

THE INFLUENCE OF BABY MASSAGE ON BABY SLEEP QUALITY IN 3-4 MONTHS IN BPM PERA SIMALINGKAR B MEDAN IN 2018

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ABSTRACT

Baby massage is a fun way to relieve tension and feelings of anxiety, especially in babies, gentle massage will help relax the muscles so that the baby becomes calm and sleeps soundly. Data from BPM PERA Simalingkar B in 2018, out of 30 babies, 22 babies reported having trouble sleeping so they experienced quality sleep.

The research objective was to determine the effect of infant massage on sleep quality for infants aged 3-4 months at BPM PERA Simalingkar B Medan in 2018. This type of research is a quasi experiment with one group pre test and post test design carried out in May and August 2018. There were 30 mothers of babies aged 3-4 months who visited and all of them were used as research samples. Collection using a questionnaire and analyzed using the Wilcoxon test at the limit of significance $\alpha = 0.05$.

The results showed that the quality of sleep for babies aged 3-4 months before the baby massage was good, namely 17 people (56.7%) and the rest, the quality of sleep was poor, namely 13 people (43.3%) and after the baby massage the quality of sleep was good to 24 people (80%) and the rest had poor sleep quality, namely 6 people (20%). There is an effect of massage for babies aged 0-6 months on the quality of sleep for babies before and after massage (p value 0.017 < 0.05).

It is recommended that the clinic leadership provide health education about baby massage to new mothers or mothers of babies who come to visit about baby massage and suggest doing massage so that the baby has good quality sleep. Health workers can provide brochures and leaflets about the correct technique and method of infant massage as a source of health information.

Keywords: Massage Babies 3-4 Months, Sleep Quality

Introduction

Infancy is a golden age as well as a critical period for one's development. It is called a critical period because at this time the baby is very sensitive to the environment and it is said to be the golden age because the baby's period is very short and cannot be repeated. In Indonesia, there are quite a lot of babies who have trouble sleeping, which is around 44.2% of babies who experience sleep problems such as waking up frequently at night. However, more than 72% of parents consider sleep disturbance in infants not a problem or only a minor problem (Ministry of Health, 2009).

Babies are weak individuals and need a process of adaptation. Babies must be able to make 4 adjustments in order to stay alive,

namely adjusting for temperature changes, sucking and swallowing, breathing and removing waste. The developmental age of infants is divided into 2, namely, neonates from birth to 28 days of age and babies from 29 days to 12 months (WHO, 2013). Meanwhile, according to Rusli (2013) babies are children aged 0 to 12 months.

Infant Mortality Rate (IMR) in ASEAN, WHO estimates the total IMR is around 170,000 per 1000 live births. 90% of this figure occurs in Indonesia, Bangladesh, Nepal and Myanmar. The Infant Mortality Rate (IMR) in 2015 was 22.23 per 1,000 live births, which means that it has reached the 2015 Millennium Development Goals (MDGs) target of 23 per 1,000 live births (Indonesia Health Profile, 2015).

The Infant Mortality Rate (IMR) in North Sumatra in 2013 was 21.59 per 1,000 live births and in 2014 was 20.22 per 1,000 live births (Health Profile of North Sumatra, 2014).

Babies who experience sleep problems in Indonesia, about 44.2% of babies experience sleep disorders such as frequent waking at night. However, more than 72% of parents consider sleep disturbances in babies not a problem or just a minor problem, this was revealed by a study in 2004-2005 conducted in five major cities in Indonesia (Jakarta, Bandung, Medan, Palembang and Batam).

Baby massage is a fun way to relieve tension and feelings of anxiety, especially in babies, gentle massage will help relax the muscles so that the baby becomes calm and sleeps soundly. However, the facts show that there are still many mothers who are reluctant to massage their babies regularly, especially at the beginning of their birth, this is because of the fear of wrongly massaging their babies, the baby's body is still weak and doesn't know how to massage the correct technique (Roesli, 2011).

Currently, various therapies have been developed, both pharmacological and non-pharmacological. One of the non-pharmacological therapies to overcome baby sleep problems is baby massage. Baby massage is a slow and gentle rubbing motion on the baby's entire body starting from the baby's feet, stomach, chest, face, hands and back. Baby massage is a form of stimulation. Touch stimulation is the most important in development. touch sensation is the most developed sensory at birth (Hikmah, 2010).

