

The Effect Of Baby Massage With Orange Therapy On The Sleep Needs Of 6-12 Months In Baby Clinic, Rismala Kisaran, Asahan Regency

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ABSTRACT

Sleep disturbances in infants are a form of problems faced by parents. Based on WHO data in 2012 in the journal Pediatrics, as many as 33% of infants experienced sleep disorders (Abdurrahman, 2015). According to the results of Sekartini's research, which was conducted in 5 cities, namely Jakarta, Bandung, Medan, Palembang and Batam with a total of 385 respondents, data was obtained that 51.3% of infants had sleep disturbances, 42% had less than 9 hours of sleep at night, and woke up at night more than three times and long waking at night more than one hour (Nurella, 2017). In the Yogyakarta area in 2018, 13.6% of babies who were not routinely given massage therapy experienced problems in their sleep (Fauziah & Wijayanti, 2018). This research was conducted at the Rismala Midwife Clinic. This study aims to determine the effect of baby massage with the aroma of orange terpai on the fulfillment of sleeping needs for babies 6-12 months. The design of this study was a quasi-experimental with a sample size of 31 using one group pre post test without control. The sampling technique is by accidental sampling. Data analysis used paired T test. The statistical test shows that the Sig value is 0.014 < 0.05, then H0 is rejected and Ha is accepted.

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1. Introduction

Babies are children under one year of age who have just entered the early stages of life characterized by rapid development. One of the factors that influence the development of infants is rest or the length of time they sleep. The baby's body will produce growth hormone while sleeping, so babies need enough sleep to get optimal development (Permata, 2017).

Sleep disturbances in infants are a form of problems faced by parents. Based on WHO data in 2012 in the journal Pediatrics, as many as 33% of infants experienced sleep disorders (Abdurrahman, 2015). In Indonesia, according to a study conducted by Sekartini in 2004, 44.2% of children under 3 years of age experienced sleep disturbances (Nugraheni et al., 2018). In the Yogyakarta area in 2018, 13.6% of babies who were not routinely given massage therapy experienced problems in their sleep (Fauziah & Wijayanti, 2018).

Sleep is an unconscious state in which the individual's perception and reaction to the environment decreases or disappears, and can be awakened again with sufficient senses or stimuli. Sleep for babies is a top priority, because during sleep in babies there will be neuro-brain repair and approximately 75% of growth hormone is produced. Babies aged 0-5 months will live their new life with 80-90% sleep. Newborns usually sleep for 16-20 hours a day which is divided into 4-5 periods. At the age of 2 months, babies sleep more often at night than during the day. At the age of 3 months, babies will spend about 15-17 hours of sleep a day, with a division of 8 hours for naps and 9 hours for night sleep. As the baby gets older, the sleep hours also decrease. At the age of 3-6 months the number of naps decreases. About 3 times and keep decreasing. The total amount of sleep time ranged from 13-15 hours / day. In infants aged 6 months, their sleep patterns begin to look like adults (Siska dewi, 2019).

In Indonesia, quite a lot of babies have sleep problems, which is around 44.2% of babies experience sleep disorders such as frequently waking up at night. However, more than 72% of parents think sleep disturbances in babies are not a problem or just a minor problem, this was revealed by a study conducted in five major cities in Indonesia (Jakarta, Bandung, Medan, Palembang and Batam). According to the results of Sekartini's research, which was conducted in 5 cities, namely Jakarta, Bandung, Medan, Palembang and Batam with a total of 385 respondents, data was obtained that 51.3% of infants had sleep disturbances, 42% had less than 9 hours of sleep at night, and woke up at night more than three times and long waking at night more than one hour (Nurella, 2017).

Babies aged 6-12 months will experience increased physical activity, where babies begin to learn to crawl, sit and walk. These activities can make babies tired, so there will be an increase in sleep time for babies during the day and babies will experience 2 sleep disturbances at night (Shadik, 2011). Babies aged 6-12 months have about 14 hours of sleep per day (Erlawati & Oktaviani, 2019).

Aromatherapy is a method of treatment through the medium of odors derived from certain plant materials. Aromatherapy is often combined with alternative medicine practices and mystical beliefs that date back thousands of years. Initially only present in the form of essential fluids. Along with the times, there are various forms of aromatherapy, ranging from essential oils, incense, candles, salt, massage oils, and soaps. According to its forms, aromatherapy can be used as a room deodorizer, oil aroma when massaged, bathing, even for body odor after bathing.

