THE EFFECTIVENESS OF WARM COMPRESS ON BREAST MILK PRODUCTION AMONG POST PARTUM MOTHERS IN TEGALREJO HEALTH CENTER

Melania Wahyuningsih[1*] , Anita Liliana[2]

[1,2] Universitas Respati Yogyakarta

***corresponding author: melaniarespati@gmail.com**

Abstract

Breast engorgement is one of the obstacles in exclusive breastfeeding for postpartum mothers. Warm compress is one way to release breast engorgement. Using warm compresses can stimulate the dilatation of the blood vessel and the lactiferous duct, that can increase the milk production. The purpose of this research study was to determine the effectiveness of warm compress on the breast milk production among postpartum mothers in the Tegalrejo Community Health Center. The research design was quasi-experiment, with control group pre-test and post-test. The Population on this research was 30 postpartum mothers. The sampling technique was consecutive sampling, 28 samples was divided by two group intervention and control group. The data analysis were used the Paired T-Test. There is significant different on the milk production among intervention of warm compress group p value 0.001. There is no significant different on milk production among the control group p value 0.77. There is significant different on the milk production among intervention group and control group p value 0.001.

Keywords: Postpartum mother, Breast milk production

1. INTRODUCTION

Mothers who experience breast milk complain that breast milk is not smooth and causes failure in exclusive breastfeeding. One of the problems the failure of exclusive breast feeding is breast engorgement. One warm to overcome the breast engorgement is non-pharmacological program programs using warm compress. Warm water temperature 40.5-43 ° C is one of the choices of actions used to reduce and even overcome pain.[1] Warm compresses are considered useful for improving blood circulation, especially in postpartum mothers who experience breast engorgement.[2] Warm compresses produce physiological effects for the body, the temperature 41 ° C makes vasodilation of the blood vessel and lactiferous duct, increase cell metabolism and relax the muscles, so that pain is reduced, and the ejection of the breast milk become smoothly.3

2. MATERIAL AND METHODS

This study is a quasi-experimental, with pre-test and post-test design with a control group design. The population was 30 mothers postpartum mothers at the Tegalrejo Community Health Center in June 2019. The sample study was 28 postpartum mothers who divided into 2 groups, there are 14 mothers as intervention group and 14 mothers as control group. Sample technique used consecutive sampling. Data analysis were analyzed by paired T Test.

In this study researchers did home visit of postpartum mothers who breast milk the baby, and had breast engorgement in the area of the Tegalrejo Community Health Center. First, the researcher examined the breast of postpartum mothers who were willing to become a respondent and had problem of breast engorgement, and then the researcher asked last breast feed the baby, after the mothers breast milk in one hour, the researcher measured the volume of the breast milk production by pumping each breast for 10 minutes. The breast milk is taken in plastic breast milk that still can be feed to the baby. The researcher cher did compress in both of the breast by warm water 41 ° C for 10 minutes. The researcher waited for 10 minutes to measure the volume of breast milk post intervention. For the control group the researcher did health education to prevent the breast engorgement the patients. Time to measure the volume of breast milk pretest and posttest are the same time.

3. RESULT AND DISCUSSION

Tabel 1. Distribution Frequency Characteristics of Respondents Postpartum Mothers in Tegalrejo Health Center Yogyakarta

Caracteristic	Intervension group warm compress		Control Group	
	(F)	(%)	(F)	(%)
Age				
20-35 Years Old	12	85.7	10	71.4
>35 Years Old	2	14.3	4	28.6
Ocupation				
Employee	6	7.1	11	78.6
Unemployee	8	92.9	3	21.4
Education				
Basic Education	1	7.1	4	28.6
Middle Education	13	92.9	9	64.3
High Education	0		1	7.1
Paritas				
Primipara	10	71.4	10	71.4
Multipara	4	28.6	4	28.6
Total	14		14	

Source :Primer Data, 2019

Most postpartum mothers aged 20-35 years old, have middle education, and primiporous mothers, and employed. The aged between 20 – 35 years is healhty and safe for the mother to get pregnant and deliver the baby. The aged before 20 years old is unsafe to pregnant and deliver the baby because the reproductive organ is still in the development stage, and the function of reproductive organ is getting decrease after 35 years. Most of the mothers had middle education make easier the health to

give health education. There are primiparous mothers that mean they have birth the first baby, they may still have not enough information about breast feeding mother and the problem of breast engorgement.

