

The Effect Of Baby Massage Combination Using Lavender Oil And Baby Sleep Music (Lullaby) On The Sleep Quality Of Babies Aged 6-12 Mounths In The Working Area Pmb Supianah

Malang City

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ABSTRACT

Sleep is a factor that affects the development of infants. Babies need optimal sleep time to produce developmental hormones. Poor sleep quality in infants has a negative impact such as babies becoming easily emotional, concentration and body immunity decreases. One of the therapies to improve sleep quality is to provide external stimulus in the form of baby massage therapy using lavender oil and baby sleep music (lullaby). The aim of this study was to determine the effect of a combination of baby massage using lavender oil and baby sleep music (Lullaby) on the sleep quality of infants aged 6-12 months in the working area of PMB Supianah, Malang. This study uses a quantitative research design and the research approach used is an experimental approach. The sample in this study was a portion of infants aged 6-10 months at PMB Supianah, S.Tr.Keb., Bd, Malang, with a total of 30 respondents. The sampling technique used is purposive sampling. The analysis used is paired samples test. The research results obtained from 30 respondents most of the respondents (infants) experienced mild sleep problems, namely 25 infants (83.3%). Whereas at the time of the posttest, it was found that most of the babies did not experience problems in their sleep, namely as many as 25 babies (83.3%). Based on statistical analysis of paired samples t test , it was obtained that the value of $p = 0.000 < 0.05$, then H_0 was rejected and H_1 was accepted, which means that it can be concluded that there is a combined effect of baby massage using lavender oil and baby sleep music (lullaby) on the sleep quality of infants aged 6-12 months in the working area. PMB Supianah City of Malang. With a correlation coefficient value of 0.80, which means the level of the relationship is in the strong relationship category, where the range of correlation values between 0.60-0.799 is included in the strong relationship category. The combination of baby massage using Lavender Oil and Baby Sleep Music (Lullaby) is effective in improving the sleep quality of babies aged 6-12 months.

Keywords: Baby Massage, Baby Sleep Music, Lavender Oil, Sleep Quality

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INTRODUCTION

Babies at the growth and development stage need sufficient quality sleep, because it is very useful for developing the baby's brain maturity. The process of brain maturation occurs when babies sleep in the *Rapid Eye Movement* (REM) stage. Babies need brain maturity when learning to recognize various things. Babies who experience lack of sleep have an effect on reducing the immune system which will make the baby get sick easily. Apart from that, growth hormones will be disturbed, so during the growth stage the baby must have sufficient quality sleep so that the brain maturation process is not disturbed (Handayani et al, 2015).

Massage for babies and toddlers is a touch that is a comfortable way of communicating between mother and baby/toddler. Touch is a natural touch for babies and toddlers which can take the form of stroking, massaging or massaging movements. If this action is carried out regularly, it can be interpreted as a form of stimulation and intervention to provide many benefits for children.

Massage baby has many benefits and positive effects which has d i u j i scientifically . Benefit massage baby among others . Increase heavy body , increasing the number of plant growth , increase con e n t r a s i baby And make baby Sleep more l e l a p , creating ties love love parents And child (*bonding*) as well increase production A S I . (R o e s l i , 2010). Massage baby effectively can used as W r o n g s a t u c a r a for e m e r k u a t bond and increase the strength of the bag Sleep baby age 3 – 6 month. (Hartini, 2019)

Many people have used lullabies to help children sleep. Many people claim that listening to music is a tool to improve sleep quality . All over the world, parents sing to soothe and help their children fall asleep. The use of music as a sleep aid is common, and research shows that music is effective for improving sleep quality in various populations with sleep problems. Compared with music in general, it is found that lullaby music is music that is softer and slower or instrumental (without lyrics) and played with acoustic instruments.

Based on study, that There is 51.3% baby experience Sleep every week, Where 42% O'clock Sleep at night less than 9 O'clock, more from 3 times get up at night day And duration awakened in Evening. According to S e k a r t i t h i s (2010) , with and amount r e s p o n d e n t 285 baby , have data 51 respondent or 3% baby experience disturbance Sleep like often awakened more 3 time with get up more from One O'clock .

According to prevalence data in Indonesia, it is around 10%, approximately 28 million of the total 238 million Indonesian population suffer from lack of sleep (Siregar, 2011). In Indonesia, quite a lot of babies experience sleep problems, namely around 44.2% of babies experience sleep disorders such as frequently waking up at night, but more than 72% of parents consider sleep disorders in babies not a problem or only consider it a minor problem (Sekartini , 2012).

