

EFFECTIVENESS OF BABY MASSAGE ON THE GROWTH AND DEVELOPMENT OF TODDLERS: A SCOPING REVIEW

By 1106 Silvia

WORD COUNT

4999

TIME SUBMITTED

30-JUN-2025 09:54AM

PAPER ID

116979773

EFEKTIVITAS PIJAT BAYI TERHADAP TUMBUH KEMBANG BAYI BALITA: SCOPING REVIEW

19 *EFFECTIVENESS OF BABY MASSAGE ON THE GROWTH AND DEVELOPMENT OF TODDLERS: A SCOPING REVIEW*

Silvia Widyani Heriyanti¹, Kurniati Devi Purnamasari², Ratna Suminar³

1.2.3 Department of Midwifery, Faculty of Health Sciences, Universitas Galuh, West Java,
Indonesia

*Email Korespondensi: swidyani@gmail.com,

Abstrak

Latar belakang: Masa bayi dan balita merupakan periode penting dalam tumbuh kembang anak yang membutuhkan perhatian khusus. Pijat bayi, sebagai bentuk komunikasi melalui sentuhan, terbukti bermanfaat bagi pertumbuhan dan perkembangan. Pijatan rutin dapat membantu meningkatkan berat badan, kualitas tidur, serta merangsang sistem pencernaan yang berdampak pada peningkatan nafsu makan. Selain memberi efek relaksasi dan kenyamanan, pijat bayi juga memperkuat ikatan emosional antara ibu dan anak. Oleh karena itu, penting bagi ibu memahami teknik dan manfaat pijat bayi sebagai bentuk stimulasi dan kasih sayang melalui sentuhan lembut.

Tujuan: Scoping review ini untuk menganalisis keefektifan pijat bayi terhadap pertumbuhan dan perkembangan bayi.

Metode: Scoping review dalam artikel ini mempergunakan metode PRISMA, dalam melakukan identifikasi artikel yang terbit selama jangka waktu 5 tahun terakhir (2019-2023) melalui Google Scholar, SAGE, Science Direct, dan PubMed serta menghasilkan 8 jurnal yang relevan.

Hasil: Pijat bayi bermanfaat terhadap pertumbuhan dan perkembangan bayi.

Kesimpulan: Pijat bayi ini bisa menjadi suatu terapi non farmakologis yang dapat membantu dalam meningkatkan nafsu makan bayi, meningkatkan kualitas tidur bayi, kelancaran buang air besar, kualitas pemberian ASI, meningkatkan daya tahan tubuh, dan frekuensi terjadinya gumoh pada bayi.

Kata kunci: pijat bayi, tumbuh kembang, bayi balita

Abstract

Background: Infancy and toddlerhood are important periods in a child's growth and development that require special attention. Baby massage, as a form of communication through touch, is beneficial for growth and development. Regular massage can help increase weight, improve sleep quality, and stimulate the digestive system, which can lead to an increased appetite. In addition to providing a relaxing and comfortable effect, baby massage strengthens the emotional bond between mother and child. Therefore, mothers need to understand the techniques and benefits of baby massage as a form of stimulation and affection through gentle touch.

Aim: This scoping review analyzes the effectiveness of infant massage on infant growth and development.

Method: This article's scoping review uses the PRISMA method to identify articles published during the last five years (2019-2023) through Google Scholar, SAGE, Science Direct, and PubMed and produces 8 relevant journals.

Results: Baby massage is beneficial for the growth and development of babies.

Conclusion: This baby massage can be a non-pharmacological therapy that can help increase the baby's appetite, improve the baby's sleep quality, smooth bowel movements, improve the quality of breastfeeding, increase the body's resistance, and reduce the frequency of spitting up in babies.

