

THE EFFECT OF OCTANE BREAST MASSAGE ON MILK PRODUCTION, NEONATUS WEIGHT GAIN, AND BREAST CONGESTION: LITERATURE REVIEW

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ABSTRACT

Breast care is an effort to stimulate the secretion of the hormones oxytocin and prolactin to produce breast milk as early as possible and play an important role in dealing with breastfeeding problems. Breast milk is one of the important components for mothers to pay attention to because it contains colostrum, and this colostrum contains many antibodies for the baby's immune system, so exclusive breastfeeding is very important to reduce the risk of disease and death in infants. Octane massage can increase milk production because it can stimulate the strength of the pectoralis muscle. This study aims to describe the effect of an Octane Breast Massage on a mother's milk production. This research method is a literature study in search of article data sources carried out through Pubmed, EBSCO-host, ScienceDirect, Springer, *Garuda*, and Google Scholar (2017-2022) to retrieve relevant articles published in English and Indonesian with the type of quasi-experimental and randomized controlled trial. Based on a literature study of 7 research articles with the duration of the intervention starting from the fastest 3 days and the longest being 14 days, it was found that the octane massage intervention was effective for the smooth production of breast milk.

Keywords: Breast Milk Production, Octane, Postpartum

INTRODUCTION

Breasts are a part of the secondary sexual organs in women. Breasts apart from being a sexual attraction for the opposite sex, have a function as a source and place to produce breast milk as well as a medium in the process of breastfeeding or lactation (Devita & Dewi, 2022).

Women's breasts have 3 important interconnected tissues, consisting of fibrous tissue, glandular tissue and fatty tissue.

Fibrous tissue acts as a buffer for other breast tissue to keep it in place. Then the glandular tissue or also known as the lobe is where breast milk is produced and has a channel to drain milk to the nipple when the baby sucks. Fibrous tissue and glandular tissue are also known as fibroglandular tissue. Finally, fatty tissue lies between fibrous tissue, glands, and ducts, and serves to provide volume to the female breast (Centers for Disease

Control and Prevention (CDC), 2022).

Breast milk is one of the components that are important for mothers to pay attention to. Breast milk contains colostrum, and this colostrum contains many antibodies for the baby's immune system. Because of that, exclusive breastfeeding is essential to reduce the risk of disease and death in babies (Mayasari & Lailiyana, 2020). This breastfeeding can be very beneficial for both the mother and the baby, the benefits for the mother are to be natural birth control (preventing pregnancy in the first 6 months after giving birth), preventing the occurrence of breast and ovarian cancer, loss of the mother's weight, and launch the production of breast milk (Junita et al., 2022). Benefits for babies include breast milk as an antibody (natural body defense), increasing the baby's weight, preventing the occurrence of dental caries, increasing the baby's intelligence, and increasing the bond between the mother and the baby (Junita et al., 2022). Exclusive breastfeeding is given for 6 months and can be continued at least until the baby is 12 months old (Mayasari & Lailiyana, 2020).

Referring to the Sustainable Development Goals (SDGs) which were formulated and agreed upon by several countries to achieve global prosperity, breastfeeding is important at the start of life to prevent hunger and malnutrition (Widyastutik et al., 2021). In Indonesia, breastfeeding in 2018 reached 65.16% (Kemenkes, 2019), but this figure still has not reached the target set by the government (Anuhgera et al., 2021). Exclusive breastfeeding in the world alone is still around 41% and this has not reached the target from WHO, namely as many as 70% of babies

are given exclusive breastfeeding (Sari & Syahda, 2020). According to data from the Ministry of Health (2015), exclusive breastfeeding is hampered due to several things, one of which is the decline in breast milk production, this case occurred by as much as 32% (Nababan et al., 2020).

Post partum mothers, milk production is often not smooth or even does not come out at all. This was triggered by several factors such as mother's nutrition, mother's readiness, baby's ability to suckle, drug factor that mother consumed, and internal factors such as hormones (Kustriyani & Wulandari, 2020). The levels of the hormones prolactin and oxytocin in the body are insufficient so that they are unable to stimulate milk production (Fitria et al., 2021). Breast care plays an important role in milk production. Breast care is an effort to produce the secretion of the hormones oxytocin and prolactin to produce breast milk as early as possible and plays an important role in overcoming breastfeeding problems. The hormone prolactin can affect the amount of milk production and affect milk production.