From results s t u d i introduction Which in the form of mobile phone research by carrying out search and analysis actions on the health workers at Pratek Mandiri Midwives (PMB) Supianah, S.Tr.Keb . , Bdn Malang City were p e r f o r m e d by d a t a amount baby Which aged 6 - 12 months as most 12 Mother baby. From the research study beginning in 12 person old baby Which 6 - 12 month , 7% person old baby in a experiencing sleep disorders, such as frequently waking up despite having enough breast milk and dry diapers, restless sleep (restlessness), insomnia and fussiness when going to sleep. This is a disruption in the quality of sleep in babies, as well as babies waking up for more than 1 hour and being fussy.

The quality of a baby's sleep has a big influence on the growth and maturity of the baby's brain. It is hoped that baby massage and lullaby music can help babies get good quality sleep and solve baby sleep problems in babies. Based on the description above, researchers are interested in examining the effect of a combination of baby massage using *lavender oil* and *baby sleep music* (*Lullaby*) on the sleep quality of babies aged 6-12 months in the PMB Supianah work area, Malang City.

METHODS

research uses a quantitative research design with an experimental approach. Using a purposive sampling technique, a sample of 30 respondents was obtained, the independent variable was Baby Massage with *Lavender Oil* and *Baby Sleep Music* (*Lullaby*) and the dependent variable was Baby Sleep Quality. *The Paired Samples t test* statistical test is used to determine whether there is a

relationship between two variables, namely the independent variable and the dependent variable with the degree of significance determined by $\alpha = 0.05$, meaning that if the results of the statistical test show $p \leq \alpha$ then there is a significant relationship between the variables which means there is a Combination Effect Baby Massage with *Lavender Oil* and *Baby Sleep Music (Lullaby)* on the sleep quality of babies aged 6-12 months at PMB Supianah, Malang City.

RESULT

Table.1 Distribution of Respondent Characteristics and Variables

| Research result | Frequency (f) | Percent (%) |
|--|---------------|-------------|
| AGE | | |
| 6 months | 9 | 30.0 |
| 7 months | 4 | 13.3 |
| 8 months | 4 | 13.3 |
| 9 months | 4 | 13.3 |
| 10 months | 4 | 13.3 |
| 11 months | 3 | 10.0 |
| 12 months | 2 | 6.7 |
| BABY SLEEP REGULATIONS | | |
| Place the baby's crib and separate from parents | 4 | 13.3 |
| Place the baby's crib and be in the same room as the parents | 8 | 26.7 |
| Place the crib and be in the same room as siblings | 3 | 10.0 |
| Sleeping at the same time as parents | 15 | 50.0 |
| SLEEPING POSITION | | |
| Prone (belly against the mattress) | 8 | 26.7 |
| Sideways | 10 | 33.3 |
| Supine (back against the mattress) | 12 | 40.0 |
| CIRCUMSTANCES THAT MAKE BABIES SLEEP | | |
| While breastfeeding | 6 | 20.0 |
| When being held | 7 | 23.3 |
| When hugged | 5 | 16.7 |
| In bed alone | 8 | 26.7 |
| In bed close to parents | 4 | 13.3 |

Source: Research Questionnaire, July 31 2023

Table 2 Cross Tabulation Between Variables

| No. | Category | Pretest | | Posttest | |
|--------|-----------------|---------|------|----------|------|
| | | Freq | % | Freq | % |
| 1. | No problem | 0 | 0 | 25 | 83.3 |
| 2. | Minor Problems | 25 | 83.3 | 5 | 16.7 |
| 3. | Serious Problem | 5 | 16.7 | 0 | 0 |
| Amount | | 30 | 100 | 30 | 100 |

Source: Research Questionnaire, July 31 2023

Based on table 4.7 above , it can be seen that of the 30 respondents found in the pretest, the majority experienced mild problems in their sleep, namely 25 babies (83.3 %). Meanwhile, at the posttest, it was found that the majority of babies did not experience problems sleeping, namely 25 babies (83.3 %).

Analysis of Research Statistical Test Results

| Sleep Quality of Babies Aged 6-12 Months | Pretest | | Posttest | | Correlation | P-Value |
|--|---------|-------------------|----------|-------------------|-------------|---------|
| | Mean | elementary school | Mean | elementary school | | |
| | 8.2 | 1.6 | 12.5 | 2.1 | 0.80 | 0,000 |

Data source: Primary Data, 2023

It can be seen from Table 4.8 that the p value = $0.000 < 0.05$, so H_0 is rejected and H_1 is accepted, which means it can be concluded that there is an effect of the combination of baby massage using lavender oil and baby sleep music (Lullaby) on the sleep quality of babies aged 6-12 months in PMB Supianah Working Area, Malang City . With a *correlation coefficient value* of 0.80, which means the level of relationship is in the strong relationship category, where the correlation value range is between 0.60-0.799, which is included in the strong relationship category (Sugiyono, 2010) .

