

Acupressure to Increase Milk Production in Breastfeeding Moms

Sri Kustiyati^{1*}, Ari Kusuma Ningrum¹

¹Aisyiah Surakarta University, Faculty of Medicine

*email : kustiyati77@aiska-university.ac.id

ARTICLE INFO

Keywords: Acupressure; Breast Milk Production; Breastfeeding Moms

ABSTRACT

Introduction: Giving acupressure therapy can increase breast milk production because it affects the stimulation process of the hormone prolactin. This study aimed to determine the effect of acupressure at points ST 15, ST 16, and Li 4 on breast milk production in postpartum mothers. **Materials and Method:** Type of quantitative research. Quasi-experimental research design, post-test control group research design. The sample was 32 people, 16 in the control group and 16 in the treatment group. Data processing and analysis using the SPSS application with the Mann-Whitney test. **Result:** The Mann-Whitney test output obtained a p-value of 0.000 (<0.05). The group of postpartum mothers who were treated produced more breast milk than the group who were not treated. **Conclusion:** Acupressure at points ST 15, ST 16 and, Li 4 can increase breast milk production in postpartum mothers. Midwives can perform acupressure at points ST 15, ST 16, and Li 4 on postpartum mothers to increase breast milk production.

INTRODUCTION

For newborns, breast milk is the first natural food. During the first few months of life, it gives babies all the energy and nutrients they need. In life, it provides babies with all the energy and nutrients they need. the best nutrition for healthy growth and development is a great approach to breastfeeding to reduce newborn mortality and morbidity (Geddes & Perrella, 2019). The percentage of newborns who received IMD increased nationally between 2018 and 2019, rising by 71.17% and 75.58 respectively while falling by 66.01% in 2020 as a result of hospital policies and regulations about

Volume 22 Number 1, Februari 2024

IMD and rooming-in for newborns during the Covid-19 pandemic. In the Baki sub-district, the percentage of women who exclusively breastfed in 2019 was 77.2%.

According to data from the 2019 Sukoharjo District Health Profile, 75.1% of women exclusively breastfed in that year. This indicates a modest decline in the percentage of exclusive breastfeeding from the 75.8% recorded in 2018. Sub-districts in Sukoharjo District reported that in 2019, the district had the highest percentage of children aged 0 to 6 who were exclusively breastfed 92.2% while the Baki District had the lowest number 77.2%

Several factors contribute to the low rate of exclusive breastfeeding coverage, one of which is the Baki Health Center's lack of lactation counselors. This results in a dearth of resources for community education on exclusive breastfeeding. A shortage of cadres of advocates for exclusive breastfeeding also affects the level of family support for exclusive breastfeeding for six months (Abdullah et al., 2022). Owing to the dearth of lactation rooms in the Baki Subdistrict's factories and offices, working moms also abstain from exclusive breastfeeding. Online breastfeeding lessons have been implemented as one of the special innovative activities organized to promote the attainment of exclusive breastfeeding in Sukoharjo District; however, there is still a lack of public interest in these initiatives. A baby is always given formula milk in the early postpartum period if there is insufficient breast milk production (Wahyuningsih et al., 2021). This prevents exclusive breastfeeding, which is crucial for the growth and development of the youngster (Pollard, 2019).

Complementary approaches may have a better likelihood of producing more breastmilk, according to a prior study. Because complementary methods are chemical-free and natural, they are frequently employed (Noor Khayati et al., 2023). The difference between these studies and previous research is in the

Volume 22 Number 1, Februari 2024

sampling technique and data collection tools. The similarity with current research is that the same research method uses quantitative methods.

Acupressure is one of the complementary techniques (El Haque et al., 2023). Acupressure is an Eastern healing approach that uses massage of specific points on the body (energy flow lines/meridians) to reduce pain or change organ function (Dechoni Rahmawati et al., 2022). In addition, acupressure is one of the easiest massage techniques to learn and has been safely and effectively used for hundreds of years. Acupressure can increase milk production in breastfeeding mothers because acupressure stimulates the prolactin and oxytocin hormones (Fetrisia, 2019).

METHODS AND MATERIALS

This research is a type of quantitative research. This research design is quasi-experimental with a post-test control group research design. The population of this study was all postpartum women on day 3 at PMB (Midwife Independent Practice) Siti Maryam from April to June 2023 as many as 42 patients. The sample in this study amounted to 32 postpartum, women for acupressure therapy where 16 people were assessed for breast milk production without acupressure therapy and 16 people were assessed after being given acupressure therapy selected by consecutive sampling techniques according

ISSN 1858-3385, E-ISSN 2549-7006 113

to the inclusion and exclusion criteria set. The study's inclusion criteria included normal postpartum women, no breast abnormalities, and satisfactory health for both the mother and the child. moms who are allergic to baby oil, oil, or handkerchiefs, as well as moms who experience discomfort or issues during the

intervention, are the exclusion criteria. The instrument used for data collection was an observation sheet. Using observation sheets, data for this study was gathered by direct observation of the study participants. The data analysis used in this study was the Mann- Withney test with the help of the SPSS program.