Breast care for postpartum mothers should be done to prepare the breasts so that they are in good condition when breastfeeding their babies, starting 1-2 days after the baby is born and done twice a day. Treatments carried out include breast hygiene care both before and before breastfeeding, nipple care, and care to keep it moist, not hard, and dry (Suririnah, 2012 in Damanik, 2020). In addition, according to Tyfani, in 2017 the breast care carried out included breast massage, breast emptying, breast compression, and nipple care. The purpose of breast care is to facilitate the production of breast

milk with the mammary glands through massage, flexing, and strengthening of the nipples, preventing damming of breast milk and breast swelling (Mochtar, 2015 in Damanik, 2020).

Breast care can be done by giving massage to the breasts to stimulate the secretion of the hormones estrogen, progesterone and oxytocin to produce breast milk (Widyastutik et al., 2021). Massage with the octane method is one of the breast care methods that was first popularized in Japan by Sotomi Octane and has been applied in Korea, Japan, and Bangladesh (Jahriani, 2019). Octane massage can increase milk production because octane massage can stimulate the strength of the pectoralis muscle. In addition, octane massage makes the breasts elastic and soft, making it easier for the baby to suck, corrects lactation problems caused by flat and sunken nipples, and provides a sense of comfort and relief to the mother (Sudirman & Jama, 2019).

The importance of doing appropriate breast care to produce breast milk for post partum mothers, prompted the author to conduct a literature review by finding out "The Effect of Octane Breast Massage on Breast Milk Production"

LITERATURE REVIEW

In the postpartum phase, women who deliver by caesarean section usually require additional medical care compared to after vaginal delivery. This can cause delays and reduced milk production. For example, administering drugs to women after a caesarean section can interfere with breastfeeding schedules, which has the potential to cause decreased milk production,

or breastfeeding problems (Lu et al., 2019).

Breastfeeding problems that develop in the postpartum phase create conditions that are ineffective breastfeeding. Common problems are insufficient milk output, sore nipples, congestion and milk ejection, mastitis, breast abscess, and flat nipples. Breast pain caused by scarring of the nipples, mastitis, and maternal concern about insufficient milk is the most common problem experienced by almost 20-80% of women and has the potential to cause early weaning. (Shafaei et al., 2020; Munsittikul et al., 2022). New mothers (primiparas) face several breastfeeding challenges. Many factors affect the initiation and continuation of breastfeeding. Some of these predictors include the mother's intention to breastfeed, lack of knowledge about increasing lactation, and little confidence in owning breastfeeding skills (Seyyedi et al., 2021). In particular, the idea that low milk production, improper placement at the breast, and nipple problems are some of the most important reasons that negatively impact breastfeeding success. Also, the pain experienced by women who deliver by caesarean section negatively affects their breastfeeding ability, and the side effects of breastfeeding in turn fail perceptions of independence related to breastfeeding (Karahmet & Bilgiç, 2022).

Breastfeeding with breast milk can affect gastrointestinal function, immune function and prevent acute illness in infants. Compared to formula feeding, breastfeeding is safer and has a lower risk of diarrhea, respiratory disease, acute otitis media, and urinary tract infections (Huang et al., 2019). Exclusive breastfeeding

is defined as giving only breast milk without consuming solid food or other liquids except for vitamins, minerals, and other medicines (Shafaei et al., 2020). WHO recommends exclusive breastfeeding given in the early 6 months of a baby's life and continued until the age of two years as a natural supplement for babies and is directly related to the prevention of infant morbidity and mortality (Souza et al., 2020). In addition, breastfeeding also has a good impact on the mother, such as accelerating the healing of the uterus after childbirth, reducing the possibility of postpartum stress, and reducing the risk of breast cancer, endometrial cancer, and ovarian cancer. the benefits of breastfeeding for families have reduced economic burdens and infant mortality rates (Huang et al., 2019).

In addition to caesarean procedures, premature birth can affect the maturity of the mammary glands (mammary glands), slow down the process of lactogenesis, and encourage maternal stress which has an impact on small milk production (Dhanawat et al., 2022). Adequate milk volume is the main key to the success of exclusive breastfeeding (Fungtammasan & Phupong, 2021). However, lactation deficiency or inadequate milk production is an increasingly common problem among breastfeeding mothers worldwide. Besides congenital insufficient glandular tissue, poor milk production can occur in many other circumstances such as premature labor, maternal illness, improper mother-infant separation, re-lactation after a prolonged delay, and indirect lactation. In addition, anxiety, fatigue, and emotional stress can also cause insufficient milk production. Even without an

obvious pathological cause, lactation deficiency can occur in many women, especially in the first 15 days postpartum. In some cases, lactation deficiency may even occur during breastfeeding (Lu et al., 2019).