Tabel 2 The Breast Milk Volume between Intervention group and control group of postpartum mothers in Tegalrejo Community Health Center.

Volume Of Breast Milk	Intervension Group					Control Group				
	Mean	SD	Min	Max	P Value	Mean	SD	Min	Max	P value
Pre test	30.00	6.630	20	40	.001	30.00	6.630	20	40	.705
Post test	50.00	7.300	40	60		30.00	8.018	20	50	

From the table above have seen that the volume of breast milk pretest of intervention group are 30.00 ml, SD 6.63, minimum 20 ml, maximum 40 ml, and mean the breast milk volume for posttest the intervention group is 50 ml, SD 7.30, minimum 40 ml, maximum 60 ml. From paired T-test analysis p value 0.001 (p value < 0.05) mean there are significant different the volume of breast milk among the intervention group. The intervention group who got the intervention warm compress using warm water 41° C make dilatation of the blood vessel, lactiferous duct, soft the muscle of the breast, so engorgement and pain release and breast milk become smoothly come out from the lactiferous duct.

The volume of breast milk pretest and posttest the control group are the same 30 ml. The paired T test analysis data show p value 0.705 (p value > 0.705) means there are no significant different the volume of breast milk among the control group. The breast milk volume pretest and posttest are the same, there are 30 ml, that mean health education did not effect to the milk ejection. Health education to prevent the breast engorgement for the control group is important for the postpartum mother, so the mothers can prevent the breast engorgement motivate the mothers to breast feed exclusively.

Tabel 3. The Differencess of Breast Milk volume Between Intervention Group and Control Group Volume among Postpartum Mothers at Tegalrejo Healt Center

Breast Milk Volume	Mean	Mean Different	P Value
Pretest intervention group	30	0	0.77
Pretest control group	30		
Post test Intervention group	50	20	0.001
Post test control	30		

From the table above, it was found that the volume of breast milk intervention group on pre-test was 30 ml, and the volume of breast milk for control group pretest also 30 ml, there was no difference mean between it. The result of independent T test wasp value 0.77 (p value > 0.05) that mean no significant difference on the breast milk volume pretest group between the intervention group and intervention group. There were the same volume of breast milk before intervention, because both groups majority were primiparous mothers and the breast milk were taken one hour after the mothers breast feed the babies. According to lactogenesis theory that breast milk begins 30-40 hours after giving birth, and milk production every serving 30 – 59 ml[4.]

The volume of breast milk posttest intervention of warm compress was 50 ml, and the breast milk volume control group was 30 ml, the mean difference was 20 ml. The result of independent T-test between intervention and control group p value 0.001 (p value < 0.05) that means that there is a significant difference in the volume of breast milk in the intervention group and the control group. Warm breast compresses for the postpartum mothers who got breast engorgement would be able to increase breast milk ejection from the lactiferous duct[5]. Physiological effects administration of warm compresses include the effects of vasodilation, increased capillary permeability, muscle relaxation and increased blood flow to an area of the breast. Increased blood circulation on the breast area, resulting in more oxytocin flowing to the breast and making breastfeeding more smoothly[6].

4. CONCLUSION.

a. There is significant different on the breast milk production among intervention of warm compress group p value 0.001 9 P value < 0.05)
b. There is no significant different on the breast milk production among control group p value 0.77 (p value < 0.05)
c. There is significant different on the breast milk production among intervention group and control group p value 0.001.(p value < 0.05)

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