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Effectiveness of Aloe Vera and Cabbage Leaf Compress on Breast Swelling Pain in Post-Partners in Bogor Barat District, Bogor City

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Abstract

ASEAN data in 2022 stated that 76,543 postpartum mothers experienced breast engorgement. 17.2 million postpartum mothers worldwide experience breast pain problems while breastfeeding. In Indonesia, the incidence of breastfeeding mothers experiencing breast engorgement reached the highest figure of 37.2% and 16% of working breastfeeding mothers experienced breast engorgement. Breast engorgement is interpreted as increased venous and lymph flow in the breasts to prepare for lactation. This is due to overdistension of the lactation ducts, causing breast swelling pain, and breast engorgement accompanied by an increase in body temperature. The study used a quasi-experimental design with a pretest-posttest two-group design. The sample consisted of 30 postpartum mothers who experienced breast engorgement pain and were divided into 2 intervention groups, namely aloe vera compresses and cabbage compresses, the intervention was carried out for 14 days. The instrument used was the Visual Analogue Scale (VAS). Data were analyzed using the Paired T-Test and Independent T-Test. In the Independent Sample T-Test, the p-value of the VAS scale for the aloe vera group was 0.019 <0.05 with an average score of 2.0 and the VAS scale for the cabbage group was 0.037 <0.05 with an average score of 1.87.

Keywords: Aloe Vera, Postpartum Mother, Cabbage, Breast Swelling.

Introduction

Breast milk (ASI) is a fluid that comes out of a mother's mammary glands which has various nutritional substances that are crucial in supporting the development and growth of toddlers (Fadlliyyah, 2019). Breastfeeding also helps mothers physically

and psychologically, such as increasing oxytocin production, which can increase the mother's pain threshold and discomfort, thereby increasing the taste of transitional breast milk and mature breast milk (Ciampo, 2018). Breast swelling is a common occurrence during the postpartum period, especially from 3 to 6 days after delivery (Damayanti, 2020). Blocked breasts occur due to obstruction of venous blood flow or lymphatic vessels due to breast milk accumulating in the breasts. This incident occurs due to excessive breast milk production, incorrect breastfeeding position, or because the nipples are flat/sunken. (Pratiwi, 2019).

Worldwide, the incidence of breast swelling is 1:8000. The results of a study at the Niloufer Hospital for Women and Children in India found that 11% of 250,151 mothers experienced breast swelling, which varied from 20% to 77%. Data from the Association of Southeast Asian Nations in 2022 concluded that cases of breast milk engorgement in postpartum mothers were recorded at 76,543 people (WHO, 2020). According to the Ministry of Health in 2020, mothers who experienced breast milk engorgement were (71.10%) with the highest number occurring in Indonesia (37.12%).

Breast pain is caused by breast swelling. Breastfeeding mothers on average experience pain in swelling with a severe pain scale (6-8) and a moderate pain scale (3-5). Increased venous and lymph flow can cause breast pain due to the narrowing of the lactiferous ducts or because the glands are not completely emptied (Pratiwi, 2019). There are various ways to deal with breast swelling, one of which is by intervening with aloe vera and cabbage compresses. Scientifically, Cabbage leaf compresses (Brassica Oleracea Var. Capitata) can be used to treat swelling. Cabbage contains the amino acid methionine, which functions as an antibiotic, along with other ingredients such as sinigrin (Allylisothiocyanate), mustard oil, magnesium, and Oxylate Heterosides. Research conducted by Widia, Lidia, and Pangestu in 2020 found that after being given a cabbage leaf compress intervention, 91% of postpartum mothers did not experience swelling, but 9% of postpartum mothers still experienced breast swelling. Aloe vera contains anthraquinone, which contains aloin and emodin, which function as analgesics, so it can be used to treat breast pain. (Rohmah, 2019).

In measuring the scale of breast swelling pain, a Visual Analog Scale can be used, which is a straight or horizontal line 10 cm long, which represents the intensity of continuous pain and verbal descriptors at each end (Potter, 2020).

