

The Effect of Baby Massage on Growth and Development of Babies 0-12 Months at Mahanum Clinic

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ABSTRACT

Several studies on baby massage provide reports related to the benefits of baby massage such as baby massage can increase body weight, increase growth, increase endurance, increase baby's concentration and make babies sleep more soundly, foster bonding attachment between parents and children and can improve mother's milk production. This type of research is pre-experimental with one group pretest-posttest design. The study population was infants aged 0 -12 months. The research sample was 28 infants aged 0-12 months. The research instrument used a questionnaire. Wilcoxon test statistical test data processing. The results showed that the growth and development of infants aged 0-12 months before being given baby massage was known to 28 respondents, the results showed that the growth and development of infants in the rising category before the baby massage was carried out were 5 respondents (17.9%) and the growth and development of infants in the fixed category before the baby massage was carried out as many as 23 respondents (82.1%) and the growth and development of babies in the rising category after the baby massage was 26 respondents (92.9%) and Growth and Development in the fixed category before the baby massage was 2 respondents (7, 1%). Wilcoxon statistical test showed that the significant value of $p\text{-value} = 0.000 < \alpha (0.05)$, so that H_0 was accepted. The conclusion of the study means that there is an effect of baby massage on the growth and development of infants aged 0-12 months at Mahanum Clinic, Medan.

Keywords:

Effects of Baby Massage, Growth, Development

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1. INTRODUCTION

Infancy is a stage where growth and development occurs very quickly, starting from when the baby is born until later he is 1 year old. The age of baby development is divided into 2, namely, *neonates* from birth to 28 days old and babies from 29 days to 12 months [2]. The group of infants aged 0-12 months is one of the phases that will determine a person's survival in the future. According to the Ministry of Health [2], the age of 0-24 months is a period of rapid growth and development, so it is often termed a golden period as well as a critical period. The golden period can be realized if at this time, infants and children receive appropriate nutritional intake for optimal growth and development. Conversely, if infants and children at this time do not receive food according to their nutritional needs, then the golden period will turn into a critical period which will disrupt the growth and development of infants and children, both now and in the future [2].

The achievement of optimal child growth and development is the result of the interaction of various interrelated factors, namely genetic factors, environment, behavior, stimuli or stimulation that are beneficial. Children who often get stimulation will be focused and develop faster than children who are less or who don't get stimulation. Stimulation is a stimulus that comes from the child's external environment, in the form of verbal stimulation, visual stimulation, auditory stimulation and tactile (touch). One of the stimulations in the form of tactile is massage on children (*baby massage*). *Baby massage* is a kind of stimulation that is carried out by gently stroking

the surface of the baby's skin, done by hand with the aim of producing an effect on the muscles, respiratory system, nerves and blood circulation and spleen.

Several studies on infant massage provide reports related to the benefits of infant massage such as infant massage can increase body weight, increase growth, increase endurance, increase baby's concentration and make babies sleep more soundly, foster bonding attachment between parents and children and can improve mother's milk production. Research related to infant massage includes research by obtaining results that in infants who are given infant massage treatment and motion exercises, growth and development are faster than infants who are not given massage and motion exercises. Another study was conducted by [5] regarding the effect of tactile-kinesthetic stimulation on motor development in low birth weight infants, and it was found that infants who received tactile-kinesthetic stimulation 3 times a day for 10 days showed an increase in motor development, which was significant compared to control group. [24] also conducted research on increasing weight. The effect of giving baby massage on weight gain for babies aged 0-6 months at BPS Bunda Bukit Tinggi-Maria Elvira, 1 Siti Azizah 2 87 87 babies' bodies through massage. The results showed that there was a relationship between massage and an increase in baby weight. The statistical test using the Mann-Whitney test obtained a p-value of 0.033.

Literature Review

Growth and development are two events that are different in nature but occur at the same time, are interrelated, and cannot be separated. Optimal motor growth and development is influenced by the stimulus obtained and the biological potential possessed, and both will interact with various interrelated factors, including genetic factors, biophysical-psychological-social factors and behavioral environmental factors. Baby *massage* is a good, useful and healthy therapy for babies. In addition to strengthening the bond between parents and children. Baby massage also helps children grow and develop for the better. Helps the development of the body's immune system, relaxes the baby's body, improves the baby's growth process, prevents the risk of digestive disorders and other colic attacks. According to the research of [3] showed an average increase in body weight before and after baby massage was carried out in the control group of 0.52 grams while in the treatment group it was 0.42 grams. The average increase in body length before and after baby massage in the control group was 1.14 cm while in the treatment group it was 1.39 cm. From the results of the independent t-test statistical test on the variable body weight, the value of $p = 0.187$ was obtained and for the variable body length, the value of $p = 0.480$ was obtained. Based on the p value, it can be concluded that there is no difference in the average growth (weight and length) of infants aged 3-6 months in both the group that was given baby massage and the group that was not given baby massage. From the results of the research above there is a difference with the results of the research that I obtained because giving baby massage routinely which is carried out for only 4 weeks, will not have a significant effect on growth, both weight gain and body length, but only affects the development of the baby .