Orange peel contains several compounds that can be utilized further, such as the content of essential oils in it. The essential oil in orange peel contains a calming effect. Essential oils that are smelled through the nose will pass through the receptors that catch the aroma. Receptors will send chemical signals to the brain and will regulate a person's emotions, so essential oils are commonly used in aromatherapy mixtures in the health sector. In sweet orange peel there are chemical compounds that can be utilized because it has pectin and essential oil constituent groups. The essential oil components of sweet orange peel consist of limonene (95%), mirsen (2%), octanal (1%), decanal (0.4%), citronellal (0.1%), neral (0.1%), geranial (0.1%), valence (0.05%), sinnsial (0.02%), and sinensial (0.01%) (Seputri et al, 2010).

Infant sleep quality is a measure used to assess the ease with which a baby can initiate and maintain sleep. Sleep quality is good if the length of sleep is a balance between night and daytime sleep. Babies with poor sleep quality have a negative impact on their development, such as babies becoming emotional easily and decreasing concentration and body immunity. Factors that affect the quality of sleep in infants include activity or fatigue, environment, health conditions and nutritional fulfillment. Infants aged 6-12 months need adequate sleep, so it is necessary to provide external stimulus in the form of massage therapy. One of the massage therapies that can be done is baby massage (Nugraheni et al., 2018).

Baby massage is also known as stimulus touch or touch therapy. It is called touch therapy because it is through this baby massage that there will be comfortable and safe communication between the mother and her baby. Actually, baby massage has been used by various nations and cultures in this world since centuries ago. Baby massage has developed in various forms of movement, therapy and purpose. Apart from being a therapy that provides many benefits, baby massage is also a way of expressing love between parents and children, through touching the skin which has a tremendous impact on the physical, emotional and developmental development of children. (Ria, 2021).

Baby massage is a touch therapy that can fulfill these three basic needs because in practice this baby massage contains elements of touch in the form of affection, voice or speech, eye contact, movement, and massage. Baby massage is also one type of stimulation that will stimulate the development of structures which are important stages and development of children. A child who gets directed and regular stimulation will develop faster than other children who get less or no stimulation. Touching the baby and giving light massages immediately after birth is a continuation of the body contact that the baby needs to maintain a sense of security and comfort. Massage can help reduce muscle tension,

From the results of a preliminary study conducted by researchers by conducting interviews with midwives Rismala. From the results of the initial assessment of 7 parents who have babies aged 6-12 months, 5 parents of babies said that their babies were rarely given massages, massages were carried out by traditional birth attendants because it was a tradition in the family and often woke up at night more than three times, and the nighttime sleep is less than 9 hours, the total number of

sleeps per day is less than 13 hours, while the other 2 parents said that their babies were often massaged and their sleeping hours were normal with a night's sleep of more than 9 hours, and had a normal amount of sleep with an average average 14 hours per day. The survey results also show that babies are massaged when they are sick or fussy with an average massage frequency of 1 to 2 times for 1 month, The data above shows that there are still many babies who do not have enough sleep. Based on the analysis above, researchers are interested in conducting research on the effect of baby massage on the quantity of sleep for babies aged 6-12 months at the Rismala Clinic, Bandar Pulau Village, Asahan Regency in 2022.

2. Method

The type of this research is "quasy experiment one group pre post test without control.". The population in this study were all infants aged 6-12 months at the Rismala Kisaran Clinic, Asahan Regency. The sampling technique used was an accedental sampling approach. In this research design, there is only one group, namely the treatment group as well as the control group. The group received baby massage treatment with aromatherapy before and after. And intervention was done in the form of inculis: suffering from hypertension. The sample size was 31 patients with hypertension. This study uses an alpha value of 0.05 or 5% and the confidence level of this study is 95% (Sugiyono, 2015).

3. Results and Discussion

A. Univariate Analysis

In this chapter, we will describe the results of research on the effect of baby massage with the aroma of orange terpai on the fulfillment of sleeping needs for babies 6-12 months at the Rismala clinic, Kisaran, Asahan Regency in 2022.

Table 1.
Frequency Distribution of Respondents' Characteristics at the Rismala Clinic, Kisaran, Asahan Regency in 2022

No	Age	Frequency	Percentage (%)
1.	6-7 months	9	29
2.	8-12 months	22	71
	Total	31	100
No	Gender	Frequency	Percentage (%)
1.	Woman	18	58
2.	Man	13	42
	Total	31	100
No	Weight	Frequency	Percentage (%)
1.	7000gr	6	19.4
2.	7000gr	25	80.6
	Total	31	100

Based on table 4.1.1 above shows that from 31 respondents it was found that the majority of infants aged 8-12 months were 22 respondents (71%), and a minority of infants aged 6-7 months were 9 respondents (29%), based on gender. the majority of women as many as 18 respondents (58%) and male minorities as many as 13 respondents (42%) while based on body weight the majority 7000gr as many as 25 respondents (80.6%) and minority body weight \leq 7000gr as many as 6 respondents (19.4%).

