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Effectiveness of breast acupressure towards increasing breastmilk production in postpartum mothers: a systematic literature review

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ABSTRACT

Breast Milk is an emulsion of fat in a solution of protein, lactose and inorganic salts secreted by the mammary glands which is useful as baby food. According to the 2019 Indonesian Health Demographic Survey, the achievement of exclusive breastfeeding in Indonesia was 61.33%, but not all babies were breastfed on the first day until the third day. Efforts to increase breast milk production can be done through pharmacology and non-pharmacological therapies. Pharmacological therapy can be performed by consuming breast-feeding drugs, non-pharmacological therapy can be performed by providing breast acupressure. This study aim to find out the intervention procedures, the benefits of breast acupressure intervention on the increase in breast milk production. This was a systematic literature review. Literature searching conducted for articles used electronic databases of Science Direct, Pubmed, Google Scholar, and Scopus. Articles that met the inclusion criteria were further analyzed systematically. Based on the systematic review on 10 selected article, it was explained that breast acupressure could help increase breast milk production among postpartum women. Breast acupressure could help increase breast milk production among postpartum women.

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INTRODUCTION

The process of producing breast milk is influenced by the mother's hormones oxytocin and prolactin. During pregnancy the hormone prolactin from the placenta increases but breast milk does not come out because it is influenced by the hormones estrogen and progesterone which tend to be greater during pregnancy. After giving birth, the hormone prolactin increases, and is followed by an increase in the hormone oxytocin, however, after

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giving birth, breast milk does not come out immediately because it is influenced by several factors, namely nutrition, stress, lifestyle and breast care.

Efforts to increase breast milk production can be done using several methods, namely pharmacological and non-pharmacological therapy. Pharmacological therapy itself is by taking breast milk-stimulating drugs, while non-pharmacological therapy includes breast acupressure. Pharmacological and non-pharmacological techniques can be used to increase breast milk production, including frequent nursing, massage and compression, moist heat application, acupuncture and acupressure, education and training, hypno-breastfeeding, yoga and relaxation methods, aromatherapy, kangaroo care, herbal teas, galactagogues, and music therapy.(1) (2) Acupressure to facilitate breast milk can be done by massaging and pressing the *acupoints. Acupoints* or acupuncture points or acupressure are electrical conductors on the surface of the skin that can channel the most effective healing energy so that energy healing is best using acupressure points. (Wong 2010). Acupressure can be done by every postpartum mother and breastfeeding mother. Apart from helping to facilitate breast milk production, acupressure can also restore the mother's energy after giving birth or during daily care for the baby. Only a small number of researchers have undertaken a systematic review on the effects of acupressure on breast milk production, despite the fact that some studies have looked at this issue. As a result, the purpose of this systematic review is to provide evidence of the beneficial effects of acupressure on breastfeeding rates and breast milk production.

METHOD

Search Strategy

Journal search strategy using Prisma flow using keywords : breast milk production, breast milk production, breast acupressure, postpartum, postpartum, using the Google Scholar , Science Direct, PubMed, Scopus sites.

Inclusion and Exclusion Criteria

Inclusion criteria are 2015-2020 journals. Research subjects are post partum mothers, postpartum mothers, the types of journals taken are those that have full text research articles, research methods in randomized control trials , quasi experimental and qualitative, have positive research results (influential or effective in facilitating breast milk production), themes and Contents of breast feeding and acupressure journals on breast milk production in postpartum mothers. The exclusion criteria are if journals that meet the inclusion criteria cannot be accessed in full text.

Article Selection

Applying the inclusion and exclusion criteria to obtain the literature selected as a sample, namely 421 articles were found, then 193 were deleted and 228 articles were removed, then title selection was carried out and 62 articles were left, which were then selected based on the inclusion and exclusion criteria and 22 articles remained, of the 22 articles remaining 10 full text articles.

Data Extraction

After identifying eligible papers, the first author's name , publication year and country, study design, sample size, participants' chief complaints, intervention and control group characteristics, and measures and outcomes were extracted and entered into the analysis.

