

The Effect Of Baby Massage On The Duration Of Breastfeeding Among 0 To 7 Day Old Infants At The Dwi Ananda Clinic Cikarang Bekasi Regency In 2020

Silmiani Arofah, Rukmaini*, Andi Julia Rifiana

Universitas Nasional, Jakarta

Corresponden Author : rukmaini@civitas.unas.ac.id

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Background: *masage is a touch that is given through the baby's skin to provide meaningful stimulation of affection. One of the benefits of baby massage is that it stimulates the baby's nerve endings associated with the baby's sucking reflexes to be strong.* **Method:** *This study was a quasy-experiment, post-test with control group design. Sample of the study was women who had infants aged 0-7 days. A purposive sampling was used which baby massage was an independent variable while duration of breastfeeding was a dependent variable. The instruments of the study were demographic data of the respondents, standard operating procedure, and breastfeeding observation format. Data analysis in this study used Univariate (Descriptive Analysis) and Bivariate Analysis. Kruskal-Wallis test was conducted to analyze the difference in the average of the variables.* **Results:** *The results showed that the variable Temper Tantrum of preschool children was directly influenced by the family environment 29.8%, 22% parenting style, 8.68% adjustment, 4.53% children's independence, 7.06% emotional intelligence. While the direct effect of the family environment on self-adjustment is 44.7%, adjustment to emotional intelligence is 13.72%, parenting styles for self-adjustment are 3.61%, parenting styles for self-sufficiency 16.15%, family environment on independence 67.55% of children, parenting patterns of emotional intelligence 7.87%, family environment to emotional intelligence 54.49%, family environment to parenting 66.12% of parents, independence of children to adjustment 10.11% with Thus it was concluded that the family environment most influenced the temper tantrums of preschool children at RW 02, because the family environment was the child's first medium in socializing.* **Conclusion:** *There was an effect of infant massage on increasing the duration of breastfeeding among infants aged 0-7 days at the Dwi Ananda Cikarang Clinic in 2020, from the results of the Kruskal-Wallis test with a value of $p = 0,000 < 0.05$.*

Keywords: *Baby Massage, Breastfeeding Duration, Infants.*

I. Introduction

Baby massage is a touch that is given through the baby's skin in an effort to provide meaningful stimulation of affection. One of the benefits of baby massage is that it stimulates the baby's nerve endings associated with baby's sucking reflexes to be strong. If the baby's sucking reflex is strong on the nipple and nerves in the posterior pituitary gland to remove 2 oxytocin from the posterior pituitary.

Recent medical research has proven the many benefits of baby massage. Basically, baby massage is beneficial to stimulate motor nerves, improve sleep patterns, help digestion and improve emotional calm, as well as healthy body and muscles. Babies who are massaged properly and regularly can grow healthier and develop better (Azz, City Ardhillah, 2016, p. 105).



The distribution of breastfeeding duration of babies before massaging babies with duration <5 minutes was 13 (86.6%) compared to duration of breastfeeding \geq 5 minutes which was 2 (13.3%). The distribution of duration of breastfeeding infants after infant massage was 4 with duration \geq 5 was 9 (60%), compared to breastfeeding duration <5 minutes which was 6 (40%) (Fitriahadi, 2016). Preliminary studies at Listiyowati Midwife Clinic have done baby massage and at the Dwi Ananda Clinic have never done baby massage. Based on the description above, the researcher would like to examine effect of baby massage on the duration of breastfeeding at the Dwi Ananda Cikarang Clinic in 2020

II. METHODS

This is a quasy experimental research using an experimental. The population were women who had infants aged 0-7 days. The sample was infants aged 0-7 days at Dwi Ananda Cikarang Clinic in 2020. The sampling technique was purposive sampling. The independent variable in this study was Infant Massage. While the dependent variable in this study was the duration of breastfeeding. The instruments used include the respondent's identity sheet, standard operating procedure (SOP), and observation format for breastfeeding duration. Data analysis in this study used Univariate Analysis (Descriptive Analysis) and Bivariate Analysis.

III. RESULTS

1. Univariat Analysis

Table 1. The Breastfeeding Duration of Experiment Group at Dwi Ananda Clinic Cikarang in 2019

No	Breast feeding duration	N	Mean Rank
1	Day-0	15	4.4500
2	Day-1	15	6.2333
3	Day-2	15	8.3333
4	Day-3	15	9.7333
5	Day-4	15	12.3933
6	Day-5	15	15.0000
7	Day-6	15	17.5000
8	Day-7	15	19.7833

Based on table 1, the group of infants who were massaged can be seen that out of 15 people, the average duration of breastfeeding aged 0-7 days has increased and decreased.