Keywords: *baby massage, growth and development, baby, toddler*

INTRODUCTION

The health status of infants can be assessed through two primary indicators: morbidity (illness) and mortality (death). In Indonesia, both morbidity and mortality rates among infants remain relatively high. Morbidity refers to a deviation from a healthy and prosperous condition, indicating the presence of illness. When an infant experiences illness, their growth and development may be adversely affected. Therefore, it is crucial for parents to regularly monitor their child's growth and development every month. Key aspects to observe include body weight, body length, and the development of motor and sensory skills.^{1,2,3}

The toddler period is widely recognized as a phase of rapid and critical development, often referred to as the "golden age." This period plays a vital role in a child's growth and developmental trajectory, as it marks the beginning of personality and character formation. Given the significance of early monitoring, regular assessment of a child's growth and development should begin as early as possible to support the development of high-quality human resources.⁴

Various interventions can be implemented to reduce morbidity rates among children, one of which is infant massage. Infant massage has been shown to provide numerous benefits, including increased body weight, enhanced growth, strengthened immune function, improved breast milk production, better blood circulation and respiration, and improved sleep quality. Additionally, infant massage can contribute to optimizing overall growth and developmental outcomes.^{2,5,6}

Infants who receive massage experience enhanced vagus nerve tone (10th cranial nerve), which leads to increased levels of gastrin and insulin absorption enzymes. This physiological response improves nutrient absorption. Enhanced nutrient absorption makes infants feel hungry more frequently, leading to more frequent breastfeeding sessions.⁷

Given the growing body of research exploring the benefits of infant massage on child growth and development, this journal aims to present a systematic review of studies examining the effectiveness of infant massage in supporting infant growth and developmental outcomes.

RESEARCH METHODS

This article is compiled based on a systematic review conducted using the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) protocol, with a focus on the effectiveness of infant massage on infant growth and development. The systematic review process involved collecting and analyzing relevant literature from various electronic databases, including Google Scholar, SAGE Journals, ScienceDirect, and PubMed, up to October 2023.

During the search process, the inclusion criteria were defined as follows: studies must focus on the topic of infant massage about growth and development, and utilize an experimental research design. These criteria were set to ensure that the review incorporates primary evidence demonstrating causal relationships between infant massage and developmental outcomes. Additionally, only articles published in English or Indonesian within the past five years (2019–2023) were considered eligible.

Articles were excluded if they did not meet the core topical focus (infant massage, growth, and development), did not employ an experimental design, or were themselves systematic reviews or meta-analyses. This exclusion criterion was applied to maintain a consistent focus on original empirical studies that directly assess the intervention's effectiveness.

The search strategy used specific keywords including: "Infant Massage" OR "Baby Massage" AND "Growth and Development." A total of 476 articles were identified through this search.

Following a rigorous screening and eligibility assessment based on the aforementioned inclusion and exclusion criteria, eight articles were ultimately selected for detailed analysis and synthesis in this review. The article selection process is explained in Figure 1 (PRISMA chart).

The characteristics of the article are explained in Table 1 below:

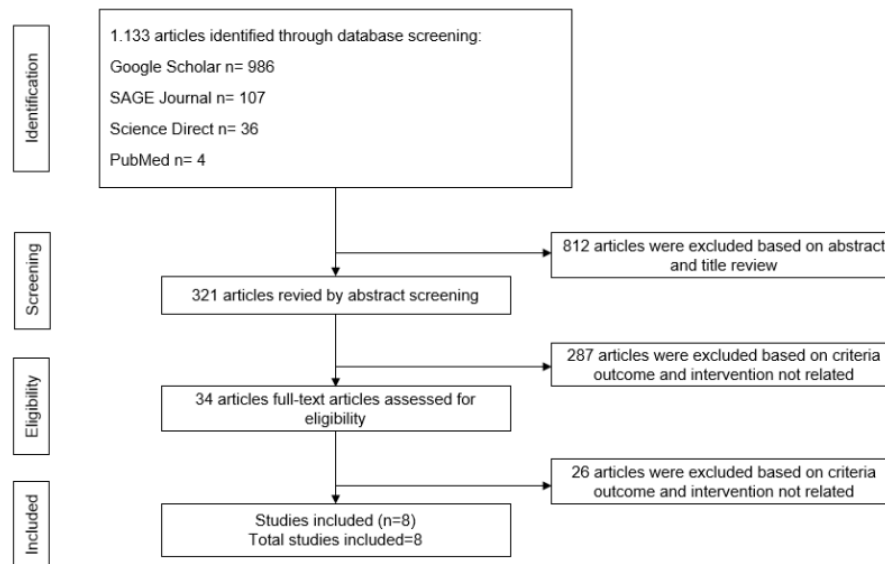


Figure 1: PRISMA Diagram

RESULT

It can be seen based on the specific keywords, there are 476 specified articles. After further searching, 8 articles were obtained that will be analyzed and included in this literature review. The eight articles that will be analyzed are articles published from 2019 to 2023 in the online databases Google Scholar, Sage Journal, Science Direct, and PubMed. Two articles were published in 2019, 2022, and 2023. For the rest, 1 article each was published in 2020 and 2021. The articles that were analyzed mostly used quasi-experimental experimental, which were 6 articles, and the rest used cross-sectional, 1 article, and experimental research, 1 article.

In Table 1. Describes the characteristics of the articles included in the final analysis. The table explains the design, objectives, samples, variables, instruments, results, and conclusions of the research conducted. The purpose of writing this article is to assess the effectiveness of infant massage on infant growth and development. The results of the analysis obtained in the article in Table 1 show that there is a significant influence of infant massage and infant growth and development. Infant massage is a massage that is done closer to gentle strokes or tactile stimulation carried out on the surface of the skin, manipulation of body tissue or organs aims to produce effects on the muscles nerves, and the respiratory system and improve blood circulation. Infant massage is the oldest touch therapy known to man and the most popular.

The characteristics of the articles are explained in the following Table 1:

Table 1. Characteristics of the Articles Studied

No	References	Origin Journal	Design Study	Research Purpose	Sample	Variables and Instruments	Results	Conclusion
1.	Sukmawati E, Imanah NDN. 2020 ⁹	Jurnal Kesehatan Al-Irsyad/ Volume 13, No 1 / Maret-Agustus 2020	Quasi Eksperiment	To determine the effectiveness of baby massage on improving the quality of baby sleep.	30 mothers of babies	Independent Variable: Baby Massage Dependent Variable: Baby Sleep Quality Instrument: Questionnaire	Based on the results of the study, it was found that there was an increase in the quality of baby sleep after baby massage, namely that 60% had poor sleep quality before baby massage increased to 73.33%, and the quality of baby sleep became good after massage. The results of the Wilcoxon test showed that the p-value was 0.004, where the p-value < α (0.05), so H0 was rejected and H1 was accepted.	There is effectiveness of baby massage in improving the quality of a baby's sleep, as proven by the respondents who experienced an increase in sleep quality of 73.3% of respondents.
2.	L. G. Pri K P. et al. 2021 ¹⁰	Journal of Public Health Research / Volume 10(s1):23-32, 2021	Quasi-Experiment	To determine the effect of baby massage on baby weight	16 respondents for each intervention and control group. Inclusion criteria: 3 • Babies with a history of LBW births. • Age 1-6 months • Exclusive breastfeeding • Normal maternal BMI Exclusion criteria: • Sick babies • Babies with genetic disorders • Already receiving complementary foods	Independent Variable: Baby massage Dependent: Baby weight The instruments used are weight observation sheets, calibrated GEA medical Rgz 20A manual baby weight scales.	The results of the study showed that there was a difference in weight gain before and after the intervention, which was 500 grams. While in the control group, there was a smaller difference in weight gain before and after, which was 34.75 grams. So there was a significant increase in baby weight after receiving baby massage (p = 0.001)	There is a significant effect of baby massage on increasing the baby's weight.
3.	Sadiman S, Islamiyati. 2019 ¹¹	Jurnal Kesehatan Metro Sai Wawaw/ Volume 12 No 2. 9-16. Desember 2019	Quasi-experiment non-equivalent control group design	To determine the effectiveness of baby massage on increasing body weight, length of sleep, and smooth bowel movements.	46 respondents 22 respondents in the control group. • 23 respondents in the intervention group Control group: Babies who were massaged as	Independent variables: Baby massage Dependent variables: Baby weight, sleep time, and smooth bowel movements Instruments: • Observation sheets • Weight scales	Based on the results of the study, it was found that there was an average increase in body weight in the treatment group of 521.8 grams, while the average increase in body weight in the control group was 354.4 grams. The difference in the average weight of babies before and after massage in the treatment and	The results of the study showed that infant massage was effective in increasing the average weight of infants, the average sleep time of infants, and the average frequency of infant bowel movements.