2. METHOD

The research design is a part of the research that contains descriptions of the research flow which describes the mindset of researchers in conducting research which is commonly called the research paradigm. This section also describes the form of research, one of which is experimental research. Experimental research is aimed at looking at causal relationships by manipulating one or more independent variables. This research uses *pre-experimental* .

The research was conducted at the Mahanum Clinic in Medan . This location was chosen because the clinic has been applying baby massage techniques to its clients for a long time, and also the researchers found the effect of *baby massage* on the growth and development of babies by conducting interviews with the baby's mother.

3. RESULTS AND DISCUSSION

Description of Respondent Characteristics

1. Baby Age

Table 1. Frequency Distribution by Age of Infants in

No	Baby Age	Amount	
		F	%
1	0-3 months	8	28,6
2	4-6 months	12	42,9
3	7-9 months	5	17,9
4	10-12 months	3	10,7
Total		28	100

Based on Table 1. It is known from 28 respondents that the results showed that 8 respondents (28.6%) had babies aged 0-3 months , 12 respondents (42.9%) had babies aged 4-6 months, 5 had babies aged 7-9 months. respondents (17.9%), and those whose babies were 10-12 months old were 3 respondents (10.7%).

2. Gender

Table 2 . Frequency Distribution by Gender at the Mahanum Husada Medan Clinic in 2022

No	Gender	Amount	
		f	%
1	Man	17	60,7
2	Woman	11	39,3
Total		28	100

Based on Table 2. known from 28 respondents obtained the result that the male sex as many as 17 respondents (60.7%) and female sex as many as 11 respondents (39.3%).

3. Health Status

Table 3. Frequency Distribution based on Health Status at the Mahanum Husada Medan Clinic in 2022

No	Health Status	Amount	
		F	%
1	Healthy	28	100
2	Sick	0	0
Total		28	100

Based on Table 3. It is known from 28 respondents that the results showed that 28 children (100%) had healthy health status and 0 respondents (0%) had sick health status .

4. Implementation of *Baby Massage*

Table 4. Frequency Distribution based on the Implementation of Baby Massage at the Mahanum Husada Medan Clinic in 2022

No	Implementation of <i>Baby Massage</i>	Amount	
		F	%
1	Already	12	42,9
2	Not yet	16	57,1
Total		28	100

Based on Table .4. It is known from 28 respondents that the results showed that 12 respondents (42.9%) had ever done *baby massage* and 16 respondents (57.1%) had never done sick baby massage.

The results of the research note that the results of the Wilcoxon hypothesis test *The Effect of Baby Massage* on the Growth and Development of Infants Aged 0-12 Months at the Mahanum Husada Clinic in Medan , the test was carried out using the Wilcoxon test, it can be seen that the implementation of *Baby Massage* has a value of $z - 4.491$ and *Asymp Sig* of $0.000 < 0.05$ means that there is an effect of *baby massage* on the growth and development of infants aged 0-12 months in

This is in line with research conducted by [6] and in line with the opinion of [7] which states that the benefits of baby massage can increase weight and growth, increase endurance, increase parent-child bonding (bonding) and increase milk production. Baby massage is useful for stimulating motor nerves, improving sleep patterns, helping digestion and increasing children's emotional calm, apart from nourishing the body and muscles. Babies who are massaged properly and regularly can grow healthier and develop better [1].

4. CONCLUSION

Based on the results of the research that has been done, a conclusion is obtained as follows:

1. Based on the results of the study, it was found that from 28 respondents the results showed that the growth and development of the baby was in the rising category before the *baby massage was carried out* by 5 respondents (17.9%) and the growth and development of the baby in the fixed category before the *baby massage was carried out* by 23 respondents (82.1%)) and baby growth and development in the rising category after *baby massage was carried out* by 26 respondents (92.9%) and baby growth and development in the fixed category before *baby massage was carried out* by 2 respondents (7.1%)

2. Based on the results of the *Shapiro-Wilk normality test* above, it can be concluded that in the group before the *baby massage*, the sig value of the normality test result was 0.000, which is smaller than 0.05, meaning that the data is not normally distributed, whereas after the *baby massage* obtained 0.000, which is less than 0.05, meaning that the data after the *baby massage* is not normally distributed.
3. Based on the results of the Wilcoxon hypothesis test research, it can be seen that the implementation of *Baby Massage* has a z-value of -4,491 and an *Asymp Sig* of 0.000 <0.05 means that there is an Effect of *Baby Massage* on the Growth and Development of Babies Aged 0-12 Months at Mahanum Husada Clinic Medan in 2022

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