

The Effect of Stimulation Method with Marmet Technique on the Reliability of Breastfeeding in Post-Partum Mother in Independent Midwife Practice

Nelly Indrasari^a, ^aDepartment of Obstetrics, Poltekkes Kemenkes Tanjung Karang, Sumatera, Indonesia, Email: nellyindrasari@yahoo.com

According to the Basic Health Research 2013 the coverage of infants receiving exclusive breastfeeding in Lampung province was 59.4%. Achievement of exclusive breastfeeding in South Lampung from 2013 till 2015 in the year 2013 by 42%, in 2014 45.5%, and 2015 by 48%. Based on the scope of breastfeeding, it is still far from the target set by South Lampung Regency itself and also far from the national target of 80%. The low coverage of exclusive breastfeeding is not synergistic with the coverage of postpartum South Lampung visits of 89% of the 90% target nationally. So the importance of breastfeeding has been known by several mothers after giving birth, but not all mothers want to breastfeed their babies for various reasons, such as work activities, the milk is not smooth, the milk does not come out, the expenditure of breast milk is too late (Chapman, 1994; 450), nipple pain, breast pain, swelling, milk dam, and mastitis (Prachniak, 2002; 78-81). This situation is supported by data of 75% of mothers initially starting breastfeeding, but the decline has occurred even more than 15% of mothers breastfeed for up to 6 months (Kent, 2011; 114). The purpose of this study was to determine the effect of the Stimulation Method with Marmet Technique on the Smoothness of Breastfeeding in Post Partum Mothers in Midwife Independent Practice in South Lampung Regency Year 2018. This research method uses quasi-experimental design. This study compares between the groups receiving treatment and the control group. The treatment group was given treatment in the form of marmet & Breastcare technical massage, and the control group was given Breast Care treatment. The population in this study was postpartum mothers who gave birth in Midwife Independent Practice in South Lampung Regency in 2018. The research sample of respondents was 30. Data collection by intervention was carried out 2 times a day for 5 days, observations were made on the third day until the fifth day. Data is processed and analyzed by T-Test. The results of the evaluation of the smoothness of breast milk after stimulation

with Marmet Technique showed the average of the sign of smoothness of breast milk (12.47), while for the type of Breast Care treatment the average of the sign of smoothness of breast milk was (11.73). The statistical test results obtained p value <0.005 , which means it can be concluded that there are significant differences for the average smoothness of breast milk between the two interventions carried out. Further analysis found that the average smoothness of breast milk is best found in interventions with marmet + breastcare massage techniques, compared with breastcare interventions alone. From these results, for Health Workers and Midwives can teach and provide stimulation by means of modification either by natural methods from the surrounding environment or in engineering such as Breastcare therapy and Marmet Techniques Massage for smooth milk in postpartum mothers who have proven to have a pretty good effect.

Key words: *Marmet Technique, Breast care.*

Introduction

Nationally the coverage of exclusive breastfeeding 0-6 months in Indonesia in recent years, according to Susenas data Exclusive breastfeeding amounted to 34.3% in 2009, in 2010 showed that only 33.6% of babies get breast milk, in 2011 the figure rose to 42% and according to the 2012 coverage of exclusive breastfeeding was 27.5% and in 2014 exclusive breastfeeding coverage in Indonesia had reached 54.3%.

At present non-pharmacological therapies to increase milk production have existed but have not been widely applied in all midwifery services because of limited information in the health service about implementation procedures (Masadah, 2016; 2). Non-pharmacological therapy that is able to increase milk production, one of which is known as the marmet technique massage, but due to limited information in health services about the implementation procedure, the method often used by midwives is only the Department of Health's "breast care" method since 2007.

Marmet technique massage method, which combines the way of expressing milk and massaging the breast so that the reflex of the milk can be optimal. The technique of milking milk from the sinus lactiferus which is located under the areola is expected to empty the milk in the sinus lactiferus area so that it stimulates the release of the hormone prolactin. Expenditure of the hormone prolactin is expected to stimulate the mammary alveoli to produce milk. The more milk extracted or emptied from the breast, the better the production of breast milk in the breast. The method of emptying breast milk with marmet technique proved to be able to increase milk production conducted by Widyastuti in 2014 about the effect of marmet technique on the smoothness of breast milk and infant weight gain, obtained p value of 0.047

for the marmet technique effects on the smoothness of breast milk, while the marmet technique on infant weight gain value 0, 38.

