



## Effect of Age, Parity and Oxytocin Massage on Postpartum Mother's Milk Expenditure

Magdalena M. Tompunuh<sup>1\*)</sup>, Sri Sujawaty<sup>2</sup>

<sup>1\*)</sup> Politeknik Kesehatan Gorontalo

<sup>2</sup> Politeknik Kesehatan Gorontalo

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### ABSTRACT

Referring to the 2016 strategic plan, which amounted to 46% through the coverage of exclusive breastfeeding for infants aged less than 6 months, 54% had reached the target. According to the province, the coverage of exclusive breastfeeding for infants aged 0-5 months ranged from 32.3% (Gorontalo) to 79.9% (East Nusa Tenggara). Through oxytocin massage, it is hoped that it can increase the hormone oxytocin for breastfeeding. The purpose of this study was to increase the production of breast milk in postpartum mothers. This type of research is a quasi-experimental pre-experiment with a one-shot case study approach in early postpartum mothers totaling 32 people by purposive sampling. The results of data analysis using the Chi Square test for univariate analysis, obtained  $p$  value = 0.757 for the age variable and  $p$  value = 0.630 for the parity variable. The results of the bivariate analysis of breast milk production found  $p$  value = 0.01 which indicates the variable of maternal comfort as indicated by  $p$ -value = 0.23. So it was concluded that there was no effect of oxytocin massage on breast milk production with indications of age and parity and the level of comfort of the mother. However, there is an effect of oxytocin massage on milk production.

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#### Kata kunci:

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#### *\*) corresponding author*

Magdalena M. Tompunuh, S.ST, M.Pd

Politeknik Kesehatan Gorontalo  
Jl. Taman Pendidikan No.36, Moodu,  
Indonesia

Email: letom235@gmail.com

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### ABSTRAK

Mengacu pada renstra 2016, yang sebesar 46% melalui cakupan pemberian ASI eksklusif pada bayi usia kurang dari 6 bulan sebesar 54% telah mencapai target. Menurut Provinsi, cakupan ASI eksklusif pada bayi umur 0-5 bulan berkisar antara 32,3% (Gorontalo) sampai 79,9% (Nusa Tenggara Timur) dari 34 provinsi hanya tiga provinsi yang belum mencapai target, yaitu Gorontalo, Riau dan Kamlimantan Tengah. Melalui pijat oksitosin diharapkan bisa meningkatkan hormon oksitosin untuk pengeluaran ASI. Tujuan penelitian ini adalah untuk meningkatkan produksi ASI pada ibu nifas. Jenis penelitian ini adalah pre eksperimen semu dengan pendekatan one shot case study pada ibu early postpartum yang berjumlah 32 orang secara purposive sampling. Hasil analisis data dengan uji Chi Square untuk analisis univariat, diperoleh  $p$  value = 0,757 untuk variable umur dan  $p$  value = 0,630 untuk variable paritas. Adapun hasil analisis bivariate pengeluaran ASI ditemukan  $p$  value = 0,01 yang menunjukkan variabel kenyamanan ibu yang ditunjukkan dengan  $p$  value = 0,23. Sehingga disimpulkan bahwa tidak ada pengaruh pijat oksitosin terhadap produksi ASI dengan indikasi umur dan paritas dan tingkat kenyamanan ibu. Namun ada pengaruh pijat oksitosin dengan pengeluaran ASI.

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## INTRODUCTION

Referring to the 2016 strategic plan target of 42%, nationally exclusive breastfeeding for infants aged less than 6 months 54.6% has reached the target. Gorontalo Province has a percentage of breastfeeding in children aged 0-23 months in the category of 42.7%, breastfeeding 1-6 hours 35%, breastfeeding 7-23 hours 1.8%, breastfeeding 24-47 am 6%, and breastfeeding more of 48 hours 8.9%. According to the province, the coverage of exclusive breastfeeding for infants aged 0-5 months ranged from 32.3% (Gorontalo) to 79.9% (NTT) from 34 provinces, the motivation of only 3 provinces that had not reached the target, namely Gorontalo, Riau, and Central Kalimantan. This achievement is still low compared to other provinces.

Ambarwati (2018) states that the low practice of exclusive breastfeeding is due to lack of knowledge of mothers, socio-cultural factors, lack of information about exclusive breastfeeding and counseling, lactation from health workers and the rampant promotion of formula milk. Therefore, it is necessary to try to expel breast milk. Through oxytocin massage, it is hoped that it can increase the hormone oxytocin for breastfeeding. One of the health service facilities as a referral center in Gorontalo is the Prof. Hospital. Aloei Saboe. The benefit of this research is to provide comfort for postpartum mothers so that they can increase milk production in the postpartum room at Aloei Saboe Hospital.

