

Efforts to increase milk production in breastfeeding mothers using complementary therapy: *LITERATURE REVIEW*

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ABSTRACT

Background: Breast milk is the first source of nutrition for children from the age of 0-6 months before the child is able to receive other intakes when he is past six months. Breast milk contains nutrients that are specifically needed to support the process of brain development and strengthen the body's natural resistance. Exclusive breastfeeding is giving only breast milk without other foods and drinks. With the use of lavender aromatherapy and oxytocin massage which can increase milk production with a significant increase marked by an increase in the volume of breast milk, an increase in the frequency of the baby's bladder and bowel movements and the length of sleep the baby sleeps after breastfeeding, and there is also an increase in baby's weight.

Objectives: This study aims to collect information from literature sources & research results about efforts to increase milk production in breastfeeding mothers using complementary therapies.

Methods: This study uses a Literature Review approach by using several sources selected based on criteria and databases that have been determined by researchers using SINTA, Sienc Direct, Pubmed and Google Schooler, Scimago.

Results: From the 10 types of literature selected, there were 5 studies on oxytocin massage and Lavender Aromatherapy. The results of the study stated that there was a significant relationship between oxytocin massage and Lavender Aromatherapy with a P Value = 0.000 (P Value = 0.000) indicating the effect of oxytocin massage with Lavender Aromatherapy on increasing milk production in nursing mothers.

Conclusion : There are various methods to increase milk production, and they can be combined in intervening to overcome breastfeeding problems. Lavender aromatherapy and oxytocin massage in increasing breast milk production in breastfeeding mothers are very good for increasing knowledge and insight in the health sector, especially in increasing breast milk production as an alternative effort to increase breast milk production by using Lavender Aromatherapy and oxytocin massage based on complementary because Lavender Aromatherapy and oxytocin massage is very easy to do.

Keywords : oxytocin massage, / Breastfeeding, Breast milk productions, Aromateraphy lavender.

Preliminary

Breast milk contains nutrients that are specifically needed in order to support the process of brain development and strengthen the body's natural resistance. Breast milk can also reduce gastrointestinal disorders in infants because breast milk is directly produced by the mother so it is fresh and sterile. The composition contained in breast milk contains many benefits, namely as nutrients, hormones, immunity, growth factors, antibodies and anti-inflammatory which can prevent infection in infants. (Litasari et al., 2020)

Production and expenditure of breast milk are two factors that can affect the release of breast milk. The hormone prolactin is a hormone that can affect the production of breast milk while the hormone oxytocin is a hormone that affects the production of breast milk. (Apryanti et al., 2017)

One alternative to facilitate breast milk production is to do oxytocin massage. Oxytocin massage along the spine (vertebrae) with the aim of stimulating the hormone oxytocin after childbirth. (Asiyah & Wigati, 2015)

Based on data from Indonesia's health profile in 2017, the percentage of infants receiving exclusive breastfeeding in Indonesia was 61.33% (Kemenkes, 2018). The government has targeted the achievement of exclusive breastfeeding in Indonesia by 80%, but it has not been achieved until now. Efforts to increase coverage by providing correct and appropriate information about the various benefits of exclusive breastfeeding for mothers and babies so as to increase public awareness in the environment regarding the importance of exclusive breastfeeding for infants. (Dewi et al., 2017)

According to WHO (World Health Organization) says that babies until the age of at least six months, should only be given breast milk without additional food after that given additional food. Followed by continuing to be breastfed for two years. Breastfeeding for babies is very important, especially for Indonesian babies, who will be the next generation of this country. Exclusive breastfeeding is breastfeeding for the first six months without additional food or other companions. (Ohorella et al., 2021)

A survey in Indonesia reported that 38% of mothers stopped breastfeeding due to a lack of milk production. Mother's milk that is not smooth, makes the mother feel anxious and avoids breastfeeding and has an impact on the baby's lack of sucking, this affects the decrease in the production and performance of the hormones oxytocin and prolactin so that milk production decreases, even causes damming and stasis of breast milk, so mothers take steps to stop breastfeeding and replace with formula milk. Breastfeeding can play a role in reducing child mortality. This is reinforced by WHO which stipulates the international code of marketing of breastmilk substitutes regarding the prohibition of marketing formula milk for head health workers, because marketing infant formula 0-6 is a violation of the code of ethics, and infants are required to receive Breastfeeding for the first 6 months is continued until the age of 2 years and is accompanied by complementary foods (MP-ASI). (Ashari et al., 2019)

Tables and Figures

Table 1 : Study Results

Table Rows	Cell One	Cell Two
Study Results	1	2

Picture 1: Lavender and Lavender Oil

Picture Rows	Cell One	Cell Two
Lavender	1	1
Lavender Oil	2	2

Here's a picture of aromatherapy



Figure 1: Lavender oil has a lot of potential because it consists of several ingredients. According to research, in 100 grams of lavender flowers are composed of several ingredients, such as: essential oil (13%), alpha-pinene (0.22%), camphene (0.06%), beta-myrcene (5.33%), pycymene (0.3%), limonene (1.06%), cineol (0.51%), linalool (26.12%), borneol (1.21%), terpinene-4-ol (4.64%), linalyl acetate (26.32%), geranyl acetate (2.14%), and caryophyllene (7.55%). Based on the lavender content above, it can be concluded that the main ingredients of lavender flowers are linalyl acetate and linalool (C₁₀H₁₈O). Linalool is the main active ingredient in lavender which plays a role in the anti-anxiety (relaxation) effect of lavender.



