

THE EFFECT OF BABY MASSAGE ON BABY SLEEP FULFILLMENT

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ABSTRAK : PENGARUH PIJAT BAYI TERHADAP PEMENUHAN TIDUR BAYI

Latar belakang : Pemenuhan tidur yang baik sangat penting bagi semua orang dalam meningkatkan kesehatan fisik dan mental. Karena tidur yang nyenyak sangat penting bagi pertumbuhan terutama bagi bayi, Saat tidur pertumbuhan otak bayi mencapai puncaknya. salah satu terapi non farmakologi untuk mengatasi masalah tidur bayi adalah Baby massage. Tujuan : mengetahui Pengaruh Baby Massage Terhadap Pemenuhan Tidur Bayi Di PMB "S" Wilayah Kerja Puskesmas Sukamerindu Kota Bengkulu. Metode : Jenis penelitian ini adalah Quasy Eksperimen dengan rancangan one group pretest-posttest design. Populasi penelitian adalah bayi usia 3-6 bulan. Sampel penelitian 30 bayi usia 3-6 bulan, secara total sampling. Variable independent baby massage dan variable dependent pemenuhan tidur bayi usia 3-6 bulan. Instrument penelitian menggunakan SOP dan Lembar kuesioner. Hasil penelitian : menunjukkan pemenuhan tidur bayi Usia 3-6 bulan sebelum diberikan baby massage hampir dari setengahnya kurang yaitu sebanyak 21 responden (70,0%) dan pemenuhan tidur bayi baik usia 3-6 bulan setelah diberikan baby massage sebagian besar sebanyak 26 responden (78,7%). Uji statistik T test dan Wilcoxon menunjukkan bahwa nilai signifikan p value = 0,00 < (0,05). Kesimpulan : ada Pengaruh Baby Massage Terhadap Pemenuhan Tidur Bayi Di PMB "S" Wilayah Kerja Puskesmas Sukamerindu Kota Bengkulu. Saran:Diharapkan penelitian ini dapat dijadikan masukan pada praktek mandiri bidan supaya melakukan sosialisasi tentang pentingnya pijat bayi agar ibu dapat melakukan intervensi secara mandiri di rumah.

Kata kunci : Baby massage, pemenuhan tidur bayi usia 3-6 bulan

ABSTRACT

Background: Getting good sleep is very important for everyone in improving physical and mental health. Because sound sleep is very important for growth, especially for babies, when sleeping, baby's brain growth reaches its peak. One of the non-pharmacological therapies to overcome baby sleep problems is baby massage. Objective: to determine the effect of baby massage on the fulfillment of baby sleep in the PMB "S" work area of the Sukamerindu Health Center, Bengkulu City. Method: This type of research is a Quasy Experiment with a one group pretest-posttest design. The research population was babies aged 3-6 months. The research sample was 30 babies aged 3-6 months, in total sampling. The independent variable baby massage and the dependent variable are sleep fulfillment for babies aged 3-6 months. The research instrument uses SOPs and questionnaire sheets. Research results: showed that almost half of the sleep fulfillment for babies aged 3-6 months before being given baby massage was less, namely 21 respondents (70.0%) and the majority of sleep fulfillment for babies aged 3-6 months after being given baby massage was 26 respondents (78.7%). The T test and Wilcoxon statistical tests show that the significant value is p value = 0.00 < (0.05). Conclusion: There is an influence of baby massage on the fulfillment of baby sleep in the PMB "S" work area of the Sukamerindu Health Center, Bengkulu City. Suggestion: It is hoped that this research can be used as input for the independent practice of midwives to socialize the importance of baby massage so that mothers can intervene independently at home.

Keywords : Baby massage, providing sleep for babies aged 3-6 months

INTRODUCTION

According to WHO data, the rate of delayed growth and development of babies in the United States is 12% to 16%, in Thailand 24%, in Argentina 22% and in Indonesia it ranges from 13% to 18%. Growth and development problems in babies affect

motor delays, language, behavior, autism and hyperactivity. World researchers report that there are 52.9 million babies worldwide, and 54% have growth and development delays. It was found that around 95% of babies experience growth and development

delays, living in low and middle income countries (Andinawati et al., 2022).

In Indonesia the number of babies is 5% of the total population, where the percentage of babies with growth and development delays (on average) ranges from 5.3% to 7.5%. According to routine data (2020) in Indonesia, growth and development services show that 66% of their growth and development were monitored, 42% of children received SDIDTK (Stimulation of Early Growth and Development Detection and Intervention) services, and 7.5% experienced growth and development delays. The study found that a high percentage of babies in rural and urban areas experienced motor development problems. This could be a sign of a health problem, and it's important to monitor babies as early as possible to see if they have any problems (Ningrum et al., 2022).

