

The Relationship between the Frequency of Baby Massage and the Pattern of Defecation of Babies who are Exclusively Breastfed at Bunda Patimah Primary Clinic

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ABSTRACT

Baby massage is a stimulus that has many benefits for the growth and development of babies. One of them is to facilitate the digestive system in babies, so babies who often receive massage therapy rarely experience digestive problems and have a good pattern of defecation. The purpose of this study was to determine the relationship between the frequency of infant massage and the pattern of defecation of infants who were exclusively breastfed. The research method used is quantitative research with a *cross sectional research design*. The number of samples in this study were 40 respondents. The results of the research conducted using the Chi-Square statistical test was $p = 0.036 < 0.05$, meaning that both variables had a statistically significant relationship between the frequency of infant massage and the pattern of defecation.

Keywords: defecation, massage, pattern

Received March 3, 2022; Revised April 22, 2022; Accepted May 20, 2022



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BACKGROUND

Nutritional needs (food) are basic human needs that support life, especially in infants. Newborns up to 1000 days of life is a golden period that must be considered, especially in terms of fulfilling nutrition and nutrition. Newborns are given food in the form of breast milk until the age of 6 full months without the addition of other foods which is referred to as exclusive breastfeeding (WHO, 2017). Based on data from the Ministry of Health, in 2020, only 66.1% of infants who received Indonesian exclusive breastfeeding were out of the 40% target (Rochsitasari, Santosa and Puruhita, 2011; Isy Royhanaty, Gretta Oktavia Maharani Putri, 2018).

According to Pamuji S. E. B (2020) Lack of information from health workers causes many people to think that breastfeeding alone will not fulfill their nutrition. Not infrequently also in the first month of birth, babies experience diarrhea and are considered as a result of breastfeeding. In fact, watery and frequent baby defecation is caused by colostrum which is good for the baby's body and is lactating. When the baby does have diarrhea, there is no need to stop breastfeeding. Because breast milk has benefits as a source of nutrition which contains immune substances and repairs intestinal mucosal cells damaged by diarrhea, besides that it can fulfill nutrition during diarrhea, as well as overcome dehydration. Babies are said to have diarrhea if the baby's defecation frequency pattern exceeds normal limits. Defecation or what we usually call defecation (BAB) is a process of evacuating feces from the rectum or it can be said as something that has no benefit anymore so it must be thrown out of the body . There are several organs involved in it such as some nerve fibers, rectum, descending intestine , sigmoid, internal and external anal sphincters . Process defecation (defecation) begins with the presence of there is a movement called *mass movement*, which lasts from descending intestine then the feces are pushed to in the rectum. *Mass movement* appears about 15 minutes after eat and can occur a number of times in a day (Ariyanti *et al.*, 2019; Dartiwen, 2020; Pamuji, 2020).

Baby massage is a health treatment in the form of touch therapy with certain techniques given to babies so that treatment and therapy can be achieved. The purpose of giving massage to babies is to release endorphins so that it gives a sense of relaxation to the baby's muscles which will make the baby more comfortable carrying himself both physically and psychologically (Oktafirnanda, 2018; Juwita, Septiana, 2019; Saddiyah Rangkuti, 2021).

Massage therapy is a form of touch stimulation which is known to have good benefits for the body. Massage performed on babies is a massage in the form of smooth and slow strokes on the baby's entire body which is given starting from the feet, followed by rubbing the stomach and chest, face, hands and finally the baby's back. Touch stimulation is the most important stimulus or factor in development (Mauliza, Zara and Putri, 2021; Idayanti, 2022). The purpose of this study was to determine the relationship between the frequency of infant massage and the pattern of defecation of infants who were exclusively breastfed.

METHOD

This type of research is quantitative research, namely analytic survey. The research design used was *cross-sectional*. The sample in this study were infants who received massage and exclusive breastfeeding in the month of 2022 at the Bunda Patimah Primary Clinic with a total of 40 respondents. Aspects of data measurement in this study using a questionnaire sheet. To determine the relationship between the independent variable and the dependent variable using the *chi square test*, where $p = 0.05$.

RESULTS

Table 1 shows that the majority of respondents in this study were female as many as 22 people (55%) and the rest were male as many as 18 people (45%). Table 1 also shows that most of the respondents in this study were babies in the 6 month age group as many as 24 people (60%), then 10 babies aged 4 months (25%) and 6 months old babies (15%).

Judging from the weight of most of the respondents in this study, 18 people (55%), with a weight range of 9.6-12 Kg, followed by 14 babies with a body weight in the range 7.6-9.5 Kg (35%) and infants with body weight in the range of 6-7.5 Kg 8 people (20%).