					usual by the midwife Intervention group: Babies who were massaged every day		control groups with a p-value of 0.000. The average increase in sleep time in the treatment group was 18.7 minutes, while the average sleep time of babies in the control group decreased by 53.9 minutes. The average sleep time of babies before and after massage in the treatment group p value 0.000, and the control group p value 0.030. In the treatment group, before training and implementation of baby massage, 5 people had abnormal bowel movements, while after the implementation of baby massage, all babies had normal bowel movements. In the control group before the massage, 4 babies were not normal in their bowel movements, while after the massage, there were still 3 babies who were not normal in their bowel movements. The average frequency of bowel movements of babies before and after massage in the treatment group p value 0.25, and there was no difference in the average in the control group p	
4.	Situmorang C C et al. 2022 ¹²	Jurnal Mutiara Kesehatan Masyarakat/ Volume 7(2): 94-100	13 Pre-experiment with one group: pre-test-post-test	10 To determine the effectiveness of baby massage on the quality of breast milk supply in babies aged 0-6 months.	30 babies aged 0-6 months • 15 intervention group. • 15 in the control group. Intervention group: babies were given a massage a 22 maximum of 2 times a day (morning and evening) and	Independent variables: Infant massage Dependent variables: Quality of breastfeeding Instruments: observation sheets, interviews, and documentation	10 The results of the study show that the average duration of breastfeeding before the massage was 7.2 minutes and after the massage was 13 11.2 minutes, so it can be seen that the quality of breastfeeding was better in the group after the intervention.	14 That baby massage can increase the duration of breastfeeding in babies aged 0 – 6 months.