Infancy is the golden age and the critical period for a baby's development at the age of 0-12 months. It is said to be a golden age because this period is short and cannot be repeated. It is said to be a critical period because during this period babies are very sensitive to the environment and need good nutritional intake and stimulation for their growth and development (Ministry of Health, 2017).

The impact of not getting enough sleep on babies is that their growth and development becomes stunted, their weight does not match their age, their height does not increase, their brain development slows down, their babies become more fussy, they have a shorter concentration span, and behavioral problems arise as the baby gets older. If a baby doesn't get enough sleep, there are two phases that are very likely to be disrupted. In the long term, body health and brain growth can be affected. Not only does the body get tired easily, but the child's learning achievement will also be at stake, and the baby will grow up to be a child who gets angry easily or throws tantrums. This brain development influences cognitive, emotional, language and social abilities towards the environment (Garbarino, et al. 2021).

During infancy there are several changes in sleep patterns, the baby's sleep pattern will continue to increase with age, at the age of 3-6 months it can be measured regarding the fulfillment of the baby's sleep time, namely the proportion of sleep more at night (Ubaya, 2017).

Babies aged 3-6 months need 14-15 hours of sleep every day, including 10 hours of sleep at night and 5 hours of naps during the day. Getting enough sleep will make the baby's body and brain develop well and normally (Harsi, 2018)

According to Jodi Mindell at Children's Hospital of Philadelphia, sleep has a dual role for babies, namely providing the opportunity to rest the body and increasing metabolic processes, namely the process of processing food into energy required. In the infant phase, the growth of nerve cells is not yet perfect, so sufficient and healthy sleep time is needed for nerve development, synapse formation and the release of 75% of growth hormone when the baby sleeps (Permata et al., 2017).

Based on the results of research in Indonesia conducted in 5 cities, namely, Jakarta, Bandung, Medan, Palembang and Batam with a total of 385 respondents, data was obtained that 51.3% of babies experienced sleep disorders, 42% of them slept less than 9 hours a night and woke up at night more than three times and waking up for a long time at night for more than one hour (Permata et al., 2017).

Factors that influence a baby's sleep time include health status, environment, psychological stress, medication, nutrition, and baby massage simulations. With the stimulation of baby massage, babies will sleep better, and will grow into well-developed children (Suryati, 2019).

Baby massage has been proven to influence the baby's sleep time for the better after the intervention was carried out 4 times for 2 weeks with a massage duration of 15 minutes. The baby looked calmer, looked fresher when he woke up in the morning, slept more often and slept more soundly (Kandi, 2018).

Baby massage stimulates the fulfillment of the baby's sleep time which is good for their growth and development. Baby massage is massage with touch which is useful for improving the mother's skills in interacting with the baby (Gnazzo et al. 2015). The benefits obtained from baby massage are improved sleep-wake patterns, weight according to age, increased neuromotor development, and better emotional attachment (Afroh et al., 2018)

Babies can be massaged at good times, namely in the morning and evening. Babies who are given massage are in good health, avoid massaging when the baby is sleeping, hungry and when the baby is full, because it can make the baby susceptible to vomiting, according to (Roesli, 2016).

The impact of giving baby massage for health is that it stimulates the brain's nerves, because it is good for the development of the baby's brain, trains the nervous response in the baby's body, which can stimulate the development of the baby's body reflexes, helps and stimulates the digestive system in the baby's stomach, because baby massage can increase the work of intestinal peristalsis, improves the baby's blood circulation system, increases the

baby's weight, improves the baby's breathing, because it can help supply oxygen to the baby's body, help develop the baby's muscle structure, and increase the baby's immune system. The psychological impact of baby massage is to increase the closeness between the baby and the parents, because the language of loving touch greatly influences the baby's feelings, developing the baby's communication, because it can stimulate the baby's eye contact, facial expressions and body expressions. Provides a sense of comfort to babies, makes babies calmer and less fussy, according to (RI Ministry of Health, 2019).