Research that supports massage therapy of the nipple area is the result of Yuji Yokoyama's study in Japan in 1993, comparing levels of prolactin and oxytocin in postpartum mothers 3-5 days by manual massage of the breast and around the nipple to empty the milk and mothers who only breastfeed. The results obtained by breast and nipple massage stimulate better oxytocin (OT) and prolactin (PRL) secretions (basal level of OT in the breastfeeding group alone 1.90 ± 0.18 while the breast massage group 8.61 ± 0.84 , basal level of PRL in the breastfeeding group 79.30 ± 11.1 , while in the breast massage group 99.64 ± 11.76). The results of this study concluded that breast massage can serve as a good preparation for breastfeeding (Yokoyama, 1994; 19).

Based on the recording and reporting of health facilities in Lampung Province, it appears that the coverage of exclusive breastfeeding in 2011 was 29.24% with a target figure of 60%, while in 2012 the coverage rate was recorded at 30.05% with a target of 80% of data. It appears that the scope of exclusive breastfeeding in the Lampung Province has not yet reached the target set by the province (Lampung Provincial Health Office, 2013).

According to the 2013 Basic Health Research (Riskesdas), infant coverage received exclusive breastfeeding in Lampung Province at 59.4% (INFODATIN, data center and information of the Republic of Indonesia Ministry of Health 2014). Coverage of Extensive Breastfeeding in South Lampung sets a target of 60% and the achievement of giving from 2013 to 2015 in 2013 was 42%, 2014 was 45.5% and in 2015 was 48% (Health Profile of South Lampung Health Office, 2016). Based on the scope of breastfeeding, it is still far from the target set by South Lampung Regency itself and also far from the national target of 80%. The low coverage of exclusive breastfeeding is not synergistic with the coverage of postpartum South Lampung visits of 89% of the 90% target nationally.

Interviews were conducted on 15 postpartum mothers in the South Lampung Region by asking about the history of the release of breast milk since the day immediately after delivery, 2 people (13%) obtained breast milk smoothly during IMD, then increased by 13% again on the 2nd day, but the condition of the release of breast milk until with the 3rd day only 44% (4 people) so that 56% (6 people) mothers experience non-smooth breast milk / breast milk dams on the 6th day. Results of a preliminary study, breast care was carried out at one midwife in South Lampung of 3 mothers with complaints of substandard breastfeeding on the 3rd day (33%), obtained 1 mother succeeded smoothly on the 4th day and 2 mothers succeeded smoothly on 7th day. The implementation of the technique of marmet was performed on 3 mothers in another midwives obtained by 2 mothers (66.7%). The results of this observation provide a reason for researchers to look at the effectiveness of the technique of marmet + breast care

compared to breast care alone in increasing the smoothness of breast milk in postpartum mothers in South Lampung.

Methods

This research method uses a quasi-experimental design. This study compares between the groups receiving treatment and the control group. The treatment group was treated with marmet & Breastcare technique massage treatments, and the control group was given Breast Care treatment.

The sample of this study was postpartum mothers who gave birth at Independent Midwives Practice in South Lampung Regency in 2018. Based on the above calculations, there were 15 respondents from one group, with a ratio of 1: 1, so that the overall respondents were 30 respondents. So that the sample characteristics do not deviate from the population, the determination of the criteria for each sample group is determined by the inclusion and exclusion criteria. Data analysis used in this study is descriptive statistics and data analysis with inferential statistics.

Results and Discussion

Univariate Analysis Results

Analysis of each variable from the research results will produce distribution and presentation of each variable in the study conducted on 30 samples based on primary data sources in Siti Jamila midwife, Karmila midwife, Shindi Kristanti midwife and Susiati midwife in South Lampung Regency.