Figure 2: *Lavender has many benefits, so it is often used as an essential oil that is often used as aromatherapy because it can provide relaxation benefits and has a sedative effect which is very helpful for people who experience insomnia and promote breast milk. Lavender oil is one of the aromatherapy that has sedative, hypnotic, and anti-neurodepressive effects on humans. The main ingredient in lavender oil is linalool acetate which is able to relax and relax the working system of the nerves and tense muscles.*

Materials and Methods

This study uses a literature review study approach by using several sources of journals or articles selected based on predetermined criteria.

Results (Attached)

In the literature review process, this is done by selecting journals or articles from 168 articles into 10 literatures. The process of searching for literature sources is through electronically indexed based

systems such as: Google Scholar (n=3) , SINTA (n=2), Pubmed (n=1), Sience Direct (=3), Scimago (n=1).

Discussion

Of the ten selected journals, there were 5 studies on oxytocin massage and lavender aromatherapy, these studies used the same research method, namely Quasi Experimental. 2 journals using True Experimental research methods, 1 Cross Sectional journal, and 2 journals using pre-experimental methods.

Research (Albertina et al., 2015) High oxytocin levels in the mother cause fat metabolism in the mother's body to increase which causes lipolysis and gluconeogenesis will occur which causes an increase in blood glucose levels, including breast milk. Based on the results of the research above, it can be concluded that there is indeed a link between increasing breast milk production by being given oxytocin massage techniques compared to breast care. Thus, oxytocin massage greatly affects the increase in milk production in nursing mothers.

Research (Tuti, 2018) lavender aromatherapy is also effective for reducing anxiety and stress in postpartum mothers in Iran, and also for preventing postpartum depression/postpartum blues that can interfere with the interests of mothers, babies and family members.

Research (Delima et al., 2016) Aromateraphy Lavender contains linalool and linalyl acetate which provide antidepressant and anti-inflammatory effects. asiolytic. Giving lavender aromatherapy by inhalation will stimulate the olfactory nerve, and the hypothalamus responds to stimulate the limbic system and anterior pituitary so that the adrenal glands reduce the secretion of ACTH and cortisol hormones, inhibit sympathetic activity and the release of acetylcholine, and increase the parasympathetic system. So that it can provide a relaxing effect, sedative and improve mood. From the journals that discuss lavender aromatherapy, it is stated that there is a link between the use of lavender aromatherapy and reducing anxiety and stress in postpartum mothers. Thus, lavender aromatherapy is very effective for postpartum mothers, because it can provide anti-depressant and relaxing effects.

Research Bre (Hayati et al., 2020) ast care carried out in the form of breast massage to improve blood circulation, keep the nipples clean and prevent blisters and is useful in launching the milk-excretion reflex. On the second or third day after delivery, estrogen and progesterone levels drop dramatically so that the effect of prolactin is more dominant and it is at this time that milk secretion begins to occur. Interpreting from the results of the research above, it can be concluded that there is an effect of

breast milk production on mothers before and after giving lavender aromatherapy and breast care or breast care with a Z value of 3.742 with a P value (Asymp.sig 2 tailed) of 0.000 (P value <0.05) .

Research (Wulan, 2019) Factors that influence the success of increasing baby weight are influenced by, among others: breastfeeding duration, birth weight, parity, maternal nutritional status and family socioeconomic status. There are many techniques to increase milk production, such as marmet techniques, oketani massage, breast care, hypnotherapy, aromatherapy and others, and several techniques can be combined to increase milk production. Based on the results of the research above, it can be concluded that the effect of lavender aromatherapy on the effect of increasing infant weight is influenced by the duration of breastfeeding, thus the technique of increasing breast milk production can be combined with several techniques, increasing milk production in postpartum mothers.

Of the 8 studies on oxytocin massage, 7 of the 8 studies used the same research method, namely Quasi Experiments, journals about lavender aromatherapy, and the research that the author has done, that oxytocin massage and lavender aromatherapy are effective in increasing breast milk production. Oxytocin levels in mothers who received back massage intervention were higher than mothers who did not receive intervention. An increase in the level of oxytocin as much as 17% of the basal level of oxytocin itself occurred in mothers who received back massage. Oxytocin can increase milk production which is a trigger for the let down reflex and as a prolactin releasing hormone.

And in the tenth study, it was found that oxytocin massage was more effective in increasing milk production compared to breast care. The delivery process causes the mother to be tired and also creates a sense of happiness for a mother, as well as feelings of worry and anxiety in caring for and breastfeeding her baby, so that it can hinder the breastfeeding process as early as possible. Mothers after giving birth in addition to physical exhaustion also experience sleep disturbances. Mothers who experience physical and emotional stress can interfere with the reflex to express breast milk and the hormone oxytocin. The hypothalamus-adrenal pituitary regulates stress adaptation by producing the hormones cortisol and endorphins. If cortisol levels increase, it will affect milk production.