DISCUSSION

Identification Baby Sleep Quality before being given a Combination of Baby Massage Using Lavender Oil (X1) and Baby Sleep Music (Lullaby) (X2) in the PMB Supianah Work Area, Malang City

It can be seen from Table 4.5 that the majority of respondents before being given treatment experienced mild problems in the quality of their sleep, namely 25 babies (83.3%). Sleep plays a very important role in increasing the baby's body's resistance to infection. If sleep is disturbed, the effectiveness of the baby's immune system can decrease so that the baby is easily stimulated and restless. Poor sleep quality also affects physical development and attitude the next day. Babies who don't wake up often will be more sugary and less fussy. A baby's sleep quality is said to be inadequate if they experience sleep disturbances according to the criteria if the total sleep time is less than 10 hours at night, the frequency of awakening is more than 3 times, and the duration of awakening is more than 1 hour. During sleep, the baby always seems fussy, cries, and has difficulty falling asleep again (Wahyuni, 2008 in Ubaya, 2020). The quality and quantity of a baby's sleep affects not only their physical development, but also their emotional development. Babies who get enough sleep without waking up are fitter and less fussy the next day, this is in accordance with the opinion (Sekartini, 2012).

Identification Baby Sleep Quality after being given a Combination of Baby Massage Using Lavender Oil (X1) and Baby Sleep Music (Lullaby) (X2) in the PMB Supianah Work Area, Malang City

It can be seen from Table 4.6 that in the posttest there was an increase, most of the respondents did not 25 respondents out of a total of 30 respondents (83.3%) had problems sleeping. The quality of the baby's sleep means that the baby's sleep needs are met well, so that the process of brain growth and growth hormone production that occurs when the baby sleeps will be fulfilled properly. Combined with baby massage using lavender essential oil, the baby will be able to sleep for a long time, and the baby will sleep easily. Back when I woke up in the middle of the night. Where baby massage combined with lavender essential oil in the form of a light touch without any pressure can help relax the baby's muscles so that the baby feels calmer, more comfortable and sleeps comfortably. Massage can change brain waves in such a way that there is a decrease in alpha waves and an increase in beta waves, as well as theta. Brain waves like this will make the baby sleep soundly and when he wakes up he will be in a full alert *state* . This brain image is proven using EEC (*electroencephalogram*) Roeli, (2017).

Baby lullabies are one way to make babies fall asleep quickly and more soundly. Baby lullabies are songs that have a calm nuance. Sleep songs or lullaby music that is familiar to the baby's ears will be a kind of music therapy session. Slow, gentle and repetitive music can slow the heart rate and allow the baby to breathe more calmly and deeply. Music plays an important role in improving the quality of baby's sleep well. However, not all types of music have the same effect on babies. This is related to the type of song and when the song is played or sung.

According to the World Health Organization (WHO), quoted in *the Pediatrics Journal* , the importance of music for relaxation, helps sleep faster, and helps babies' brain development for more than 10 years. As well as proving that lullabies sung live can improve sleep patterns, and we have found it to be most beneficial in the right space between wakefulness and entering the first stage of sleep. *Lullaby* is a musical tradition or custom that has been used by parents for generations as a means of putting their children to sleep. In the past, parents accompanied their children with songs sung live called "ngandang". In this era, *lullaby music* has been developed to make it easier for parents to access and choose good songs to accompany their children to sleep so that they can improve the quality of their child's sleep.

Analyst The Effect of a Combination of Baby Massage Using *Lavender Oil* and *Baby Sleep Music (Lullaby)* on the Sleep Quality of Babies Aged 6-12 Months in the PMB Supianah Work Area, Malang City

Based on table 4.7 above, it can be seen that of the 30 respondents found in the pretest, the majority experienced mild problems in their sleep, namely 25 babies (83.3%). Meanwhile, at the posttest, it was found that the majority of babies did not experience problems sleeping, namely 25 babies (83.3%).

It can be seen from Table 4.8 that the p value = 0.000 < 0.05, so H₀ is rejected and H₁ is accepted, which means it can be concluded that there is an effect of the combination of baby massage using lavender oil and baby sleep music (Lullaby) on the sleep quality of babies aged 6-12 months in PMB Supianah Working Area, Malang City. With a correlation coefficient value of 0.80, which means the level of relationship is in the strong relationship category, where the correlation value range is between 0.60-0.799, which is included in the strong relationship category

Devi, Indah Nurmallasari (2016) in her research concluded that baby massage has an influence on the sleep quality of babies aged 3-6 months in Bandung Village, Diwek District, Jombang Regency. Baby massage using lavender essential oil given to respondents is believed to have a relaxing effect on tense nerves and muscles after being tired from activities and baby massage using lavender essential oil will be useful for calming babies, babies fall asleep easily at night, and don't look weak. and cried when I woke up after a massage with *lavender essential oil* . So it can improve the baby's sleep quality according to his growth. In babies who are given massage, this is caused by an increase in levels of the serotonin secretion hormone produced during the massage. Improving sleep quality The ester compounds contained in lavender oil are very good and have the benefit of relaxing and relieving muscle tension. Essential oil from lavender massage has a relaxing effect on the central nervous system which helps increase oxytocin production. Lavender is a type of aromatherapy that affects the amygdala in the brain and is able to produce a calming effect (Rohmah, M.2022)