Many mothers report breastfeeding problems associated with early weaning. Early cessation of breastfeeding is associated with difficulty in breastfeeding. Mothers lack confidence in their ability to breastfeed because they think their baby is difficult to suckle or is dissatisfied. In addition, other factors associated with early cessation of breastfeeding include women returning to work and maternal depression (Huang et al., 2019).

Various attempts have been made to increase milk production in women with lactation deficiencies. Physical contact with the mother-infant has been suggested, such as in a skin-to-skin hug. In some cases, milk production can also be increased with psychological support and relaxation techniques (Lu et al., 2019). Nurses play an important role in helping the breastfeeding process effectively using interventions that are appropriate to the patient's condition, one of which can be using technology as the dissemination of health information (Souza et al., 2020).

Pharmacological and nonpharmacological interventions have been developed. The use of herbal remedies and techniques including herbal compresses, herbal supplements, and herbal teas containing ginger, nettle, greek fenu, or turmeric, is effective for increasing breast milk production without side effects. In Thailand, many traditional galactagogues, including banana blossom, lemon basil, Thai basil, bottle gourd, and

pumpkin, have a significant correlation with increasing breast milk volume. Herbal tea consisting of sappan, licorice, bael fruit, ginger, and jewel vine is used as a traditional medicine to stimulate milk production in postpartum mothers. (Saejueng et al., 2022) .

Then Huang et al., (2019) recommended a combination of prenatal and postpartum breastfeeding support to promote the initiation and duration of breastfeeding more effectively than only being given at one time. Fathers play a role in increasing breastfeeding rates. Another study by Munsittikul et al., (2022) conducted a randomized clinical trial on postpartum mothers who experienced blockages in milk production by providing therapeutic breast massage interventions in lactation, which consisted of gentle breast massage movements towards the axillary area, stimulating lymphatic and blood circulation, increase milk production, and facilitate resolution of blocked milk ducts. The intervention was then compared with the integrated massage technique, which combines the sequential performance of several different massage patterns introduced by Ma. Ines Av. Fernandez to improve lymphatic and blood circulation.

Does this literature review focus on how the effectiveness of octane breast massage can affect milk production?

METHODS

Eligibility Criteria

The author uses several types of research including Randomized Control Trials and Quasi Experiment to describe the effect of the Octane Breast Massage intervention on postpartum mothers' milk production.

Information Sources

The author uses six databases, including Pubmed, EBSCO-host, Garuda, Springer, ScienceDirect, and Google Scholar. The author also searches for articles using English, and after the election, several relevant articles are obtained.

Searching Strategy

Table 1 below shows the formulation of PICO as an approach to determining keywords for literature review in this article.

Search for English articles using several keywords, including: "Postpartum Mother", "Octane Breast Massage", and "Breast Milk Production". Meanwhile, articles in Indonesian use the keywords "postpartum mother", "breastfeeding mother", "Octane massage", and "milk production".

Article Screening

The data collection process was carried out by filtering based on the inclusion and exclusion criteria determined by the authors of each journal taken. The inclusion and exclusion criteria for article collection are shown in table 2 as follows.

The results of the search for articles according to keywords in EBSCO 3 articles, Garuda 1 articles, and Google Scholar 271 articles. The authors found no suitable data in the PubMed, ScienceDirect, and Springer databases. Then the findings were filtered based on the inclusion criteria so that 7 suitable articles were obtained.

The result of this literature review is to describe and explain the effectiveness of octane massage on breast milk production in postpartum mothers. This literature uses PRISMA as the selection process for the articles used, which can be seen in chart 1.

Data Extraction and Critical Appraisal

After the research articles were filtered with inclusion and exclusion criteria, an assessment was then carried out using the JBI Critical Appraisal Tool. The Joanna Briggs Institute Tools (JBI) were selected to assess the quality of

research articles and determine the extent to which research has overcome possible bias in its design, implementation and analysis (Briggs, 2017). The Critical Appraisal assessment is summarized in table 3 as follows.

