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The Effects of Baby Massage to Sleep Quality in Infant Age 1-7 Months

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ABSTRACT

Sleep quality is very important for infant's growth and development. Poor sleep quality can lead to decreased daily activity, weakness, anxiety, decreased resistance, so that growth and development is less than optimal. Baby massage is one way to relieve tension and anxiety in the infant, so that it becomes calm, sleep soundly and the power of concentration will be fuller. The purpose of this research to know the effect of baby massage on sleep quality of infants aged 1-7 months in BPM NY. Choridatul Bahiya AMd. Keb Kebonsari Sukun of Malang City. The research design used Quasy experimental designs with non equivalent control group design. The population of all infants aged 1 to 7 months was 25 infants with samples meeting the inclusion criteria of 20 respondents consisting of 10 respondents treatment group and 10 respondents control and taken by purposive sampling. Data were collected using questionnaire and analyzed using wilcoxon match pairs test. The results showed that the quality of infant sleep in the treatment group before being massaged was mostly 8 (80%) poor, 2 infants (20%) moderate and in the control group most were 6 (60%) poor, 3 (30%) were poor and 1 infant (10%) is good. Sleep quality after massaging in the treatment group was mostly 6 (60%) good, 3 (30%) moderate and 1 (10%) bad, whereas in the control group without having a baby massage most of the 6 (60%) were bad, 3 infants (30%) moderate and 1 baby (10%) good. The results showed that there was influence of infant massage on the quality of baby sleep with value of 0,006 <α (0,05). The results show that baby massage can improve the quality of baby sleep, especially for babies who have poor sleep quality. Therefore health workers should provide counseling to mothers who have babies about infant massage, so motivated in learning to do baby massage independently.

Keywords: Baby Massage, Sleep Quality, Infant

INTRODUCTION

Infancy is the golden age for growth and development of children, so it needs special attention. One of the factors that affect the development of a baby is the quality of sleep. Sleep is a top priority for a baby's life, because during sleep approximately 75% of growth hormone is produced, therefore the quality of sleep is very important and main for the growth and development of babies, because during sleep it produces three times more growth hormone than when awakened. On the other hand, poor sleep quality results in a decrease in daily activities, tiredness, weakness, anxiety, poor neuromuscular coordination, slow healing and decreased immune system, causing less optimal growth and development (Widyanti, 2008).

In Indonesia, babies who experience sleep problems are quite high, namely around 44.2% of babies experience sleep disorders such as often waking up at night. However, more than 72% of parents think sleep disturbance in babies is not a problem or just a minor problem. The results of Damayanti's research in 2004-2005 which were carried out in five major cities in Indonesia Jakarta, Bandung, Medan, Palembang and Batam with 385 respondents, obtained data that 51.3% of babies had sleep problems, 42% of the night's sleep was less than 9. hours, waking at night more than 3 times and long waking at night more than 1 hour (Handayani, 2015).

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Poor sleep quality disturbs the physiological and psychological balance. Physiological effects include decreased daily activities, fatigue, weakness, poor neuromuscular coordination, slow healing process and decreased immune system. While the psychological impact includes more unstable emotions, anxiety, lack of concentration, cognitive abilities and lower levels of combined experiences. Given the importance of sleep time for babies, the quality of sleep must really be fulfilled so that it doesn't adversely affect their growth and development. One of the non-pharmacological therapies to overcome infant sleep problems is baby massage (Prasetyo, 2013).

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. Gentle massage will help relieve muscle tension so that the baby is calm and sleeps. Baby massage is a fun way to relieve tension and feelings of anxiety in babies. Gentle massage will help relax the muscles so that the baby is calm, sleeps soundly and when he wakes up his concentration will be fuller. This is due to an increase in the levels of serotonin secretion produced during massage. Serotonin is the main transmitter substance that accompanies sleep formation by suppressing the activity of the reticular activation system and other brain activities (Roesli, 2013).

The results of Sundari's (2015) study state that there is a significant relationship between infant massage and the quality of sleep for babies aged 6-12 months at BPM Atika in Madiun Regency in 2015. With this massage makes babies more relaxed and calm so that it can increase the effectiveness of their sleep. Gentle massage helps the body release oxytocin and endorphins which can help overcome discomfort, increase the baby's concentration, generally babies who are massaged will fall asleep more soundly so that when they wake up the concentration will be better.

Preliminary study at BPM Ny. Choridatul Bahiya, AMd. Kebonsari Kelurahan Kebonsari, Malang City on 12-17 November 2017 by interviewing 5 parents of babies aged 1-7 months, it was found that 4 babies (80%) said the babies had difficulty sleeping at night, often woke up at night, the amount of sleep per day was less than 13 hours, the next day often cried and fussy. Based on the data above, it shows that there are still babies who have poor sleep quality. As for the handling that has been done so far when the baby is fussy, the baby is only carried and cradled and breastfed, but in this way the baby is still fussy and falls asleep due to fatigue.

