

Volume 8, Issue S1, 2023, p. 9 – 12 ISSN 2502-4825 (print), ISSN 2502-9495 (online)

# Combination of Breast Care and Moringa Leaf Tea to Increase Breast Milk Volume

# Arie Maineny<sup>1</sup>, Taqwin<sup>2</sup>, Putri Mulia Sakti<sup>3\*)</sup>, Asmawaty<sup>4</sup>

<sup>1,2,3\*</sup>Jurusan Kebidanan Poltekkes Kemenkes Palu; Indonesia <sup>4</sup>Jurusan Kebidanan Poltekkes Kemenkes Palu; Indonesia

# ARTICLE INFO

Article history:

Keyword:

breast milk

breast care

Moringa leaf tea

Received 19 October 2022

Accepted 10 January 2023

Published 20 January 2023

# ABSTRACT

A small amount of breast milk at the beginning of breastfeeding is one of the problems that are often experienced by mothers during the puerperium. Caring for the breasts during pregnancy can help produce milk. Moringa leaf tea can help breast milk production because it contains phytosterol chemicals which have the effect of Lagtogogum, in increasing milk production. The purpose of the study was to determine the combination of breast care and Moringa leaf tea in increasing the volume of breast milk. The design of this study was a pre-experimental one group pretest and post-test. Purposive sampling was used to take samples of postpartum mothers on the first day. Wilcoxon test was used in univariate and bivariate analysis. The results of the study on 15 respondents, 2 (13.3%) breast milk production was smooth and 13 (86.7%) was not smooth before getting breast care and Moringa leaf steeping water. Smooth milk production 13 (86.7%), and 2 (13.3%) substandard, after receiving breast care and Moringa leaf tea. Wilcoxon test value of P = 0.001 (p < 0.05). Postpartum mothers produce more milk on the first day when they combine breast care with Moringa leaf tea

This open-access article is under the CC-BY-SA license.

Kata kunci:

Menyusui perawatan payudara teh daun kelor

\*) corresponding author

Putri Mulia Sakti, M.Tr Keb

Jurusan Kebidanan, Poltekkes Kemenkes Palu BTN Bumi Roviga Blok D3 No 3, Tondo Kota Palu Sul-teng

Email: putrimuliasakti@gmail.com

DOI: 10.30604/jika.v8iS1.1677

Copyright 2023 @author(s)

ABSTRAK

ASI yang sedikit pada awal menyusui merupakan salah satu masalah yang sering dialami ibu pada masa nifas. Merawat payudara saat hamil dapat membantu produksi ASI. Teh daun kelor dapat membantu produksi ASI karena mengandung zat kimia fitosterol yang memiliki efek Lagtogogum, dalam meningkatkan produksi ASI. Tujuan penelitian untuk mengetahui kombinasi perawatan payudara dan teh daun kelor dalam meningkatkan volume ASI. Desain penelitian ini adalah pre-experimental one group pretest and post-test. Purposive sampling digunakan untuk mengambil sampel ibu nifas pada hari pertama. Uji Wilcoxon digunakan dalam analisis univariat dan bivariat. Hasil penelitian terhadap 15 responden, 2 (13,3%) produksi ASI lancar dan 13 (86,7%) tidak lancar sebelum mendapatkan perawatan payudara dan air seduhan daun kelor. Produksi ASI lancar 13 (86,7%), dan 2 (13,3%) kurang lancar, setelah mendapat perawatan payudara dan teh daun kelor. Uji Wilcoxon nilai P = 0,001 (p < 0,05). Ibu nifas menghasilkan lebih banyak ASI pada hari pertama ketika mereka menggabungkan perawatan payudara dengan teh daun kelor.

This open-access article is under the CC–BY-SA license.