RESULTS AND DISCUSSION

The following are the results of research that researchers conducted at PMB Siti Maryam in April-June2023:

1. Age

Table 1. Frequency Distribution of Respondents' Age

Age	Intervention Group Frequency (%)	Control Group Frequency (%)
< 20 years	0	0
20 – 30 years	16 (100%)	11 (68,8%)
>30 years	0	5 (31,2%)
Total	16 (100%)	16 (100%)

Based

on Table 1, it is known that in the intervention group, the majority of respondents were 20 - 30 years old, namely 16 people (100%). And in the control

group, the majority of respondents were aged 20-30 years, namely 11 people or (68.8%).

2. Gestational age at birth

Table 2. Frequency Distribution of Respondents Based on Gestational Age at Birth

Gestational age at delivery	Intervention Group Frequency (%)	Control Group Frequency (%)
≤36 weeks	0	0
37 - 40 weeks	16 (100%)	16 (100%)
≥ 40 weeks	0	0
Total	16 (100%)	16 (100%)

Based on Table 2, it is known that in both the intervention group and the control group, all respondents gave birth at 37-40

weeks of gestation, namely 32 people or 100%.

3. Breast milk production

Table 3. Frequency Distribution of Respondents' Breast Milk Production

Breast milk production	Intervention Group Frequency (%)	Control Group Frequency (%)
A small amount (<80 ml) / milking	0	16 (100%)
Enough (between 80 to 90 ml)	16 (100%)	0
A lot (>90 ml)	0	0
Amount	16 (100%)	16 (100%)

Based on Table 3, it is known that breast milk production in the intervention group was in the sufficient category (between 80 and 90 ml), namely 16 people or 100%. Breast milk production in the control group was in the small category, namely less than 80 ml for 16 people or 100%.

4. The Effect of Acupressure at St 15, St 16, Li 4 Points on Breast Milk Production in Postpartum Women

Group	N	Average Breast Milk Production (ml)	Mann Whitney Test Results (P Value)
Given Treatment	16	81.7	0.000
No treatment given	16	30,0	

The table above shows that the group that received acupressure therapy produced an average of 81.7 ml of breast milk, while the group that did not receive acupressure therapy only produced 30 ml. There is a difference in breast milk production between postpartum mothers who received acupressure therapy on the third day and those who did not receive acupressure but were only given health services regarding exclusive breastfeeding, which is indicated

by a p-value of 0.000 (p-value <0.05) for postpartum mothers. Mann-Whitney statistical test that compared to the group that only received health education regarding exclusive breastfeeding, the group that received acupressure therapy produced more breast milk. Data shows that at PMB Siti Maryam, acupressure has a significant effect on increasing output.

The majority of study participants were between the ages of 20 and 30. There were 16 individuals (100%) in the intervention group and 11 individuals (68.8%) in the control group. Because their bodies' physiologies are still healthy and at their peak, moms in the reproductive age range of 20 to 35 can make more breast milk than mothers in the reproductive risk age range, which is less than 20 and more than 35. One of the elements influencing the production of breast milk is age. Mature mothers provide their children with the greatest care possible to ensure that they grow and develop to their full potential. An individual's psychological and mental states become more mature as they age (Dian Puspita Yani, 2022).

All respondents in this study gave birth at term. The results of previous research conducted by (Yeni, 2023), showed that gestational age was one of the causes of the lack of achievement of exclusive breastfeeding. The results of this study showed that there were 16 respondents (100%) producing breast milk in the little category in the control group and 16 people (100%) in the sufficient category in the intervention group. The process of lactation or breastfeeding is the process of forming breast milk which involves the prolactin hormone and the oxytocin hormone (Aryani & Alyensi, 2019). Prolactin hormone during pregnancy will increase but breast milk has not been released because it is still inhibited by high estrogen hormone (Pollard, 2019). The observation result of the control group, which received simply health counseling for exclusive breastfeeding without any treatment, is 100% breast milk in the little category.