The impact that occurs if the pain in breast swelling is not immediately addressed is a breast abscess, which is a lump filled with pus that forms in the breast. The lump can trigger pain and sometimes minor surgery is needed to remove the pus inside. The results of Aini's 2020 study entitled Giving Aloe Vera Compresses to reduce pain due to Breast Swelling in postpartum maternal care showed that aloe vera compresses effectively reduce pain and reduce breast swelling in postpartum mothers.

Research shows that aloe vera increases biological activity and helps the absorption of vitamin C. Aloe vera also contains vitamin E, also known as an antioxidant. With the help of conductors (polysaccharides), aloe vera orchestra has beneficial biological effects. In addition to water-soluble substances, aloe vera can also dissolve lipid-soluble substances (Emilda, 2020).

Method

The type of quantitative research with a pre-experimental method with a PreTest Postt Test Two Group Design design where there are two groups selected randomly, then given a pretest and posttest to determine the effect of the intervention results. The population in this study were all postpartum mothers in West Bogor District, Bogor City who experienced breast swelling pain. The population number was 33 postpartum mothers on April 1 - July 1, 2024.

The number of samples in this study was 30 people. Which was divided into 2 groups, 15 for intervention group 1 and 15 for intervention group 2. In this study, sampling with non-probability sampling with a purposive sampling technique is one technique where researchers determine sampling by determining special characteristics that are by the research objectives so that they are expected to answer research problems (Anwar, 2021). Where the sample of this study was postpartum mothers in West Bogor District, Bogor City who met the inclusion and exclusion criteria by the research objectives.

The number of samples in this study was 30 respondents who had a high VAS pain scale for breast swelling, 15 people would be given cabbage intervention and 15 people would be given aloe vera intervention.

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Results

Table 1
Breast Swelling Pain Scale Analysis of Aloe Vera Compress Group

Breast Engorgement Pain Scale				
Aloe Vera Compress Group	**Mean**	***Mean Difference***	**Min**	**Max**
Pretest	7,06	2,00	2	10
Posttest	5,06		2	8

Table 1 shows the difference in the scale of breast swelling pain in the pretest aloe vera compress group with a minimum score of 2, a maximum score of 10, and an average score of 7.06, in the posttest aloe vera compress group with a minimum score of 2, a maximum score of 8, and an average score of 5.06. The average difference in the scale of breast swelling pain in the aloe vera compress group was 2.00.

Table 2

Breast Swelling Pain Scale Analysis of Cabbage Compress Group

Breast Engorgement Pain Scale				
Cabbage Compress Group	**Mean**	***Mean Difference***	**Min**	**Max**
Pretest	7,33	1,87	2	10
Posttest	5,46		2	10

Table 2 shows the difference in the breast swelling pain scale in the cabbage compress pretest group with a minimum score of 2, a maximum score of 10, and an average score of 7.33; in the cabbage compress posttest group with a minimum score of 2, a maximum score of 10, and an average score of 5.46. The average difference in the breast swelling pain scale in the cabbage compress group was 1.87.

Table 3 Data Normality Test

Variable	Scale Pain	*Shapiro Wilk*	Interpretation
Aloe Vera	*Pretest*	0,091	Normal
	Posttest	0,061	Normal
Cabbage	*Pretest*	0.069	Normal
	Posttest	0.262	Normal

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Table 3 above shows that the Sig value in the aloe vera intervention group and the cabbage intervention group, both pretest and posttest, is > 0.05, meaning that the data is normally distributed, so the statistical test uses the Paired sample T-test.

Table 4 Differences in the average VAS pain scale for breast swelling in postpartum mothers before and after aloe vera and cabbage compresses

Group	Mean		Difference Mean	P-Value
	Before	After		
Aloe Vera	7,06	5,06	2,00	0,001
Cabbage	7,33	5,46	1,87	0,016

Table 4 shows the P-Value of the aloe vera compress intervention group pretest and posttest <0.05, so it can be said that there is an influence between the pre-test variable and the post-test variable. Because H_0 is rejected and Ha fails to be rejected. It can be concluded that there is an influence of giving aloe vera compresses on breast swelling pain. It is known that the P-Value of the cabbage compress intervention group pretest and posttest <0.05, so it can be said that there is an influence between the pre-test variable and the post-test variable. Because H_0 is rejected and Ha fails to be rejected. It can be concluded that there is an influence of giving cabbage compresses on breast swelling pain.

