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The Effect of Cabbage on Breast Milk Engorgement in Postpartum Mothers

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Abstract

Introduction: Breastfeeding is a natural event for a woman. However, breastfeeding problems that often arise in the early postpartum period (puerperal or lactation period) are breast engorgement. Breast engorgement is a blockage of milk due to the narrowing of the lactiferous ducts or by glands that are not emptied. The impact that will be caused if the breast milk dam is not resolved, namely mastitis and breast abscess, will occur. The use of cabbage or cabbage leaf compresses can be a non-pharmacological treatment.
Objective: This study aimed to determine the effect of cabbage leaf compresses on breast swelling in postpartum mothers. The research method used is a quasi-experimental design.
Method: The design used is Posttest Only Control Group Design. The sample of this study was postpartum mothers who experienced breast swelling in TPMB in the Ciamis Health Center Working Area. The number of respondents was 30 postpartum mothers who were divided into 2 groups (intervention and control groups). Each group consisted of 15 postpartum mothers.
Result: The results of statistical tests using the Mann Whitney-U test p-value 0.000, which means that cabbage leaf compresses have an effect on breast swelling in postpartum mothers in TPMB in the Ciamis Health Center Working Area.
Conclusion: There is an effect of cabbage leaf compresses on breast swelling in post-partum mothers with a P-value of 0.000.

Keywords: Breast Milk Engorgement, *Compress of cabbage leaves, Swelling.*

Introduction

One of the breastfeeding problems that arise during the postpartum period is breast formation. Breastfeeding is a natural event for a woman that is beneficial for both mother and baby. The breastfeeding problem that often arises in the early postpartum period (postpartum period) is breast engorgement or also known as breast milk dams (Prawirohardjo, 2014). Breast engorgement is a dam of breast milk because the narrowing of the lactiferous ducts which are not emptied completely is the best food. for babies containing white blood cells, proteins and immune substances suitable for babies (Sari et al., 2019).

The breasts will feel sore, hot, painful to touch, tense, swollen which occurs on the 3rd to 6th day after delivery when breast milk is normally produced. (WHO, 2021) An obstacle to exclusive breastfeeding is the presence of breast milk dams in postpartum mothers' breasts. According to (Manuaba, 2016) breast milk dams are caused by narrowing of the lactephyrus ducts by glands that do not empty completely or abnormalities in the nipples. The causes of breast milk dams include the ineffective frequency of expressing breast milk, this can be caused by several things, including not carrying out joint care resulting in separation of mother and child and incorrect and effective breastfeeding techniques (Damayanti et al., 2020).

Handling dams Breast milk can be done by applying a cold compress on cabbage leaves. Cabbage leaf compresses have been proven to reduce swelling in swollen areas of the body. Cabbage contains the amino acid glutamine which is believed to be able to treat all types of inflammation, one of which is inflammation that occurs in the breast (Abramowitz et al., 2023).

Cabbage leaves also release a cool gel that can absorb heat which is indicated by the client feeling more comfortable and the cabbage leaves become wilted or cooked after 30 minutes of sticking. For more optimal results, put cabbage leaves in the refrigerator to make them feel cooler (Untari & Purnanto, 2021). Cabbage leaves are able to eliminate or reduce pain and hardness in swollen breasts so they are highly recommended for post partum mothers who experience breast milk dams (Prastiwi & Rahayuningsih, 2023).

Objective

The aim of this research was to determine the effect of cabbage leaf compresses on breast engorgement in postpartum mothers.

Method

The method used is Quasi Experimental design or quasi-experimental research with a pre-test – post-test design with control group (Notoatmojo, 2012). In this design there are two groups, namely the intervention group (given the method of compressing cabbage leaves) and the control group (not given method of compressing cabbage leaves).

Table 1. Pre and Post-test Intervention

Group	Pre-test	Treatment	Post-test
A	O_{A1}	X_1	O_{A2}
B	O_{B1}	X_2	O_{B2}

This research was conducted in the Main Village Working Area. With inclusion criteria: Post partum mothers who experience breast milk retention, are willing to become respondents by signing an informed consent and do not have an allergy to cabbage leaves.

The independent variable in this study was the use of cabbage leaf compresses. The dependent variable in this study is breast swelling. The sampling in this research was accidental sampling, namely research that took respondents who happened to be in a place according to the research context (Notoatmodjo, 2013). This research has received ethical approval from the Research Ethics Commission of Bakti Tunas Husada University with number 188/ec.01/kep-bth/VII/2022.