Based on the analysis that has been done, it is known that the average breast milk production in the group with acupressure therapy is 81.7 ml and the group without acupressure therapy is 30 ml. The results of the Mann-Whitney statistical test showed that there was a difference in breast milk production in postpartum women on day 3 who were treated with acupressure therapy and those who were not treated with acupressure

Volume 22 Number 1, Februari 2024

therapy but were only given health education about exclusive breastfeeding with a p-value of 0.000 (p-value <0.05). This means that the production of breast milk in the acupressure therapy group is more than the group that did not do acupressure but was only given health education about exclusive breastfeeding. In addition, it also proves that there is a significant effect of acupressure on increasing breast milk production in postpartum women on day 3 at PMB Siti Maryam. Based on the results of the analysis, it can be said that there is a difference in breast milk production between postpartum women on day 3 who are given and not given acupressure therapy so it can be said that acupressure at points St 15, St 16, Li 4 can increase breast milk production in postpartum women on day 3 at PMB Siti Maryam.

This study is in line with previous research conducted by (Ramadani et al., 2019) which states that there is a significant effect of acupressure on increasing breast milk production in postpartum women with a p-value of 0.004 (p <0.05). Acupressure therapy in postpartum women is carried out by performing acupressure/emphasis on the LI 4 and SP points. Emphasis on the point can help in the process of recovery/return of the condition of the uterus. In addition, acupressure is also carried out at points ST 15, ST 16, and ST 18 which can help to

ISSN 1858-3385, E-ISSN 2549-7006 116

launch breast milk (Ramadani et al., 2019). The research was also supported by other research conducted by (Wulandari et al., 2019) which showed that there was a difference between median breast milk production before and after with a p-value of 0.000 (p-value <0.05). Acupressure therapy in this study was performed at points ST 15, ST 16, and Li 4 for 30 times during the first session and 30 times during the second session with an interval of 10 minutes. These results also prove that there is a difference between the median post-test of breast milk production in the experimental group and the control group with a p value of 0.000 (p-value <0.05). So it can be concluded that there is an effect of acupressure on breast milk production (Wulandari et al., 2019).

Another study conducted at the Julianti also showed that there was an effect of acupressure on breast milk production in postpartum mothers. The results of the study also showed that with acupressure, the average baby weight at two weeks of age was 3318 grams, and at four weeks the average baby weight was 3668 grams. This shows that the baby's weight has increased. After acupressure, breast milk production has increased, so that the baby's milk needs are fulfilled so that it affects the baby's weight gain (Julianti, 2023).

Complementary methods with acupressure have a greater chance of

Volume 22 Number 1, Februari 2024

increasing breast milk production. Complementary methods are widely used because they are natural and do not contain chemicals. One of the complementary methods is acupressure. Acupressure is one of the healing methods originating from the eastern region which is done by massaging certain points on the body (energy flow lines/meridians) (Intami et al., 2022). Acupressure can be useful to alleviate pain or change organ function. Acupressure is one of the complementary methods performed with massage techniques so that it is easier to learn and safe and effective to use. Acupressure points are points that are sensitive to stimuli (physical, mechanical, thermic, electrical) that have a certain effect on certain organs or body systems (Ayuningtyas, 2019)

Acupressure is a non-pharmacological treatment technique that is closely related to acupuncture, which is done by pressing on certain points in the body (Ene et al., 2022). Giving massage and stimulation at certain points on the body during acupressure can reduce or treat various types of diseases and pain as well as reduce tension and fatigue (Lestari et al., 2023). Postpartum mothers who experience fatigue after giving birth, if given a massage at the acupressure point will feel comfortable, relaxed, and not tense (Fetrisia, 2019). When postpartum mothers feel comfortable and relaxed, breast milk

ISSN 1858-3385, E-ISSN 2549-7006 117

will come out a lot it will cause the baby's needs to be fulfilled. Acupressure is related to the meridian system and vital energy/chi sie (Liliana & Wahyuningsih, 2020).

Acupressure or suppression is one of the non-pharmacological interventions or treatments to stimulate the release of prolactin hormone. Giving acupressure to certain points on the body can increase breast milk production in mothers. This is because the emphasis on acupressure points can stimulate the prolactin reflex. The hypothalamus will stimulate the nerves to secrete prolactin into the blood after getting stimulation (Wulandari et al., 2019). The effect of pressing acupressure points that stimulate the pituitary in the brain to secrete prolactin and oxytocin hormones into the blood then causes milk production to increase. In addition to increasing milk production, pressing on acupressure points can also increase endorphins which can reduce pain and relax the body (Nisa et al., 2022). Acupressure therapy provides mental and psychological comfort and the mother feels free from pain. In line with the gate control theory, where the theory explains that stimulation at an acupoint on a meridian path will be forwarded by large diameter A-Beta nerve fibers to the spinal cord which then in the spinal medulla there is a gelatinous substance that works as a gate control before being forwarded by efferent nerve fibers to transmission cells,

Volume 22 Number 1, Februari 2024

transmission cells channel to the central nervous system by reducing discomfort. Therefore, it can be said that acupressure can be used as an alternative to increase breast milk production optimally because it is safe, effective, and can be learned by anyone.