Table 5

Comparison of Aloe Vera and Cabbage Compresses on Postpartum Breast Swelling Pain

Intervention Group	Before			After		
	Mean	**SD**	***P-Value***	**Mean**	**SD**	***P-Value***
Aloe Vera	7,06	2.374	0,760	5,06	2.350	0,016
Cabbage	7,33	1.980		5,46	2.325	

Table 5 shows that the aloe vera compress intervention group had a pretest mean of 7.06; a posttest mean of 5.06; mean difference of 2.0. The cabbage compress intervention group had a pretest mean of 7.33; a posttest mean of 5.46; mean difference of 1.87. The p-value of the aloe vera and cabbage posttest groups was 0.016 (p <0.05) so it can be concluded that there was a significant decrease in the scale of breast swelling pain in both intervention groups after being given aloe vera compress and cabbage compress. However, from the results of the two mean differences, it can be

concluded that the aloe vera compress intervention group was greater than the cabbage compress intervention group. The comparison of the effectiveness of providing interventions in the aloe vera and cabbage compress groups can be seen from the magnitude of the mean difference, the greater the difference, the less pain the postpartum mother feels on the VAS scale from the pain of breast swelling that she feels, so the author can assume that providing aloe vera compresses is more effective in overcoming breast swelling pain in postpartum mothers in West Bogor District, Bogor City.

Discussion

In the univariate analysis, the average value of the breast swelling pain scale in the aloe vera compress group before being given aloe vera compress was 7.06 and after being given aloe vera compress was 5.06, so there was a decrease in the pain scale of 2.00 in the aloe vera compress intervention. In the cabbage compress group, the average value of the breast swelling pain scale in the cabbage compress group before being given a cabbage compress was 7.33 and after being given a cabbage compress was 5.46, so there was a decrease in the pain scale of 1.87 in the cabbage compress intervention. So, from the results of the univariate analysis, there was a decrease in the breast swelling pain scale in both intervention groups, both aloe vera compress and cabbage compress.

This is in line with research conducted by Widia & Delia (2020) explaining that respondents who were given cabbage leaf compresses almost all showed very good results where breast swelling was reduced.

This study is in line with previous studies, namely that there was a change in the level of breast swelling pain after being given cabbage leaf compress therapy for 3 days in postpartum mothers to reduce the level of breast swelling pain in Waysuluh Village, namely before the cabbage leaf compress was given, both subjects had moderate pain intensity, scale 6 (moderate) in Mrs. L and scale 5 (moderate) in Mrs. S. After the cabbage leaf compress was given, both subjects experienced a decrease in the pain scale, to scale 1 (mild) (Aini, 2020). Based on the results of the bivariate analysis study with the Independent T-Test, there was a difference in the scale of breast swelling pain in the pretest and posttest of the aloe vera compress intervention group. Before being given aloe vera compress, the average scale of breast swelling pain was 7.06 and after being

given it decreased to 5.06. The average difference in breast swelling pain was 2.00. This shows that there was a significant decrease in the scale of breast swelling pain after being given an aloe vera compress. According to Sari's 2019 research, the benefits of aloe vera for breastfeeding mothers and found that aloe vera gel can not only help reduce breast swelling but can also treat cracks and sores on the nipples. According to a literature search conducted in various literatures, some ingredients can treat inflammation in aloe vera leaves, or aloe vera.

In line with the results of the study by Aini et al. (2020), the application of aloe vera compresses to reduce breast swelling in postpartum nursing care. A preliminary study explained that aloe vera compresses have been shown to reduce pain in areas of the body that are swollen. because of the high content of amino acids, minerals, and polysaccharides in aloe vera leaves, a reduction in the size of breast swelling pain occurs after the application of aloe vera compresses, which reduce swelling pain and inflammation in the breasts.