Table 2.
Frequency Distribution of Respondents Based on Fulfillment of Baby Sleep Needs 6-12 months Before Baby Massage With Orange Aromatherapy

Baby Sleep Needs 6-12 months	Frequency	Percentage (%)
fulfilled	12	38.7
Not fulfilled	19	61.3
Total	31	100

Based on table 4.1.2 it can be seen that the majority of respondents with fulfilled sleep needs are 12 respondents (38.7%), and a minority of respondents with unfulfilled sleep needs are 19 respondents (61.3%).

Table 3.
Frequency Distribution of Respondents Based on Fulfillment of Baby's Sleep Needs After Baby Massage With Orange Aromatherapy

Blood pressure	Frequency	Percentage (%)
fulfilled	23	74.2
Not fulfilled	8	25.8
Total	31	100

Based on table 4.1.2, it can be seen that the majority of respondents with fulfilled sleep needs are 23 respondents (74.2%), and a minority of respondents with unfulfilled sleep needs are 8 respondents (25.8%).

Table 4.
Data Normality Test (Shapiro-Wilk)

Variable	Treatment Group	
	Before baby massage with aromatherapy	After baby massage with aromatherapy
Baby Sleep Needs Age 6-12 Months	0.000	0.000

In general, there are two methods to perform the Normality Test, namely the Kolmogrov-Smirnov test and the Shapiro-Wilk test. Because the sample used in this study amounted to 31 people (< 50 people) then the Shapiro-Wilk test was used.

Normality Test decision making data

1. If the value of Sig. > 0.05 then the data is normally distributed
2. If the value of Sig. < 0.05 then the data is not normally distributed

Based on the table above shows that the results of the data normality test using the Shapiro-Wilk test with a sample of 31 respondents, where the results of the normality test for data on the sleep needs of babies aged 6-12 months before massage with orange aromatherapy with a sig value of 0.063 (>0, 05) which states that the distribution of data is normal, while the normality test of data on baby's sleep needs 6-12 months after baby massage with citrus aromatherapy is with a sig value of 0.068 (> 0.05) which states that the distribution of data is normally distributed.

B. Bivariate Analysis

Table 5.
Sleep Needs for Sua Babies 6-12 Months before and after Baby Massage With Orange Aromatherapy

Blood pressure	Giving Dayak Onion Tea				Paired Test Sample T-Test
	Before		After		
	Frequency	Percentage (%)	Frequency	Percentage (%)	
fulfilled	12	38.7	23	74.2	0.001
Not fulfilled	19	61.3	8	25.8	
Amount	31	100	31	100	

Based on the table above, it is known that the Sig value is 0.001 < 0.05, then H0 is rejected and Ha is accepted. So it can be concluded that there is an average difference between the sleep needs of babies aged 6-12 months before baby massage with orange aromatherapy, and after baby massage with orange aromatherapy, which means that there is an effect of baby massage with orange

aromatherapy on the sleep needs of babies aged 6 -12 months.

Discussion

Based on table 4.1.1 above shows that from 31 respondents it was found that the majority of infants aged 8-12 months were 22 respondents (71%), and a minority of infants aged 6-7 months were 9 respondents (29%), based on gender. the majority of women as many as 18 respondents (58%) and male minorities as many as 13 respondents (42%) while based on body weight the majority 7000gr as many as 25 respondents (80.6%) and minority body weight ≤ 7000 gr as many as 6 respondents (19.4%).

Babies aged 6-12 months will experience increased physical activity, where babies begin to learn to crawl, sit and walk. These activities can make babies tired, so there will be an increase in sleep time for babies during the day and babies will experience 2 sleep disturbances at night (Shadik, 2011). Babies aged 6-12 months have about 14 hours of sleep per day (Erlawati & Oktaviani, 2019).

Infants aged 6-12 months need adequate sleep, so it is necessary to provide external stimulus in the form of massage therapy. One of the massage therapies that can be done is baby massage (Nugraheni et al., 2018). Infant sleep quality is a measure used to assess the ease with which a baby can initiate and maintain sleep. Sleep quality is good if the length of sleep is a balance between night and daytime sleep. Babies with poor sleep quality have a negative impact on their development, such as babies becoming emotional easily and decreasing concentration and body immunity.