Table 1. PICO Format for Article Search

PICO Format	Keywords	Mesh Term
English		
P	Postpartum mother	Postpartum mother, breastfeeding mother
I	Octane breast massage	Octane breast massage
C	-	-
O	Breast milk production	Breast milk production

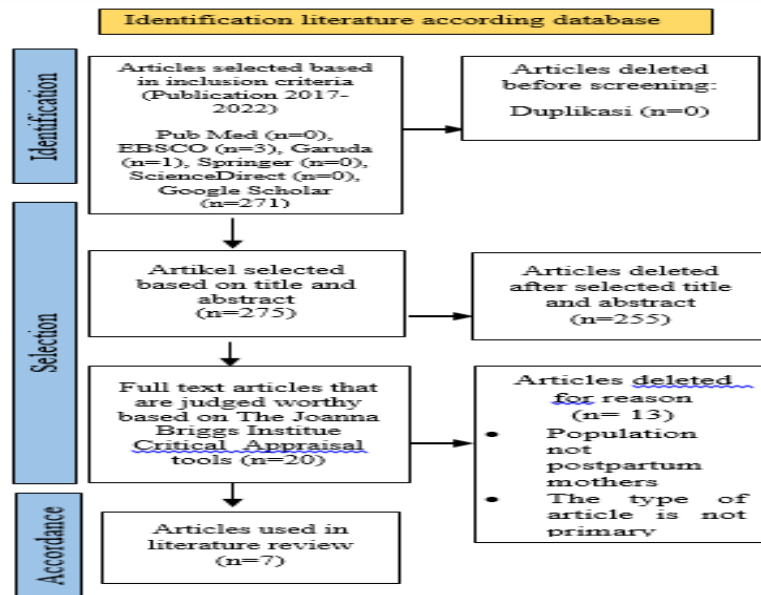
Table 2. Inclusion and Exclusion Criteria

Inclusion Criteria	Exclusion Criteria
<ul style="list-style-type: none"> • Research method using RCT, quasi-experiment • The population of mothers who have given birth and are breastfeeding • Articles for the past 5 years (2017 - 2022) • English • Free full text 	<ul style="list-style-type: none"> • Research method with literature review, systematic review, or non-experiment

Table 3. Data Extraction and Critical Appraisal

Author, Published Year	JBI Critical Appraisal Tool	Study Design
Harefa et al., 2019	66,67%	<i>Quasi-experiment</i>
Romlah & Rahmi, 2019	77,78%	<i>Quasi-experiment</i>
Mayasari & Lailiyana, 2020	68%	<i>Quasi-experiment</i>
Anuhgera et al., 2021	77,77%	<i>Quasi-experiment</i>
Sari & Syahda, 2020	77,78%	<i>Quasi-experiment</i>
Jama & S, 2019	66,67%	<i>Quasi-experiment</i>
Dehghani et al., 2018	69%	<i>Randomized Controlled Clinical Trial</i>

Chart 1. The Study Selection Process Adapted from PRISMA 2020



RESULT

After going through a series of elimination processes, 7 research articles were found that were suitable for data extraction. Research articles were obtained from 2 different countries, namely Indonesia (n=6) and Iran (n=1) with the most type of research obtained quasy experiments (n=6) and randomized controlled trials (n=1). Involved as many as 298 postpartum mothers who provided Octane Massage Therapy interventions. In

detail the data is presented in table 4 and table 5.

Tabel 4. Study Included with JBI Critical Appraisal Tool

Variable	Writer
Country	Indonesia (Harefa et al., 2019) (Romlah & Rahmi, 2019) (Mayasari & Lailiyana, 2020) (Anuhgera et al., 2021) (Sari & Syahda, 2020) (Jama & S, 2019)

Variable	Writer
	Iran (Dehghani et al., 2018)
Types Of Research	<i>Quasi Experiment</i> (Harefa et al., 2019) (Romlah & Rahmi, 2019) (Mayasari & Lailiyana, 2020) (Anuhgera et al., 2021) (Sari & Syahda, 2020) (Jama & S, 2019)
	<i>Randomized Controlled Trial</i> (Dehghani et al., 2018)
Population and Sample	Population : Post partum mother at Puskesmas Gunung Sitoli-Nias City, North Sumatra Sample : 82 mothers postpartum (Harefa et al., 2019)
	Population : All exclusive breastfeeding mothers in the Pamulang Health Center Working Area, South Tangerang City Sample : 20 mothers who have neonates aged 1-2 days (Romlah & Rahmi, 2019)
	Population : All normal puerperal mothers in The Independent Practice of Midwives (PMB) Dince Safrina Sample : 30 normal puerperal mothers (Mayasari & Lailiyana, 2020)
	Population : All postpartum mothers on the second day who gave birth at the Independent Midwife Practice (PMB) Kasih Ibu Sample : 32 postpartum mothers (Anuhgera et al., 2021)
	Population : All postpartum mothers in the area of the Bangkinang City Health Center Sample : 25 postpartum mothers in the (Sari & Syahda, 2020)