In Table 2 shows that the results of the research on baby massage at the Pratama Bunda Patimah Clinic that have been carried out on 40 respondents, namely, 30 respondents (75%) got a good massage, 6 respondents (15%) received adequate massage and the remaining 4 respondents (10%) get less massage.

In Table 3 shows that the results of research on infant defecation patterns at the Bunda Patimah Primary Clinic were carried out on 40 respondents, namely, 38 respondents (95%) had good defecation patterns seen from the color, consistency and frequency of infant defecation, and the remaining 2 respondents (5 %) had less defecation patterns.

In Table 4 explains that babies who received massage well and had a normal pattern of defecation were 38 respondents (95%), and 2 people had an abnormal defecation pattern (5%).

The result of chi - square test reviewed is $p = 0.036 < 0.05$ This indicates that the frequency of infant massage has an influence on the pattern of defecation of infants who receive exclusive breastfeeding aged 4-6 months. In other words, the more often the baby is given massage therapy, the better and better the baby's defecation pattern is.

Table 1. Characteristics of respondents based on gender, age and baby weight

No	Characteristics of Respondents	Frequency (f)	Percentage (%)
1	Gender		
	Man	18	45
	Woman	22	55
	Total	40	100
2	Age		
	4	10	25
	5	6	15
	6	24	60
	Total	40	100
3	Weight		
	6 - 7.5	8	20
	7.6 - 9.5	14	35
	9.6 - 12	18	45
	Total	40	100

Table 2. Distribution of infant massage frequency

No	Baby massage	Frequency (f)	Percentage (%)
1	Well	30	75
2	Enough	6	15
3	Not enough	4	10
	Total	40	100

Table 3. Distribution of defecation patterns for infants who received exclusive breastfeeding

No	Defecation Pattern	Frequency (<i>f</i>)	Percentage (%)
1	Normal	38	95
2	Abnormal	2	5
Total		40	100

Table 4. Cross-tabulation between the relationship between the frequency of infant massage and Defecation Pattern of Babies Who Get Exclusive Breastfeeding

Variable		Baby massage								<i>P</i>
No	defecation	Well		Enough		Not enough		Amount		
		F	%	F	%	F	%	F	%	
1	Normal	30	75	5	12.5	3	7.5	38	95	0.036
2	Abnormal	0	0	1	2.5	1	2.5	2	5	
Total		30	75	6	15	4	10	40	100	

DISCUSSION

1. Overview of Infant Massage Age 4-6 Months at the Mother Patimah Primary Clinic

Based on the results of research conducted at the Mother Patimah Primary Clinic, almost all babies received massage therapy. Some babies do not receive massage therapy well because the baby is fussy and unsettled. From the results of the analysis, it was found that infants who received massage well, namely 3-4 in a month and received massage from the feet to stretching, were 30 respondents. There are babies who receive adequate massage, this is because at the time of giving massage, some babies received massages only received a massage on the face and did not get a stretch because the baby was fussy and did not want to continue the massage for 6 respondents. And the remaining 4 respondents were babies who received massages only for a few movements because they were fussy and did not want to be touched by the midwife who did the massage.

Kusumastuti, 2016 states that babies aged 3 months and over, can accept touch and stimulation. In addition, at the age of 4-6 months baby is a stage where motor development will develop more quickly. Research by Indriyani I, 2016, states that massage can help the baby's digestive system and rarely get colic, constipation and diarrhea (Kusumastuti, Tamtomo and Salimo, 2016; Isnina, 2021). Korompis M, 2018 stated that babies from birth to the age of 6-7 months are better off receiving massage 2 times a day. In the treatment of infants pressure points (acupressure) different from people who have an older age which makes massage so effective. The inner bond that exists between mother and baby is very useful and important because when a relationship materializes tightly the maximum also mothers' understanding of the needs of their babies, so that babies have a greater chance to grow better (Korompis and Pesik, 2018; Dartiwen, 2020).

Caress or touch given through touch stimulation (massage) is food for babies. It is as important as the body needs such as protein, vitamins and minerals. So the stimulus in the form of a caress is very useful, especially during the *golden age* (Maryati, 2020; Harefa, 2021).

