



Original Research

## The Effect Murottal Qur'an on The Sleep Quality of Babies Aged 3-6 Months at The Yonkav 8 Tank Clinic Beji

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### ABSTRACT

**Introduction:** At the age of 3-6 months, the baby's total sleep time is around 13-15 hours/day, and babies aged 3-6 months usually tend to have irregular sleep duration. Good quality sleep in babies affects not only the baby's intelligence and brain development but also the baby's attitude when he wakes up. Al-Quran murrotal treatment is a useful tool for treating sleep issues in infants. Our auditory organs receive Murottal Qur'an therapy, which is subsequently sent to the limbic system, a region of the brain in the middle of the brain that controls hormones in developing children.

**Material and Methods:** Pre-experimental methodology with a single group pretest-posttest design is used in this kind of study. Purposive sampling was used to choose 16 infants, ages 3-6 months, from the Federer formula.

**Results:** Comprised of sixteen infants who had poor sleep quality. Following murottal qur'an therapy, 15 babies (93.8%) were able to sleep through the night, while one baby (6.2%) continued to have issues with the quality of their sleep. The Wilcoxon test research yielded a p-value of 0.000, indicating that there is a significant effect of delivering murottal Al-Qur'an therapy on the quality of a baby's sleep ( $p < 0.005$ ).

**Conclusion:** There is an effect of providing murottal Al-Qur'an therapy on the sleep duration of babies aged 3-6 months.

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## INTRODUCTION

A child's early years are crucial for their growth and development, so extra care must be given during this time. Sleep and rest are two things that affect a baby's growth and development. For babies, sleep is vital because it may heal the neuro-brain and generate around 75% of growth hormone. In general, babies need 16-20 hours of sleep per day. When babies are between three to six months old, their total sleep time is around thirteen to fifteen hours per day. Babies in this age range usually have irregular sleep duration, and their sleep time should exceed their wake time. By the time they are six months old, their sleep patterns are similar to those of adults [1].

A child's development greatly depends on getting a good night's sleep since the quickest brain growth occurs in babies while they sleep. Furthermore, the body of a

baby releases three times as much growth hormone while it is asleep as it does when it is awake [2]. The process of growth and development, which is the outcome of the combination of hereditary and environmental elements, can be used to evaluate a child's quality. The biological, physical, psychological, and social environments are examples of environmental elements; the father and mother's genes are considered genetic or hereditary factors. Between 0 months and five years old, growth and development accelerate. This era is often referred to as the "Golden Age" at times. The Golden Age is a critical time to closely monitor children's growth and development in order to identify any irregularities as soon as feasible [3].

According to WHO, in 2018, 51.3% of babies experienced sleep disorders, where 42% slept less than 9 hours every night, woke up more than three times, and woke up for more than an hour at night. 44.2% of babies in Indonesia experience difficulty or problems sleeping

[4]. In East Java, it was based on research conducted by Mutyah & Anggraeni (2017) in coastal areas. Surabaya mothers who have babies aged 6-12 months say 70% of babies often wake up more than three times with a duration of one hour longer. Thirty-nine infants between the ages of three and six months were included in the pilot study conducted on October 22, 2023, by researchers at the Yonkav 8 Tank Beji Dormitory Clinic in the Pasuruan Regency. Using data from monthly reports, researchers discovered that 17 newborns had sleep difficulties at the same time as the preliminary study.

Al-Qur'an murottals are a secure and practical therapeutic approach to enhancing a baby's sleep quality. The application of slow mental listening treatment can help lower stress levels, release endorphins naturally, promote calmness and relaxation, and lessen anxiety and restlessness. Apart from that, the read *Tabarokalladzi bi yadihlil mulk* (Surat Mulk) before going to sleep, according to the murottal of the Al-Qur'an surah Al-Mulk in the hadith. For three days, Murottal Qur'an Surah al-Mulk treatment is administered for fifteen minutes at night (8 pm) and before naps (1 pm) [5].

Based on the phenomenon and explanation above, the researcher was interested in conducting research to determine the effectiveness of non-pharmacological therapy with the title "The Effect of Providing Murottal Qur'an Therapy on the Sleep Quality of Babies Aged 3-6 Months at the Yonkav 8 Tank Beji Dormitory Clinic, Pasuruan Regency".

## MATERIAL AND METHODS

This study employed a pretest-posttest design with a single group using a pre-experimental methodology. This study compared the patient's condition before and after treatment. Research participants were infants aged 3-6 months who slept fewer than 13 hours per day at the Yonkav 8 Tank Beji Dormitory Clinic in Pasuruan Regency. Verse 1 through Verse 30 of Surah Al-Mulk were listened to for fifteen minutes each day, three days in a row, before bedtime, as the independent variable in this study. The quality of babies' sleep, measured from three to six months of age, is the dependent variable in this study.

