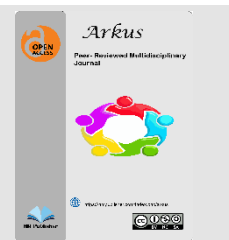




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## The Effect of Baby Spa on the Sleep Duration of Babies Aged 3-12 Months at Independent Midwife Practice (TPMB) Mrs. S, Karawang Regency, Indonesia

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### ABSTRACT

Baby spa is a series of treatments designed specifically for babies, providing gentle massages, immersion in warm water, and other sensory stimulation. This method is believed to help babies relax more, relieve muscle tension, improve blood circulation, and reduce colic. Gentle massage and immersion in warm water can help babies feel relaxed. This study aimed to determine the effect of baby spas on the sleep duration of babies aged 3-12 months at independent midwife practice (TPMB) Mrs. S, Karawang Regency, Indonesia. This study is experimental research with a pre-post-test approach with the control group. This study uses primary data, namely measuring the length of sleep of babies aged 3-12 months. A total of 30 research subjects took part in this study. In the intervention group, it was found that most babies slept in the range of 14-16 hours, which is considered the standard duration. Meanwhile, most of the control group had less than 14 hours, which is classified as a short sleep duration. In conclusion, baby spa influences the sleep duration of babies aged 3-12 months at independent midwife practice Mrs. S, Karawang Regency, Indonesia.

### 1. Introduction

Babies are a precious gift in our lives. For parents, the baby's welfare and comfort is the main priority. A critical aspect of a baby's growth and development is sleep. Adequate and quality sleep is very important for the health and development of babies, as well as the well-being of the parents who care for them. Therefore, many parents are looking for various ways to increase the sleep duration of their babies. Adequate and quality sleep is very important for the health and development of babies. Sleep is when the baby's body can recover, cell growth occurs optimally, and essential physical and mental development functions occur. Additionally, adequate sleep plays a vital role in influencing the baby's mood, attention, and resistance to disease. Not only that, parents are also greatly influenced by the duration of their baby's sleep.

Parents with babies who sleep well tend to be more refreshed and have lower stress levels, which can affect the quality of the parent-child relationship. Conversely, inadequate infant sleep can cause sleep disturbances in parents, disrupt their productivity, and increase fatigue and stress levels.<sup>1-3</sup>

One method that is increasingly popular in caring for babies is baby spa. Baby spa is a series of treatments designed specifically for babies that involves providing gentle massages, immersion in warm water, and other sensory stimulation. This method is believed to help babies relax more, relieve muscle tension, improve blood circulation, and reduce colic. Gentle massage and immersion in warm water can help babies feel relaxed. A soft and warm touch can stimulate the release of relaxation hormones, helping the baby feel calmer and more comfortable.

Massage in a baby spa can help relieve muscle tension in babies. Babies often experience muscle tension due to changing body postures as they grow. Massage can help improve posture and reduce muscle tension that may make them uncomfortable. Massage and immersion in warm water can help improve blood circulation in babies. This can help provide oxygen and nutrients throughout the baby's body, which is essential for healthy growth and development. Some early research suggests that baby spa treatments, including abdominal massage, may help reduce colic symptoms in babies. Colic is a condition where babies experience stomach cramps and excessive restlessness, and this can disrupt their sleep.<sup>4-8</sup> This study aimed to determine the effect of baby spas on the sleep duration of babies aged 3-12 months at independent midwife practice (TPMB) Mrs. S, Karawang Regency, Indonesia.

## 2. Methods

This study is experimental research with a pre and post-test approach with the control group. This study uses primary data, namely measuring the length of sleep of babies aged 3-12 months. A total of 30 research subjects participated in this study, where the research subjects met the inclusion criteria. The

inclusion criteria in this study were babies aged 3-12 months, and spontaneous born history at TPMB (Independent Midwife Practice) Mrs. S, Karawang Regency, Indonesia. Research subjects were then grouped into intervention and control groups. The baby's sleep duration is assessed by measuring the length of time the baby sleeps in hours. Sleep duration less than 14 hours is classified as short duration sleep, sleep duration 14-16 hours is classified as average duration sleep, and sleep duration more than 16 hours is classified as long duration sleep. Data analysis was carried out using SPSS version 25 software. Univariate and bivariate analyses were carried out in this study. Univariate analysis was carried out to present the frequency distribution of each test variable. Bivariate analysis was carried out to determine the relationship between the test variables, with a p-value <0.05.

## 3. Results and Discussion

Table 1 compares the frequency of sleep duration for babies aged 3-6 months between groups. In the intervention group, it was found that most babies slept in the range of 14-16 hours, which is considered a standard duration. Meanwhile, most of the control group had fewer than 14 hours, a short sleep duration.

Table 1. Comparison of the frequency distribution of sleep duration between groups.

Variables	Intervention group	Control group
	Frequency	Frequency
Short sleep < 14 hours	2	8
Normal 14-16 hours	8	5
Long sleep > 16 hours	5	2
Total	15	15

A soft and warm touch on the baby's skin can stimulate the release of relaxation hormones, such as oxytocin. Oxytocin is the "love hormone" and can create feelings of well-being, happiness, and security. Gentle massage can help reduce the restlessness and discomfort that the baby may feel. This is especially helpful if the baby feels restless due to gas, colic, or other discomfort. The massage and soaking can be a valuable time for parents and babies to connect. This

is an opportunity to build a strong emotional bond between parent and baby, which can also increase the baby's sense of well-being. Gentle massage can also help reduce stress levels in babies. This can be seen in decreased heart rate, more regular breathing, and other body reactions indicating the baby is relaxed.<sup>9-11</sup>

Gentle and targeted massage can help reduce muscle tension in babies. Babies' muscles become tense, making them feel uncomfortable and prone to

fussiness. Massage helps relax these muscles. Through gentle massage movements, the baby's muscles can become more flexible. This is important because more flexible muscles adapt more quickly to changes in body posture during growth. Baby massage can help improve their body posture, which may be affected by various factors, such as sleeping position or daily activities. Improving body posture can reduce muscle tension that arises from poor posture. Babies who experience muscle tension may feel uncomfortable and have difficulty sleeping. By easing muscle tension, massage can help babies feel more comfortable and relaxed, which in turn can improve the quality of their sleep. Massage can also help babies develop body awareness, which is the ability to feel and understand parts of their body. This is important in the baby's motor development.<sup>12,13</sup>

Massage and immersion in warm water can improve babies' blood circulation. Increased blood circulation helps carry more oxygen throughout the baby's body. Oxygen is an essential nutrient for body and brain cells, and healthy growth requires an adequate oxygen supply. Apart from oxygen, blood also carries essential nutrients throughout the body. This includes essential nutrients, hormones, and antibodies that support the baby's physical and immune development. Good blood circulation also helps transport metabolic waste products and toxins produced by the baby's body. This helps keep the internal environment of the baby's body healthy. Good blood circulation supports the growth and development of cells and organs in the baby's body by providing an adequate supply of oxygen and nutrients. It plays a vital role in developing the brain, bones, muscles, and other systems. Improving blood circulation can help prevent health problems such as unwanted blood clots or swelling due to less efficient circulation.<sup>14,15</sup>

#### **4. Conclusion**

Baby spa influences the sleep duration of babies aged 3-12 months at independent midwife practice Mrs. S, Karawang Regency, Indonesia.

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