The above phenomenon shows that there are many problems that parents often complain about having trouble sleeping, are often fussy, especially at night, even though sometimes their babies feel full, are not defecating, but babies still can't sleep well. . In connection with this, the researcher wants to provide a solution to parents who complain that their baby has difficulty sleeping, namely by way of baby massage. Babies who are massaged will be able to sleep soundly, while when they wake up their concentration will be fuller. If the research is carried out it provides benefits for both the respondent and the institution. Therefore, researchers are interested in conducting research on the effect of infant massage on sleep quality in infants aged 1-7 months at BPM NY. Choridatul Bahiya AMd. Kebonsari Village, Sukun District, Malang City.

RESEARCH METHODS

Materials in this study for infant massage consistency include foam mattresses covered in soft cloth, towels or rags, diapers and changing clothes, telon oil for massaging, water and washcloths.

The research design used Quasy experimental designs with Non equivalent control group design. The research instrument used a baby sleep quality questionnaire. Data analysis used the Wilcoxon match pairs test statistical test.

RESEARCH RESULT

Case 1, Mr. "S", aged 28 year old male complained of pain in postoperative wounds, the client said that the pain increased when moving, the client said that the pain was stabbing and the client complained of nausea. The pain that is felt is intermittent with a duration of more than 5 minutes, the client grimaces, there is a vertical surgical wound with 14 stitches and a drain attached, the client holds the abdominal area when the pain appears.

The nursing diagnosis that is established is acute pain associated with physical (postoperative) agents. In nursing intervention, one of the non-pharmacological measures is determined, namely the progressive relaxation technique of muscel relaxation. The outcome to be achieved is that pain is

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reported from moderate (3) to non-existent (5). Facial expression from the sendang scale (3) to absent (5).

The implementation that is done is by providing a progressive relaxation technique of muscel relaxation. This implementation is done once a day. The implementation is still considering the patient's analgesic drug administration schedule, namely by providing a progressive relaxation technique of muscel relaxation 1 hour before the drug administration schedule.

Evaluation of nursing care for 3 days of giving implementation found that acute pain was resolved according to the determined outcome.

Case 2, Mrs. "S" aged 45 years complained of postoperative wound pain in the abdomen. The client said he had never had surgery before, the client said the pain increased when moving. The client said that the pain was felt like prickling, the client also said that the pain was getting worse with movement, the pain was felt continuously. The client's face looks grimacing, pain scale 5 (moderate) there is a horizontal surgical wound with 16 stitches and a drain attached. There is an increase in blood pressure of 160/90 mmHg.

The nursing diagnosis is established, namely acute pain associated with physical (post-surgical) agents. In nursing intervention, one of the non-pharmacological measures is determined, namely the progressive relaxation technique of muscel relaxation. The outcome to be achieved is that pain is reported from moderate (3) to non-existent (5). Facial expression from the sendang scale (3) to absent (5).

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Case 3, Mr. "A", aged 35-year-old man complained of pain in postoperative wounds, the client said the pain increased when moving, the client said the pain was stabbing, the client said he was worried about the pain he experienced because this was his first experience of undergoing surgery . The pain that is felt is intermittent with a duration of 5-10 minutes, the client grimaces, there is an operation wound and a drain is attached, the client holds the abdominal area when the pain appears.

The nursing diagnosis that is established is acute pain associated with physical (postoperative) agents. In nursing intervention, one of the non-pharmacological measures is determined, namely the progressive relaxation technique of muscel relaxation. The outcome to be achieved is that pain is reported from moderate (3) to non-existent (5). Facial expression from the sendang scale (3) to absent (5).

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Evaluation of nursing care for 3 days of giving implementation found that acute pain was resolved according to the determined outcome.

Case 4, Mr. "K", aged 32 year old man, complained of pain in the postoperative wound radiating to the buttocks, the client said the pain increased when he moved a lot, the client said the pain was like a cut. The pain that is felt is intermittent with a duration of 5-10 minutes, the client grimaces with a pain scale of 5 (moderate), there is an operation wound on the abdomen and a drain is attached, the client holds the abdominal area when the pain appears.

The nursing diagnosis that is established is acute pain associated with physical (postoperative) agents. In nursing intervention, one of the non-pharmacological measures is determined, namely the progressive relaxation technique of muscel relaxation. The outcome to be achieved is that pain is reported from moderate (3) to non-existent (5). Facial expression from the sendang scale (3) to absent (5).