2. An overview of the pattern of defecation of babies receiving exclusive breastfeeding at the Mother Patimah Primary Clinic in 2022

Based on the results of research conducted at the Bunda Patimah Primary Clinic, 38 people out of 40 respondents had a normal pattern of defecation, said to be normal because they had a normal color of bowel movements, a frequency of 3-4 times a day and the baby's loose stools were not in the form of pellets. And it was also found that 2 respondents had abnormal defecation patterns, seen from the frequency of baby defecation that occurred 1-2 times a week, and had a solid consistency. This happens because babies sometimes experience constipation, so the color of the stool is slightly reddish (Salwan, Kesumawati and Bakri, 2010; Rochsitasari, Santosa and Puruhita, 2011).

In accordance with the opinion of previous researchers, through baby massage, the frequency of baby defecation can be reduced (diarrhea sufferers) and make the baby's defecation normal. The babies who get food other than exclusive breastfeeding have fewer bowel movements. Normal baby stools have a soft or paste-like texture (Carolyn, Syamsiah and Khasri, 2020; Amru, Haryati and Aziz, 2022).

The two situations that are often associated with changes in the frequency of bowel movements (defecation) and stool consistency are: diarrhea and constipation or constipation . Normal stool color in children in general is yellow / brown caused by bilirubin derivatives, namely urobilin and stercobilin. If a child has stools other than yellow/brown in color, it must be predicted that there may be something abnormal or abnormal. For example, putty - colored stools are caused by : by the absence of bilirubin derivatives. If this happens, it can be seen the possibility of disturbances in the hepatobiliary system. In addition, stools that are reddish or black in color can be suspected of having wounds or bleeding in the gastrointestinal (Carolyn, Syamsiah and Khasri, 2020; Amru, Haryati and Aziz, 2022).

3. The relationship between the frequency of massage for aged infants and the pattern of defecation of infants receiving exclusive breastfeeding at the Mother Patimah Primary Clinic

Based on the results of the study, it was found that there was a relationship between the frequency of infant massage and the pattern of defecation of infants who received exclusive breastfeeding at the Mother Patimah Primary Clinic, the value of $p = 0.036 < 0.05$. According to the researcher's assumption based on the research that has been done, the baby's feces depend on the intake of nutrients obtained, in this case exclusive breastfeeding. In addition, giving massage can reduce the risk of digestive problems in infants who often receive stimulation in the form of massage. A good pattern of defecation is related to the color, consistency and frequency of the baby's bowel movements according to age and also the food the baby gets, in this study all infants who received massage were given exclusive breastfeeding. However, there are still babies who experience a pattern of less defecation despite getting exclusive breastfeeding, this may be due to the pattern or type of food consumed by the mother because the baby only gets breast milk and the baby doesn't often get a good stimulus.

However, there are still babies who experience a pattern of less defecation due to problems with environmental hygiene in this case depending on the food consumed by the mother because the baby only gets breast milk and also does not get a good stimulus. In other

words, the given touch (massage) can help stimulate every organ in the baby so that when the baby has digestive disorders, it can be helped by the stimulus received. The more often the baby receives massage, the better the results. Not only in the pattern of defecation (digestive system) but in all other baby organs (Kusumastuti, Tamtomo and Salimo, 2016; Saddiyah Rangkuti, 2021).

In line with the benefits of massage providing touch stimulation therapy in the form of regular massage can have a good effect on the body and useful for affect hormone production which have an influence in increasing appetite, such as the hormones gastrin and insulin which have a very important role in the process of absorption of food and stimulation of nerves and skin. Babies who are given or receive massage therapy, the formation of these two hormones increases so that absorption increased food and appetite . Massage also has a good impact to help strengthen the baby's muscles and facilitate circulation blood (Harahap, 2019; Juwita, Septiana, 2019).

CONCLUSION

The results of the research conducted stated that there was a relationship between the frequency of infant massage and the pattern of defecation of infants who received exclusive breastfeeding at the Pratama Bunda Patimah Clinic, which was seen from the p - value obtained , namely $p = 0.036 < 0.05$. This means that babies who receive frequent massage tend to have normal stool frequency, consistency and color (defecation patterns) and have a good digestive system.

Suggestion

1. For Next Researcher

It is hoped that further researchers can add knowledge and insight in conducting research, especially the relationship between the frequency of infant massage and the pattern of defecation of infants who are exclusively breastfed.

2. For Respondents

It is hoped that this research will add insight to mothers, especially those who have babies, that in addition to exclusive breastfeeding, babies are also better off if they get stimulation in the form of touch or massage so that the nerves are more easily stimulated and help the baby's growth and development be better.

3. For Research Places

It is hoped that it can provide benefits, especially to mothers who often come to massage their babies about the importance of giving massage and its effect on infant defecation patterns, as well as helping to socialize child/infant health education.

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