Variable		Writer
	Bangkinang City Health Center Area	
	Population : All postpartum mothers at Masyita Maternity Hospital Sample : 15 postpartum mothers at Masyita Maternity Hospital	(Jama & S, 2019)
	Population : 100 postpartum mothers at Imam Reza Hospital, Iran Sample : 94 postpartum mothers at Imam Reza Hospital, Iran	(Dehghani et al., 2018)
Intervention	Octane Massage Therapy	(Harefa et al., 2019) (Romlah & Rahmi, 2019) (Mayasari & Lailiyana, 2020) (Anuhgera et al., 2021) (Sari & Syahda, 2020) (Jama & S, 2019) (Dehghani et al., 2018)
Frequency	2 times/day	(Anuhgera et al., 2021)
Length Of Time Intervention	2 days after childbirth	(Romlah & Rahmi, 2019) (Dehghani et al., 2018)
	3 days	(Mayasari & Lailiyana, 2020)
	4 days	(Anuhgera et al., 2021)
	5 days	(Sari & Syahda, 2020)
	14 days	(Harefa et al., 2019)
Duration of Intervention Time	15 minutes	(Anuhgera et al., 2021)
	15 - 20 minutes	(Romlah & Rahmi, 2019)
	30 minutes	(Dehghani et al., 2018)
Outcomes	Weight gain in infants and neonates	(Harefa et al., 2019) (Anuhgera et al., 2021) (Dehghani et al., 2018)
	Smooth production of breast milk production	(Romlah & Rahmi, 2019) (Mayasari & Lailiyana,

Variable	Writer
	2020) (Sari & Syahda, 2020)
Changes in breast congestions	(Jama & S, 2019)

Table 5 presents the extraction of the articles as a whole, such as the intervention

procedures given for each article and the final results of each research intervention.

Table 5. The result of Data Extraction

No.	Title	Author	Research design	Intervention	Duration/Frequency	Result
1.	Influence Breast Care Massage Methods To Increase Production Octane mother's milk (ASI) On Mother Post Partum In Puskesmas Gunungsi toli-Nias (2019)	Jernihati Krisniat Harefa, Anita Deborah Anwar, Tania Novi, Hidayat Wijayanegara, Leri Septiani, Herry Garna	Quasi-experiment with the design quasi-two pretest-posttest control group design group	The intervention performed an octane massage for 14 days after the mother gave birth. In the control group, the mother was asked to perform activities as usual	14 days after neonates born	There was a difference between neonatal weight in the intervention and control groups. In the control group (which Octane Breast Massage did not do), neonatal weight gained and decreased. Neonatal weight loss is as much as 1.30% of birth weight. Meanwhi

No.	Title	Author	Research design	Intervention	Duration/Frequency	Result
						le, in the intervention group (which was carried out by Octane Breast Massage), neonates experienced a significant weight gain of 3.35% of the birth weight. This shows that there is an increase in breast milk production.
2.	<i>Pengaruh Pijat Octane Terhadap Kelancaran ASI dan Tingkat Kecemasan Pada Ibu Nifas (2019)</i>	Siti Novy Romlah, Junaida Rahmi	Quasi-experiment with One group pretest-posttest design	In the sample (n = 20) an intervention was carried out in the form of octane massage for 2 days after giving birth	2 days with a duration of 15-20 minutes	There is a difference in the smoothness of breast milk after octane massage (p = 0.016). The intervention

No.	Title	Author	Research design	Intervention	Duration/Frequency	Result
						group had a higher mean value compared to before the intervention was given. By giving this footing, it can stimulate alveoli cells to produce breast milk.
3.	The Effect of Octane Massage on Breast Milk in Postpartum Mother in PMB Dince Safrina (2020) (Mayasari & Lailiyana, 2020)	Windy Mayasari, Yanti, Lailiyana	<i>Quasi-experiment with post-test only design</i> and the control group	The intervention group was given an octane massage. The control group was not given octane massage.	3 day	The mean score of breast milk expulsion on day 3 of the intervention group was 5.20 (SD 1.20) and 3.67 (SD 1.54) in the control group. The results of statistical tests showed that