Based on previous research conducted by Widiyo (et al, 2022) in the journal entitled increasing sleep fulfillment for babies aged 3-6 months by providing baby massage, the results showed that 14 respondents (87.5%) had good sleep quality. From research conducted by Endah Yulianingsih, 2019 journal entitled Baby Massage Influences the Sleep Quantity of Babies Aged 3-6 months, it was found that 25 respondents (80.6%) had good sleep quality. From research conducted by Cahaya Bunda Clinic, one of the PMBs in Pekanbaru which provides various care for mothers and children. One of the baby massage treatments which is very popular is carried out on mothers who have babies aged 3-6 months who state that the baby often wakes up and cries every 1 to 2 hours, and the baby is also not sleeping soundly as seen from the baby who will cry if the mother moves. stay away from babies. So researchers are interested in conducting research on baby massage to improve sleep quality in babies aged 3-6 months.

Research conducted by (Fauziah, 2018), discusses the sleep needs of babies entitled the effectiveness of baby spas on the length of sleep of babies aged 3-6 months. From this research, it was found that 80% of babies had sleep problems. Based on the journal above, it can be concluded that the effect of baby massage is higher than baby SPA.

RESEARCH METHODS

Table 2
Normality Test

Variabel	N	Mean	SD	P value
Before giving a baby massage (pre test)	30	,3000	,46609	0,00
After being given a baby massage (post test)	30	,7963	,43018	0,00

The data that was obtained from the results of research on the effect of baby massage on babies' sleep fulfillment was first tested for normality using Shapiro Wilk with a confidence level of 5% (=0.05).

This research is a type of quantitative research with Quasy Experimental research with a One Group Pre Post Test Design approach, namely a pre test (initial observer) first before being given the intervention, after being given the intervention then a post test (final observation) is carried out. Baby massage intervention was carried out 4 times over 2 weeks with a massage duration of 15 minutes. Massage observations were carried out after the massage was carried out the following day starting from the baby's age of 3-6 months. Sample selection uses the total sampling technique. Data analysis is carried out using univariate and bivariate analysis. Univariate analysis was used to determine the frequency distribution of the variables studied and bivariate analysis to see the relationship between the dependent variable and the independent variable using the T test and Wilcoxon test using a significance level of 5% (0.05).

RESEARCH RESULTS

Univariate Analysis

Table 1
Respondent Characteristics

Characteristics	F	%
Age		
3- 4 month	18	60,0
5-6 month	12	40,0
Before giving a baby massage	F	%
Not enough	21	70,0
Good	9	30,0
After being given a baby massage	F	%
Not enough	4	21,3
Good	26	78,7 %

Table 1. it shows that most of the 18 babies (60.0%) were 3-4 months old, the majority were 21 babies (70.0%) before being given baby massage, and the majority after being given baby massage were 26 babies (78.7%).

The data normality test was carried out using the Shapiro Wilk test (because the number of samples was <50).

Based on table 2, the results of the data normality test for baby massage show that the pre-test p value is 0.00 and the post-test p value is 0.00, because the p value is <0.05, the data is declared not normally distributed, so the next data analysis test uses the test. Wilcoxon test

Bivariate Data Analysis

Based on table 3 The average pre test score was .3000 and the average post test score was .7667 with a difference in average score of .4667. The

results show that 21 babies achieved sleep <15 hours/day before being given a baby massage and after being given a baby massage, there were 26 Based on table 1.4 babies achieving good sleep >15 hours/day, so there were 17 respondents who experienced an increase in sleep fulfillment, the Wilcoxon test shows that p The value is 0.00 where $p < 0.05$, so H_a is accepted which means that there is an influence of baby massage on sleep fulfillment in PMB "S" babies in the Sukamerindu Health Center working area, Bengkulu City.

Table 3
Fulfillment of baby sleep before and after giving baby massage at PMB "S" Puskesmas work area Sukamerindu, Bengkulu City.

Variabel	N	Mean	SD	Min	Max	P value	Selisih Mean
Before giving a baby massage	30	,3000	,46609	,00	1,00	0,00	
After being given a baby massage		,7667	,43018	,00	1,00		,4667

Table 4
Wilcoxon Test Results

Variabel	N	P value
Fulfillment of sleep before giving baby massage -	<i>Negative Ranks</i>	0
After being given a baby massage	<i>Positive Ranks</i>	17

DISCUSSION

The results of research conducted on respondents showed that the age characteristics of the majority were 18 babies (60%) aged 3-4 months, and a small number of 12 babies (40.0%) aged 5-6 months. During infancy there are several changes in sleep patterns, the baby's sleep pattern will continue to increase with age, at the age of 3-6 months it can be measured regarding the fulfillment of the baby's sleep time, namely the proportion of sleep more at night (Ubaya, 2017).