The benefits of massage for baby's skin are obtained when it is done using oil. Application of oil helps stabilize the baby's temperature and prevents heat loss through the skin. This is generally more useful when used in premature babies who are prone to hypothermia (below normal body temperature). The use of oil is also proven to improve skin texture because it can remove dead skin cells and prevent skin

from becoming dry and cracked (IDAI, 2015).

Baby massage can relieve tension and feelings of restlessness, especially in babies. Babies around the age of 3-4 months need time to sleep approximately 18 hours per day and the remaining time for the baby is to play and do activities that make the baby comfortable, for example chatting with mother and family members. But other problems experienced by mothers are problems for babies who find it very difficult to sleep at night and if not handled seriously there are behavioral disorders, growth and development and brain disorders (Dewi, 2014).

The quality and quantity of baby sleep is influenced by several factors. This quality can indicate the individual's ability to sleep and get the amount of rest according to their needs, namely environment, physical exercise, nutrition and disease. Given the importance of sleep time for a baby's development, his sleep needs must be met so as not to adversely affect his development. One of the ways that can be used to meet these needs is by physical exercise or massage. Babies who are massaged will be able to sleep soundly, while when they wake up, their concentration will be fuller (Roesli, 2011).

Inadequate sleep and poor sleep quality can cause physiological and psychological balance disorders. The physiological effects include decreased daily activities, tiredness, weakness, poor neuromuscular coordination, slow healing process and decreased immune system. Meanwhile, the psychological impact includes more unstable emotions, anxiety, lack of concentration, lower cognitive abilities and combined experiences (Saputra, 2009).

The results of previous research by Indriatie (2009) at the Jiyu-Kutorejo Mojokerto Polindes, using a non-random re-experimental design model. The population was 52 babies aged 6-12 months. Sampling was quota sampling of 28 babies. The study was conducted from 13 July 2009 to 13

August 2009. The independent variable was infant massage, the dependent variable was the quality of the baby's sleep. Mostly, after the massage was done, the baby's sleep quality was sound, a number of 11 babies (78.5%). Meanwhile, babies who were not given massage mostly had poor sleep quality, a number of 10 babies (71.5%). After analyzing with the chi square test, it was found that there was an effect of infant massage on the quality of sleep for babies aged 6-12 months. A preliminary survey conducted by the author at BPM PERA Simalingkar B, obtained data from 30 babies, 22 babies reported having problems when sleeping. Complaints reported by mothers are different for each baby. There are those who report frequently waking up when sleeping at night, crying when they wake up and so on. Of the 30 mothers who brought their babies to BPM PERA, 20 people said they had heard about baby massage but did not know how to massage the right way, 10 people said they did not know about baby massage at all.

Method

This research is a quasi experimental study with the aim of knowing the effect of

the independent variable (baby massage) on the dependent variable (baby sleep quality). According to Arikunto (2012), quasi-experimental design is research carried out without a comparison class or control class. The design used was a one group pre-test and post-test research design, which is a research design used by giving a pre-test and a final test to a single group research sample. The research design of one group pre test and post test design is described according to the concept of Arikunto (2012).

The research objective was to determine the effect of infant massage on sleep quality for infants aged 3-4 months at BPM PERA Simalingkar B Medan in 2018. This type of research is a quasi experiment with one group pre test and post test design carried out in May and August 2018. There were 30 mothers of babies aged 3-4 months who visited and all of them were used as research samples. Collection using a questionnaire and analyzed using the Wilcoxon test at the limit of significance $\alpha = 0.05$.

Result

Sleep Quality for Babies 3-4 Months Old Before Baby Massage

Based on the results of data collection, the quality of sleep for babies aged 3-4 months before the baby massage is obtained as follows.

Tabel 4.1 Sleep Quality Frequency Distribution Infants aged 3-4 months Before Doing Baby Massage (Pre Test) at BPM PERA Simalingkar B Year 2018

No.	Pre Test	Amount (n)	Orecentage (%)
1.	No	13	43,3
2.	Yes	17	56,7
Total		30	100,0

Based on the table above, it shows that the sleep quality of babies who came to visit the BPM PERA Simalingkar B Clinic in 2018 before the intervention was good, namely 17 people (56.7%) and the rest poor sleep quality, namely 13 people (43.3%).

Sleep Quality for Babies 3-4 Months After Baby Massage

Based on the results of data collection, the quality of sleep for babies aged 3-4 months after baby massage is obtained as follows.