Acupressure has an influence on breast milk production compared to the control group because the pressure applied can influence the release of the hormone prolactin which will then help increase breast milk production (Dian Puspita Yani, 2022). Acupressure can provide stimulation to the nerves of the breast glands, the response to the stimulation is sent to the hypothalamus to produce the hormone prolactin and flows to the anterior pituitary to release the hormone prolactin to the breasts. Next, the hormone prolactin will stimulate alveoli cells to form breast milk. This is what causes there to be a connection with the effect of acupressure on the production of breast milk (ASI) (Wulandari et al., 2019).

CONCLUSIONS AND SUGGESTIONS

Based on the results of research conducted on the effect of acupressure at points ST 15, ST 16, and LI 4 on breast milk production in postpartum women on day 3, it can be concluded that:

1. The average breast milk production in the control group was still in the small category of 30 ml.

2. The average breast milk production in the intervention group was 81.7 ml.
3. The average breast milk production in the intervention group was more than the average breast milk production in the control group.
4. There was a difference in breast milk production in postpartum women on day 3 who were given acupressure therapy (intervention group) and not given acupressure but only given health counseling about exclusive breastfeeding (control group) with a p-value of 0.000 (p-value <0.05).

Future researchers are advised to conduct further research on other influences related to breast milk production such as the marmet technique, breast care, endorphin massage, hypnobreastfeeding, rolling massage, and warm compresses and can also be combined with food ingredients such as kata (sauropods) or leaf extract, mung bean juice, banana heart so that other influences that are most related to breast milk production in postpartum women can be known (Yulaikah, 2022).

REFERENCES

Abdullah, D., Vani, A. T., Anissa, M., Dewi, N. P., & Darmayanti, A. (2022). Pijat Bayi Terapi Komplementer untuk Optimalkan Tumbuh Kembang Anak. *Jurnal Abdimas ADPI Sains Dan Teknologi*, 3(3), 51–55.

<https://doi.org/10.47841/saintek.v3i3.211>

Aryani, Y., & Alyensi, F. (2019). Penerapan Pijat Oksitosin Dalam Upaya Memperbanyak Produksi Asi Melalui Pelatihan Bagi Para Bidan. *Dinamisia : Jurnal Pengabdian Kepada Masyarakat*, 3(2), 361–367. <https://doi.org/10.31849/dinamisia.v3i2.3680>

Ayuningtyas, I. F. (2019). *Kebidanan Komplementer : Terapi Komplementer dalam Kebidanan*. Pustaka Baru Press.

Dechoni Rahmawati, Fatimah Dewi Anggraeni, Eniyati, & Ratna Prahesti. (2022). Pemberdayaan Kader Dalam Stimulasi Tumbuh Kembang Bayi Dan Balita Dengan Metode Pijat Bayi Sebagai Upaya Optimalisasi Pertumbuhan Dan Perkembangan Bayi Dan Balita Di Posyandu Mawar Sedayu, Bantul. *J-ABDI: Jurnal Pengabdian Kepada Masyarakat*, 1(8), 1657–1662. <https://doi.org/10.53625/jabdi.v1i1.8.950>

Dian Puspita Yani, S. B. T. I. A. R. (2022). Efektifitas Terapi Pijat Laktasi Oksitosin dan Akupresur Titik Zhongfu terhadap Produksi ASI pada Ibu Post Partum. *Jurnal*

