THE EFFECT OF BABY MASSAGE ON THE FREQUENCY AND LONG OF BREASTFEEDING BABIES

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ABSTRACT

Background: Mother's milk (ASI) is the best nutrition for babies. Milk produced naturally by the body contains nutrients that are important for baby's growth and development, such as vitamins, protein, carbohydrates and fat. When breastfeeding, there are several things that mothers must pay attention to, including: frequency and duration of breastfeeding. To increase the frequency and duration of breastfeeding, one way is to do baby massage.

Objective: The aim of this research is to determine the effect of baby massage on the frequency and duration of breastfeeding.

Method: This research is analytical research with a quasi-experimental method. This study used two groups, namely the treatment group, namely babies who were given massage therapy, while the control group was babies who were not given massage therapy. The sample in this study was 30 babies aged 0-12 months. The research was conducted in the working areas of the Kambesko Community Health Center and the Sipayung Community Health Center. The research was carried out from December to February 2022.

Results: The research results obtained by the majority of respondents had the frequency of breastfeeding in the good category (8-12 times), namely 75%, and the duration of breastfeeding for babies was in the good category (10-30 minutes) as much as 81.3%. Statistical tests are carried out with the T test. The test results showed that the relationship between baby massage and breastfeeding frequency had a P value > 0.05 and the relationship between baby massage and breastfeeding duration had a p value (0.382).

Conclusion: Based on the results of statistical tests, there is no significant relationship between baby massage and the frequency of breastfeeding, and there is no significant relationship between baby massage and the duration of breastfeeding.
INTRODUCTION

The health of children, especially babies and toddlers, is something that parents must pay attention to so that the child's growth and development is maintained and the quality of the child's health remains good. To maintain children's growth and development optimally, it is necessary to have the best food or nutrition for children because nutrition can guarantee health, promote good growth and development in children. The best nutrition for children is breast milk (mother's milk). (Qomariah, sarahHerlina, & Satrika, 2023)

Breast milk (ASI) is the best nutrition for babies. There is no better food for babies than breast milk. Milk produced naturally by the body contains nutrients that are important for baby's growth and development, such as vitamins, protein, carbohydrates and fat. (Angriani, Sudaryati, & Lubis, 2018) This is also what makes breast milk the main food for babies in the first 6 months of life. Breastfeeding is a physiological process to provide optimal nutrition to babies without adding and/or replacing it with other foods or drinks. (Farida Y, Mardianti, & Komalasari L, 2018) According to Law No. 36 of 2009 Article 128 paragraph (1) states that Every baby has the right to receive exclusive breast milk from birth for six months unless medically indicated. Likewise with Article 6 of Government Regulation no. 33 of 2012 concerning Exclusive Breastfeeding, emphasizes that every mother who gives birth must give exclusive breast milk to the baby she gives birth to, unless there are medical indications, the mother is not present, or the mother is separated from the baby. (Naito, Harismayanti, & Retni, 2023)

In a study, breastfeeding provides many benefits for the development of neonates. (Miftah, Riri, & Utami, 2014). Other sources also say that breastfeeding has many benefits, both for the baby and the mother. However, the figure for exclusive breastfeeding in the first 6 months based on 2017 Indonesian Basic Health Survey (SDKI) data shows exclusive breastfeeding coverage of 61.33%, exceeding the 2017 Strategic Plan target (Tanjung, Ritonga, & (Tanjung, Ritonga, & Ramadayani, 2022).

When breastfeeding, there are several things that mothers must pay attention to, including: the frequency of breastfeeding should be around 8-12 times a day, but it is best to breastfeed the baby without a schedule, because the baby will determine its own needs. To increase the frequency and duration of breastfeeding, one way is to do baby massage. (Apriani & Putri, 2019) Baby massage is a baby massage that is done by gently stroking the feet, chest, hands, face and back. Other sources also say that baby massage is a form of movement play for babies, to stimulate growth and development and the baby's ability to move optimally. (Budiarti & Yunadi, 2020)

By giving baby massage, the activity of the vagus nerve affects the mechanism of food absorption in babies who are massaged, experiencing an increase in the tone of the vagus nerve which will cause an increase in gastrin and insulin absorption enzymes so that food absorption is better and the baby's weight increases. Vagus nerve activity increases the volume of breast milk, food absorption becomes better because increased vagus nerve activity causes the baby to get hungry quickly and will breastfeed more often from the mother so that more breast milk is produced. Research also states that baby massage can increase the frequency and duration of breastfeeding for babies with a p-value of 0.03, which means that there is an influence of baby massage on the frequency and duration of baby feeding. (Nasution, 2018; Prasetyo, 2017)