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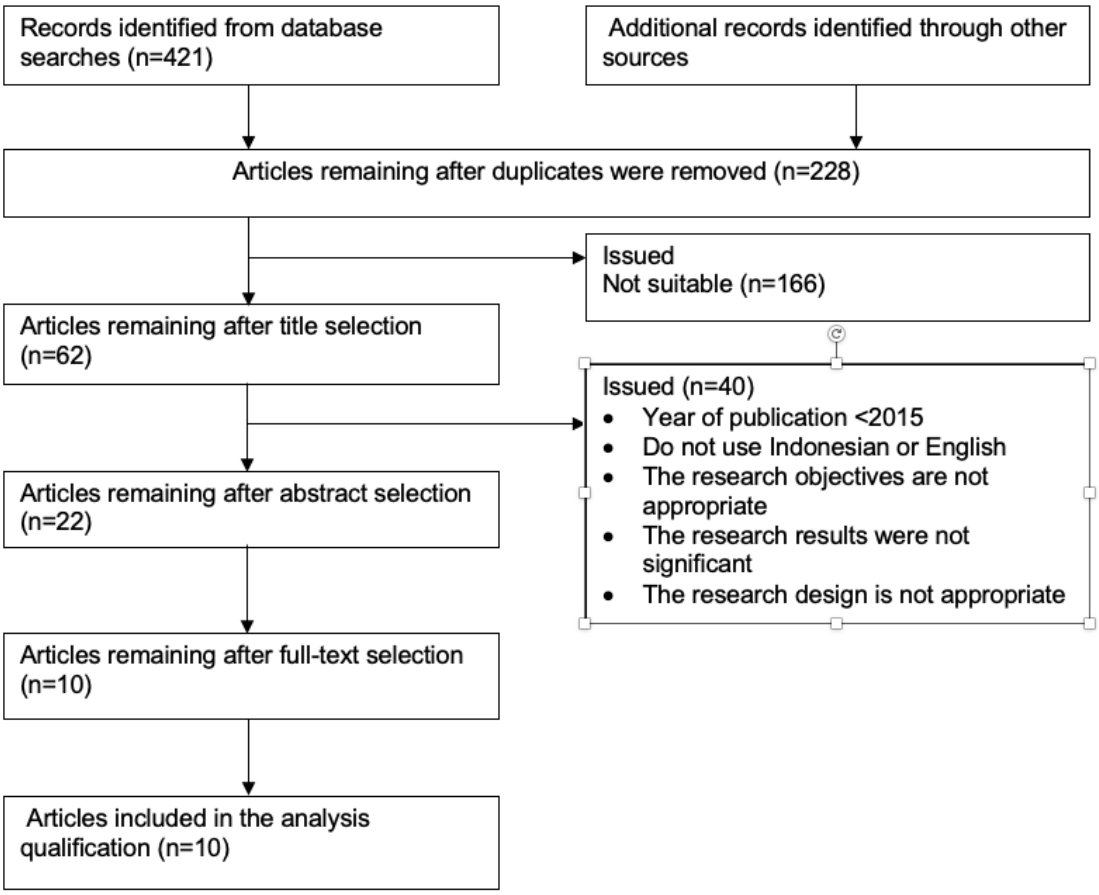

RESULTS

Characteristics of the literature studied, 90% of research journals were published in 2015-2020, % of research journals were published internationally with 80% using English, the research design used was *quasi experiment* and *randomized control trials,* from all the research journals that have been obtained show that the research was conducted in Asia.

Table 1. Description of journal characteristics year, publication, language, design, and form of intervention from the literature reviewed

	Characteristics	**F (frequency)**	**% (Percentage)**
Year	2015-2020	9	90
	2015-2010	1	10
Publication	National	2	20
	International	8	80
Language	Bahasa	2	20
	English	8	80
Design	Quasy Experiment	5	50
	RCT	5	50

All research in the journal used an intervention group and a control group, the sample chosen was breastfeeding mothers. Below is presented in Table 2. an overview of journal characteristics , but the complete picture can be seen in the summary of the literature review.

Jurnal Kesehatan Ibu dan Anak Vol.16, No.2, November 2022, pp. 147~154
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Table 2. Description of journal characteristics number of groups, control and no control

	Characteristics	*F* (frequency)	% (Percentage)
Number of groups	1	0	0
	2	8	80
	3	1	10
	>3	1	1
	Total	100	100
Controls	Control	10	100
	No control	0	0
	Total	1 0	100
Sample	Breastfeeding mothers	10	100
	Total	10	100

Of all the research journals that have been obtained, research was conducted in various countries in Asia, namely 4 studies from Indonesia, 3 studies from China, and 3 studies from Iran. The following is presented in Table 3. description of journal characteristics based on research area:

Table 3. Descriptions of journal characteristics based on research region (country).