No.	Title	Author	Research design	Intervention	Duration/Frequency	Result
						there was an effect of octane massage on milk production in postpartum mothers at PMB Dince Safrina (p = 0.003)
4.	<i>Pengaruh Octane Massage Terhadap Kecukupan ASI Pada Ibu Postpartum di Praktik Bidan Mandiri (PMB) Kasih Ibu Kabupaten Serdang (2021)</i> (Anuhgera et al., 2021)	Diah Evawanna Anuhgera, Riris Sitorus, Nikmah Jalilah Ritonga, Wilda Wahyuni Siregar	<i>Quasi Experiment</i> dengan rancangan <i>an Time Series Design.</i>	The intervention was given an octane massage. The control group only depends on the adequacy of breast milk	The octane massage was given for 4 days 2 times per day for 15 minutes.	The results of this study showed an increase in the mean weight of neonates in the intervention and control groups on day 5 and day 10 after birth. The two groups differed significantly in the mean weight gain between the two study

No.	Title	Author	Research design	Intervention	Duration/Frequency	Result
						groups. In this case, the neonatal weight gain in the group with Octane breast massage was significantly higher than in the control group.
5.	Pengaruh Pijat Octane Terhadap Produksi Asi Pada Ibu Nifas di Wilayah Kerja Puskesmas Bangkining Kota (2020) (Sari & Syahda, 2020)	Vania Putri Ulan Sari, Syukrianti Syahda	<i>Quasi Experiment with One Group Pretest Posttest Design</i>	the samples (n=25) intervention was carried out in the form of octane massage	The production of postpartum mothers' milk has increased, which is indicated by the increase in the volume of mothers' milk after 5 days of massage.	The results showed that the milk production of postpartum mothers before the octane massage obtained an average value of 82.40 ccs. While the production of postpartum mother's milk

No.	Title	Author	Research design	Intervention	Duration/Frequency	Result
						before being given the octane massage had an average value of 105.20 ccs, the p-value = 0.000 (≤ 0.005)
6.	Efektifitas Pijat Octane Terhadap Bendungan Asi Pada Ibu Postpartum di RSB Masyita Makassar (2019)	Fatma Jama, Suhermi.S	<i>Quasi Experiment with One Group Pretest Posttest Design</i>	the sample (n=15) intervention was carried out in the form of octane massage		The results of this study found that all postpartum mothers after doing Octane massage therapy experienced changes in breast congestions so octane massage therapy was effective in changing breast congestions in postpartum mothers. The results

No.	Title	Author	Research design	Intervention	Duration/Frequency	Result
						of the statistical test T-test obtained a p-value <0.05, which means that there is a change in breast congestion before and after the octane massage for postpartum mothers.

No.	Title	Author	Research design	Intervention	Duration/Frequency	Result
7.	Effect of Breast Octane-massage on Neonatal Weight Gain: A Randomized Controlled Clinical Trial (2018)	Mahsa Deghani, Raheleh Babazadeh, Talat Khadivzadeh, Seyeh Azam Pourhoseini, Habibollah Esmaeil	Randomized Controlled Clinical Trial	The measures taken in the control group included normal activities for breast congestion (i.e., correct breastfeeding techniques training, frequent breastfeeding, and warm compresses). On the other hand, the intervention group was subjected to normal activities for breast congestion, along with Octane breast massages, by one of the researchers on both breasts lasting for 30 min once a day for	30 minutes once a day for two days in a row	The results revealed no significant difference between the two groups in terms of neonatal weight gain within days 1-5 days before the intervention (P=0.17). However, a statistically significant difference was observed between the two groups in this regard 14 and 28 days post-intervention (P<0.001).