Univariate analysis is used to explain each variable and response; in particular, the amount of sleep that each individual gets before and after getting Al-Qur'an murottal therapy is compared. This study's bivariate analysis made use of the Wilcoxon signed-rank test.

## RESULTS

Based on Table 1, the 16 respondents show that the majority of babies are aged 5-6 months, 10 respondents (62.5%) and 3-4 months, 6 respondents (37.5%); 10 respondents (62.5%), and 6 respondents (37.5%) were female; all newborn respondents experienced poor sleep quality; 15 babies (93.8%), who received Murottal Qur'an therapy had normal sleep quality, while only one baby (6.2%) experienced sleep quality disorders; After being given the intervention, the majority of 15 respondents (93.8%) had normal or undisturbed sleep quality, and a small percentage of 1 respondent (6.2%) still experienced disturbed sleep quality.

Based on Table 2, analysis of the Wilcoxon Match Paired Test Statistical Test on Sleep Quality Based on Before and After Being Given the Murottal Al-Qur'an Therapy Intervention at the Dormitory Clinic Klink Yonkav 8 Beji Pasuruan Regency, a p-value of  $0.000 < 0.05$  indicates that there is a difference between the respondents before and after the intervention. Given that  $H_0$  is rejected and  $H_1$  is accepted, it may be concluded that offering Al-Qur'an Murottal Therapy affects the caliber of sleep that infants between the ages of three and six months at the Yonkav 8 Tank Beji Dormitory Clinic in Pasuruan Regency get.

## DISCUSSION

### *Identify Sleep Quality Before Giving Murottal Qur'an Therapy to Babies Aged 3-6 Months (Pre-Test)*

Based on Table 1 shows that of the 14 respondents, babies aged 3-6 months, all respondents (100%) experienced disturbed sleep quality. According to [6], someone who can sleep with sufficient quality and quantity will be able to rest assured because they sleep more optimally and are believed to be able to maintain mental, emotional, physiological, and health.

High-quality sleep ensures that everything in your brain will recover when you wake up, including your body's physiology. When a baby sleeps soundly and doesn't wake up often, he will wake up fitter and better behaved. Good sleep quality has an impact on the baby's attitude when he wakes up, in addition to his intelligence and brain development. Meanwhile, babies who experience quality sleep will affect growth and development [7].

Babies are considered to have a sleep disorder if they sleep less than nine hours a night and wake up more than three times a night, several nights a week, or four times

**Table 1.** Frequency Distribution of Respondents Based on Age of Babies, Gender of Subjects, Sleep Quality Before and After Being Given Murottal Qur'an Therapy at the Yonkav 8 Tank Beji Dormitory Clinic, Pasuruan Regency

| Information   | Frequency (f) | Percent (%) | Valid Percent |
|---|---------------|-------------|---------------|
| Age   |               |             |               |
| 3-4   | 6             | 37.5        | 37.5          |
| 5-6   | 10            | 62.5        | 62.5          |
| Gender  |               |             |               |
| Male  | 10            | 62.5        | 62.5          |
| Female  | 6             | 37.5        | 37.5          |
| Sleep Quality in Babies Aged 3-6 Months Before Receiving Murottal Al-Qur'an therapy |               |             |               |
| Sleep quality is disturbed  | 16            | 100.0       | 100.0         |
| Sleep Quality in Babies Aged 3-6 Months After Receiving Murottal Al-Qur'an therapy  |               |             |               |
| Sleep quality is disturbed  | 1             | 6.2         | 6.2           |
| Normal  | 15            | 93.8        | 93.8          |

a week. This disorder is very dangerous for babies. Because the body's metabolism, blood vessel system, heart system, and bones grow three times faster when we sleep than when we are awake, sleep stimulates the formation of new memories and information in the brain. Sleep habits, such as rocking your baby to sleep or holding your baby to sleep, can affect your baby's sleep schedule, which affects the quality of your baby's sleep [8]—seen from psychological factors. Stress or anxiety in the baby or parents can affect the baby's sleep [9]. Bright lights, crowds, and uncomfortable room temperatures can disrupt a baby's sleep. Motor development in babies, such as learning to lift their heads or crawl, can make babies restless and make it difficult to sleep at night [10].

Parents often ignore their baby's sleep problems and assume that it is normal for the baby to fall asleep by itself, even though if left unchecked, this condition will cause the baby's immune system to decline and make the baby easily fussy so that the baby's growth and development will not be optimal [11]. Because babies' brains reach their peak development when they sleep, getting enough and quality sleep is very important for a baby's healthy development. In addition, sleeping babies produce growth hormone three times faster than awake babies [12].