Table 2. The Breastfeeding Duration of Control Group at Dwi Ananda Clinic Cikarang in 2019

No	Durasi Menyusu	N	Mean Rank
1	Day-0	15	3.6667
2	Day-1	15	4.9160
3	Day-2	15	5.4000
4	Day-3	15	6.4833
5	Day-4	15	7.3000
6	Day-5	15	8.9000
7	Day-6	15	10.3333
8	Day-7	15	11.7333

Based on table 2, the group of infants who were not massaged can be seen that from 15 people, the average duration of breastfeeding has increased and decreased.

Table 3. Normality Test

	Shapiro-Wilk		
	Statistic	df	Sig.
D-0	.963	30	.376
D-1	.964	30	.383
D-2	.892	30	.006
D-3	.922	30	.030
D-4	.886	30	.004
D-5	.932	30	.057
D-6	.960	30	.310
D-7	.944	30	.117

Based on table 6 above, Shapiro-Wilk test shows that the value of sig for control group. The sig of day 0, day 1, day5, day 6 and day 7 were more than .05 so it can be concluded that they were normally distributed. However sig of day 2, day 3 and day 4 were less than .05 so it can be concluded that they were not normally distributed. The Kruskal wallis test was used to determine the differences of duration of breast feeding between experimental and control group.

2. Bivariat Analysis

Table 4. Kruskal Wallis test of Experiment Group

No	Breastfeeding duration	n	Mean Rank
1	Day-0	15	18,13
2	Day-1	15	19,73
3	Day-2	15	21,63
4	Day-3	15	21,03
5	Day-4	15	21,37
6	Day -5	15	21,53
7	Day-6	15	21,77
8	Day-7	15	21,70

Based on table 4 above, the Kruskal-Wallis test shows that the value of sig. was greater than 0.05 (sig. value > alpha) for the group of infants massaged sig. The beginning was 18.13 and the value of sig. at the end was 21.70, meaning that H0 fails to be accepted and Ha is rejected, so it can be concluded that all data have fulfilled the normality assumption or are normally distributed.

Table 5. Kruskal-Wallis Test of Control Group

No	Breastfeeding duration	n	Mean Rank
1	Day-0	15	12,87
2	Day -1	15	11,27
3	Day -2	15	9,37

4	Day -3	15	9,97
5	Day -4	15	9,63
6	Day- 5	15	9,47
7	Day -6	15	9,23
8	Day -6	15	9,30

Based on table 5 above, the sample in this study was 15. The Kruskal-Wallis test shows that value of sig. was greater than 0.05 (sig.> alpha) for non-massaged groups of sig.of early was 12.87 and the value of sig. the end test was 9.30. It means that H_0 fails to be accepted and H_0 is rejected, so it can be concluded that all data have fulfilled the normal or normal distribution assumptions.

IV. DISCUSSION

Based on the results of the univariate analysis, it was found that the respondents of the study were divided into 2 groups, namely the group of infants who were massaged which consist of 15 people (50%), and the group of infants who were not massaged which consist of 15 (50%).

According to Riksani (2011) states that infant massage is also referred to as touch stimulus or touch therapy. It is said that touch therapy through baby massage will results in comfortable and safe communication between women and baby.

The results of the study are in accordance with research conducted by Kalsum (2014) on "Increasing Infant Weight through Massage in the work area of the Tunikamaseang Health Center in Bontoa, South Sulawesi" which was obtained from 30 sample, the research sample was divided into 2 groups namely intervention groups (infants were given massage); 15 people (50%) and the control group (babies who were not given a massage were 15 people (50%).

According to the researchers the sample was divided into 2 groups with equal numbers in order to obtain the results in equal and equal proportions, so that the results obtained were accurate conclusions about how the effect of the infant massage to increase the duration of breastfeeding.

Average Duration of Breastfeeding in the Experiment Group

Based on the results, there were 15 infants who were massaged. It can be seen that from 15 people, the average duration of early breastfeeding was 4.45 with an error value at lower 3.52 and upper 4.58. While the average duration of late breastfeeding was 19.78 with an error value of lower 13.68 and upper 17.83.