Characteristics	*F* (frequency)	% (Percentage)
Indonesia	4	40
China	3	30
Iran	3	30
Total	100	100

DISCUSSION

Breast acupressure at the LV 1, CV 17, T1 acupoints which when stimulated can change the body's chemical neurotransmitter levels. Acupressure can release pain and muscle tension, increase circulation and release endorphins which will provide a feeling of relaxation, hopefully increasing patient comfort, stimulating the release of oxytocin, resulting in increased breast milk production. Acupressure massage at the Acupoint-Tuina point in a sample of postpartum women undergoing Caesarean section who met the inclusion and exclusion criteria. Acupressure was given one side at a time with a duration of 15 minutes for each breast with a total treatment time of 30 minutes per day. Given twice in 2 days. Acupressure intervention can also be carried out at the SI 1 point which functions as a point for expressing breast milk, SV 17 and ST 18 which functions to stimulate the breasts, then at PC 6 and LR 3 points which function to relax the body parts after the birth process. Massage or acupressure is carried out at the ST 18 acupoint which is under the nipple, CV 17 which is between the two breast nipples parallel to the sternum, then at the SI 1 point which is located on the ulnar side of the little finger, with the acupressure process lasting 1-2 minutes with a frequency of 60 times and done by pressing the root point of the breast to the areola then to the right and left side of the breast using both palms for 10 minutes and repeated for 3 days, can help the success of lactation, increase the volume of breast milk in post partum mothers and can provide comfort to the mother but provided that it is done well and correctly, through the right process. According to (Wong 2010) the main function of acupressure massage pressing on acupoints is to press to increase the hormone

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prolactin in producing breast milk. The cause of breast milk not coming out or coming out a little can be due to a lack or blockage of blood (Qie Sie), due to postpartum fatigue, bleeding and blood clots, resulting in blockage of blood flow. Meridian points are vital energy that flows within humans and continues to flow regularly through the meridian system (Cing Lo) as long as a person is alive. As long as humans are in good health, the circulation of this vital energy is in a state of balance and harmony. If things happen that can cause a disturbance in the balance of this flow, people will become sick. By stimulating points in the main medium, the balance of this energy flow can be corrected.

The majority of interventions implemented to increase breast milk production are shown at meridian points which are centered as points to facilitate breast milk, including ST 18 which is under the nipple, SI 1 which is on the little finger, CV 17 between the two nipples parallel to the sternum. , L 14 is in the soft part between the index finger and thumb, GB 21 is between the neckline and shoulder, LV 1 is between the metatarsal bones, PC 6 is located in the middle of the inner wrist, LR 3 is the soft part between the thumbs Acupressure is applied to the feet and second toes on the feet by massaging or pressing acupoints which can produce endorphins by affecting the brain area. This is in line with the theory of (Abdurachman 2016) which explains that the acupoints on the meridians in the journal can help stimulate beta-endorpine secretion and influence the immune system and antinoceptive system. Endorpins are produced by the pituitary gland which are useful for reducing pain, influencing memory and mood, which will then provide a feeling of relaxation. Feeling relaxed and comfortable can stimulate central nervous impulses to stimulate the pituitary and stimulate the secretion of the hormones oxytocin and prolactin, where these hormones greatly influence the volume of breast milk. Acupoints are not only around the breasts, but also around the hands and feet. For its application, from the results of the journal review above, it was found that acupressure can be used as an alternative non-pharmacological treatment for breastfeeding mothers as an effort to increase milk production and production.