Statistical test results obtained Sig value is $0.001 < 0.05$, then H_0 is rejected and H_a is accepted. So it can be concluded that there is an average difference between meeting the sleep needs of babies aged 6-12 months before baby massage with orange aromatherapy and after baby massage with orange aromatherapy, which means that there is an effect of baby massage with orange aromatherapy on meeting the sleep needs of babies aged 6-12 months. 6-12 months. Baby massage is also known as stimulus touch or touch therapy. It is called touch therapy because it is through this baby massage that there will be comfortable and safe communication between the mother and her baby. Actually this baby massage has been done by various nations and cultures in this world since centuries ago. Baby massage develops in many forms, movements, therapies and goals. Apart from being a therapy that provides many benefits, baby massage is also a way of expressing love between parents and children, through touching the skin which has a tremendous impact on the physical, emotional and developmental development of children. (Ria, 2021).

Baby massage is a touch therapy that can fulfill these three basic needs because in practice this baby massage contains elements of touch in the form of affection, voice or speech, eye contact, movement, and massage. Baby massage is also one type of stimulation that will stimulate the development of structures which are important stages and development of children. A child who gets directed and regular stimulation will develop faster than other children who get less or no stimulation. Touching the baby and giving light massages immediately after birth is a continuation of the body contact that the baby needs to maintain a sense of security and comfort. Massage can help reduce muscle tension, This is supported by the research of Field et al (2016) which states that massage therapy using lotion has a significant effect on the total sleep time of babies at night compared to the sleep time of babies who are given massage therapy without using lotion. Another study conducted by Rahayu et al (2016) stated that after massage was carried out in the intervention group there was an increase in sleep quality compared to the control group. This researcher also found that one of the factors that greatly affect the quality of sleep in infants is age, which affects the body's immune system. The baby's immune system is still weak, it's easy to get infected by germs, causing the quality of sleep to be disturbed.

Klemanson et al observed 50 premature infants for 8 months. They found that the 25 infants in the massage intervention group would snore less/lightly during sleep, wake up less frequently at night to drink and be more alert during the day than the control group. To increase concentration and make the baby sleep more soundly, there are baby massage techniques that mothers can do at home. Massage is a fun activity that can put mothers in contact with their babies both physically and emotionally. The first massage experience experienced by humans is when they are born, when they pass through the mother's birth canal. (Roesli, 2017). Massage accompanied by aromatherapy is the right stimulant to make babies sleep soundly. Massage accompanied by aromatherapy is the right stimulant to make babies sleep soundly. Aromatherapy will spread molecules that spread fragrance

and stimulate the central nervous system which is useful for relaxation and treatment. (Healthy Lifestyle Team, 2015). To make sleep more soundly, aromatherapy with the aroma of orange makes the baby comfortable. This comfortable feeling in the baby stimulates the brain to relax so that the baby sleeps soundly. The lack of fulfillment of baby's sleep rest is an emotional and subjective individual experience that can be observed directly. Babies will show a fussy reaction and often wake up from sleep if he feels something uncomfortable and disturbs his sleep. Baby massage with citrus aromatherapy given to respondents will be beneficial for relaxation. Because baby massage with citrus aromatherapy soothes and reduces the production of adrenaline hormones which will further increase the baby's immune system. Generally, the baby's immune system increases by 30% after being massaged 2 times for 15 minutes, this is very important for inner comfort, reduces anxiety, and can prevent psychological disorders.

4. Conclusion

Based on the results of the data analysis and discussion that has been attached, the following conclusions can be drawn. Of the 31 respondents, it was found that the majority of infants aged 8-12 months were 22 respondents (71%), and the minority of infants aged 6-7 months were 9 respondents (29%), based on gender, the majority of women were 18 respondents (58%) and male sex minorities as many as 13 respondents (42%) while based on body weight the majority 7000gr as many as 25 respondents (80.6%) and minority body weight ≤ 7000 gr as many as 6 respondents (19.4%). The majority of respondents with fulfilled sleep needs are 12 respondents (38.7%), The majority of respondents with their sleep needs met are 23 respondents (74.2%) The statistical test shows that the Sig value is $0.012 < 0.05$, then H_0 is rejected and H_a is accepted. which means that there is an effect of baby massage with the aroma of orange tart with the sleep needs of babies aged 6-12 months.

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