



**Combination of Warm Compress and Woolwich Massage on Breast Milk Production in Post Sectio Caesarea Mothers in the Melati Room 2a
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Abstract

Breastfeeding a baby is the next stage after giving birth. Previous research shows that giving exclusive breast milk can meet the baby's nutritional needs. However, many postpartum mothers still have difficulty breastfeeding properly and easily. The World Health Organization (WHO) states that 46% of new mothers experience difficulty in providing exclusive breastfeeding. Therefore, efforts that can be made to facilitate breast milk production are through massage by applying a combination technique of warm compresses with Woolwich massage which can stimulate the release of the hormones prolactin and oxytocin which influence the smooth production of breast milk. The purpose of writing this scientific paper is to provide care. Nursing for Post-Section Caesarean mothers in increasing the flow of breast milk by providing a combination technique of warm compresses with Woolwich massage. This action was carried out for 3 days, starting from 17 to 19 November 2023. The final result after being given a combination of warm compresses and Woolwich massage, both respondents experienced changes in the smoothness of breast milk production. Respondent 1 had a pre-intervention score of 0 and post-intervention had a final score of 3 (poor breast milk production), while respondent 2 had a pre-intervention score of 0 and post-intervention with a final score of 6 (good breast milk production). The conclusion of this scientific paper is that Woolwich massage can influence the increase in the smooth production of breast milk in post partum mothers, caesarean section.

Keyword: *Breast Milk, Sectio Caesarea, Woolwich Massage, Warm Compress*

INTRODUCTION

The puerperium is a period of postpartum recovery of the female reproductive organs, lasting from the birth of the placenta to 42 days.

During this period, various physiological changes occur, one of which is the breast which plays an important role in the breastfeeding

process. Breast milk, especially colostrum that first comes out, contains Immunoglobulin A (IgA) antibodies which are important to build the baby's immunity and prevent infection early on (Maryunani, 2015). Therefore, successful breastfeeding becomes one of the important indicators in the postpartum period.

Although the benefits of exclusive breastfeeding are enormous, not all mothers succeed in providing it optimally. WHO notes that 46% of mothers experience difficulties in breastfeeding, mainly due to delays in milk production (Wahyuni et al., 2021). In Indonesia, exclusive breastfeeding coverage increased from 29.5% in 2016 to 35.7% in 2017. However, this figure still has not reached the WHO target of 50% and the national target of 80%, where the latest achievement was recorded at 74.5% (Wibawati, 2020). This fact shows that breastfeeding challenges are still a health problem that needs to be addressed, especially in groups of mothers who have certain risks such as post sectio caesarea.

Mothers who give birth through sectio caesarea tend to experience obstacles in breastfeeding. Surgical wound pain, limited mobilization, and the absence of nursing care often cause disturbances in the reflex of breast milk production. One of the nursing diagnoses that often arise in this condition is ineffective breastfeeding, which is the inability of the mother and baby to achieve optimal breastfeeding. This condition is characterized

by non-dripping breast milk, maternal dissatisfaction, and anxiety or pain due to breast milk dams (SDKI, 2017). Therefore, appropriate and easy-to-implement interventions are needed to support successful lactation.

Some non-pharmacological interventions that have been proven effective in increasing milk production are warm compresses and Woolwich massage (Awaludin, A. A., & Perceka, A. L., 2019). Warm compresses can improve blood circulation, provide a sense of comfort, and help open breast milk channels through vasodilation. Research by Nurbayti (2019) showed that warm compresses significantly increased breast milk production with an average of 322 cc ($p = 0.000$). On the other hand, Woolwich massage works through stimulation of neuroendocrine reflexes that can increase prolactin and oxytocin hormone levels, thus facilitating milk production (Pamuji et al., 2014; Utari, 2019).

METHODS

This research is a case study with a descriptive approach that aims to describe the effect of a combination of warm compresses and Woolwich massage on breast milk production in post sectio caesarea mothers. The research was conducted in Melati Room 2A of RSUD dr. Soekardjo Tasikmalaya City for three days, from November 17 to 19, 2023.

The research subjects were two first day post SC mothers who experienced breast milk

production barriers and did not undergo hospitalization. Inclusion criteria included stable maternal condition and willingness to follow the intervention. The intervention was in the form of warm compress for 2 minutes, followed by Woolwich massage for 15 minutes, done twice a day for three days. Data collection was done through direct observation and completion of the breast milk fluency assessment sheet.

RESULT AND DISCUSSION

Tabel 1. Distribution of respondent characteristics

Characteristics	Ny.I	Ny.N
Age	33 year	24 year
Education	High school	High school
Type of labor	134	63,50
Maternal and infant care	Separate	Separate
Baby's Birth Weight	2000 gr	3.500 gr
Parity	Multiparous	Primiparous
Partus status	P3A0	P1A0
Gestational age	32-33 mg + Latitude +PEB	40-41 mg+CPD +Fetal distress
Sectio Caesarea day to	POD 1	POD 1
History of comorbidities	Severe pre eclampsia	None

Based on table 1, it can be seen that both clients have different characteristics, especially from the reproductive assessment, namely baby weight, parity, partus status, gestational age, and comorbidities.