In Indonesia, baby massage has been done for a long time. Baby massage has been done for generations without knowing its positive impact. The part that is touched is the skin, which is the widest part of the human body. Baby massage is also said to be touch therapy, this is due to the massage and communication that exists between mother and baby. This touch provides a light massage, so that the baby feels safe and comfortable (Saputri, 2019). Many mothers do baby massage at a dukun or traditional massage. In fact, mothers, fathers or other relatives can do their own massage on babies, which is the best massage because of the loving touch of the parents. This maternal ignorance could be caused by the mother's lack of knowledge about the benefits of baby massage. (Imron & Wardarita, 2018) Various sources say the benefits of baby massage include making babies calm, helping growth, making babies healthier, strengthening muscles, and feeling affection. (Pemayun, Winangsih, & Pratiwi, 2021)
Based on the above, researchers want to conduct research with the aim of finding out the effect of baby massage on the frequency and duration of baby breastfeeding.

RESEARCH METHODS

This research is analytical research with a quasi-experimental method. This study used two groups, namely the treatment group and the control group. The treatment group in this study were babies who were given massage therapy while the control group was not given massage therapy. This research was conducted in Rengat District, namely the working area of the Kambesko Community Health Center and the Sipayung Community Health Center working area. The research was carried out from December to February 2022.

The population in this study were all mothers who had babies aged 0-12 months in Rengat District. Sampling was carried out using the accidental sampling method, namely taking samples unintentionally by taking respondents who happened to be in a place appropriate to the research location. The number of samples in this study was 30 people.

In this study the sample was divided into 2 groups, namely the control group and the treatment group, each group numbering 15 people. The treatment group in this study were babies who were given massage therapy while the control group was not given massage therapy. Instruments in research are tools that will be used in data collection. The instruments used in this research were questionnaires and observation sheets. The type of data in this research is quantitative data, namely primary data to find out how often the baby is breastfed during 24 hours. The frequency of breastfeeding is categorized as: (1) Poor: <8x/day, (2) Good: (8-12x/day), (3) : Very good (> 12x/day). The duration of breastfeeding is categorized as: (1) Poor: < 10 minutes, (2): Good: 10-30 minutes, (3): Very good: > 30 minutes. Meanwhile, for data analysis using the T test statistical test. If the p.value <0.05 then the test states there is a significant correlation between the independent variable and the dependent variable, but if the p.value ≥0.05 then the test states there is no significant correlation between independent variable with dependent variable.

Permission for research is carried out by sending a research letter to the Rengat sub-district office and to the Kambesko Community Health Center and Sipayung Community Health Center.

RESEARCH RESULT

The variables in this research consist of independent variables and dependent variables. The independent variable in this study is baby massage while the dependent variables are breastfeeding frequency and duration of breastfeeding. The results of data processing in this study were analyzed using the T test. Data processing and analysis used the Statistical Package for Social Science (SPSS) software version 17.0. Based on the data obtained in the 2 groups, the following results were obtained:

<table>
<thead>
<tr>
<th>Table 1</th>
<th>Distribution of frequency of breastfeeding for babies</th>
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<tbody>
<tr>
<td></td>
<td>Frequency</td>
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<tr>
<td>Valid</td>
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<td>Very good</td>
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From the table above, it can be seen that of the 32 respondents, the majority had a good breastfeeding frequency of 24 people (75%).

<table>
<thead>
<tr>
<th>Table 2</th>
<th>Distribution of duration of breastfeeding for babies</th>
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<tr>
<td></td>
<td>Frequency</td>
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Based on table 2, it can be seen that the duration of breastfeeding was mostly good, namely 26 people (81.3%).

<table>
<thead>
<tr>
<th>Table 3</th>
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<td></td>
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</table>
Statistical test results of the relationship between baby massage and frequency of baby feeding

<table>
<thead>
<tr>
<th>Variable 1</th>
<th>Variable 2</th>
<th>Matter</th>
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<tr>
<td>Massage</td>
<td>Frequency</td>
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<td>Baby</td>
<td>Breast-feed</td>
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</table>

Based on table 3, it can be seen that there is no relationship between baby massage and the frequency of breastfeeding for babies. This is proven by the p value (1,000) > 0.05. Based on the T Test, if the calculated p is > 0.05, it means there is no relationship between the independent variable and the dependent variable.