Fulfillment sleep is a certain quality or physiological state obtained during a person's sleep, which restores the body processes that occur when the person wakes up. If sleep is good, it means that the body's physiology, in this case the brain cells, for example, returns to normal when you wake up. According to researchers, sleep plays a very important role in increasing a baby's immune system and its growth and development. If sleep is disturbed, the effectiveness of the baby's immune system can decrease so that the baby is easily stimulated and restless Gola (2018).

This is in accordance with Dewi's (2020) opinion that babies in the 3rd and 4th months can easily regulate their drinking and sleeping schedules,

entering the age of 3-4 months, the baby's eyes can work well to focus and can follow the direction of moving objects, so that the baby can be disturbed by bright lights or moving objects, using dim lights when the baby sleeps can help the baby sleep soundly. At this age the baby's nutritional needs are 120-180 ml of breast milk, and the baby's frequency of breastfeeding is 7-8 times a day with a period of 3-4 hours.

If the baby puts his hand in his mouth, sucks his hand or other objects that can be reached, it shows that the baby is still hungry. Breast milk greatly influences the growth and development of babies, apart from psychological factors which play a role in fostering a close relationship between baby and mother which is very necessary for normal baby development, especially in the first months of life, breast milk also contains important macro and micro nutrients (Akhiryanti et al., 2020).

There is no formula milk that can replace breast milk considering that the composition of breast milk can change according to the baby's needs. Breast milk contains enzymes that help the digestive process and contains immune substances that can prevent babies from various infectious diseases. Although almost all mothers breastfeed their children

after birth, only 4.3% carry out exclusive breastfeeding for at least three months.

It is very far from the expectations of the "Healthy Indonesia" Vision, namely that the coverage of babies receiving exclusive breast milk is 80%. Mothers already know the importance of providing exclusive breastfeeding but it is difficult to put into practice. The three main reasons why mothers do not exclusively breastfeed their children are that the mother has to work, the mother feels that her milk production is low and is afraid that her breast milk will not be sufficient for her child's growth, the lack of breast milk for the baby causes the baby to become fussy so that sleep is disrupted.

When babies are 5-6 months old, babies begin to learn to sit and move more actively, like to roll over and reach for objects that are near them, babies can also see well from a certain distance. Color depiction has occurred between different colors such as red, blue, and yellow. At this age, babies already recognize various sounds and turn their faces towards the source of the sound (Ministry of Health of the Republic of Indonesia, 2017).

This is also in line with research conducted by Suryaningrum (2016), regarding the relationship between breastfeeding and sleep disorders (lack of sleep) in babies (0-6 months) in Bugangan sub-district, East Semarang city district. The research results obtained a T test result of 0.00. The p value obtained for the baby's sleep fulfillment variable means that there is a significant difference in the relationship between breastfeeding and sleep disorders (lack of sleep) for 35 babies.

The research results obtained from bivariate data analysis show a p value of $0.00 < \alpha (0.05)$ with an average pre test value of .3000 and an average post test value of .7667 with a difference in average value of , 4667, meaning that there is an influence of baby massage on the baby's sleep fulfillment to optimize the baby's growth and development.

The length of time the babies slept before the massage was less than normal, as many as 21 babies and the babies who had a good sleep time were 9 babies. The majority of babies' sleep duration after being given massage treatment became 26 babies who had a good sleep duration of >15 hours/day and as many as 4 babies aged 5-6 months still had insufficient sleep, this is because at the age of 5-6 months the baby had teething starts, when the baby's teeth grow, he doesn't want to breastfeed, so he doesn't get enough sleep. Insufficient breast milk nutrition for babies can make babies fussy and wake up frequently at night.

This is also in line with research conducted by Devi Dwi Kurniasari (2020), regarding the Effect of

Baby Massage on the Sleep Length of Babies Aged 3-6 Months in Jemawan Village, Jatinom District, Klaten Regency. The results of the research obtained a Wilcoxon test result of 0.00. The p value obtained for the variable providing baby sleep meant that there was a significant difference in providing sleep for 27 babies before and after being given baby massage.

CONCLUSION

Based on the results and discussion of research on the Effect of Baby Massage on Sleep Compliance for Babies Aged 3-6 Months, it can be concluded that: Fulfill sleep for babies aged 3-6 months before being given a baby massage in the Sukamerindu Community Health Center working area, Bengkulu City, Fulfillment of sleep for babies aged 3-6 months after baby massage in the Sukamerindu Community Health Center working area, Bengkulu City. There is an influence of baby massage on the fulfillment of sleep for babies aged 3-6 months in the working area of the Sukamerindu Community Health Center, Bengkulu City

SUGGESTION

It is hoped that this research can be used as input for the independent practice of midwives to socialize the importance of baby massage so that mothers can intervene independently at home

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