Other research conducted by Idris Handriana (2019) also supports the results of this research. With statistical results, the results show that the average score for 32 babies is 10.44-11-81 (95% CI) with a standard deviation of 1.897, the lowest sleep quality score is 9 and the highest is 14. Thus it can be concluded that there is an effect of baby massage using *lavender essential oil*. on the quality of baby sleep in the working area of the Cigasong Community Health Center, Majelang Regency.

The addition of lavender essential oil for baby massage therapy is one factor in improving the quality of baby sleep. Used as a support for baby massage therapy because lavender oil has the property of providing calm, comfort and reducing stress (*sedative*) , *antispasmodic*, *analgesic*, *antiseptic* , treating various skin disorders and the external compounds contained in lavender oil are very good and have benefits for relaxing and relaxing. relieve muscle tension (Julianto, 2016).

The results of this study are supported by research conducted by Pamungkas & Susilaningih (2016) on babies aged 0-6 months showing that babies who were given massage had good sleep quality 15 times higher than babies who were not given massage. Babies who are given massage show an increase or increase in the quality of their sleep, this is because massage can reduce discomfort and disturbances during sleep. Another study by Mindell et al (2018) stated that baby massage carried out for two weeks was effective in increasing the baby's sleep time at night and the baby fell asleep more easily. The same research by Bennett et al (2013) stated that baby massage significantly helped babies fall asleep soundly and the duration of time the baby woke up at night was much less in the massage group compared to the group without massage. The group without massage had an average duration of waking up at night 16 minutes longer after than the massage group. In line with research by Kusumastuti et al (2016), based on the results of statistical tests using Mann Withney, a p value <0.001 was obtained, indicating that massage helped improve the sleep quality of babies in the intervention group compared to babies who did not receive massage treatment in the control group.

The music used in this research is *lullaby music* . Lullaby music is a famous music in the United States that is given to children. This music is played before the child takes a nap for 30 minutes. Potter and Perry (2010) say that the time needed for therapy to have a therapeutic effect is at least 10 minutes. Giving music for the first time will divert the child's attention so that it is difficult for the child to focus. It takes longer for the music to be given to relax the child. It takes longer to provide music to relax the child. This is in line with research conducted by Loewy, Stewart, Dassler,

Telsey and Homel (2013) which shows that giving *lullaby music* for 30 minutes is effective in reducing vital signs and sleep in premature babies with a value of $0.001 < \alpha (0.05)$. This is in line with Sinaga (2013) who said that until now music is an easy way to divert attention, music is simpler, easier to understand and almost everyone likes it. Music has beautiful harmonization, so that when it is played, beautiful harmonization will enter the ear in the form of sound (audio), vibrating ear waves, shaking the fluid in the inner ear, and vibrating the hair cells in the cochlea and then through the cochlear nerve to the brain and creates an imagination of beauty in the left brain and right brain, which will have an impact in the form of comfort and calm. Therapeutic music is music that is non-dramatic, has predictable dynamics, has soft, harmonious tones, and has a tempo of 60-80 beats per minute. This type of music will activate endorphin hormones which function to increase feelings of relaxation, reduce stress, reduce tension in the body and influence cardiovascular function, improve the body's chemical system and improve the body's metabolism. Sound strength ranges from 55-65 decibels or not exceeding 65 decibels.

CONCLUSION

1. Most of the respondents before being given treatment experienced mild problems in the quality of their sleep, namely 25 babies (83.3%).
2. Most of the respondents in the posttest did not have problems sleeping, namely 25 respondents out of a total of 30 respondents (83.3%).
3. Most of the respondents (babies) experienced mild problems in sleeping, namely 25 babies (83.3%). Meanwhile, at the posttest, it was found that the majority of babies did not experience problems sleeping, namely 25 babies (83.3%).
4. It can be seen from the statistical test table that the p value = $0.000 < 0.05$, so H_0 is rejected and H_1 is accepted, which means it can be concluded that there is an effect of a combination of baby massage using lavender oil and baby sleep music (Lullaby) on the sleep quality of babies aged 6-12 months. in the PMB Supianah Working Area, Malang City. With a correlation coefficient value of 0.80, which means the level of relationship is in the strong relationship category, where the correlation value range is between 0.60-0.799, which is included in the strong relationship category. Most of the respondents before being given treatment experienced mild problems in the quality of their sleep, namely 25 babies (83.3%).

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