

The Effect of Infant Massage and Breast Care on the Frequency and Breastfeeding Duration of Baby at Puskesmas Siak Hulu II

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ABSTRACT

The problem of growth disorders for children under five in Indonesia has started to emerge from an early age between the ages of 1- 6 months so that efforts are needed to reduce the speed of growth disorders and to increase the percentage of weight gain. The aim of this study was to determine the effect of infant massage and breast care on the frequency and breastfeeding duration at Puskesmas Siak Hulu II. The type of research is quantitative with a pre-experimental design with one group pretest-posttest. The research was conducted in December 2019 to August 2020. The population was infants aged 0-6 months and 12 babies obtained by using purposive sampling. The research instrument was an observation sheet. Data collection using primary and secondary data, with data analysis using univariate and bivariate. The univariate results showed that the frequency and breastfeeding duration of for infants before massage was mostly adequate (83.4%), with an average frequency and breastfeeding duration of before massage was 9.58 and after massage and breast care was sufficient as much as 100%, the average frequency and the breastfeeding duration of in infants after massage was 12,17. The results of the Paired T test statistical test showed a p-value of 0.002 ($\alpha = 0.05$). It is hoped that the Siak Hulu II Puskesmas can increase public knowledge and services, especially baby massage and breast care to increase the frequency and breastfeeding duration for babies.

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1. Introduction

The problem of growth disorders for children under five in Indonesia has started to emerge from an early age between the ages of 1- 6 months so that efforts are needed to reduce the speed of growth disorders and to increase the percentage of weight gain. To reduce morbidity and mortality rates for children, the United Nation Children Founded (UNICEF) and the World Health Organization (WHO) recommend that children should be breastfed only for at least six months. Solid food should be given after the child is 6 months old, and breastfeeding is continued until the child is two years old (WHO, 2005). In 2003 the Indonesian government recommended the length of exclusive breastfeeding from four months to six months.

According to the 2012 Indonesian Health Demographic Survey (IDHS), the Infant Mortality Rate (IMR) reached 25.3 per 1000 live births. But it has not reached the 2015 Millennium Development Goals target, which is per 1000 live births and about 60% of these

deaths should be suppressed, one of which is by breastfeeding because breast milk has been proven to improve the health status of babies so that 1.3 million babies can be saved. The participation of breastfeeding mothers in breastfeeding companion groups is very important in the success of exclusive breastfeeding for infants.

Baby Massage and Breast Care are easy to learn and generally with a few exercises the parents are already proficient, apart from being cheap because it only requires oil / baby oil, there are also many benefits. The positive effects of baby massage include: reducing stress hormone levels, increasing levels of immune substances (immunoglobulin), improving blood circulation, stimulating digestive and excretory functions, increasing appetite, changing brain waves that can make babies sleep soundly, increasing oxygen flow and nutrition to cells, increasing body weight and strengthening the bond between babies and parents, and increasing the volume of breast milk (Roesli, 2013).

Baby massage can stimulate digestive function. Tactile stimulation during infant massage will increase the release of the OCD (Ornithine decarboxylase) enzyme, which is an enzyme for growth and development in infants and increases the activity of the vagus nerves which will cause an increase in the enzyme absorption of gastrin and insulin, causing better absorption of food, so that the baby will feel hungry quickly. Babies who are often hungry will breastfeed more often. Research conducted by Annisa Falikhah (2015) performed routine massage 2X a week for 4 weeks on 17 babies, showing that before the baby massage there were 11 people (64.7%) who were in the good category, while 6 people (35.3%) the rest were in the moderate category, after baby massage, 17 people (100%) were in the good category.

The problem in implementing infant massage and breast care at this time is that there is still an opinion from parents or families who think that baby massage and breast care are not forms of therapy that can provide many benefits for mothers and babies. Meanwhile, some others think that baby massage is only done when the baby has a sickness such as flu or colds, and that Breast Care is rarely done because the fulfillment of smooth breastfeeding by consuming breastfeeding fluids such as katuk leaves is sufficient. However, the facts based on the results of research by scientists and health experts show that the proper massage technique is done regularly for babies and toddlers, and can be done anytime and is best done when the baby is in good health.

2. Method

The type of research is pre experiment with one group pretest-posttest design. This study looked at the effect of infant massage and breast care on the frequency and duration of breastfeeding. Pretest is done for before massage and posttest is done after massage. This research was conducted at puskesmas siak hulu ii, kampar regency. This study was conducted from December 2019 to august 2020. The population of this study were all babies aged 0-6 months. the number of samples to be studied was 12 people. Sampling technique by means of purposive sampling. The types of data used are primary and secondary data. Data analysis used was univariate and bivariate.

3. Results And Analysis

3.1 Univariate Analysis

Based on the results of the research that has been done, the distribution of respondent characteristics based on age, occupation and education can be seen as follows:

Table 1.
Respondents' Frequency Distribution based on Age, Occupation, and Education of Respondents at Siak Hulu II Health Center

Characteristics	Intervention Group	
	Frequency	%
Age		
<20 years	0	0
20-35 years	10	83.3
> 35 years	2	16.7
Profession		
IRT	9	75
entrepreneur	2	16.7
Private	1	8.3
Education		
Junior High	1	8.3
SMA / SMK	11	91.7

Based on table 1 of 12 respondents, it shows 83.3% of respondents are aged 20-35 years and only 16.7% are aged > 35 years, the majority Respondents' occupations are housewives by 75% and the majority of respondents' education is SMA / SMK by 91.7%.

