

THE EFFECT OF BABY SPA (BABY MASSAGE, BABY SWIM, AND BABY GYM) ON THE QUALITY OF SLEEP AND GROWTH OF BABIES AGED 0-6 MONTHS

Feftin Hendriyani, S.Kep.Ns.MPd
D3 Bangkalan Midwifery Study Program-Politeknik Kesehatan Surabaya
Email : feftinherman@gmail.com

Abstract

Background: The most rapid development of babies occurs during the golden age so stimulation becomes very important in the process of growth and development. At this time, if stimulation factors are not provided enough, the child will experience problems with sleep quality and growth, such as weight gain and gross motor skills. This research aims to explain the effect of baby SPA (baby massage, baby swim, and baby gym) on sleep quality and growth and development (weight and gross motor skills) of babies aged 0-6 months. Method: A literature review was carried out through searching for relevant articles from electronic databases (Scient Direction, Pubmed, Google Scholar,) using the following keywords: "baby SPA", "baby massage", "baby swim", "baby gym", " baby weight", "Sleeping baby", "gross motor", "baby", "0-6 months", "baby", "baby massage", "baby gymnastics", "baby swimming". There were 15 articles obtained from 2017 – 2021 and an in-depth analysis was carried out. Research results: show that there is an influence of baby SPA (baby massage, baby swim, and baby gym) on sleep quality, body weight, and gross motor skills of babies aged 0-6 months. Conclusion: The importance of providing baby SPA (baby massage, baby swim, and baby gym) on sleep quality, body weight, and gross motor skills of babies aged 0-6 months so that babies get optimal growth and development during their golden ages.

Keywords: *Baby SPA, baby massage, baby swim, baby gym, sleeping baby, baby weight, gross motor skills.*

1. INTRODUCTION

Sleep quality is the baby's satisfaction with sleep, so sound sleep is very important for the baby's growth because during sleep the baby's brain growth reaches its peak. If a baby lacks sleep, they will have negative emotional development. Optimizing the quality of a child's long-term growth and development is determined by brain development during critical periods early in life at an early age. Growth and development is a continuous process and it is difficult to separate physical changes such as increasing body weight, body length and changes in the baby's abilities such as gross, fine movement, speech

and social emotions (Soetjiningsih, 2014).

Body weight is the most important anthropometric measurement which is the best indicator for determining growth in children so that babies who are said to be healthy are marked by increasing body weight (Soetjiningsih, 2017). Gross motor skills are the development of movement which includes balance and coordination between body parts, such as crawling, walking, jump, and run. Children who master their motor movements will have a healthier body condition. This will of course affect the child's independence and self-confidence in the future so that it will be easier for

the child to socialize because he is able to balance the movements and activities he does with his peers. (Kusuma, 2019). 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. However, almost or even more than 72% of parents do not consider sleep disturbances in babies as a problem (Juita and Lidya, 2020). Based on the results of Sari's research in 2020, it was found that the sleep quantity of babies aged 5-6 months before baby SPA was carried out, the majority of sleep quantity was < 14 hours was 90%, but after the baby SPA was carried out twice, the majority was sleep quantity \geq 14 hours was 80%. Based on the results Margiana's research in 2018 showed that 75% of 32 respondents who regularly attended baby SPA experienced weight gain. Other research results

It was also found that 20 babies showed significant improvement before and after baby SPA treatment in terms of the growth and development of babies aged 3-6 months. A study in Indonesia showed that 20-30% of children under five had developmental disorders in the gross motor aspect, most of which was due to a lack of movement stimulation in children (Novianti, 2016).

Disruption of children's development will contribute to morbidity that occurs throughout the child's life cycle, the transmission of poverty between generations, and in the long term can hold back the pace of a country's development (Emalia and Farida, 2018). Babies can grow and develop well if their basic needs are met, namely care, love and nurturing. The need for sharpening is the need for early stimulation. The types of early stimulation that are usually carried out are through touch, audio-visual, and practicing certain movements. Early stimulation in the form of touch is often given in baby SPA activities which have the function of increasing appetite, providing a feeling of calm, comfort,

freshness, and stimulating motor movements rough on babies because babies are massaged, trained to swim, and given certain movement stimulation because it will stimulate the development of the structure and function of the cells in the brain so that the baby will have better growth and development (Farida, 2018).