					a minimum of 2 times a week, with a massage duration of 20 minutes			
5	Qotimah, et al. 2023 ¹³	Jurnal Ilmiah Obsgin/ Volume 15 No 2	Quasi-experiment non-equivalent control group design	To determine the effectiveness of baby massage in increasing body weight and endurance.	30 respondents • 15 intervention group. • 15 in the control group..	³ Independent variable: Baby massage. Dependent variable: weight gain and endurance Instrument: observation sheet, interview, documentation, and questionnaire	Based on the t-test analysis, it is known that there is an effect of baby massage on weight gain and endurance of children aged 1-3 years. For weight gain, it is shown by a 2-tailed significance value of $0.000 < \alpha 0.05$ and a t-count value = $12.241 > t\text{-table} = 1.699$, which means that there is an effect of giving baby massage on weight gain in children aged 1-3 years. While for endurance, it is shown by a 2-tailed significance value of $0.000 < \alpha 0.05$ and a t-count value = $9.522 > t\text{-table} = 1.699$, which means that there is an effect of giving baby massage on endurance in children aged 1-3 years.	The results of this study show that there is an effect of baby massage on increasing body weight and endurance in children aged 1-3 years.
6	Kalsum Umi. 2019. ¹⁴	Jurnal Antara Kebidanan/ Vol. 4, No. 3, Juli-September 2021	Cross Sectional study	To determine the effectiveness of baby massage on the sleep patterns of babies aged 0-6 months.	Sample of 30 babies aged 0-6 months	Independent variable: Baby massage Dependent variable: Baby sleep pattern Instrument: Observation sheet and interview	The results of the Chi Square Test statistical test obtained a value of $p = 0.003$, where $p < \alpha$ ($\alpha = 0.05$). It can be concluded that H_a is accepted and H_o is rejected, which means that there is an effect of baby massage on improving baby sleep patterns.	There is an effective influence between baby massage and improving a baby's sleep patterns..
7	Nurseha, Lintang Santi S. 2022 ¹⁵	Journal Of Midwifery/ Vol 10 No 1, April 2022	Quasi-Experiment	¹⁶ To determine the effectiveness of baby massage on increasing body weight and sleep time.	50 respondents • 25 intervention group. • 25 in the control group. Control group: no massage, only weighing Treatment group: regular	Independent variables: Baby massage Dependent variables: weight gain and sleep duration Instruments: observation sheets, weight scales, and interviews	¹⁹ The average weight of infants in the treatment group increased from 5,973 grams to 6,875 grams. In the control group, the average weight of infants increased from 6,857 grams to 7,150 grams. There was a difference in the average weight of infants before and after massage in the	This study concludes that there is a difference in the average weight of babies before and after massage in the treatment group, and there is a difference in the average sleep time of babies before and after massage in the treatment group. Baby massage is effective in increasing the average weight of babies and the average sleep time

					massage every 3 days for 1 month, with a minimum time of 15 minutes		21 treatment group, with a p-value of 0.000. In the control group, there was no difference in the average weight of infants before and after massage, with a p-value of 0.062. The length of sleep in the treatment group increased from 659 minutes to 733 minutes. In the control group, it decreased from 654 minutes to 632 minutes. There was a difference in the average sleep time of infants before and after massage in the treatment group, with a p-value of 0.000. In the control group, there was also a difference in the average sleep time of infants before and after, with a p-value of 0.30.	of babies.
8	Hasanalita, Sanputri. 2023 ¹⁶	Jurnal Ventilator: Jurnal Riset Ilmu Kesehatan dan Keperawatan/ Vol. 1 No. 1. Maret 2023	Eksperimental research	4 To explain or describe the distribution of spit-up frequency in babies before and after massage.	16 sample	Independent variable: baby massage Dependent variable: frequency distribution of spit up Instrument: observation sheet	4 The average frequency of spit up before baby massage was 0.500 with a standard deviation of 0.516. The average frequency of spit up after baby massage was 0.686 with a standard deviation of 0.479. The results of statistical tests using the Paired T-Test obtained a p value of 0.003, which means H_0 is rejected, so it can be concluded that there is a difference in the frequency of spit up before and after baby massage.	There is a difference in the occurrence of spitting up in babies who are massaged and those who are not massaged. On average, babies who are massaged do not experience spitting up, while babies who are not massaged experience spitting up..

DISCUSSION

The review in this paper can be used as a reference for the effectiveness of baby massage on growth and development. Some of the benefits of baby massage include:

a. Improving the quality and pattern of baby sleep

One of the factors that can affect a baby's growth is the need for sleep. Sleep is one of the stimuli for brain growth. It is estimated that around 75% of growth hormones are excreted when children sleep. This hormone has the task of stimulating bone and tissue growth and regulating the body's metabolism, including the brain. In addition, growth hormones also allow the body to repair and renew all cells in the body. This cell renewal process will take place faster when the baby is asleep than when awake.