Table 2.
Frequency Distribution based on the Frequency and Duration of Breastfeeding in Infants Before Infant Massage and Breast Care at Puskesmas Siak Hulu II

No	Frequency and Duration	F	%
1.	Good	2	16.6
2.	Enough	8	66.7
3.	Less	2	16.7
	Amount	12	100

Table 3.
Frequency distribution based on the frequency and duration of breastfeeding for infants after infant massage and breast care at the Puskesmas Siak Hulu II

No	Frequency and Duration	F	%
1.	Good	6	50.0
2.	Enough	6	50.0
	Amount	12	100

Based on table 3 above, it is known that the frequency and duration of breastfeeding in infants after being massaged and breast care in sufficient category were 6 babies (50%) and in good category were 6 babies (50%).

3.2 Bivariate Analysis

Prior to the bivariate analysis, the normality test was performed using the Shapiro-Wilk test. The normality test is carried out to determine the level of normality of the distribution of research data and is a prerequisite test for determining the type of hypothesis test used.

Table 4.
Data normality test

	Saphiro-Wilk		
	Df	P value	Conclusion
Pretest	12	0.137	Normal
Posttest	12	0.692	Normal

Based on the results of the normality test on the effect of infant massage and breast care on the frequency and duration of breastfeeding in infants at the Siak Hulu II health center, using Shapiro Wilk, the results for the pretest were obtained with a P-value of 0.137 and for the posttest, the P-value was 0.692 which means Both of these p-values are greater than (0.05)

and it is concluded that all of these data have normal data distribution, so the difference test used is the Paired T test. Based on the results of data processing using a computer program, the following results were obtained:

Table 5.
The Effect of Infant Massage and Breast Care on the Frequency and Duration of Breastfeeding in Infants at Puskesmas Siak Hulu II

Intervention	N	Mean	P value
Before	12	9.5	0.002
After	12	12.7	

Based on Table 5, the results obtained from 12 respondents with the Mean Pretest and Posttest value are -2.583 (negative value), meaning that there is an increase in the frequency and duration of breastfeeding in infants after baby massage and breast care and P Value 0.002, p-value <(0, 05) so that Ho is rejected and Ha is accepted, it means that there is an effect of infant massage and breast care on the frequency and duration of breastfeeding for babies at Puskesmas Siak Hulu II.

Based on the results of the research that has been carried out, it is shown in table 1 the characteristics of the respondents who gave exclusive breastfeeding to their babies at the Siak Hulu II Health Center, Kampar Regency, the majority were 20-35 years old, 83.3% of which were of productive age, the work of mothers was mostly housewives of 75 % and have high school education as much as 91.7%. Based on the results of the research shown in table 2, it can be seen that the frequency and duration of breastfeeding in infants before infant massage and breast care is mostly sufficient as much as 8 babies (66.7%), 2 babies (16.7%) and less 2 babies (16.7%) had good frequency and duration of breastfeeding.

Based on the research results shown in table 3 it can be seen The frequency and duration of breastfeeding in infants after massage and breast care were in the adequate category of 6 babies (50%) and in the good category as many as 6 babies (50%) and there was no poor category. Based on the results of the Paired T test, the p-value is 0.002 <a (0.05) which states that Ha is accepted, and the mean pretest and posttest value is -2.583 (negative), which indicates that there is an increase in the frequency and duration of breastfeeding after baby massage and breast care.

This result is in accordance with the results of research by Annisa Falikhah (2015) performing routine massage 2x a week for 4 weeks on 17 babies, showing that before the baby massage there were 11 people (64.7%) who were in the good category, while 6 people (35.3%) the rest were in the moderate category, after the infant 2massage, 17 people (100%) were in the good category. In line with the research conducted by Utia Dina Nasiroh (2016), most of the frequency of breastfeeding before baby massage was in the sufficient category (8-10x) as many as 11 respondents (68.8%), most of the frequency of exclusive breastfeeding after baby massage was good (> 10x) as many as 9 respondents (56.2%). This result is because babies who are massaged have increased so that food absorption is better. This activity causes babies to become lalparous so they will often breastfeed their mothers when they are not massaged.

It is reinforced by the theory that massage on babies provides enormous benefits for infant development, both physically and emotionally. Massage the baby will stimulate increased activity of the vagus nerve which will lead to better absorption of the digestive system. So that the baby will be hungry faster and the frequency of breastfeeding the baby will be more frequent, which in the end will be more milk production (Enny Fitriahadi, 2016). There is an influence between breast care on milk production in postpartum mothers. Suggestion in this study for health workers, especially midwives, to provide education to postpartum mothers about how to properly and properly care for breasts, to increase milk production (Siti Nur Solehah, et al, 2019).

The results of the above research clearly show that baby massage and breastcare can increase the feeling of comfort in the baby so that it is very good for the physical and emotional development of the baby so that the desire to breastfeed the baby increases along with an increase in the frequency and duration of breastfeeding babies thereby increasing milk production and baby weight.

4. Conclusions

There was difference in the level of anxiety of pregnant in the intervention group giving lemon aromatherapy, which decreased 9.6 faster than the control group health education through the book, the decrease was 4.0 in pregnant women in the third trimester of the covid 19 pandemic in the working area of dungingi Health Center and Public health West gorontalo city, so based on the paired test the test show that the significant value of the intervention group and the control group has a value of α 0.05, namely 0.000 and 0.038.

For midwives, this research can be used as a reference as counseling skills to educate pregnant women and skills to apply non-pharmacological anxiety reduction techniques through the application of lemon aromatherapy to pregnant women and For pregnant to pay attention to be able to overcome anxiety because it can have a further effect on the continuity of pregnancy and the baby born.

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