No.	Title	Author	Research design	Intervention	Duration/Frequency	Result
				two consecutive days. Octane breast massage included eight manual techniques performed within 60 sec and repeated for 15-20 min. Levels 1-3 of the given therapy were associated with the detachment of the bottom of the breast from its pectoralis major muscle. Furthermore, levels 4-6 involved pulling the whole breast with two thumbs down and to both sides by		

No.	Title	Author	Research design	Intervention	Duration/Frequency	Result
				both hands. Additionally, level 7 included rotating the breast gently clockwise with stretching of its base, and level 8 was about milking the breast in four different directions		

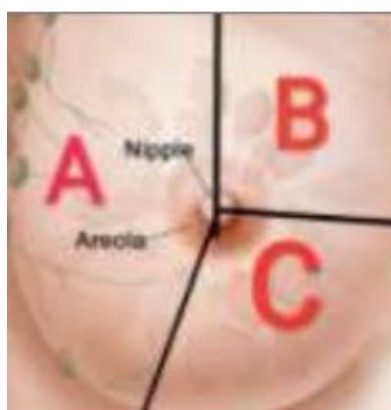
DISCUSSION

Octane massage is a massage of the breast in the connective tissue that involves manual separation of the adhesion between the base of the breast and the major fascia of the chest muscle (Junita et al., 2022). Octane massage can stimulate the pectoralis major muscle to increase milk production and make the breasts softer and elastic, making it easier for neonates to be placed (Harefa et al., 2019). This Octane massage focuses on the areola and nipple area of the mother's breast. Octane massage can also improve the quality of the milk produced, this is indicated by the protein and carbohydrate levels in breast milk. This Octane massage causes the activity of the lipoxigenase enzyme to decrease. This is to catalyze the addition of oxygen to unsaturated fats, thereby increasing protein and carbohydrates in breast milk (Junita et al., 2022)

Octane massage is one type of breast massage that is heavily promoted by the Japanese state. Bangladesh has implemented Octane massage as an exclusive

breastfeeding program whose implementation has proven successful. By doing Octane massage, the relationship between mother and neonate becomes mutually bound to each other both physically and mentally. In addition, mothers will get several benefits from Octane massage including not causing pain or discomfort, helping to increase milk production, the breasts will become more elastic, smoothing the channel and milk production, handling, and prevention for mothers who experience sinking nipples, flat nipples, or inverted nipples. According to Kabir (2009) in (Romlah & Rahmi, 2019) states the octane massage can provide a sense of relief and comfort, improve the quality of breast milk, prevent sore nipples and mastitis and can improve or reduce lactation problems due to flat nipples or called flat nipples.

From the results of the literature review, the octane massage procedure consists of 8 stages, namely the first one dividing the breast area into 3 parts (A, B, C) as shown in the picture 1.



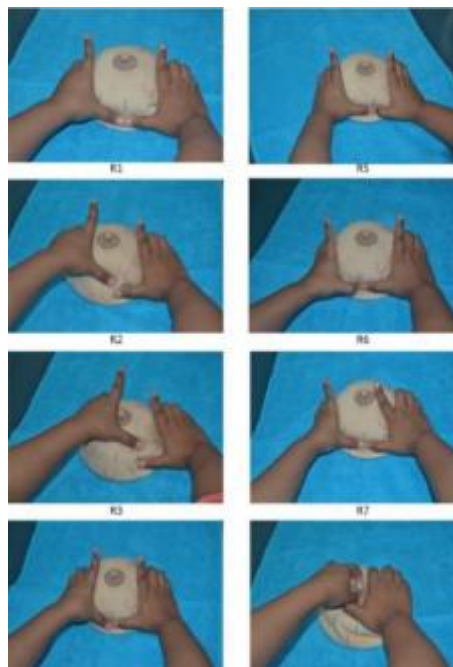
Picture 1. Three Parts the breast
Source: <http://repository.pkr.ac.id/>

The first movement is by pushing the C area and pulling the A

area, in area B the third position of the fingers of the right hand and

the little finger of the left hand towards the left shoulder. The second movement is to push the C area and pull its center from the A and B areas with the third finger of both hands towards the left axon. The third movement is to push the C area and pull the A and B areas with the index finger and thumb of the right hand and the third finger of the left hand, then place the thumb above the second joint of the right thumb and push and pull the breast. The fourth movement is to push the entire breast towards the umbilicus, placing the right

thumb in the center of area C, the little finger and the three left fingers are in area B, and the third and right little finger is in area A. The fifth movement is to slowly rotate the breast clockwise and pay attention to the elasticity of the breast. The sixth movement is expressed in four different directions such as on the outer surface, the lower part, the inside of the breast, the inside of the upper fringe of the right breast and its inner part, the bottom, the outside, and the inside of the upper fringe of the left breast.