 $\odot$ 

### INTRODUCTION

Breast milk is the best and highly nutritious milk produced naturally by the breast glands. For babies to experience the best growth and development, their first and main source of nutrition is breast milk (Jumiyati, Nugrahaeni, S.A, 2014). Exclusive breastfeeding has many benefits for babies, including providing complete food, increasing endurance, being easy to digest, increasing brain and emotional intelligence, and having a complete composition. For breastfeeding mothers, breastfeeding has additional benefits, one of which is the risk of diseases such as ovarian cancer and breast cancer (Mufdillah et al., 2017). The World Health Organization recommends only breastfeeding children up to 6 months, followed by two years. According to 2019 Health Research, most of the early breastfeeding process occurs between 1-6 hours after giving birth with a presentation of 35.2%, while the early initiation of breastfeeding occurs between 0-1 hours after giving birth, with a presentation of 34.5%, and the breastfeeding process The lowest early stage occurs between 7-23 hours after birth, with a percentage of 37% (Kemenkes RI, 2019).

Of the 78 postpartum mothers, 44 (56.4%) complained that breast milk did not come out on the first day, 13 (16.6%) complained that breast milk did not come out at all, and 21 (27%) complained of low milk production, causing several problems mother stops breastfeeding her child (Allen et al., 2015). Breast Care is a massage technique that is done regularly to stimulate the breast muscles. Breast care is done to avoid blockages, increase the volume of breast milk, and avoid breast milk dams (Tonasih, 2019). Currently, it is believed that breast care can increase milk production. This is in accordance with the results of the study which showed that only 4 respondents (22.2%) experienced non-fluent milk production from 14 mothers (77.8%) (Wijayanti & Setiyaningsih, 2016). In addition to breast care, Moringa leaf steeping water can increase breast milk production. Nursing

Tabel 2. wilcoxone test results

mothers may benefit from local food products in their diet, such as Moringa (Moringa Oleifera) leaves. Moringa leaves contain phytosterols that increase milk production (Lagtogogum effect) (Affandi, 2019).

The results of the study, consuming cooked Moringa leaves can increase or facilitate breast milk production (Roslin E.M, Sormin, 2018). In accordance with other studies that show a relationship between the use of Moringa leaf extract with the quantity and quality of breast milk (Zakaria et al., 2016). Based on the description above, the purpose of the study was to determine whether breast care and Moringa leaf decoction given together can increase the volume of breast milk.

# METHOD

The research design was a pre-experimental one group pre-test and post-test. Held in April 2021 at the Tinggede Health Center, Marawola District, Sigi Regency. The research population was postpartum mothers on the first day, with a total sample of 15. Purposive sampling was the technique used. Data is collected directly (primary). Univariate and bivariate data analysis using Wilcoxon test.

### **RESULTS AND DISCUSSION**

#### Result

Distribution of Breast Milk Volume in post partum mothers the first day before and after being given a Combination of Breast Care And Moringa Leaf Tea:

		N	Mean rank	Sum of rank
Post test	Negative rank	11 <sup>a</sup>	6.00	6.00
Pre test	Positif rank	$0^{\mathrm{b}}$	00	.00
	Ties	4 <sup>c</sup>		
	Total	15		

#### Source : primary data

Based on table 2 of the measurement results before and after a combination of breast care and moringa leaf steeping water, there were 11 negative data, which means that the 11 data have decreased from a less smooth milk volume, to a smooth breast milk volume. Mean Rank or average of 6.00, and sum rank 66.00. For the value of ties is 4, so it can be said that there is an equal value of 4 between being given an action and not being given an action.

# Tabel 3. statistical test results of the combined effect of breast care and Moringa leaf tea

	Posttest-pretest	
Z	-3.317 <sup>b</sup>	
Asymp.sig (2-tailed)	.001	
Source : research results		

Based on table 3 of the results of statistical tests using Wilcoxon obtained values Z= -3.317 b and  $\rho$  = 0.001. Thus the value of  $\rho$  < from  $\alpha$  (5%) or 0.05 so that Ho is rejected and Ha is accepted, then there is an influence of the combination

of breast care and Moringa leaf tea on the increase in breast milk volume in post partum mothers the first day.