Table 4
Statistical test results of the relationship between baby massage and duration of breastfeeding

<table>
<thead>
<tr>
<th>Variable 1</th>
<th>Variable 2</th>
<th>Matter</th>
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<tbody>
<tr>
<td>Massage</td>
<td>Duration</td>
<td>0.382</td>
</tr>
<tr>
<td>Baby</td>
<td>Breast-feed</td>
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</tr>
</tbody>
</table>

Based on table 4, it can be seen that there is no relationship between baby massage and the duration of breastfeeding for babies. This is proven by the p value (0.382) > 0.05. Based on the T test, if p > 0.05, it means there is no relationship between the independent variable and the dependent variable.

DISCUSSION

In table 1 above, it can be seen that the majority of breastfed babies have a good frequency category, namely 24 people (75%), where the good category is that babies breastfeed around 8-12 times per day. The quality of a baby's health is influenced by the frequency of breastfeeding. The fewer the number of babies who receive breast milk and breast milk, the worse the quality of the baby's health. Breast milk is produced as a result of hormones and reflexes. There are several things that influence breast milk production, one of which is the frequency of giving breast milk to babies. (Erlinawati, Amir, & Puteri, 2019) Based on the results of data analysis, it can be seen that the frequency of giving breast milk to babies is in the good category, namely 8-12 times per day, this shows the high frequency of giving breast milk to babies. Breastfeed in one day, because the baby's sucking reflex to swallow breast milk is also good. (Kartinazahri, Yusnaini, & Ampera, 2023; Purwani & Darti, 2012) Giving breast milk to babies fulfills the nutrition needed by babies. Breastfeeding is the optimal choice for babies because breast milk contains excellent nutrients, hormones, immune and growth and anti-inflammatory properties. (Fitri, Chundrayetti, & Semianty, 2014). In other research, it is stated that breast milk given exclusively to babies shows better brain nerve development than babies who do not receive exclusive breast milk. Therefore, the benefits of breastfeeding apart from the nutritional value of breast milk itself are also found in the interaction between mother and baby which can later help the development of the baby's nervous system and brain to increase the intelligence of the baby's brain. (Ida, Nugroho, & Arsyantyi, 2016; Lubis & Setiarini, 2022)

Meanwhile, body weight and height/length are parameters used to measure baby growth. There is a significant increase in weight if the baby feels satisfied and full after breastfeeding, one of the factors is that the baby breastfeeds at least six times a day. (Rini & Nadhiroh, 2015)

Table 2 shows that the duration of breastfeeding is mostly in the good category, namely around 10-30 minutes at a time for 26 people (81.3%). This can be explained by the fact that each baby has a lot of time to breastfeed, this is because each baby has a different duration of breastfeeding according to the baby's sucking pattern. Arief (2009) in Nur et al's research stated that the duration of breastfeeding varies according to the baby's sucking pattern. Babies should breastfeed for 10 minutes on the first breast, because the suction power is still strong. And 20 minutes on the sore breast because the baby's suction power begins to weaken. (Purwani & Darti, 2012) We know that the perfect food for babies in the world is breast milk because breast milk is able to fulfill all elements of a baby's needs. In one study, the average duration of breastfeeding was 13.3 minutes in babies who were exclusively breastfed and 9 minutes in non-exclusive babies. This is still in the low category of good breastfeeding, namely 15 to 25 minutes. If breast milk is still low, it will have an impact on the baby's growth and development, namely it will not be optimal. (Fitri et al., 2014; Sutiyah, 2018)