Picture 2. Procedure Octane Massage
Source (Tasnim et al., 2019)

After an analysis based on the 7 articles above, the administration of octane massage interventions gave effective results on the smooth production of breast milk, provided changes in mothers who experienced breast congestions, and there were differences in body weight in neonates, body weight increased after the mother was given an octane massage intervention. This is in line with research conducted by Khamzah

(2012) in (Yasni et al., 2020) state that several factors affecting breast milk production can be seen from the mother's diet, the frequency of feeding milk, the birth weight of neonates, the gestational age when giving birth and breast care. One of the treatments that can be done to increase breast milk production is octane massage. Octane massage is on average done for 2-14 days, whereas in 1 day it is done 2 times

with a duration span of between 15-30 minutes.

Octane massage interventions can significantly accelerate breast milk production as evidenced by an increase in the mean value in the intervention group and the average score of breast milk production on day 3 of the intervention group was improved when compared to the control group. In addition, the administration of octane massage gave significant results in handling **Frequency, Duration, and Length Of Time Octane Massage Interventions**

Based on the results of the analysis of several articles, it was found that the average Octane massage intervention was carried out for 2-14 days, whereas in 1 day it was carried out 2 times with a time of 15-30 minutes. This is evidenced by research conducted by (Kusumastuti et al., 2018) that Octane massage is done by massaging the breasts 3 times in a row with a massage time of 30 minutes, 15 minutes for each breast.

Effectiveness of Octane Massage against Neonatal Weight Gain

After an analysis based on the 7 articles above, the administration of octane massage interventions gave effective results against weight differences in neonates, neonatal body weight increased after the mother was given octane massage intervention. This is evidenced by research conducted by Jernihati, et al (2019) after octane massage was performed on postpartum mothers, it was proven that in the intervention group (which was carried out Octane Breast Massage), neonates experienced a significant weight gain of 3.35% of birth weight until the 14th day (Harefa et al., 2019). This is in line with other

breast congestions in postpartum mothers as evidenced by the results of the T-test statistical test obtained a p-value of < 0.05 which means that there are changes in the breast congestion before and after octane massage is carried out on postpartum mothers and has an influence on neonatal weight gain it is proven that in the intervention group (which octane breast massage does), neonates experienced a significant weight gain of 3.35% of birth

weight studies that show that giving octane massage to postpartum mothers provides a difference in breast milk production ($p < 0.05$), where the production of breast milk will affect the frequency of feeding in neonates so that the results have an impact on increasing neonatal body weight (Yasni et al., 2020).

The Effectiveness of Octane Massage on Smooth Changes in Breast Milk Production

After being carried out based on the 7 articles above, presenting the octane massage intervention provides effective results on changes in breast milk production, breast milk production in postpartum mothers has increased after the octane massage intervention. This is evidenced by research conducted by Vania (2020) in (Junita et al., 2022) which revealed that the production of breast milk in postpartum mothers before massage had less milk production. After doing an octane massage on each respondent, the postpartum mother's milk production increased, which was indicated by an increase in the volume of breast milk. This is in line with research (Sari & Syahda, 2020) that the production of postpartum mothers' milk before the octane massage obtained an average value of 82.40 ccs. While the production of postpartum mother's milk before

being given the octane massage had an average value of 105.20 ccs, the p-value = 0.000 (≤ 0.005)

The Effectiveness of Octane Massage on ASI Dams

After an analysis based on the 7 articles above, giving octane massage can affect breast congestion in postpartum mothers. The results showed that there was a significant change in breast congestion from the mean = of 7.73 to the mean = of 2.93, which can be concluded that there was a significant change in breast congestion in postpartum mothers after the octane massage (Jama & S, 2019). This is in line with research conducted by Kabir and Tasnim (2009), which states that octane massage is 80% effective in helping to overcome problems in the breast, one of which is breast congestions.

CONCLUSION

Based on the results of a review of 7 articles, the octane massage intervention provided effective results for smooth milk production, provided changes to mothers who had breast congestion, and there were differences in neonatal weight, body weight increased after mothers were given octane massage intervention. Therefore, the authors conclude that the octane massage intervention is effective for smooth milk production and recommends the application of the Octane Breast Massage intervention to be applied to clinical settings or home care for women who experience blocked breasts or to prevent blocked breasts. Future research can clinically test the effectiveness of octane breast massage in a group of post partum women who undergo caesarean section procedures, considering that they are more at

risk of experiencing breastfeeding problems than women who give birth vaginally.

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