Researchers assume that the decrease in the scale of breast swelling in respondents who were compressed by aloe vera is because aloe vera contains anthraquinone, aloe emodin, bradykinase enzymes, carboxypeptidase, salicylate, tannin, and saponin, each of which has the ability as an anti-pain and anti-inflammatory. Reduction of pain and pain occurs through stimulation of the immune system and a decrease in prostaglandins which are responsible for reducing breast pain. The positive effect of increasing the immune system in reducing inflammation, aloe vera has an inhibitory system that blocks pain and a stimulation system that increases wound healing, so that the absorption of aloe vera compresses will be better.

Based on the results of the bivariate analysis study with the Independent T-Test, there was a difference in the scale of breast swelling pain in the pretest and posttest of the cabbage compress intervention group. Before being given a cabbage compress, the average breast swelling pain scale was 7.33 and after being given it decreased to 5.46. The average difference in breast swelling pain was 1.87. This shows that there was a significant decrease in the scale of breast swelling pain after being given a cabbage compress. According to research conducted by Lorentz in 2022, this study showed that cabbage leaf compresses were more effective than warm compresses in treating breast swelling, with a p-value of 0.023. This shows that cabbage leaf compresses are more

effective than warm compresses.

The results of the Kusumasti study in 2023 also support this study: there was a significant difference in breast swelling scores before and after treatment between the experimental and control groups. The average value of the experimental group was 10.60, while the average value of the control group was 20.40. There was a difference in breast swelling scores between the experimental and control groups, with a p-value of 0.001 and a Z value of -3.306. According to theory, cabbage leaf compresses can reduce tissue swelling by opening capillary blood vessels, which can increase blood flow in and out. Fluid trapped in the breasts of cabbage leaf compresses (Brassica Oleracea Var. Capitata) is one example. If the breast skin is not injured and the mother is not allergic to sulfa, the compress can be applied to the swollen breasts within 1-2 hours. This allows postpartum mothers to breastfeed exclusively and increase their confidence during the breastfeeding process (Rohmah et al., 2019).

Researchers assume that the decrease in breast swelling in respondents who were compressed by cabbage leaves is because cabbage contains the amino acid methionine which functions as an antibiotic and other ingredients such as sinigrin, mustard oil, magnesium, and sulfur. These ingredients can help widen the capillary blood vessels to increase blood flow in and out of the area, allowing the body to reabsorb the fluid that is blocked in the breast.

Conclusion

The average value of the breast swelling pain scale of postpartum mothers before being given aloe vera compress was 7.06 and after being given aloe vera compress was 5.06. The average value of the breast swelling pain scale of postpartum mothers before being given cabbage compress was 7.33 and after being given cabbage compress was 5.46.

The difference in the average value of the breast swelling pain scale before and after being given aloe vera compress was 2.00. The difference in the average value of the breast swelling pain scale before and after being given a cabbage compress was 1.87.

The decrease in the average value of the breast swelling pain scale before and after being given aloe vera compress was greater than that of cabbage compress so giving aloe vera compress was more effective in reducing the scale of breast swelling pain in

postpartum mothers.