Tabel 4.2 Frequency Distribution of Sleep Quality for Babies 3-4 Months After Baby Massage (Post Test) at BPM PERA Simalingkar B in 2018

No.	Post Test	Amount (n)	Percentage (%)
1.	No	6	20,0
2.	Yes	24	80,0
Total		30	100,0

Based on the table above, it shows that the quality of sleep for babies who come to visit the BPM PERA Simalingkar B Clinic in 2018 has been intervened by coming to the mother's house from babies aged 3-4 months experiencing an increase in good sleep quality, namely 24 people (80%) and the rest is quality poor sleep, namely 6 people (20%).

Tabel 4.3 Distribution of Compliance of respondents in consuming Fe tablets at UPT Polonia Health Center in 2018

<i>One-Sample Kolmogorov-Smirnov Test</i>			
		Sleep Quality pre test	Sleep Quality post test
N		30	30
Normal Parameters ^{a,b}	Mean	4,43	4,93
	Std. Deviation	1,612	1,388
Most Extreme Differences	Absolute	,246	,219
	Positive	,246	,154
	Negative	-,201	-,219
Test Statistic		,246	,219
Asymp. Sig. (2-tailed)		,000 ^c	,001 ^c

Based on the table above, it can be seen that the Asymp. Sig. (2- tailed) the quality of sleep for babies aged 3-4 months before the baby massage (pre test) is 0,000 and after baby massage (post test) is 0,001. When compared to the Asymp value. Sig. (2-tailed) which is obtained with an α value of 0.05 indicates smaller, so it can be said that the data is not normally distributed. Furthermore, the researcher determined the hypothesis test using the Wilcoxon Test mean difference test. The reason the researchers used the test was before and after the massage because in addition to the data not being normally distributed, it was also a paired sample.

To determine the effect of massage for infants aged 3-4 months on the quality of sleep for infants in BPM PERA Simalingkar B, researchers have used the

Wilcoxon test by comparing the average sleep quality for infants aged 3-4 months (pre test) with the average quality of sleep for infants aged 3-4 months. 3-4 months after the massage (post test) as follows.

Discussion

The results showed that the quality of sleep for infants aged 3-4 months after infant massage had increased, namely the good quality of sleep was 24 people (80%) and the rest was poor sleep quality, namely 6 people (20%). Based on statistical values, it was obtained that the quality of sleep for babies before massage was carried out with a mean of 4.93 and a standard deviation of 1.388 at BPM PERA Simalingkar B Medan in 2018.

In accordance with the research of Minarti (2012) that most respondents

experienced an increase in sleep quality after being given infant massage interventions, namely 21 respondents (70%), while 9 respondents (30%) did not experience an increase in sleep quality after being given infant massage interventions at Puskesmas II Denpasar Timur .

The habit of drinking milk before bed will also affect the quality of sleep because milk contains alpha protein which can increase tryptophan levels, tryptophan is a precursor of the hormones melatonin and serotonin which act as a neural link (neurotransmitter) and a habit regulator (neurobehavioral) which affects the pattern of consciousness. so that the baby will wake up more often at night. In this study the habit of drinking milk before (Dewi, 2014).

In this study, explain that babies aged 3-4 months who are given massage certainly have good quality sleep, but must be supported by a comfortable environment. The findings in the field are that there are babies who experience decreased quality of sleep due to uncomfortable environmental factors such as whispers during the day, thirst because they are late in providing breast milk or formula milk on the day.

The results of the study also showed that infants aged 3-4 months after the baby massage did not but there was no improvement in sleep quality, namely 6 people. This may be due to babies aged 3-4 months experiencing sleep disturbances such as noise, noise and hunger. Different ages of babies affect how many or at least babies consume drinks (ASI) every day.

Conclusion

Based on the results of research and discussion, the authors conclude:

1. The quality of sleep for babies aged 3-4 months before the baby massage was good, namely 17 people (56.7%) and the rest was poor sleep quality, namely 13 people (43.3%).
2. The quality of sleep for infants aged 3-4 months after 5 days of infant massage, experienced an increase in good sleep quality to 24 people

(80%) and the rest was poor sleep quality, namely 6 people (20%).

3. There is an effect of massage for babies aged 3-4 months on the quality of sleep for babies at BPM PERA Simalingkar B before and after massage with a p value of $0.017 < 0.05$.

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