According to the table, one shows that the average mark breast milk perceived smoothness of respondents with different types of treatments have varying results that after intervention with massage techniques Marmet & Breastcare average mark ASI 12.47 smoothness, and the control group were given average mark smoothness Breast Care Breastfeeding 11, 73.

Bivariate Analysis Results

The bivariate analysis was conducted to determine the difference between the independent variables (stimulation intervention) with the dependent variable (the smooth breast milk) using the T-Test test to assess the effect of the intervention on the mild stimulation of breast milk.

In table 2 it can be seen that the average mark of smoothness of breast milk felt by respondents with the type of intervention with marmet & Breastcare massage techniques. is 11.73 with a standard deviation of 1,280.

Statistical test results obtained p value = 0.025, meaning that it can be concluded that there is a significant influence on the average of the smoothness of breast milk between the intervention with the massage technique of marmet & Breastcare with the intervention of Breast Care only. After processing and analyzing the research data, the research results will then be discussed as follows:

1. Stimulation Effect of Intervention Against Smoothness Breast Milk On Puerperal Mother

Table 1. Distribution of stimulation intervention in the smooth breastfeeding in Siti Jamila midwife, Karmila midwife, and Shindi Kristanti Susiati midwife, South Lampung District 2018

No.	stimulation Intervention	N	On average mark smoothness of breastfeeding
1	Marmet Technique + Breast care	15	12.47
2	<i>Breast care</i>	15	11.73
	Total	30	12.10

Based on Table 1 it can be seen that the average results of the evaluation of the smoothness of breast milk after intervention with the technique of marmet & Breastcare massage showed that the average sign of smoothness of breast milk was 12.47, and the control group was given breast care intervention with the average sign of smoothness of breast milk 11.73.

The statistical test results obtained p value below 0.05, so it can be concluded that there is a significant effect on the average smoothness of breast milk from the two interventions carried out, namely in the form of a marble-breast massage technique intervention and a Breast Care intervention.

Breast milk is a fat emulsion in a solution of protein, lactose and inorganic salts secreted by the mother's gland, which is useful as food for her baby (Yuliani, 2019). Breast milk is the best nutrition that is naturally in accordance with the growth phase of a baby that is specifically adapted for his own baby (Amalia, 2018; Vidayati, 2019; Wulan, 2019).

Mothers will feel their breastfeeding becomes normal or abnormal according to their expectations of normal breastfeeding. The amount of breast milk that is not sufficient for the baby's needs is often the reason for the mother to stop breastfeeding or provide additional formula milk to the baby (Wulandari, 2018; Titisari, 1970).

In this study it was found that the average smoothness of breast milk is best obtained in interventions with marmet & Breastcare massage techniques and then followed by

interventions with Breastcare alone. The results of this study prove that the standard standard in the form of Breastcare which has been a reference is not the only treatment that can help smooth the production of breast milk in postpartum mothers.

In the characteristics it can be seen that the respondents with junior high school education are 7 people (23%), high school students are 18 people (60%), and with tertiary education level are 5 people (17%). Based on the results of the analysis it can be concluded that the majority of respondents have a background in senior secondary education, it is a consideration for researchers that the success of research does not escape from the educational background of mothers, the higher the education, the more easily mothers apply what has been taught by researchers.

The amount of milk production and smoothness is not spared also because of the age and psychological condition of the mother, as the theory conveyed by Amalia (2018), that anxious mothers will express less milk than non-anxious mothers, as well as more young mothers producing breast milk compared with elderly mothers.

Besides that personal hygiene is also important to note). Postpartum Breast Care is a continuation of breast care during pregnancy which has the objectives of: maintaining cleanliness of the breasts so as to avoid infection, rubbery nipples, so that they are not easily abraded, accentuating the nipples, keeping the breasts in good shape, preventing the occurrence of blockages, and multiplying ASI production to determine the existence of abnormalities (Arifah, 2018; Hendriyani, 2019; Risadi, 2019).