Results

Based on the research results, the following were obtained:

Table 2. Frequency Distribution of Breast Swelling

Swelling Scale	Intervention Group		Control Group	
	F	%	f	%
Scale 1	3	20	7	46,8
Scale 2	2	13,3	4	26,6
Scale 3	1	6,7	0	0
Scale 4	0	0	0	0
Scale 5	0	0	0	0
Scale 6	0	0	0	0
Reduce	9	60	4	26,6
Total	**15**	**100**	**15**	**100**

Table 3. Test results of the effect of cabbage leaf compress on breast swelling in post-partum mothers

Cabbage Leaf Compress	*n*	Mean Rank	Median	Min	Max	P *value*
Cabbage Leaf Compress	15	5,5	1	1	1	
Uncompressed Leaves	15	13,5	2	2	2	0

From table 1 it can be seen that in the intervention group 9 respondents (60%) had reduced breast swelling, while in the control group only 4 respondents (26.6%) had reduced swelling.

Based on table 2, it can be seen that the mean rank value for compressed cabbage leaves is 5.50, median 1.00, minimum value 1, maximum value 1, while the mean rank for uncompressed cabbage leaves is 13.50, median 2.00, maximum 2. Pvalue 0.000. The results of this study show that there is an influence between compressing and not compressing the occurrence of breast swelling.

Based on the results of research from 15 respondents in the intervention group, it was found that in the frequency distribution of breast swelling in the intervention group, 9 respondents (60%) had reduced breast swelling by administering cabbage leaf compresses. Meanwhile, in the control group, only 4 respondents out of 15 respondents experienced reduced breast swelling.

The results of this study are in line with (Maulida et al., 2022) , this study consisted of 30 respondents who were divided into 15 respondents in the intervention group (given cold cabbage leaves then breast care) and 15 respondents in the control group (given breast care). The results of this study show that there is a statistically significant difference, p value <0.05, in the effectiveness of cold cabbage leaves in reducing swelling.

The results of this research are also supported by research Astuti S, (2015) regarding the effect of cold cabbage leaf compresses on the scale of breast swelling in Bergas sub-district. The results showed that giving cold cabbage leaf compresses was able to reduce the scale of breast swelling by 2.83 with a p-value of 0.000. Giving a cold cabbage leaf compress was more effective when compared to giving a placebo in the form of wheat flour, with a p-value of 0.000.

The results of this study are also in line with research conducted by Novita, (2011) which shows the effectiveness of cabbage leaf compresses on pain, breast swelling and breast milk production in postpartum mothers. It was stated in this study that giving cabbage leaf compresses was able to reduce pain and breast swelling.

The results of Juita Sari's research showed that respondents who had not compressed cold cabbage leaves had breast swelling up to scale 5, namely swelling level 4 and scale 6, namely very swollen, while in respondents after being compressed with cold cabbage leaves there were no respondents with breast swelling on a scale of 5 and scale 6, this shows that cold cabbage leaf compresses are very effective in reducing the level of breast swelling in post-partum mothers, however, it was still found that post-partum mothers who were compressed with cold cabbage leaves experienced swelling of scale 3 and scale 4, this according to researchers occurred because respondents had experienced breast milk collecting in their breasts due to lack of breastfeeding of their babies or due to lack of breastfeeding of their babies (Hasibuan et al., 2021).

The way to overcome breast milk dams is to apply cabbage leaf compression to swollen breasts every 2-3 days every 30 minutes. Cold cabbage leaves contain medicinal ingredients that can reduce breast swelling. Usually a cabbage leaf compress shows its benefits quite quickly, namely within a few hours (DIII Kebidanan et al., 2022).

Based on education, it can be seen that in the intervention group 9 respondents (60%) had secondary education. According to Notoatmojo, (2012), the level of education can influence the respondent's level of knowledge because a person's ability to accept and understand is determined by the level of education they have. Acceptance and understanding of the information received by someone with higher education is better than someone with low education(Khosravan et al., 2017).

According to researchers' assumptions, compressing cabbage leaves is very influential in preventing breast swelling, because compressing can help widen the capillaries, thereby increasing blood flow in and out of the area and allowing the body to reabsorb fluids that are trapped in the breast. Cabbage contains the amino acid methionine which functions as an antibiotic and other ingredients such as sinigrin (Allylisothiocyanate) (Apriyani & Zelharsandy, 2022). In accordance with Sri Untari's research, giving cabbage compresses can reduce pain in breast milk dams in postpartum mothers because cabbage is rich in sulfur content which is believed to reduce breast swelling and inflammation (Untari & Purnanto, 2021).

Conclusion

Based on research conducted by researchers on 30 respondents with 2 groups, namely the intervention group and the control group, each group of 15 respondents, where the results of the research show that there is an effect of cabbage leaf compresses on breast swelling in post-partum mothers with a P-value of 0.000.

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