The implementation that is done is by providing a progressive relaxation technique of muscel relaxation. This implementation is done once a day. The implementation is still considering the patient's analgesic drug administration schedule, namely by providing a progressive relaxation technique of muscel relaxation 1 hour before the drug administration schedule.

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Evaluation of nursing care for 3 days of giving implementation found that acute pain was resolved according to the determined outcome.

Case 5, Ms. "M" aged 20 years old complained of postoperative wound pain in the abdomen. The client said this was the client's first experience of undergoing surgery so he felt anxious with the healing process of the wound, the client says the pain increases with movement. The client said that the pain felt like being stabbed, the client also said that the pain was getting worse when moving, the pain was felt continuously and there was an increase in blood pressure when the TTV was examined, namely 160/80 mmHg. The client's face looks grimaced, pain scale 5 (moderate) there is a horizontal surgical wound with 14 stitches and a drain attached.

The nursing diagnosis is established, namely acute pain associated with physical (post-surgical) agents. According to Wilkinson (2016), nursing diagnoses are enforced based on characteristic limitations, namely subjective: reporting pain with cues (using a pain scale), reporting pain while objective data: autonomic response, distraction behavior, expressive behavior, face mask and protective attitudes. In nursing intervention, one of the non-pharmacological measures is determined, namely the progressive relaxation technique of muscel relaxation. The outcome to be achieved is that pain is reported from moderate (3) to non-existent (5). Facial expression from the sendang scale (3) to absent (5).

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Evaluation of nursing care for 3 days of giving implementation found that acute pain was resolved according to the determined outcome.

DISCUSSION

Sleep Quality for Infants Ages 1-7 Months Before Massage

The results showed that the quality of sleep of infants at the age of 1-7 months before the baby massage in the treatment group was mostly 8 babies (80%) in bad category and in the control group most of them 6 babies (60%) were in bad category. Shows that most of the babies in BPM NY. Choridatul Bahiya AMd.Keb Kelurahan Kebonsari, Sukun District, Malang City has poor sleep quality. Sleep quality is a certain physiological quality or state obtained during sleep that restores bodily processes that occur at waking time. The quality of a baby's sleep not only affects physical development, but also his attitude the next day (Maryunani, 2010).

Babies with poor sleep quality show drowsiness during daytime activities, lack of enthusiasm or attention, sleep throughout the day, fatigue, depression, distress, and decreased ability to do activities. and the number of hours of sleep at night is less than 9 hours and the length of sleep during the day is less than 8 hours, however, most parents think this is no problem for the quality of their baby's sleep. This is because based on the complaints reported by the respondent's parents with different complaints. Some have reported frequently waking up when sleeping at night because during the day they do too much light play, such as learning to crawl and trying to sit up.

Some things that cause poor sleep quality for babies can be due to fatigue due to activities carried out for 24 hours and unfavorable environmental conditions such as lots of mosquitoes, crowds and others. Babies who experience physical exhaustion will have difficulty sleeping and will easily fuss if they are going to sleep and in their sleep the baby cannot soundly and wake up easily. Inadequate sleep and poor sleep quality can cause physiological and psychological balance disorders. Babies who experience physical exhaustion will have difficulty sleeping and will easily fuss if they are going to sleep and in their sleep the baby cannot soundly and wake up easily. Inadequate sleep and poor sleep quality can cause physiological and psychological balance disorders (Sofa, 2013).

Poor sleep quality before the baby massage is also caused by fatigue, so that his body is not ready to sleep. When babies are fussy because they are too tired, stress hormones such as cortisol and adrenaline flood the baby's bloodstream making it more difficult for the baby to relax and calm down. This will be a cycle in the baby, the more tired the baby is, the harder it will be for him to relax and fall asleep. This situation makes baby fatigue worse. He will be even more restless and can only cry. These fussy babies usually wake up when they are supposed to take a nap and when they should be

sleeping at night. When the baby is tired, the baby will have difficulty sleeping or make him sleep deprived. In addition, babies will also wake up more often and become fussy, this is what makes the baby's sleep quality worse.

Sleep Quality for Babies 1-7 Months After Massage

The results showed that the quality of baby sleep after massage the baby in the treatment group was mostly 6 babies (60%) in good category and only 1 baby (10%) had poor sleep quality, in the case before the massage there were 8 babies (80%). who have poor sleep quality. Shows that there is an increase in the quality of sleep between before and after the massage. Whereas in the control group, that was without massage intervention, most of the 6 babies (60%) were in the bad category, as at the time of the first observation. This means that in the control group there was no improvement in the quality of baby sleep.

The results of this study suggest that an increase in the quality of baby sleep is associated with infant massage. The increase in sleep quality in infants who are given massage is due to an increase in the level of serotonin secretion produced during massage, the effect that occurs on the baby's body is calm, comfortable and reduces the frequency of crying (Roesli, 2013).