From the data analysis in table 3, it was found that there was no relationship between baby massage and the frequency of breastfeeding for babies. This can be seen from the results of statistical tests, namely the p value (1,000) > 0.05. The research conducted was not in line with the results of research by Fanda D et al which stated that there was a difference in the increase in frequency of breastfeeding in the treatment group given baby massage and the control group without baby massage. (Farida Y et al., 2018) There is no effect of baby massage on the frequency of breastfeeding,
this can be caused by several shortcomings and limitations in the research, including: the respondents in this study were babies whose age range was quite far and varied, namely 0-12 months, where the respondent babies were still given exclusive breast milk. (<6 months) and there are also those who have consumed complementary foods for breast milk (>6 months). The next factor is that in the treatment group, the researchers only gave massage therapy to the babies once. In research conducted by Simanungkalit, the research method states that for the intervention group, babies were massaged twice a week for 15 minutes. (Simanungkalit, 2019) Based on research in 2019, it is stated that effective infant massage therapy can significantly increase the frequency of breastfeeding in neonates, where the results of statistical tests show p (0.000) < 0.05. This is also because providing infant massage therapy causes changes in the frequency of breastfeeding in neonates. Massage causes an increase in the levels of gastrin and insulin absorption enzymes so that food absorption is better. This activity causes babies to get hungry quickly so they will breastfeed their mothers more often than babies who are not massaged. (Apriani & Putri, 2019; Situmorang, Dewi, & Kristina, 2022)

Baby massage is a traditional art that combines nurturing touches on babies by parents, caregivers, or therapists. Baby massage includes movements and massage techniques. (Simanungkalit, 2019) The optimal breastfeeding frequency is between 8-12 times per day. However, it is best to breastfeed your baby without a schedule, because the baby will determine its own needs. Mothers must breastfeed their babies if the baby cries for no other reason (urination, being bitten by ants/mosquitoes, defecating) or the mother feels like breastfeeding her baby. The frequency of giving breast milk to a baby will greatly affect the baby's physical and emotional condition, so that the baby's calm condition will increase and the baby's weight will increase. (Fitriaahadi, 2016; Sukmawati & Imanah, 2020)

Based on table 4, the results of the nilap statistical test show p (0.382) > 0.05, which means there is no relationship between baby massage and the duration of breastfeeding for babies. This is not in line with several studies which state that baby massage has an effect on the duration of the baby's breastfeeding at each feeding. This can be caused by several limitations in this study, including: (1) the age of the babies as respondents in this study has a fairly wide age range, namely 0-12 months, (2) the baby massage therapy carried out by researchers in the treatment group was only carried out only once, different from previous research. In previous research, the treatment group massaged the baby several times. (Falikhah & Hidayat, 2015; Tanjung et al., 2022). In one study, the treatment group, namely babies aged 0-6 months, received massage 3 times a week for 4 weeks. (Widiani & Chania, 2023). Based on research in 2019, it was stated that effective infant massage therapy can significantly increase the frequency of breastfeeding in neonates, where the results of statistical tests show p (0.000) < 0.05. This is also because providing infant massage therapy causes changes in the frequency of breastfeeding in neonates. Massage causes an increase in the levels of gastrin and insulin absorption enzymes so that food absorption is better. This activity causes babies to get hungry quickly so their mothers will breastfeed more often than babies who are not massaged. Another study stated that baby massage had an effect on the duration of breastfeeding at the Wanasari Medika Clinic, Karawang. The average increase in breastfeeding duration for the group of babies who were not given massage was 1.48 minutes, while the group of babies who were given massage experienced an increase in breastfeeding duration of 4.84 minutes. From this research, campaigning for baby massage needs to be carried out by maternity clinics in order to improve the quality of breastfeeding in babies. (Natalia & Khairiah, 2022) Niluh's research in 2020 stated that after massage with intensity twice a day, the duration and frequency of the baby's breastfeeding increased, from the previous duration of <15 minutes to more than 15 minutes and a frequency of only 6-8 times a day has reached 8-12 times a day so that the mother's breast milk production has also increased. The final result was that the baby's weight increased by 3200 grams. (Dewi, 2016; Sari, 2020). Likewise, other research states that baby massage has an effect on the frequency and duration of breastfeeding. Baby massage is done at least 3 times a week so that the baby's nutritional intake increases and the baby's nutritional status is good. (Fitriaahadi, 2016; Widiani & Chania, 2023)

CONCLUSION
Based on the results of statistical tests, there is no significant relationship between baby massage and the frequency of breastfeeding, where the P-value is > 0.05 (P=1.000) and there is no significant relationship between baby massage and the duration of breastfeeding, where the P-value is > 0.05 (P=0.382)

SUGGESTION
It is hoped that mothers who have babies and toddlers will continue to massage their babies and toddlers. Meanwhile, for further research that will carry out the same study, it can develop the research objectives to be researched and focus more on what is being researched and can further increase accuracy in terms of completeness of the data obtained.

REFERENCES