## METHOD

This research method is a quasi-experimental pre-experiment with a oneshot approach on a sample of 32 people with purposive sampling technique. The materials

used in this study were baby oil, cotton and washcloth. Before being given treatment, respondents were asked to sign a consent form to become a respondent if they were willing. Next, the researcher will examine the breast to see if it feels tense and inspect whether there is colostrum expenditure. After the results of the examination, no colostrum and breast tension were found, followed by oxytocin massage treatment for 10-20 minutes. After that, it was observed whether there was colostrum expenditure from the mother's breast.

## RESULTS

The results of the study obtained that the number of postpartum mothers who were treated in the postpartum room at Prof Aloei Saboe Hospital based on age, namely:

**Table 1**  
**Distribution of respondents by age**

Age category (years)	Number of people	Percent (%)
15-20	3	9
21-25	9	28
26-30	14	44
31-35	4	13
36-41	2	6
<b>Amount</b>	<b>32</b>	<b>100</b>

**Table 2**  
**Frequency distribution of respondents by parity level**

Category (parity)	Number of people	Percent (%)
Primipara	9	28
Multipara	16	50
Grandmultipara	7	22
<b>Amount</b>	<b>32</b>	<b>100</b>

**Table 3**  
**Results of bivariate analysis of Chi squared test**

Post Partum Mom (colostrum production)	Oxytocin massage		Score p ( $\chi^2$ )
	Sit down	lie down	
There is	16	9	
There isn't any	2	8	0,01

Based on table 3, the results of data analysis using the Chi Square test in bivariate analysis showed that the p value = 0.01, which means that the value is smaller than the p value = 0.05. This shows that H0 is rejected with the conclusion that there is a relationship between oxytocin massage and postpartum maternal colostrum expenditure

## DISCUSSION

### 1. Age

The most common age is 26-35 years old, while most parity is primiparous. The best age for giving birth is the age of 20 to 35 years, because this age is one of the factors that affect milk production.

Age is one of the physiological factors that can directly affect the process of expulsion of breast milk. Most of them are in the age range of 21-30 years, which is 77.78%, where at this age is the productive age and the right time for

pregnancy and childbirth and is the best age for producing breast milk. In this study, all respondents were in the productive age range to produce breast milk.

### 2. Paritas

Several factors that can affect the smooth production and expenditure of breast milk are parity. Most of the mothers with a smooth level of breastfeeding are multigravida with ages ranging from 20 to 30 years. Primiparas do not have experience with breastfeeding before and pain affects mothers in providing care to babies, and causes mothers to delay breastfeeding so that it will affect the let down reflex. This is supported by the theory which says that one of the factors that can affect breastfeeding. Primiparas are women who experience one delivery for the first time at more than the 20th week of gestation.

### 3. Oxytocin massage

Oxytocin massage is a spinal massage on the 5th-6th ribs to the scapula (shoulder bone) which will accelerate the work of the parasympathetic nerves, the nerves that

originate in the medulla oblongata and in the sacrum region of the spinal cord, stimulating the posterior pituitary to secrete oxytocin, oxytocin stimulates contraction of smooth muscle cells that encircle the lactiferous ducts of the mammary glands, causing the myoepithelial contractility of the breast so that it can increase the emission of milk from the mammary glands.

Oxytocin massage is one solution to overcome the inability to produce breast milk. This massage is done to stimulate the oxytocin reflex or the milk ejection reflex. Mothers who receive oxytocin massage will feel more relaxed. Oxytocin massage is also easy to do with not too many movements so that the family can remember to do it and it doesn't take a long time. Support from husband and family also plays an important role in breastfeeding. One form of support can be seen from the husband and family agreeing to do oxytocin massage so that mothers can be motivated to breastfeed their babies as well as family members who are willing to help do housework that mothers usually do.

Based on the results of the research above, it was obtained data that there was no effect of oxytocin massage on breast milk production with an assumed age indication because most of the mothers who gave birth were in the category of healthy reproductive age. They need psychological adaptation after giving birth. For this reason, it is necessary for midwives to pay attention to the mother's feelings for her baby. Because the baby's sucking triggers the release of milk from the mammary alveoli through the lactiferous ducts to the lactiferous sinuses, it produces a release reflex or letdown reflex that is obtained from the baby's sucking.

## CLOSING

The results of this study indicate that age and parity affect the smoothness and ejection of breast milk in postpartum mothers and according to the data there is no effect of oxytocin massage on milk production with age indications assumed because most of the mothers who give birth are in the category of healthy reproductive age.

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