Newborn babies usually need 16-20 hours of sleep each day or most of the day. Two-month-old babies start to sleep more at night than during the day, while those aged between three and six months often have erratic sleep patterns and should be sleeping more than they are awake. Babies aged three to six months will sleep less –

13 to 15 hours – than older babies. The older a baby gets, the less sleep duration it will have because the baby starts to actively move, hold, and roll over [13].

#### *Identification of Sleep Quality After Giving Murottal Qur'an Therapy to Babies Aged 3-6 Months (Post-Test)*

Data from 16 respondents, shows that the majority of those who received Al-Qur'an murottal therapy - namely 15 newborns, or 93.8% of the sample-had normal sleep quality. The baby's disturbed sleep quality changed to normal sleep quality after receiving 15 minutes of murottal therapy from Al-Qur'an Surah Al-Mulk for three consecutive days for a week. Murottal Qur'an Kerna therapy is a type of therapy where the patient experiences the side effects of relaxation [14] (Table 1).

Emphasized that the Qur'an is ash-syifa, or medicine or healing. Lists the ability to control emotions as one of the health benefits of Al-Qur'an murottal therapy. This is because murottal Al-Qur'an therapy is a therapeutic approach that utilizes the melody, rhythm, and harmonization of the sounds of the Al-Qur'an. The limbic system, the part of the midbrain that controls emotions, receives this therapy through the hearing organs.

Listening to the chanting of the holy verses of the Koran that reach the brain has a good impact on cell reception, making the cells more positive. In accordance with the nature of Allah subhanahu wa ta'ala, the brain will react to appropriate harmony because no other series can match the special harmony found in the Qur'an. By lowering stress hormones, Al-Qur'an

**Table 2.** Frequency Distribution of Respondents Based on Sleep Quality Before and After Giving Murottal Qur'an Therapy to Babies Aged 3-6 Months at Yonkav 8 Tank Beji Clinic, Pasuruan Regency

| Information                | Pre    |     | Post |       |
|----------------------------|--------|-----|------|-------|
|                            | f      | %   | f    | %     |
| Sleep quality is disturbed | 16     | 100 | 1    | 6.2   |
| Normal                     | 0      | 0   | 15   | 93.8  |
| Total                      | 16     | 100 | 16   | 100.0 |
| <i>p-value Wilcoxon</i>    | *0.000 |     |      |       |

murottal increases relaxation and reduces tension, fear, and anxiety. It also enhances the chemical system of the body. In addition to murottal qur'an therapy, which the brain responds to readily and which, by virtue of Allah subhanahu wa ta'ala nature, can be absorbed by cells, will boost happiness and pleasure, hence reducing pain.

Endorphin is a hormone that reduces pain. Activating the serotonin hormone and reading murottal al-Qur'an can reach the ears and move to brain cells, thereby activating the serotonin hormone. The serotonin hormone is a hormone that contains chemicals in the human body and functions as a neurotransmitter. Serotonin plays a role in regulating mood, sleep quality, and appetite.

The sound of reading the Koran is believed to have a calming effect on babies, calming them and making it easier for them to fall asleep. This will reduce the baby's anxiety and sleep problems. Listening to the Koran can provide positive sensory stimulation to your baby and distract him from stimuli that can disturb sleep, such as noise and light. Listening to the Koran before bed is part of a sleep routine that helps establish good sleep habits for your baby. This will improve sleep quality and help regulate your baby's sleep habits. Listening to reading the Koran not only has an impact on the baby but also has a relaxing effect on parents so that it can create a calmer and more comfortable sleeping environment for the baby [15].

#### *Analysis of the Effect of Giving Murottal Qur'an on the Sleep Quality of Babies Aged 3-6 Months*

Based on Table 2, the results of statistical tests show that all respondents had sleep quality problems before the intervention was given to the 16 respondents. After being given the intervention, the majority of 15 respondents (93.8%) had normal or undisturbed sleep quality, and a small percentage of 1 respondent (6.2%) still experienced disturbed sleep quality. Based on the results of the Wilcoxon Match Paired Test Statistical Test on Sleep Quality Based Before and After Being Given the Murottal Al-Qur'an Therapy Intervention at the Yonkav Dormitory Clinic 8 Beji, Pasuruan Regency, the above analysis yields a  $p$ -value of  $0.000 < 0.05$ ,

indicating that there is a difference between respondents before and after the intervention. It was determined at the Yonkav 8 Tank Beji Dormitory Clinic in Pasuruan Regency that giving Al-Qur'an Murottal Therapy has an impact on the sleep quality of infants between the ages of three and six months.  $H_0$  is therefore rejected, whereas  $H_1$  is approved.

This is so because Surah Al-Mulk is the 67th surah of the Al-Qur'an and is included in the surah known as Asmaul Husna. Surah Al-Mulk is also known by the titles Al-Waqiyah and Al-Munjiyat. One significant hadith that has been communicated to us "The Prophet Muhammad sallallahu alayhi wasallam read Tabarokaladzi bi yadihil mulk (Surat Mulk)" [16], according to Huraim Bin Mis'ar Al Fadhl bin Iyadh from Laits and Abu Az Zubair from Jabir.