Baby SPA (baby massage, baby swim, and baby gym) has an influence on growth and development, especially on brain development, where the serotonin hormone will work well if the baby has good quality sleep. To get maximum benefits from baby SPA, it is best to do baby SPA regularly, namely twice a week or at least once a week. Baby massage and baby gym treatments are carried out routinely once a week for 4 times with a duration of 20-30 minutes, while baby SPA is added with a swimming method with a duration of 30-40 minutes which can be started from baby massage, baby gym and baby swim activities (Nudesti, 2020).

2. REVIEW METHOD

1. Literature Search Strategy
2. Protocol and Registration

Comprehensive summary in the form of a literature review regarding the effect of baby SPA (baby massage, baby swim, and baby gym) on the quality of sleep and growth and development of babies aged 0-6 months. The protocol and evaluation of the literature review will use the PRISMA checklist to determine the completion of studies that have been found and adjusted to the objectives of the literature review.

Search Results And Study Selection

Literature review which is a comprehensive summary of several research studies determined based on a certain theme. The literature search was carried out in February-June 2021. The data used in this research is secondary data obtained not from direct observation, but obtained from the results of research conducted by

previous researchers. Secondary data sources obtained were in the form of reputable journal articles, both national and international, with predetermined themes. The literature search in this literature review used three databases with high, medium and low quality criteria, namely Scient Direct, PubMed and Google Scholar

Based on the results of a literature search through publications in four databases and using keywords that had been adapted to MeSH, researchers found 151 articles that matched these keywords. The search results that were obtained were then checked for duplicates, 58 articles were found that were the same, so they were removed and 93 articles remained. Researchers then conducted screening based on title (n=93), abstract (n=54), and full text

(n=15) which were adjusted to the theme of the literature review. The assessment was carried out based on the appropriateness of the inclusion and exclusion criteria, resulting in 15 articles that could be used in the literature review.

3. RESULT AND DISCUSSION

Result

Fifteen articles met the inclusion criteria, divided into three sub-discussions based on the literature review topic, namely the effect of baby SPA (baby massage, baby swim, and baby gym) on the quality of sleep and growth and development of babies aged 0-6 months. The type of research design used in baby SPA articles is mostly quasi-experimental.

Table 3.2 Frequency Distribution of Article Characteristics (n=15)

Kategori	N	%
Tahun Publikasi		
2018	2	13,3
2019	4	26,7
2020	8	53,3
2021	1	6,7
Total	15	100
Data Base		
<i>PubMed</i>	2	13,3
<i>Google Scholar</i>	12	80
<i>Science Direct</i>	1	6,7
Total	15	100
Bahasa		
Indonesia	7	46,7
Inggris	8	53,3
Total	15	100
Desain		
<i>Quasy experimental</i>	13	86,7
<i>Pre Experimental</i>	1	6,65
Cross-sectional	1	6,65
Total	15	100
Sampel		
		7,6
1-3 months	2	13,3
3-6 months	5	33,3
3-5 bulan	1	6,7
6 bulan	3	20
5-6 bulan	2	13,3

2-5 bulan	1	6,7
2-6 bulan	1	6,7
Total	15	100
Variabel		
Baby Spa, baby's weight gain.	1	5
Baby SPA and development	2	13,3
Baby massage and weight	6	40
Baby spa, massage, BB	1	5
Baby gymnastics and baby massage, motor skills	2	13,3
Baby massage, sleep quantity	2	13,4
Baby spa and sleep quality	1	5
Baby Spa and gross motor skills	1	5
Total	15	100
Instrumen		
DDST	3	20
Before and after	3	20
Checklist table	2	13,3
Digital scales and interviews (Brief Infant Sleep Questionnaire).	2	13,3
Questionnaire	2	13,3
Informed consent, scales, observation sheet.	2	13,3
Scales	1	6,8
Total	15	100
Analisis		
T test	3	20
Analytics in the form of narratives and tables	1	6,7
Bivariate	1	6,7
Wilcoxon test	1	6,7
Univariate and Bivariate	7	46,6
Discussion	2	13,3
Total	15	100