2. The Effect of Intervention of Marmet Technique on the Smoothness of Breastfeeding on Postpartum Mother

Table 2. Distribution of stimulation intervention marmet technique of massage on the smooth breastfeeding in Siti Jamila midwife, Karmila midwife, and Shindi Kristanti Susiati midwife, South Lampung District 2018

stimulation Intervention	mean	SD	SE	P-Value	N
1. Marmet Technique + Breast care	12.47	1,246	0,322	0,025	15
2. Breast care	11.73	1,280	0,330		15

Table 2 shows the average smoothness of breast milk if given the intervention of the massage technique of marmet & breastcare is 12.47 with a standard deviation of 1.246, while for the control group given the intervention Breast Care the average mark of smoothness of ASI is 11.73 with a standard deviation of 1.280.

Statistical test results obtained p value = 0.025, so it can be concluded that there is a significant difference in the average smoothness of breast milk which is done by the intervention of the technique of marmet & breastcare massage with Breastcare alone.

This is in line with the theory which states that the Marmet Technique is a combination of how to express milk and massage the breast so that the exit of the breast milk is optimal. Giving a massage to the breast accompanied by emptying the contents of the breast will activate the hormone prolactin and the hormone oxytocin which functions to make the breast contract so that breast milk can come out smoothly. In breastcare massage techniques only remove breast milk that has been stored in the sinus sinuses not empty it. It will be very effective for smooth milk removal the next day, if the massage is accompanied by the emptying process of breast milk to stimulate the two hormones that work in the breastfeeding process (Maulida, 2018; Rahmawati, 2019; Ramlan, 2016).

This study is also in line with research conducted by Dahlan (2018) about the effect of marmet technique on the smoothness of breast milk and infant weight gain. The results of the study showed that there was a statistically significant difference in the marmet technique and breast massage in influencing the smoothness of breast milk ($p = 0.047$). While the difference in influencing the baby's weight is obtained $p = 0.038$ so that there is no statistical difference. The treatment of marmet causes the release of breast milk more smoothly, but there is no difference between the marmet technique and breast massage in influencing infant weight gain (Dahlan, 2018; Yulinda, 2019).

Based on the similarity between the results of the research with the theory and related research that has been done previously, the researchers concluded that the technique of milking milk by means of this marmet in principle aims to empty the lactiferous sinus which is located under the areola so that it is hoped that by emptying the milk in this area of the lactiferous sinus will stimulate the removal of milk prolactin hormone. The release of this prolactin hormone will further stimulate mammary alveoli to produce breast milk. The more milk removed or emptied from the breast, the more milk will be produced. Giving a massage to the breast accompanied by emptying the contents of the breast will activate the hormone prolactin and the hormone oxytocin which functions to make the breast contract so that breast milk can come out smoothly (Widiastuti, 2015).

Marmet technique is very well applied to help optimize the emptying and removal of milk so that by removing or emptying breast milk from the breast, more and more will be re-produced.

Conclusion

Based on the results of data analysis and hypothesis testing and discussion of research results, the research findings can be concluded as follows:



1. The average smoothness of breast milk if given the intervention of massage techniques of marmet & breastcare is 12.47 with a standard deviation of 1.246. The statistical test results obtained p value = 0.025, so it can be concluded that there is a significant effect for the intervention of massage techniques of marmet & breastcare with the average smoothness of breast milk.

2. The average signs of smoothness of breast milk felt by respondents with different types of treatment have varied results. In this study it was found that the average smoothness of breast milk is best obtained in interventions with marmet & Breastcare massage techniques and then followed by interventions with Breastcare alone.

The provision of health education aims to change one's behavior in order to live a healthy life. By providing stimulation in the puerperium, it will become a container of knowledge so that the mother has good and correct abilities and vice versa.

The active role of midwives and health workers in delivering health information is needed in an effort to improve the smoothness of breastfeeding for postpartum mothers and health problems in the community independently, especially towards promotive efforts to increase one's knowledge, especially in the health sector. Health Workers and Midwives can teach and provide stimulation in a variety of ways both naturally from the surrounding environment and in engineering such as Breastcare therapy and Marmet Massage for smooth breastfeeding in postpartum mothers who have proven to have a pretty good influence.

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