#### DISCUSSION

The results showed that there was a relationship between the combination of breast care and Moringa leaf steeping water to increase the volume of breast milk. Researchers assume, breast care and the presence of phytosterol compounds in Moringa leaves that function to increase and facilitate breast milk production (Lagtogogum effect) (Septadina et al., 2018). This is in line with the results of research which says that by combining breast care and Moringa leaf steeping water, it will be even better to increase milk production for nursing mothers (Nurul Isnaini, 2015). Breast care makes the mother relax, plus the steeping water of Moringa leaves which is rich in vitamins and minerals, so that breast milk production becomes smooth (Adi & Saelan, 2018). The results of the study support that Moringa leaves are one of the elements of food that contain lots of vitamins and minerals that are useful for consumption by nursing mothers. Due to the activity of lactogogum, Moringa leaves contain phytosterol components that help increase and facilitate the volume of breast milk. Sterols are one of the substances that have a laktogogum action. Sterols are a class of steroids that can increase milk production (Wahyudi & Nurhaedah, 2017). In addition, Moringa has powerful antioxidants. Vitamin A, Vitamin C, Vitamin E, Vitamin K, Vitamin B, Vitamin B1, Vitamin B2, Vitamin B3, and Vitamin B6 are antioxidant ingredients found in Moringa. Antioxidants are chemicals that can slow or stop the oxidation of other molecules and can be found in dietary supplements such as moringa leaves (Krisnadi, 2019).

The results of the analysis show that the nutritional value of Moringa leaves is very important to increase breast milk production. The nutritional content of fresh Moringa leaves will increase (concentration) if consumed after being dried and mashed in the form of Moringa leaf tea because it also contains all the essential amino acid components which are also very important, in addition to vitamin C (Nucahyati, 2014). This correlation is in line with the results of research showing that plants that are efficacious for increasing milk secretion (laktogogum) can contain active ingredients such as Prolactin Releasing Hormone (PRH), active ingredients of steroid compounds, effective active ingredients such as prolactin and oxytocin (Syarifah Aminah, Tezar Ramdhan, 2015). The results of this study also support the theory that providing breast care can increase milk production. Sensory nerve endings found in the nipple are stimulated and sucked by the baby (Mansyur & Dahlan, 2014). The hypothalamus in the brain will be stimulated resulting in the release of the hormone prolactin. Prolactin will then activate the cells in the breast glands to produce milk. Prolactin production is influenced by the frequency and strength of the baby's sucking (Sulfianti, dkk 2021). The area of the hypothalamus that will secrete the hormone oxytocin receives stimulation from the suckling of the newborn (Linda, 2019). The muscle cells that surround the glandular tissue and its ducts contract due to oxytocin, allowing milk to escape from the gland. When the muscles contract, milk comes out due to a decreased reflex. Maternal psychology has an impact on the flow reflex. Worry is one of the causes (Monika, 2014).

#### LIMITATION OF THE STUDY

This study used an error rate of 85% so that the sample used was in small quantities. in addition, there are many factors that can influence the increase in the volume of breast milk both from inside and outside the respondent's body

#### CONCLUSIONS AND SUGGESTIONS

From the results of the discussion, the author concluded that there was an influence of the combination of breast care and Moringa leaf tea on the increase in breast milk volume in post partum mothers on the first day.

# Acknowledgment (If Necessary)

Thanks to the director of Poltekkes Kemenkes Palu for facilitating and supporting the facilities and infrastructure during this research, the lecturers involved both directly and indirectly so that this research can be completed on time. In addition to those other parties who cannot be mentioned one by one, the author thanked him.