- Ilkes (Jurnal Ilmu Kesehatan)* , 13(1).
- El Haque, I. T., Roslianti, E., Fitriani, A., & Lestari, I. D. (2023). Application of Acupresure Therapy to Increase Breast Milk Production in Spontaneous Post Partum Mothers. *JURNAL VNUS (Vocational Nursing Sciences)*, 5(2), 83–92. <https://doi.org/10.52221/jvnus.v5i2.257>
- Ene, S. K., Hadi, S. P. I., & Kusumawardani, L. A. (2022). Pengaruh Terapi Akupresur terhadap Peningkatan Produksi Asi pada Ibu Post Partum: Systematic Literature Review. *Malahayati Nursing Journal*, 4(8), 2070–2087. <https://doi.org/10.33024/mnj.v4i8.6425>
- Fetrisia, W. and Y. Yanti. (2019). Pengaruh Acupresure Point for Lactation Terhadap Produksi Asi Ibu Menyusui. *Jurnal Kesehatan 10 (1): 41*.
- Geddes, D., & Perrella, S. (2019). Breastfeeding and Human Lactation. *Nutrients*, 11(4), 802. <https://doi.org/10.3390/nu11040802>
- Intami, E., Yunartha, M., Pratiwi, M., & Arista, D. (2022). Pengaruh Peran Kader pada Pijat Akupresure terhadap Keberhasilan ASI Eksklusif. *Jurnal Ilmiah Universitas Batanghari Jambi*, 22(3), 2246. <https://doi.org/10.33087/jiubj.v22i3.3052>
- Julianti, N. (2023). Penerapan Terapi Akupresure Terhadap Produksi Asi Pada Ibu Menyusui 0-6 Bulan Di Desa Bantarjaya Kecamatan Pebayuran Kabupaten Bekasi Tahun 2023. *SELAPARANG: Jurnal Pengabdian Masyarakat Berkemajuan*, 7(3), 2102. <https://doi.org/10.31764/jpmb.v7i3.16669>
- Lestari, A. A., Mahendra, A. B., Larasati, B., Pitaloka, D. A., & Ihsan, M. N. (2023). Efektifitas Pijat Bayi dalam Membantu Tumbuh Kembang Terutama Meningkatkan Berat Badan. *Jurnal Multidisiplin West Science*, 2(11), 970–975. <https://doi.org/10.58812/jmws.v2i11.772>
- Liliana, A., & Wahyuningsih, M. (2020). Pengaruh Terapi Akupresur Terhadap Peningkatan Produksi Asi Pada Ibu Post Partum Di Pku Muhammadiyah Bantul. *Coping: Community of Publishing in Nursing*, 8(4), 416. <https://doi.org/10.24843/coping.2020.v08.i04.p10>

- Nisa, J., Baroroh, U., & Fitriyaningsih, D. (2022). Peningkatan Pemberian ASI Eksklusif Melalui Pendidikan Kesehatan Tentang Kecukupan ASI. *Jurnal ABDINUS: Jurnal Pengabdian Nusantara*, 6(3), 741–748. <https://doi.org/10.29407/ja.v6i3.16796>
- Noor Khayati, F., Agustiningrum, R., & Mulyaningsih, D. (2023). Upaya Optimalisasi Pertumbuhan dan Perkembangan Anak Usia Pra Sekolah melalui Deteksi Dini Tumbuh Kembang. *Jurnal Inovasi Dan Pengabdian Masyarakat Indonesia*, 2(2), 6–9. <https://jurnalnew.unimus.ac.id/index.php/jipmi>
- Pollard, M. 2019. (2019). *ASI Asuhan Berbasis Bukti*. . EGC.
- Ramadani, D., Lasmy Zaen, N., Hayati, N., Rs, S., Medan, H., & Rumah, J. (2019). Pengaruh Akupresur terhadap Peningkatan Produksi ASI pada Ibu Nifas di Klinik Bersalin Trismaliah Desa Laut Dendang Kecamatan Medan Tembung Tahun 2019. In *AMIK IMELDA*. <http://sintaks.kitamenulis.id/index.php/Sintaks>
- Wahyuningsih, I. R., Kustiyati, S., Rizki Imania, D., & Asadullah, A. (2021). Enhancement of Academic Capacity to Contribute Country Development Application The Aikipressure Techniques to Improve The Development of Children with Special Needs: A Qualitative Study. *International Summit on Science Technology and Humanity (ISETH)*.
- Wulandari, A. S., Hasanah, O., & Sabrian, F. (2019). Pengaruh Akupresur Terhadap Produksi Air Susu Ibu (ASI). In *Jurnal Ners Indonesia* (Vol. 10, Issue 1).
- Yeni, F. (2023). Gambaran Dan Permasalahan Capaian Asi Eksklusif Di Puskesmas Olak Kemang Tahun 2023. *Electronic Journal Scientific of Environmental Health And Disease*, 3(2), 102–112. <https://doi.org/10.22437/esehad.v3i2.27651>
- Yulaikah, S. (2022). Penyuluhan Asi Eksklusif, Pijat Oksitosin Dan Pengenalan Mp-Asi Sebagai Persiapan Bayi Lulus 6 Bulan. *Jurnal Abdi Insani*, 9(2), 497–506. <https://doi.org/10.29303/abdiinsani.v9i2.573>