In the first year, the baby's brain will grow 3 times from its birth state or around 80% of the adult brain.¹⁷

With the advancement of science and technology, experts have found that touching and massaging babies has a positive impact on the physiological functions of the body. One of the main benefits is helping babies sleep better. This is important because in the early stages of life, the development of the baby's nerve cells is still ongoing and not fully mature, so sufficient sleep time is needed to support the formation and strengthening of brain synapses.¹⁴

The quality of a baby's sleep not only affects physical development, but also their attitude the next day.¹⁸ Sleep also has a major effect on the mental, emotional, physical, and immune systems.¹⁹ The right massage method for babies is useful for improving sleep quality. Babies need the sensation of touch in their early lives to adapt to their environment. Therefore, baby massage has a great effect on improving the quality of a baby's sleep.⁹

Babies who are regularly massaged tend to have better sleep quality because massage can stimulate an increase in the hormone serotonin in the body. Serotonin functions as a neurotransmitter that plays an important role in the mechanism of sleep, namely by reducing the activity of the reticular activating system and calming other brain functions. Serotonin itself is formed from the amino acid tryptophan, which then undergoes a conversion process into 5-hydroxytryptophan (5-HTP), then into N-acetylserotonin, and finally turns into melatonin. This melatonin hormone plays a role in regulating sleep rhythms, so that babies can sleep longer and more soundly, especially at night.¹⁴

b. Increase the baby's weight

Baby massage can provide tactile stimulation that can stimulate muscles, bones, and body organ systems to function optimally. Baby massage can also increase food absorption because the massage performed on the baby will cause an increase in the tone of the vagus nerve (a brain nerve), which will stimulate an increase in the absorption of gastrin and insulin enzymes.²⁰ The vagus nerve stimulated by the massage will increase the work of intestinal peristalsis, which makes stomach emptying faster, and the baby becomes hungry easily, so that the baby will breastfeed more often from the mother.³¹

In addition, baby massage also increases the secretion of the beta endorphin hormone, which affects the growth mechanism. Babies who are massaged regularly experience an average weight gain in 1 month of around 900 grams, while babies who are not massaged regularly have an average weight gain in one month of around 760 grams.²²

c. Helps smooth bowel movements

Another benefit of baby massage is that it can increase peristaltic motion for the digestive process. Peristalsis is a kind of wave and regular contraction in the digestive tract that functions to move food so that the digestive process takes place quickly. The method that can be used on babies who experience constipation is by gently massaging around the baby's stomach area from the center towards a circular motion

clockwise. The massage can be done using baby massage oil or cream to make it
9asier for the hands to massage.³

d. 9effectiveness of infant massage on the quality of breastfeeding

Infant massage is a form of midwifery care given to neonates, infants, and toddlers
with gentle and structured massage techniques from the face to the feet. This activity
helps relax the baby's muscles, improve blood circulation, and support better sleep
quality. In 10addition to these physical benefits, infant massage can also stimulate
increased frequency and duration of breastfeeding, so that the baby feels more
comfortable and calm during the breastfeeding process²³

Baby massage can stimulate the baby's ability to breastfeed more optimally, so that the
need for breast milk can be met optimally. This increase in breastfeeding effectiveness
21o encourages the mother's breast milk production according to the baby's needs.
Exclusive breastfeeding provides many benefits for babies, such as increasing
endurance, meeting nutritional intake, and supporting healthy weight growth. For
mothers, breastfeeding also provides benefits, including helping the uterus return to its
original size, acting as a natural contraceptive, and saving time and money.²⁴

e. Increases body immunity

Baby massage has two main benefits, namely physical and psychological benefits.
From a physical perspective, baby massage plays an important role in helping weight
gain, especially in premature babies, supporting the growth and function of the
digestive tract, improving body fat storage, and reducing stress levels in babies. In
addition, baby massage also contributes to strengthening the immune system, helping
to reduce bilirubin levels in babies with ja 3undice, and increasing heart rate variability
as an indicator of good heart health. Other benefits of baby massage include increasing
growth, increasing baby concentration, and 3making babies sleep more soundly,
increasing body immunity, which can cause a decrease in adrenaline hormone levels
(stress hormones). This decrease in stress hormones causes an increase in body
immunity, especially IgM and IgG.¹³