#### REFERENCES

- Adi, G. S., & Saelan, S. (2018). Pengaruh Terapi Hypnopunturbreastfeeding Dan Air Seduhan Daun Kelor Terhadap Produksi Asi. *Prosiding Seminar Nasional Edusainstek FMIPA UNIMUS 2018, 2013,* 1–7. https://jurnal.unimus.ac.id/index.php/psn12012010/article/v iew/4231
- Affandi, N. N. (2019). *Kelor Tanaman Ajaib Untuk Kehidupan Yang Lebih Sehat* (Pertama). Deeppublish Publisher.
- Allen, J. D., Hall, L. W., Collier, R. J., & Smith, J. F. (2015). Effect of core body temperature, time of day, and climate conditions on behavioral patterns of lactating dairy cows experiencing mild to moderate heat stress. *Journal of Dairy Science*, *98*(1), 118–127. https://doi.org/10.3168/jds.2013-7704
- Jumiyati, Nugrahaeni, S.A, A. M. (2014). Pengaruh Modul Terhadap Peningkatan Pengetahuan, Sikap Dan Praktek Kader Dalam Upaya Pemberian Asi Eksklusif. *Gizi Indonesia*, *3*7(1), 19–28.
- Krisnadi, A. D. (2019). *Hiduplah Selaras Alam, Maka Alam Akan Bekerja Untuk Kita.* PT Moringa Organik Indonesia.
- Linda, E. (2019). *ASI Eksklusif* (T. Wiryanto (ed.); Pertama). Yayasan Jamiul Fawaid.
- Mansyur, N., & Dahlan, K. . (2014). Buku Ajar Asuhan Kebidanan Masa Nifas. In *Makara Printing Plus* (Pertama, Nomor 146). Makara Printing Plus. file:///C:/Users/User/Downloads/fvm939e.pdf
- Monika, F. . (2014). *Buku Pintar ASI dan Menyusui*. Noura Books PT Mizan Publika.
- Mufdillah, Subijanto, Sutisna, E. &, & Akhyar, M. (2017). Buku Pedoman Pemberdayaan Ibu Menyusui pada Program ASI Ekslusif. In *Peduli ASI Ekslusif.*
- Nucahyati, E. (2014). *Khasiat Dahsyat Daun Kelor* (Nurjannah (ed.); I). Jendela Sehat.
- Nurul Isnaini, R. D. (2015). Hubungan Pijat Oksitosin Pada Ibu Nifas Terhadap Pengeluaran ASI Di Wilayah Kerja Puskesmas Raja Basa Indah Bandar Lampung Tahun 2015. *Jurnal Kebidanan, 1*(2), 91–97.
- Kemenkes R.I. (2019). *Pedoman Pekan ASI Sedunia (PAS) Tahun 2019* (Vol. 1999, Nomor December).
- Roslin E.M, Sormin, M. V. N. (2018). Hubungan Konsumsi Daun Kelor Dengan Pemberian ASI Eksklusif Pada Ibu Menyusui Suku Timor Di Kelurahan Kolhua Kecamatan Maulafa Kupang. *CHMK Nursing Scientific Journal*, 2(2), 59–63.
- Septadina, I. S., Murti, K., & Utari, N. (2018). Efek Pemberian Ekstrak Daun Kelor ( Moringaoleifera ) dalam Proses Menyusui. *Sriwijya Journal of Medicine*, *1*(1), 74–79.
- Sulfianti, Evita Aurilia Nardina, Julietta Hutabarat, Etni Dwi Astuti, Yanik Muyassaroh, Diki Retno Yuliani, Wanodya Hapsari, Ninik Azizah, Cahyaning Setyo Hutomo, N. B. A. (2021). Asuhan Kebidanan Pada Masa Nifas (Cetakan 1). Yayasan Kita Menulis.

- Syarifah Aminah, Tezar Ramdhan, M. Y. (2015). Kandungan Nutrisi dan Sifat Fungsional Tanaman Kelor (Moringa oleifera). *Buletin Pertanian Perkotaan Balai Pengkajian Teknologi Pertanian Jakarta, 5*(2), 35–44.
- Tonasih, V. M. S. (2019). *Asuhan Kebidanan Masa Nifas dan Menyusui* (Desember). K-Media.
- Wahyudi, I., & Nurhaedah, M. (2017). Ragam Manfaat Tanaman Kelor (Moringa oleifera Lamk) Bagi Masyarakat. *Info Teknis EBONI*, 14(1), 63–75.
- Wijayanti, T., & Setiyaningsih, A. (2016). Efektifitas Breast Care Post Partum Terhadap Produksi Asi. *Jurnal Kebidanan, 8*(02), 127–224. https://doi.org/10.35872/jurkeb.v8i02.224
- Zakaria, Hadju, V., As' ad, S., & Bahar, B. (2016). Effect Of Extract Moringa Oleifera On Quantity And Quality Of Breastmilk In Lactating Mothers, Infants 0-6 Month. *Jurnal MKMI*, *12*(3), 161–169.