The quality of the baby's sleep got better after the massage showed that baby massage was strongly suspected to affect the quality of the baby's sleep. Baby massage causes better quality sleep because massage makes babies more relaxed and calm so that it can increase the effectiveness of their sleep. Baby massage helps the body release oxytocin and endorphins which help deal with discomfort, increase the baby's concentration, generally babies who are massaged will fall asleep more soundly so that when they wake up the concentration will be better. In addition, the quality of sleep which is better is thought to be due to an increase in the level of serotonin secretion produced during massage. Seretonin has a role in sleep and makes you sleep longer and more soundly at night.

Effect of Infant Massage on Sleep Quality for Infants aged 1-7 Months

The results showed that the treatment group obtained a value of 0.006 <α (0.05), it was concluded that there was a difference in the quality of baby sleep between before (pretest) and after (postest), meaning that there was an increase in the quality of baby sleep after baby massage, So it can be concluded that baby massage affects the quality of sleep for babies at the age of 1-7 months. Whereas in the control group without infant massage, the p-value was 0.414> α (0.05), it was concluded that there was no difference in sleep quality for infants aged 1-7 months between pretest and postest or in other words, there was no improvement in the quality of baby sleep between the observations first (pretest) and second observation after two weeks (postest). Thus, it can be concluded that infant massage intervention has a significant effect on the quality of sleep for infants aged 1-7 months.

The results of this study are in accordance with Sundari (2015) which found that there was a significant relationship between infant massage and the quality of sleep for infants aged 1-7 months. With massage makes babies more relaxed and calm so that it can increase the effectiveness of their sleep. Gentle massage helps the body release oxytocin and endorphins that help deal with discomfort, generally babies who are massaged will fall asleep more soundly so that when they wake up their concentration will be better. In addition, the increase in the quality of the massage is caused by an increase in the level of serotonin secretion produced during the massage. Seretonin has a role in sleep and makes you sleep longer and more soundly at night.

The results of this study are also in accordance with Arista's research (2013) in Tirtomoyo Village, Ampelgading District, Malang Regency, which states that there is an increase in sleep duration in infants aged 0-3 months between before and after the massage. Before the baby massage was done, the baby looked restless and fussy after the baby massage. Besides the baby's sleep duration increased, the baby also seemed calmer and less fussy. The average duration of sleep for babies before the infant massage was 15.27 hours a day, while the average after infant massage was 16.67 hours a day.

The results obtained that there were significant differences in sleep quality between infants in the control group and infants in the treatment group showing better results in the quality of sleep. Baby massage also has many benefits including making the baby calmer, increasing the effectiveness of baby rest (baby sleep), increasing growth, improving baby concentration, helping to relieve discomfort in digestion and emotional stress, stimulating brain and nervous system development, increasing peristaltic motion for digestion, stimulates the activity of the Vagus Nerve for improved respiration,

strengthens the immune system, teaches babies early on about body parts and increases the flow of oxygen and nutrients to cells.

This is in accordance with the opinion of Roesli (2013) that massage can increase serotonin levels which will produce melatonin which plays a role in sleep and makes sleep longer and more soundly at night. Serotonin will also increase the capacity of receptor cells that function to bind glucocorticoids (adrenaline, a stress hormone). This process causes a decrease in levels of adrenaline (stress hormone) so that babies who are given massage will appear calmer and less fussy. Massage also increases the absorption mechanism of food by the vagus nerve so that the baby's appetite also increases.

In this study, there were also babies who did not get baby massage but had moderate and good sleep quality, this could be influenced by several factors, namely environmental factors, nutrition, disease and stimuli, such as the habit of drinking milk before bed which could affect the quality of their sleep. The habit of drinking milk before bed will also affect the quantity and quality of baby sleep. The results of this study that some of the control group infants had the habit of drinking milk before bed. Babies who drink milk before bedtime will sleep better and last longer than those who don't drink milk before bedtime. In the treatment group, even though they had received infant massage, there was still 1 baby (10%) who had poor sleep quality. From the results of interviews with infant mothers who had poor sleep quality, the baby's mother said that the factor affecting the quality of her baby's sleep was a busy and unfavorable environment. Because conditions are safe and comfortable for babies to accelerate the sleep process. The physical environment in which a baby sleeps has an important effect on the ability to fall asleep and stay asleep. A crowded and non-conducive environment can make the baby's sleep quality less than optimal.

CONCLUSION

The quality of sleep for infants before the treatment group was mostly (80%) poor and in the control group (60%) was poor. The quality of sleep for babies after baby massage in the treatment group was mostly (60%) good and most of the control group (60%) was in the bad category. There is an effect of infant massage on the quality of sleep for infants aged 1-7 months with □ value 0.006 <α (0.05).

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