Murottal Al-Qur'an Al-Mulk is appropriate for use because sound therapy can result in elevated alpha activity, which is linked to a calm and relaxed state and is capable of increasing beta waves in the brain. Other sound therapies also induce high alpha brain waves, but not as much as the Koranic murottals found in Surah Al-Mulk. There is a real calming effect of the dominating alpha waves that occurs when listening to the murottal of the Qur'an Surah Al-Mulk. This is thought to be the result of the unique impact of the Koran on the human heart, which regulates a number of hormones and other chemicals to promote relaxation. Furthermore, the hormone serotonin can be activated by chanting murottal Al-Qur'an surah al-mulk because it can pass through the ear and enter the brain cells. The serotonin hormone is a hormone that contains chemicals in the human body and functions as a neurotransmitter. Serotonin plays a role in regulating mood, sleep quality, and appetite. Brain cell reactivity will increase after hearing Surah Al-Mulk recited from the Koran and reaching his ears. In accordance with the nature of Allah subhanahu wa ta'ala, the brain will react to appropriate harmony. This happens because other series do not have the special harmonic characteristics seen in the koran [17].

According to, the baby's psychoemotional condition improves when he listens to the Al-Qur'an Surah Al-



Mulk, which is read in 15 minutes for three days with a tempo of 40-50 dB (around 40%) at bedtime (1 pm) and evening (8 pm). This makes the baby feel more comfortable and sleep through the night. According to research, applying murottal Al-Qur'an therapy can help children feel more relaxed and extend the period of deep and restful sleep because chanting verses from the Al-Qur'an can instill a sense of calm. Listening to or reading the Koran while contemplating its meaning can help reduce a person's stress and anxiety levels. This activity brings calm and tranquility. Some people report that meditating on Koranic verses or listening to Koranic chants before bed improves the quality of their sleep and makes them sleep more soundly [18].

Research [19] titled The Impact of Murottal Al-Qur'an on the Sleep Quality of Infants in Kesamben Wetan Village, Driyorejo Gresik District, Ages 6 to 12 Months, concurs with this. Up to 88% of babies' sleep quality was undisturbed following murottal treatment. The research yielded a p-value of  $0.000 < 0.05$ , signifying a significant difference between the pre- and post-intervention data for the participants. Following that, H0 is rejected, and H1 is accepted.

Adequate sleep is important for your baby's physical and mental growth and development. While sleeping, your baby's body has the opportunity to repair damaged tissue and strengthen the immune system. Sleep also supports information processing and memory consolidation, which are important for brain development [20]. During sleep, your baby's body repairs damaged cells promotes bone growth and development and repairs the central nervous system. This allows your body to recover from daily activities and prepare for the next day. Getting enough sleep for babies is also important for regulating the baby's emotional center. Babies who sleep well and well will have a better mood and will find it easier to adapt to their surrounding environment. Adequate, high-quality sleep can help prevent sleep-related health problems in your baby, such as obesity, sleep-disordered breathing, and behavioral or emotional problems. The quality of a baby's sleep is also important for the health and well-being of his parents. When your baby sleeps better, parents have the opportunity to get the rest they need, can care for their baby more effectively, and improve the overall well-being of the family.

## CONCLUSION

The following conclusions can be made in light of the research findings provided in the thesis The Effect of Murottal Al-Qur'an Therapy on the Sleep Quality of Babies Aged 3-6 Months at the Yonkav 8 Tank Beji Dormitory Clinic, Pasuruan Regency:

1. The sixteen babies at the Beji Tank 8th Cavalry Battalion Dormitory Clinic, Pasuruan Regency, aged between three and six months, had poor sleep quality before receiving murottal Qur'an therapy.
2. After receiving murottal Qur'an therapy, almost all babies aged 3-6 months at the Beji Tank 8 Cavalry Battalion Dormitory Clinic, Pasuruan Regency had normal sleep quality.
3. The analysis above produces a p-value of  $0.000 < 0.05$ , indicating that there is a difference between respondents before and after being given the intervention, based on the results of the Wilcoxon Match Paired Test Statistical Test on Sleep Quality.
4. Based on Before and After being given the Murottal Al-Qur'an Therapy Intervention at the Yonkav 8 Beji Dormitory Clinic, Pasuruan Regency. Thus, H0 is rejected, and H1 is accepted, so it can be said that providing Al-Qur'an Murottal Therapy has an impact on the quality of sleep that babies get at the Yonkav 8 Tank Beji Dormitory Clinic, Pasuruan Regency aged 3-6 months.

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## CONFLICT OF INTEREST

The authors declare there is no conflict of interest.

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