References

1. Afriani., & Amin, W. (2020). *Pengetahuan dan sikap ibu menyusui dengan pemberian ASI secara on demand di RSB*. Restu Makassar. Media Kesehatan Politeknik Kesehatan Makassar.
2. Aini, F., Endah, A., & Galih, Y. Y. (2020). *Pengaruh pemberian kompres daun kubis dingin terhadap skala pembengkakan payudara pada ibu postpartum dengan engorgement di kecamatan bergas*.
3. Andari, Y., Yuliasari, D., & Iqmy, L. Ol. (2021). Pelmbelrian Kolmprels Daun Kubis Dingin Melngurangi Pelmbelngkakan Payudara Ibu Polst Partum. Midwifelry Jolurnal, 1
4. Adnyani, S. &. (2022). Studi Literatur: Penerapan Kompres Daun Kubis untuk Mengurangi Pembengkakan Payudara pada Ibu Post Partum. Journal Center of Research Publication in Midwifery and Nursing, 6(1), 30-36
5. Apriani, A., Wijayanti., Widyastutik, D. (2022). *Efektifitas Penatalaksanaan Kompres Daun Kubis(Brassica Oleracea Var. Cavitata) dan Breast Care Terhadap Pembengkakan Payudara Pada Ibu Nifas.*
6. Ariescha Putri Ayu, Y., Manalu, A. B., & Aini, N. (2020). *Di Klinik Bersalin Kasih Ibu Deli Tua Kabupaten Deli Serdang Tahun 2019 Jalan Besar Deli Tua*.
7. Asih, Y. (2016). *Buku Ajar Asuhan Kebidanan Nifas dan Menyusui.* Jakarta: CV Trans Info Media.
8. Damayanti, E., Ariani, D., & Agustin, D. (2020). *Pengaruh Pemberian Kompres Daun Kubis Dingin sebagai Terapi Pendamping bendungan ASI terhadap Skala Pembengkakan dan Intensitas Nyeri Payudara serta Jumlah ASI pada Ibu Postpartum di RSUD Bangil.* Journal of Issues in Midwifery, 4(2), 54 - 66 https://doi.org/10.21776/ub.joim.2020.004.02.1
9. Departemen Kesehatan RI. 2020. Riset Kesehatan Dasar 2020.
10. Elifrida, A. (2021). Pengaruh Kompres Aloe Vera Terhadap Nyeri Pembengkakan Payudara Pada Ibu Nifas Diwilayah Kerja Puskesmas Siulak Gedang Tahun 2021 . (Doctoral dissertation, Universitas Adiwangsa Jambi)
11. Emilda. (2020). *Pengaruh Kompres Aloe Vera Terhadap Nyeri Payudara Pada Masa Nifas Di Klinik Bpm Mardiah & Bpm Klahijah Kota Langsa*. Jurnal

Penelitian Kesehatan.

12. Febriyanti, H., & Sanjaya, R. (2019). Pelngaruh Pelmbelrian Kolmprels Lidah Buaya Telrhadap Nyelri Payudara Pada Ibu yang Melngalami Belndungan ASI Di Wilayah Kelrja UPTD Puskelsmas Sudimolrol Kabupateln Tanggamusdidapatkan. Jurnal Maternitas Aisyah. http://jolurnal.aisyahunivelrsity.ac.id/indelx.php?jolurnal=Jaman
13. Furnawathi, I. (2021). Selhat Delngan Ramuan Tradisiolnal, Khasiat dan Manfaat Lidah Buaya(1st eld.). Agrol Meldia Pustaka
14. Govoni, L., Ricchi, A., Molinazzi, M. T., Galli, M. C., Putignano, A., Artioli, G., Foà, C., Palmieri, E., & Neri, I. (2019). Breastfeeding pathologies: Analysis of prevalence, risk and protective factors. Acta Biomedica, 90, 56–62. https://doi.org/10.23750/abm.v90i4-S.8240
15. Govoni, Ricchi, Molinazzi, Galli, Putignano, Artioli, Foà, Palmieri, & Neri. (2019). Breastfeeding pathologies: Analysis of prevalence, risk and protective factors. Acta Biomedica, 90, 56–62., 90(1), 56–62. https://doi.org/10.23750/abm.v90i4-S.8240
16. Gresh, Robinson, Thornton, & Plesko. (2019). Caring for Women Experiencing Breast Engorgement: A Case Report. Journal of Midwifery and Women's Health, 64(6), 763–768. https://doi.org/10.1111/jmwh.13011
17. Kristin, Y. S. (2021). Efektivitas Perawatan Payudara Menggunakan Daun Kubis Dingin Dalam Mengurangi Pembengkakan Payudara: Literatur Review. In Proceeding Of Sari Mulia University Midwifery National Seminars , (Vol. 3, No. 1).
18. Kusumastuti, N. A. (2023). Pengaruh Kompres Aloe Vera Sebagai Alternatif Pengobatan Pembengkakan Payudara Pada Ibu Post Partum. Siklus: Journal Research Midwifery Politeknik Tegal, 12(1), 59-66.
19. Lestari, M. W. (2021). Effect of the Administration of Aloe Vera Gel Extract on the Healing TIME of Nipple Wound in Breastfeeding Mothers. International Journal Of Nursing And Midwifery Science (Ijnms), 5(3), 195- 201
20. Lorenz, M., & Lelel, L. (2022). Holw tol Rellielvel Elngolrgeld Brelasts wheln Stolpping Brelastfelelding. wikiholw. https://www.wikiholw.molm/Rellielvel-Elngolrgeld-Brelasts-wheln- Stolpping-Brelastfelelding
21. Martini, M. A. (2022). Efektivitas Kompres Aloe Veradan Daun Kubis terhadap

