, bowel pattern 2-5 times per day. Of the six aspects, a score of 1 was given for answering yes and a value of 0 for answering no for all questions.[11]

| No | Love Lactation Massage Movement  |
|----|--|
| 1  | Initial movement Massage movements are carried out on the front of the neck area upwards back of neck to shoulder  |
| 2  | <b>The front</b> The front (ie covers the middle, up, side, under the breast) Massaging under the right and left clavicle outwards Massaging 4 fingers under the right and left clavicles then along the sternum downwards Massaging between the two breasts downward, Perform massage on acupressure points, namely: St. 13 on the right and left chest (Under the clavicle perpendicular to the nipple), Doing massage at the point of St. 16 on the right and left chest (4 fingers below the clavicle point), Doing massage at the point Cv.17 in the middle of the breast in a straight line with the nipple. |
| 3  | <b>Back</b> Emphasis on the midpoint between the neck and shoulders Form a big love movement from the bottom, up to the middle to the top around the shoulder (like forming a "love" and then dropping back down) Using the knuckles pointing up and then back down again, Twist around the sides of the spine in an upward direction.   |

TABLE 2: Love Lactation Massage Movement.

### 4. Discussion

There was an increase in the score of the observation sheet, before and after the 14-day treatment of love lactation massage using lemongrass aromatherapy oil. In respondents 1 and 2, the scores before did not increase compared to before the treatment, in other words the results were the same. After doing love lactation massage using lemongrass aromatherapy oil on the second day, respondent 1 did not experience an increase in score, but respondent 2 experienced an increase in score by 1 point. Furthermore, on the third day, respondent 1 experienced an increase, while respondent 2 did not experience an increase in score in score in score. Furthermore, on the fourth day up to the 14th day, the overall score increased by 1 point each.

Efforts to suppress the stunting rate, one of which is by providing exclusive breastfeeding as well as based on data obtained that in the Ciomas Health Center area there are still 31.56% of babies who do not get exclusive breastfeeding.[3] Therefore, one of the efforts to increase breast milk production apart from food, rest patterns, peace of mind, one of which is complementary therapy, is love lactation massage using lemongrass aromatherapy oil. Love lactation massage is a massage that consists of the following movements:

Love lactation massage which consists of massage movements of the back, chest and several acupressure points that will accelerate neurotransmitters to stimulate the medulla oblongata and send messages to the hypothalamus to stimulate the hormones



prolactin and oxytocin. Love lactation massage is to stimulate the let down reflex, and can provide a comfortable effect so that it can relieve tension.[12][13]

Plus, the aromatherapy oil used in this massage is Lemongrass / Cymbopogon citratus (lemongrass) which is one of the plants that can be used for massage. Aromatherapy oil produced from citronella aromatherapy functions as an antidepressant, which suppresses and relieves depression so that it can produce a sense of relaxation. This is in line with research conducted by that the use of citronella oil as a rubbing oil / massage because it has calming or spasmodic properties making it ideal for massage . Lemongrass oil also helps promote restful sleep.[10][14]

The relaxing effect obtained from the combination of love lactation massage and lemongrass aromatherapy oil can produce a more relaxed mother's emotions, this relaxed condition will stimulate the production of endorphins (happiness hormones) so that mothers become more fit, besides love lactation massage can help release the hormone oxytocin. which stimulates the production of breast milk and facilitates the breastfeeding process. This hormone also increases the production of prolactin which affects the smooth flow of breast milk so that it opens the ducts of the mammary glands and reduces the risk of blockage of breast milk.[8]

### **5.** Conclusion

Conclusion of this study is giving Lemongrass Aromatherapy Oil and Love Lactation Massage has been proven to increase milk production.

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# **Conflict of Interest**

The authors have no conflict of interest to declare.

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