The results of this study are in accordance with the theory put forward by Roesli (2011) that infant massage also has positive biochemical effects, including reducing levels of stress hormones (catecholamine) and increasing levels of serotonin. In addition, there are some reports from experts' research reports on the benefits of baby massage, including; 1) Increase body weight, 2) Increase growth, 3) Increase endurance, 4) Increase baby's concentration and make babies sleep more soundly, 5) Build bonds of affection for parents and children, 6) Increase milk production.

According to researchers that baby massage has very good benefits especially for increasing the duration of breastfeeding among babies. In addition, cleansing which is also followed by massage to the baby makes the baby cry less and reduce pain. There are so many benefits of baby massage that it is recommended that parents give baby massage to their babies, the earlier the baby massage is done continuously, the greater the benefits that can be felt.

The Effect of Baby Massage on Breastfeeding Duration

In the group of infants who were not given a massage, the average duration of early breastfeeding for infants was 3.66 with a standard deviation of 1.53 and the average duration of late breastfeeding for infants was 11.73 with a standard deviation of 3.20. The difference in the average body weight of babies who were not given a massage was 8.06 with a standard deviation of 1.67. Kruskal-Wallis test results obtained $p = 0,000 < 0,05$, it can be concluded that there is an effect of baby massage on the duration of breastfeeding among infants aged 0-7 days in the Dwi Ananda Cikarang Clinic in 2020.

From the results of the Kruskal-Wallis test, it can be seen that there is an effect of infant massage on increasing the duration of breastfeeding infants aged 0-7 days at the Dwi Ananda Cikarang Clinic in 2020, with a p value = $0,000 < 0,05$.

From the results of the mean 2 difference test, it can be seen that infant massage is more influential in increasing the duration of breastfeeding when compared to babies who are not given massage. Comparison of increasing in breastfeeding duration can be seen from the average breastfeeding duration in infants given massage that was 15.33 with infants not given massage which only has an average increase in breastfeeding duration of 8.06 in a period of 7 days.

The results of this study are in accordance to the research by Fitriani and Nurhidayanti (2016), she found that there was a relationship between baby massage with duration of breastfeeding. Chi Square test results show that the effect of baby massage on the frequency and duration of breastfeeding in infants obtained p value 0.03 (because p value $> 0,05$) then H_0 is rejected and H_a is accepted, which means there is an effect of baby massage on the frequency and duration of breastfeeding. Baby massage stimulates the vagus nerve to affect the mechanism of absorption of food in infants.

Increasing of vagus nerve tone will cause an increase in the absorption enzymes of gastrin and insulin so that food absorption becomes better and increases the baby's weight. The activity of the vagus nerve increases the volume of milk, better absorption of food because of increased activity of the vagus nerve causes the baby to starve more quickly and will suckle more often, then breastmilk will be produced more. This theory is supported by the research of Miftah and Riri Novayelinda, Gamy Tri Utami (2014) regarding "Effects of Infant Massage on Neonatal Development". Based on the results of research processed through the Mann-Whitney test, the p value of 0,000 is smaller than the 37α (0.05) value. which means there is a significant effect of baby massage on neonatal development. The technique of baby massage treatment is done when the baby is healthy and not sleeping. Massage can be done by anyone without special expertise. However, it must be remembered that the massage is a baby whose bones are not strong enough to be pressed like in adult massage. Before massaging, make sure your hands are clean and warm. Check nails and jewelry to avoid scratches on baby's skin (Prasetyono, 2017).

Because of the importance of baby massage for the duration of breastfeeding and the active role of the related health worker (midwife) is very important in providing counseling or health education about the benefits and methods of massage the baby properly and also as well as the right massage for mothers who have babies in particular. It is hoped that mothers will be able to do regular baby massage at their home.

V. CONCLUSION

The conclusions can be made in this study as follows:

The average duration of early breastfeeding in the group of infants who were given massage was 4.45 with a standard deviation of 1.23 and the average duration of late breastfeeding after massage was 19.78 with a standard deviation of 4.33.

The average duration of early breastfeeding for infants in the group who were not given a massage was 3.66 with a standard deviation of 1.53 and the average duration of late breastfeeding was 11.73 with a standard deviation of 3.20.

There was an effect of infant massage on increasing the duration of breastfeeding among infants aged 0-7 days at the Dwi Ananda Cikarang Clinic in 2020, from the results of the Kruskal-Wallis test with a value of $p = 0,000 < 0.05$.

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