f. 2effectiveness of baby massage on spit-up disorders

7
Baby massage is a gentle touch technique in the form of gentle strokes or tactile
stimulation performed on the surface of the skin, with light manipulation of the body's
tissues or organs. The goal is to provide a positive effect on the nervous system,
muscles, respiration, and improve blood circulation.^{25,26} One of the benefits of baby
massage is that it helps relieve digestive disorders such as bloating and colic, and
helps babies to sleep better. Massage can facilitate the movement of air in the
stomach, so that trapped gas can be released more easily. In addition, massage also
helps babies overcome digestive disorders caused by the immaturity of the cardiac
sphincter in the stomach, which often causes babies to spit up. With regular and proper
massage, the function of the baby's digestive system can be more optimal, and the
baby's comfort will increase.²⁷

CONCLUSION

Based on the analysis conducted on 8 articles selected from various trusted databases and journals, it was found that baby massage is a form of early stimulation that is very beneficial for children's growth and development, both physically and psychologically. Gentle massage techniques that are carried out routinely can provide various positive effects, such as improving sleep quality, facilitating the digestive system, increasing the baby's weight, relieving discomfort or pain, and strengthening the immune system. Massage also plays an important role in helping babies sleep better and longer, which is very much needed in the process of nerve maturation and optimal growth. In addition to the physical benefits, baby massage also strengthens the emotional bond between baby and parent, and helps babies feel safer, calmer, and more comfortable. With these various benefits, baby massage is a simple but effective non-pharmacological method in supporting the health and well-being of babies as a whole.

SUGGESTION

It is expected that parents, especially mothers, can learn and apply baby massage techniques correctly through guidance from health workers such as midwives. Health workers are also expected to be more proactive in providing education about baby massage as an effort to support children's health and development. In addition, support from health facilities and local governments is needed to organize regular training or counseling so that the benefits of baby massage can be felt widely and evenly.

ACKNOWLEDEMENT

In making this article, I would like to express my deepest gratitude to the various parties who have provided support in completing this literature review. First, I would like to thank the researchers and academics who have contributed to writing quality articles that I have analyzed in this journal. So that thanks to these articles, I can present a relevant picture of infant massage on the growth and development of toddlers. I would also like to thank the team from the online databases Google Scholar, SAGE, Science Direct, and PubMed, who provided access to the scientific articles that I used for this research. Also, I am very grateful and appreciate the editorial team and journal reviewers who have provided criticism, input, and suggestions to improve and perfect the quality of this systematic review. In addition, I would also like to express my gratitude to the institution for the support and facilities that have been provided to support this research. I greatly hope that this systematic review journal can provide many benefits and a better understanding of the benefits of infant massage on the growth and development of toddlers.

REFERENCES

1. Elya D, Ridwan M, Anggraeni Y. Efektifitas Pijat Bayi terhadap Peningkatan Berat Badan pada Bayi Usia 0 – 3 Bulan. J Kesehat Metro Sai Wawai. 2018;11:15.
2. Nurseha DK. Hubungan Karakteristik Ibu Yang Memiliki Bayi Usia 0-24 Bulan Dengan Pengetahuan Tentang Pijat Bayi. Faletahan Heal J. 2020;7(1):42–7.
3. Sadiman I. Efektifitas Pijat Bayi terhadap Peningkatan Berat Badan, Lama Waktu Tidur dan Kelancaran Buang Air Besar. J Kesehat Metro Sai Wawai. 2019;12(2):9–16.