Breast Engorgement pada Ibu Nifas. Jurnal Kesehatan, 13(3), 522- 529.

22. Mustaqim, A., Asri, A., & Almurdi, A. (2022). *Pengaruh Pemberian Gel Lidah Buaya (Aloe vera) Terhadap Gambaran Histopatologi Gaster Tikus Wistar yang Diinduksi Indometasin.* Jurnal Kesehatan Andalas. https://doi.org/10.25077/jka.v6i3.751
23. Napisah, P., Hadiyati, L., Iriani, Ol. S., Yayah, & Madiuw, D. (2023). Celgah dan Atasi Pelmbelngkakan Payudara Ibu Polstpartum. Pelnelrbit NelM
24. Nasriyah, N. (2019). Jurnal Ilmu Keperawatan dan Kebidanan. Mastitis (Literature Review), 10(2), 330-337
25. Nurakilah, H. (2022). Elfelktivitas Telrapi Kolmprels Lidah Buaya (Alolel Velra) Telrhadap Kellancaran Pelngelluaran Asi Pada Ibu 2-3 Hari Polst Partum Di Wilayah Kelrja Puskelsmas Karanganyar Kolta Tasikmalaya. Jurnal BIMTAS: Jurnal Kelbidanan Umtas, 6(1), 29–35. https://doli.olrg/10.35568/bimtas.v6i1.2438
26. Patiran, M., Elgam, A., & Kamalah, R. (2022). Pelrbeldaan Elfelktivitas Pelmbelrian Kolmprels Lidah Buaya Dan Kolmprels Daun Kubis Dingin Telrhadap Intelnsitas Nyelri Payudara Ibu Nifas. Jurnal Kelbidanan Solrolng, 1.
27. Pratiwi, Y.S (2019). *Pengaruh Pemberian Kompres Daun Kubis Terhadap* Pembengkakan *Payudara pada Ibu Post Partum*. Jurnal Kesehatan Qamarul Huda. Vol. 7, No. 2, Desember 2019.
28. Putri, D. R., & Felbrianti, R. (2022). Asuhan Kelbidanan Pada Ibu Melnyusui Yang Melngalami Pelmbelngkakan Payudara Delngan Kolmprels Daun Kubis Di Pmb Murtinawita Kolta Pelkanbaru Tahun 2021. Jurnal Kelbidanan Telrkini (Currelnt Midwifelry Jolurnal), 2(1), 10–14. https://doli.olrg/10.25311/jkt/Voll2.Iss1.475
29. Rahayu, H. S., & Wulandari, E. T. (2020). *Perbandingan Efektivitas Kompres Air Hangat Dan Kompres Daun Kol Untuk Mengurangi Nyeri Pada Ibu Dengan* Pembengkakan *Payudara di Wilayah Kerja Puskesmas Wana Kabupaten Lampung Timur Tahun 2020.* Jurnal Maternitas Aisyah (JAMAN AISYAH), 1(3), 150–157.
30. Rahmisyah, R. &. (2023). Pengaruh Kompres Daun Kol Terhadap Pembengkakan Payudara Pada Ibu Post Partum. Jurnal Kesehatan Tambusai, 4(3), 2248-2254.
31. Rofi'ah, S., Rahayu, I. P., & Nikmawati, N. (2020). *Kompres Kubis Dan Sirih Merah Efektif Menurunkan Derajat Pembengkakan Payudara Ibu Postpartum.*