Based on the table above, the year of publication of most journals used is 2020 as much as 53.3%. Almost all of the journal databases used come from Google Scholar, namely 80%, while the journal language used is mostly English, namely 53.3%. Almost all of the research designs used were Quasy experimental designs, namely 86.7%. Almost half of the sample used ages 3-6 months, namely 33.3%. Almost half of the variables used are massage and body weight variables at 40%. A small portion of the instruments used are DDST and

20% before and after treatment. Journal analysis almost half used univariate and bivariate analysis, namely 46.6%.

Discussion

In this discussion, what will be discussed is the effect of baby SPA (baby massage, baby swim, and baby gym) on the quality of sleep and growth and development of babies aged 0-6 months.

Effect of Baby SPA (baby massage, baby swim, and baby gym) on the sleep quality of babies aged 0-6 months.

Based on the 15 journals reviewed, 3 journals discussed the effect of baby SPA (baby massage, baby swim, and baby swim) on the sleep quality of babies aged 0-6 months. The results of the review showed that there was an influence of baby SPA (baby massage, baby swim, and baby swim) on the quality of baby's sleep. 3 The journal uses a quasi-experimental design, the sample is 3-6 months old, and the analysis uses univariate and bivariate analysis.

The benefits of baby SPA for babies include regular sleep patterns, familiarity with the environment, and better emotional calm. In baby swimming, the impact of water generated from turbulent water can provide a sensation and massage that relieves fatigue, improves blood circulation and creates relaxation. In this way, the baby's sleep will become deeper, thereby increasing the number of hours of sleep during the day and at night. During sleep, the feeling of comfort will be transmitted to the hypothalamus, so that oxytocin and serotonin levels increase. Serotonin is converted into the hormone melatonin by the brain's epiphyseal glands at night. Melatonin is used to be involved in sleep regulation, serotonin which is obtained when babies swim is related to improving the quality of the baby's sleep as shown by increasing the duration of the baby's sleep and reducing the baby's sleep disturbances (Shinta et al, 2019). Baby swimming can also be done on babies aged two months to one year. The main purpose of baby swim is to stimulate baby activity, while its function is to increase IQ, improve health and stimulate motor movements, sharpen independence, courage and self-confidence, eliminate fear of water, improve social skills and can function as entertainment (Noviani and Fitria, 2018).

Where in the baby's sleep there is an increase in the release of growth hormone (Afrina, 2012). In a baby's sleep there is an increase in the release of growth

hormone so that babies who have good quality sleep will have good growth and development too. Good sleep quality in babies can be seen from the baby's total sleep time. Baby's sleep time is different and depends on the age of the baby. Total sleep time needed by babies aged 0-3 months reaching 16-20 hours a day. Usually 1-4 hours of sleep a day, followed by 1-2 hours of waking time.

Based on the results of a review of journals and existing theories regarding the influence of baby SPA (baby massage, baby swim, and baby gym) on the sleep quality of babies aged 0-6 months, it was found that the results of the research were in accordance with existing theories. Baby swimming activities are very rarely carried out by the public because many mothers are afraid and lack knowledge about implementing baby swimming for children aged 0-6 months. Parents are afraid that their children will drown during the baby swim, even though there are therapists who have baby swim training certificates when carrying out baby swims.

The Effect of Baby SPA (baby massage, baby swim, and baby gym) on the weight of babies aged 0-6 months.

Based on the 15 journals reviewed, 8 journals discussed the effect of baby spa (baby massage, baby swim, baby gym) on the weight of babies aged 0-6 months. The results of the review showed that there was an effect of baby spa on baby weight gain. These 8 journals used a quasi-experimental design, the samples were aged 1-3 months, and the analysis used univariate and bivariate.

The benefit of baby massage is that it can increase the baby's weight because it can cause positive biochemical and physical effects. When a baby gets a massage on the abdomen, this massage can facilitate the baby's digestive process. Baby massage can cause increased activity of the vagus nerve (10th brain nerve) so that it will stimulate digestive hormones, including insulin and gastrin. Insulin plays an important role

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