The shortcomings of several journals that have been reviewed by researchers are that first, not all journals make the mechanism of action of lavender aromatherapy and oxytocin massage to increase breast milk production and the lack of use of primary data. And there are several journals that lack detail in providing the results that have been obtained in their research and the article does not include how to give lavender aromatherapy, the duration of using lavender aromatherapy and how long it is safe for breastfeeding mothers.

Conclusion

Based on the analysis that the author conducted on 10 relevant journals and the research that the author conducted, it can be concluded: The respondent's milk production after lavender aromatherapy and oxytocin massage experienced a significant increase, marked by an increase in breast milk volume, an increase in the frequency of urination and defecation of the baby and the length of sleep the baby slept after breastfeeding. , and there is also a baby's weight gain. There are various methods to increase breast milk production, namely the marmet technique, oxytocin massage, breast care (breascare), hypnotherapy and aromatherapy and can be combined in intervening to overcome breastfeeding problems. Lavender aromatherapy in addition to increasing breast milk production can also reduce anxiety in postpartum mothers and prevent postpartum depression. Lavender aromatherapy and oxytocin massage are easy, simple and safe interventions for breastfeeding mothers. This intervention can also be carried out by the patient's husband or family after being trained by a midwife or health worker.

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Autor (Year)	Language	Source Article	Aim	Research Methods	Results/Findings
(Albertina et al., 2015)	Indonesia	Google Scholar	This study aims to analyze whether there is a relationship between oxytocin massage and smooth milk production in postpartum mothers for caesarean section days 2-3.	Cross Sectional	The results of the study stated that there was a significant relationship between oxytocin massage and the smooth production of breast milk (X^2 count = 8,765 > X^2 table 3,841, P value = 0,003).
(Tuti, 2018)	Indonesia	Google Scholar	This study aims to analyze the effect of lavender aromatherapy on the prevention of stress in postpartum mothers	True Exspermental	The results showed that the mean stress, anxiety, and depression at the 2-week time point ($P = 0.012$, $P < 0.0001$ significantly lower in the intervention group compared to the control group
(Delima et al., 2016)	Indonesia	Google Scholar	To find out aromatherapy massage as an alternative in increasing breast milk production in postpartum mothers	Quasi Exspermental	The results of this study are, there is an effect of oxytocin massage and aromatherapy to increase breast milk production with $p < 0.000$
(Hayati et al., 2020)	Indonesia	SINTA	To analyze the effect of lavender aromatherapy and breastcare on breast milk production for postpartum mothers at Sultan Agung Hospital, Semarang.	Pre exspermental using the one group pre and post test design method without control group.	There is an effect of breast milk production on the mother before and after giving lavender aromatherapy and breastcare with a Z value of -3.742 with a p value (asyp.sig 2 tailed) of 0.000 (p value <0.05).
(Wulan, 2019)	Indonesia	SINTA	Analyzing the effect of lavender to increase the hormone oxytocin in postpartum mothers	Quasi Exsperment	The effect of lavender on the increase in the hormone oxytocin in postpartum mothers, the value (asyp.sig 2 tailed) was 0.000 (p value <0.05).
(Putri & Rahmawati, 2021)	Indonesia	Sience Direct	Analyzing the Effectiveness of Oxytocin Massage and Lavender Aromatherapy on the Success of Relactation in Postpartum Mothers	Exspermental, pre and post	The results of the Wilcoxon test analysis, obtained a p value of 0.000 (p-value = 0.000) indicating that there is an effect of giving oxytocin massage with lavender aromatherapy on the success of relactation in postpartum mothers.

(Yuliana et al., 2018)	Indonesia	Science Direct	Knowing the Effectiveness of Back Massage Using Lavender Essential Oil on Postpartum Mother's Milk Production	Quasi experiment with post test only nonequivalent control grup design	The results showed that there was an effect of back massage treatment using lavender on breast milk production, p value <0.05
(Ekacahyaningtyas et al., 2020)	Indonesia	Science Direct	Analyzing oxytocin massage using lavender essential oil on the smooth production of breast milk in postpartum mothers	Quasi Exsperimantal	The results of the study showed that there was an effect of the oxytocin massage method using lavender essential oil on the smooth production of breast milk in postpartum mothers
(Suwondo & Wahyuni, 2013)	Indonesia	Scimag o	Analyzing the Effectiveness of Oxytocin Massage and Lavender Aromatherapy on Breast Milk in Postpartum Mothers	Quasy Experimental	The results showed that there was an effect of oxytocin massage and aromatherapy on increasing breast milk in postpartum mothers, p value <0.05
(Setiati, 2019)	Indonesia	Pubmed	To analyze the effect of using lavender on anxiety	True Experimental	Overall, it was shown that 54 RCTs and 17 NRSs reported a significant effect in favor of the use of lavender in anxiety