Table 2 Breastfeeding Fluency Score before and after intervention

Respondent	Day-1 (17 Nov)	Day-2 (18 Nov)	Day-19 (19 Nov)
Ny. I	Milk not yet expressed, breasts slightly filled, baby not yet ambulatory	Breast milk is still a little out, the breasts are still filled a little, the mother wants to pump breast milk for her baby, because she has not been hospitalized.	Breast milk is starting to come from pumping because the baby is not yet in the hospital.
Score	0	2	3
Ny. N	Milk has not been expressed, breasts are slightly engorged, baby is not yet in the nursery.	Little milk is still coming out, breasts are slightly filled, baby is not yet in the hospital	Breast milk is flowing baby has been admitted client plans to go home
Score	0	2	6

Based on table 2, it is known that changes in breastfeeding are more visible in client 2 because the baby has been hospitalized.

Warm compresses physiologically work by increasing blood circulation, improving

lymphatic flow, and increasing the sensitivity of oxytocin receptors in the breast area. Research by Isworo & Isnawati (2021) proves that warm compresses can significantly increase breast milk production in nursing mothers with a p-value of 0.000. The thermal effect of warm compresses helps relax muscles, open pores, and increase the flow of the hormone oxytocin which plays a role in the let-down reflex.

Meanwhile, Woolwich massage is a non-pharmacological method that functions to stimulate sensory receptors around the breast which are then forwarded to the hypothalamus and stimulate the secretion of prolactin and oxytocin hormones. According to research by Yani et al. (2021), Woolwich massage effectively increases breast milk volume in post partum mothers with significant results ($p = 0.005$), especially when done consistently for three days.

In this study, a combination of warm compresses and Woolwich massage was performed twice a day. The procedure started with a warm compress for 2-3 minutes, followed by a Woolwich massage performed in a circular motion from the base of the breast towards the areola. This technique helps to empty the milk ducts, reduce dams, and stimulate the breastfeeding reflex. The combination of these methods is proven to be more effective than if done separately. This is reinforced by the results of a study by Afdhal et al. (2023) which stated that the combination of

these interventions resulted in more effective breastfeeding.

The results showed that there were differences in the fluency of breast milk production in two post section caesarea clients who were given a combination of warm compress and Woolwich massage interventions. Client 1 who gave birth prematurely without hospitalization showed an increase in score from 0 to 3 (breast milk is still not smooth), while client 2 with term pregnancy and hospitalization experienced an increase from a score of 0 to 6 (smooth breast milk). The difference in these results is thought to be influenced by factors of gestational age, parity, and the presence of joint care. Indrayati et al. (2018) explained that postoperative pain, anxiety, and lack of mobilization can inhibit the hormone oxytocin. Meanwhile, Pranajaya (2013) added that premature babies have weak sucking ability, so it is not optimal to stimulate milk production.

The implementation of nursing care for both clients leads to the nursing diagnosis of ineffective breastfeeding, based on the grouping of subjective and objective data. This diagnosis is in accordance with the SDKI approach and reinforcement from Nursalam (2020), which emphasizes that systematic data analysis can assist in determining appropriate interventions. Interventions in the form of warm compresses and Woolwich massage were carried out for three days with a frequency of twice per day. Warm compresses are proven to help improve blood

circulation and stimulate the hormone oxytocin (Susanti, 2019; Sriraman, 2017). Woolwich massage helps increase maternal comfort, stimulates prolactin and endorphins which play a role in milk production (Putri et al., 2020; Kusumastuti et al., 2019). Client 2 showed a more optimal response than client 1, which was thought to be due to better family support and motivation.

Before the intervention, both clients showed anxiety and lack of confidence, which were closely related to the first experience of breastfeeding after sectio caesarean surgery, the baby's condition, and lack of knowledge and emotional support. After the intervention, there was a positive change in milk production, although client 2 experienced a better improvement. Ahmad Rif'an and Wagiyo in Wahyuni et al. (2021) stated that anxiety and stress can inhibit the let-down reflex. This is in line with the opinion of Malatuzzulfa et al. (2022) which states that maternal stress can reduce oxytocin levels, thus affecting milk production.

Another important factor that influenced the outcome of the intervention was rooming in. Client 2 who underwent rooming in showed a better response due to direct suction from the baby. This supports the opinion of Putri et al. (2020) that joint care is able to increase the frequency of breastfeeding, thereby increasing prolactin and oxytocin stimulation. In contrast, client 1 did not undergo joint care

so he did not get direct stimulation from the baby. In addition, internal factors such as motivation, understanding, and readiness of the mother determine success. The lack of support from husband and family in client 1 caused the implementation of massage to be not optimal, in contrast to client 2 who was more prepared and consistent. This is consistent with the findings of Dewi & Rustina (2022) that stress levels, family support, and anxiety affect milk production and lactation success.

CONCLUSIONS

This study showed that the results of measuring the fluency of breast milk production increased gradually. Before the intervention, both clients obtained a score of 0. After three days of intervention, there was an increase in client 1 to a score of 3, and in client 2 to a score of 6. This difference in results is due to a gap in care practices, where client 1 did not undergo joint care because the baby was treated separately, while client 2 underwent joint care so that he received direct stimulation from the baby through the breastfeeding process. It is recommended that the intervention be carried out for 3 days, 2 times a day for optimal results in increasing breast milk production.

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