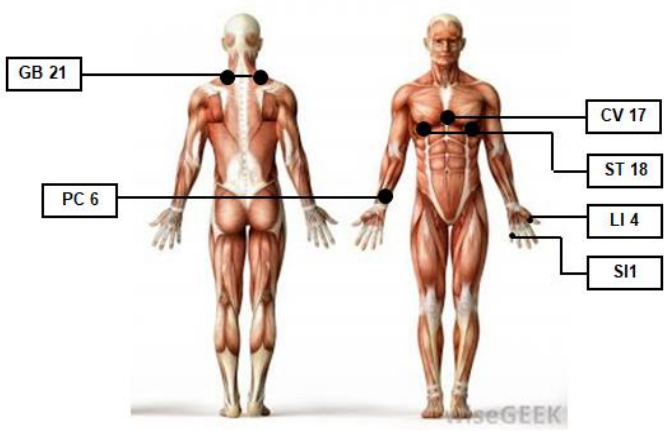

Figure 1.Meridian acupoint CV 17, ST 18, L 14, SI 1, GB 21, dan PC 6

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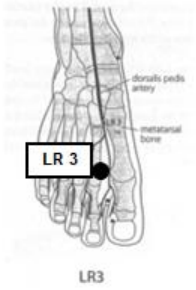

Figure 2.Meridian acupoint L 3

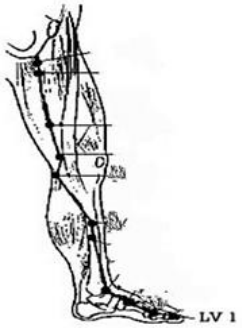

Figure 3. Meridian acupoints LV 1

CONCLUSION

The acupressure procedure is carried out by massaging or pressing the ST 18 acupoint meridian points which are under the nipples, SI 1 which is on the little finger, CV 17, between the two milk nipples parallel to the sternum, LI 4 is in the soft part between the index finger and thumb, GB 21 is between the neck and shoulder line, LV 1 is between the metatarsal bones, PC 6 is located in the middle of the inner wrist , LR 3 is the soft part between the big toe and the second toe on the foot which is done for 10-15 minutes and can be done in 3-7 days.

The benefit of acupressure is that it helps produce endorphins by influencing the brain area to stimulate the secretion of beta-endorphins and influencing the immune system and antinoceptive system. Endorpins are produced by the pituitary gland which are useful for reducing pain, influencing memory and mood, which will then provide a feeling of relaxation. Feeling relaxed and comfortable can stimulate central nervous impulses to stimulate the pituitary and stimulate the secretion of the hormones oxytocin and prolactin, where these hormones greatly influence the volume of breast milk.

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REFERENCE

1. Abdurachman. 2016. “Mudah Akupunktur Melalui Anatomi.” *Arti Bumi Antaran* 51(1):51.
2. Bohari, Nurul Hidayah, Suryani As'ad, Anna Khuzaimah, Upik Anderiani Miskad, Mardiana Ahmad, dan Burhanudin Bahar. 2020. “Pengaruh Terapi Akupresur Terhadap Peningkatan Produksi ASI pada Ibu Nifas.” *Klinik Enfermeria* 30(2):612–14. doi: 10.1016/j.enfcli.2019.07.173.

Jurnal Kesehatan Ibu dan Anak Vol.16, No.2, November 2022, pp. 147~154
ISSN: 2599-3224 (Online), ISSN: 2302-6014 (Print)