Jendela Inovasi Daerah, 3(1), 1-15. https://doi.org/10.56354/jendelainovasi.v3i1.67

32. Rohmah, M., Wulandari, A., & Sihotang, D. W. (2019). *Efektivitas Kompres Daun Kubis (Brassica Oleracea) terhadap Skala Pembengkakan Payudara pada Ibu Post Partum di PMB Endang Kota Kediri.* Journal for Quality in Women's Health, 2(2), 23–30. https://doi.org/10.30994/JQWH.V2I2.34
33. Santy, F. N. (2022). Pengaruh Terapi Daun Kubis Terhadap Nyeri Pembengkakan Payudara Pada Ibu Post Partum. Jurnal Kesehatan Panca Bhakti Lampung, 10(1), 26-34.
34. Sari, R. I., Dewi, Y. I., & Indriati, G. (2019). *Efektivitas Kompres Aloe Vera Terhadap Nyeri Pembengkakan Payudara Pada Ibu Menyusui*. Jurnal Ners Indonesia, 10(1), 38. https://doi.org/10.31258/jni.10.1.38-50
35. Sharma, R. (2020). *Effectiveness of chilled cabbage leaf application on breast engorgement among postpartum women's*. Journal Of Medical Science And Clinical Research, 6(6), 878-882. Diperoleh pada tanggal 12 Mei 2024 dari https://www.researchgate.net/publication/326016557
36. Silaban, V. F., Carmila, M., Tellaumbanua, Ol., & Harahap, P. Y. Y. (2022). Elfelktivitas Kolmprels Lidah Buaya telrhadap Nyelri Pelmbelngkakan Payudara pada Ibu Polst-Partum di Klinik Thelrelsia. JUMANTIK (Jurnal Ilmiah Pelnellitian Kelselhatan), 6(4), 347. https://doli.olrg/10.30829/jumantik.v6i4.10473
37. UNICEF., & WHO. (2022*). Capture the moment-early initiation of breastfeeding*: Newborn. New York: UNICEF.
38. Wahyuni, E. D. (2020). *Asuhan kebidanan nifas dan menyusui*. Jakarta: Pusdik SDM Kesehatan
39. Widianti, R. A., Xanda, A. N., Putri, M., & Wahyuni, I. (2022). Pelnatalaksanaan Alolel Velra Untuk pelmbelkakan Payudara Lampung Telngah. Jurnal Ilmu Kelbidanan, 12(1). https://doli.olrg/10.54444/jik.v12i1.83
40. Yanti, M. D., & Tarigan, R. (2020). *Pengaruh Pemberian Kompres Kol Terhadap Penurunan Pembengkakan Payudara Pada Ibu Post Partum Di Klinik Bersalin Kasih Ibu Deli Tua Kabupaten Deli Serdang Tahun 2019.* Jurnal Kebidanan Kestra (Jkk), 2(2), 144–150.
41. Yudi, E. R. (2023). Literature Review: Pengaruh Pemberian Kompres Daun Kubis

Terhadap Pembengkakan Payudara pada Ibu Post Partum. In Prosiding Seminar Nasional dan CFP Kebidanan Universitas Ngudi Waluyo , (Vol. 2, No. 1, pp. 341-349).

42. Yuliana, W., & Hakim, B. N. (2020). Elmoldelmol Dalam Asuhan Kelbidanan Masa Nifas. Yayasan Ahmar Celndelkia Indolnelsia.
43. Zakarija-Grkovic, I., & Stewart, F. (2020). Treatments for breast engorgement during lactation. Cochrane Database of Systematic Reviews, 2020(9). https://doi.org/10.1002/14651858.CD006946.pub4
44. Zalelha, S. & Yulrina Ardhiyanti. (2023). Pelmbelrian Kolmprels Daun Kubis Dalam Mengatasi Bendungan Asi Pada Ibu Nifas. JUBIDA, 1(2), 74 –81. https://doli.olrg/10.58794/jubida.v1i2.211