3. Djanah, Nur, dan Nur Wafi Muslihatun. 2017. “Akupresur Terhadap Produksi Asi Pada Ibu Post Partum.” *Foton: Jurnal Sain Dan Kesehatan* 8(01):73–77. doi: 10.37859/jp.v8i01.533.
4. Erfina, Mardiana Ahmad, Andi Nilawati Usman, Andi Wardihan Sinrang, Ema Alasiry, dan Burhanuddin Bahar. 2020. “Potensi Akupresur Sebagai Perawatan Komplementer Oleh Bidan Dalam Produksi ASI Ibu Nifas.” *Klinik Enfermeria* 30:589–92. doi: 10.1016/j.enfcli.2019.12.001.
5. Esfahani, Mitra Savabi, Shohreh Berenji-Sooghe, Mahboubeh Valiani, dan Soheila Ehsanpour. 2015. “Pengaruh Akupresur pada Volume ASI Ibu Menyusui yang Merujuk ke Pusat Pelayanan Kesehatan Terpilih di Teheran.” *Jurnal Penelitian Keperawatan dan Kebidanan Iran* 20(1):7–11.
6. Ida, Ningsihayu, dan Yuyu Wahyu Indah Insiyani. 2021. *Psikologi Kebidanan* . Jawa Barat: Rumah Pustaka.
7. Legawati. 2018. *Asuhan Persalinan Dan Bayi Baru Lahir* . Media Anggur.
8. Lu, Ping, Zhi Qi Ye, Jin Qiu, Xiao Yu Wang, dan Juan Juan Zheng. 2019. “Terapi Acupoint-Tuina Meningkatkan Laktasi pada Wanita Pascapersalinan dengan Produksi ASI Tidak Cukup yang Menjalani Operasi Caesar.” *Kedokteran (Amerika Serikat)* 98(35). doi: 10.1097/MD.0000000000016456.
9. Luo, Qiong, Yin Hu, dan Hui Zhang. 2017. “Pengaruh Point Massage Saluran Hati dan Lambung Dikombinasikan dengan Sup Empulur dan Trotter terhadap Waktu Mulai Laktasi Pascapersalinan.” *Jurnal Obstetri dan Ginekologi* 37(7):872–76. doi: 10.1080/01443615.2017.1309366.
10. Maritalia, Dewi. 2012. *Asuhan Kebidanan Nifas Dan Menyusui* . Yogyakarta: Balai Pustaka.
11. Maryunani, Anik. 2012. *Inisiasi Menyusu Dini, Asi Ekslusif Dan Manajemen Laktasi* .
12. Meng, Shan, Qingchun Deng, Chunyu Feng, Yinglian Pan, dan Qing Chang. 2015. “Pengaruh Perawatan Pijat Kombinasi Kaktus Topikal dan Lidah Buaya terhadap Stasis Susu Nifas.” *Penyakit Payudara* 35(3):173–78. doi: 10.3233/BD-150401.
13. Mirzaie, Parisa, Sakineh Mohammad-alizadeh-charandabi, dan Sakineh Goljarian. 2018. “European Journal of Integrative Medicine Pengaruh Pijat Eksologi Refleksi Kaki terhadap Volume ASI pada Ibu dengan Bayi Prematur: Uji Coba Terkendali Secara Acak.” 17 (Juli 2017):72–78. doi: 10.1016/j.eujim.2017.11.010.
14. Nazroelwathoni. 2017. “Tanpa Judul.”
15. Neri, Isabella, Gianni Allais, Valentina Vaccaro, Simona Minniti, Gisella Airola, Paola Schiapparelli, Chiara Benedetto, dan Fabio Facchinetti. 2011. “Perawatan Akupunktur sebagai Penunjang Menyusui: Data Awal.” *Jurnal Pengobatan Alternatif dan Komplementer* 17(2):133–37. doi: 10.1089/acm.2009.0714.
16. Perpu. 2012. *Peraturan Pemerintah Tentang Pemberian ASI Eksklusif* .
17. Sulfianti, Dkk. 2020. *Asuhan Kebidanan Pada Persalinan* . Yogyakarta: Yayasan Kita Menulis.
18. Sulymbona, Nurdewi, Suryani As'ad, Anna Khuzaimah, Upik Anderiani Miskad, Mardiana Ahmad, dan Burhanudin Bahar. 2020. “Pengaruh Terapi Akupresur Terhadap Peningkatan Produksi ASI pada Ibu Nifas.” *Klinik Enfermeria* 30:615–18. doi: 10.1016/j.enfcli.2019.12.002.
19. Wong, Feri. 2010. *Jaripunktur Pengobatan Terdahsyat* . Surakarta.

Jurnal Kesehatan Ibu dan Anak Vol.16, No.2, November 2022, pp. 147~154
ISSN: 2599-3224 (Online), ISSN: 2302-6014 (Print)

20. Wong, Feri. 2018. Perawatan Holistik dengan Jaripunktur . Penerbitan Wong.
21. Wulandari, Aydia Suci, Oswati Hasanah, dan Febriana Sabrian. 2019. “Pengaruh Akupresur Terhadap Produksi Air Susu Ibu (Asi).” Jurnal Ners Indonesia 9(2):51. doi: 10.31258/jni.10.1.51-60.
22. Varışoğlu Y, Satılmış İ. Breast milk and alternative therapies for increasing breast milk in preterm births. Izmir Democr Univ Health Sci J. 2019;2(2):99–113.
23. Düzgün MV, Özer Z. The effects of music ıntervention on breast milk production in breastfeeding mothers: A systematic review and meta-analysis of randomized controlled trials. J Adv Nurs. 2020 Dec;76(12):3307–16.