4. Sutriyawan, A., Andini, M., & Dian R. Hubungan Imunisasi, Asi Eksklusif Dan Peran Kader Dengan Tumbuh Kembang Balita Di Puskesmas Rancaekek Tahun 2019. *J Mitra Kencana Keperawatan Dan Kebidanan*. 2019;3(2):41–50.
5. Ismar Agustin, Khenia Arini Sekar Arum PN. Pengaruh Pijat Bayi Terhadap Peningkatan Berat Badan Bayi Usia 1-3 Bulan. *J Aisyiah Med*. 2020;5(2):166–77.
6. Ulfa RB, Munir Z, Kholisotin K. Efektifitas Stimulasi Pijat Bayi terhadap Peningkatan Berat Badan Bayi Usia 0-4 Bulan dengan Riwayat BBLR. *Citra Delima Sci J Citra Int Inst [Internet]*. 2019 Dec 30;3(2 SE-Research Articles):155–62. Available from: <https://jurnalilmiah.ici.ac.id/index.php/JI/article/view/89>
7. Roesli U. *Pedoman Pijat Bayi*. PT. Trubus Agriwidya.; 2011.
8. Walker P et al. *Enjoy Baby Massage*. ed United Kingdom. 2017;
9. Ellyzabeth Sukmawati NDNI. Efektivitas Pijat Bayi Terhadap Peningkatan Kualitas Tidur Bayi. *J Kesehat Al-Irsyad*. 2020;13(1):11–8.
10. Lestari Kurniati Puji et al. The Effectiveness of Baby Massage in Increasing Infant's Body Weight. *J Public health Res*. 2021;10(1):2332.
11. Sadiman Sadiman II. The Effectiveness of Baby Massage Against Increased Weight, Long sleep Time and Smooth Bowel Movements. *J Kesehat Metro Sai Wawai*. 2019;12(2):9–16.
12. Cory Chorajon Situmorang et al. Efektifitas Pijat Bayi Terhadap Durasi Menyusui Pada Bayi Usia 0-6 Bulan. *J Mutiara Kesehat Masy [Internet]*. 2022;7(2):94–100. Available from: <http://e-journal.sari-mutiara.ac.id/index.php/JMKM>
13. Qotimah et al. Efektivitas Pijat Bayi Terhadap Peningkatan Berat Badan Dan Daya Tahan Tubuh Anak Usia 1-3 Tahun Di Hafizha Babyand Kids Spa. *J Ilm Obgsgin [Internet]*. 2023;313–20. Available from: <https://stikes-nhm.e-journal.id/OBJ/index>
14. Kalsum Umi. Efektifitas Pijat Bayi Terhadap Pola Tidur Bayi Usia 0-6 Bulan Di PMB Suriyanti S.St Makassar Tahun 2019. *J Antara Kebidanan*. 2021;4(3):104–9.
15. NURSEHA el al. Effectiveness Of Baby Massage Against Weight Gain And Quality Of Baby Sleep At Kramatwatu Health Center. *J Midwifery*. 2022;10(1):29–34.
16. Hasnalita RSY. Efektivitas Pijat Bayi terhadap Gangguan pada Bayi Umur 0-3 Bulan di Latumi Health Care Padang. *J Vent J Ris Ilmu Kesehat dan Keperawatan*. 2023;1(1):68–77.
17. Ifalahma AS. Efektivitas Pijat Bayi Terhadap Kualitas Tidur Bayi Di Kelurahan Kadipiro Banjarsari Surakarta. *J Infokes*. 2016;6(2):1–4.
18. Dewi U, Aminin F, Gunnara H. The Effects of Massage on the Quality of Sleeping in Babies 3-4 Months Old at Gelatik and Nuri IHCs of Tanjung Unggat Village of Tanjungpinang in 2014. *J Ners dan Kebidanan (Journal Ners Midwifery)*. 2016;1:230.
19. Kusumastuti NA, Tamtomo D, Salimo H. Effect of Massage on Sleep Quality and Motor Development in Infant Aged 3-6 Months. *J Matern Child Heal [Internet]*. 2016 Jul 16;1(3 SE-Articles):161–9. Available from: <https://www.thejmch.com/index.php/thejmch/article/view/24>
20. Akademi Kebidanan Griya Husada. *Modul Pijat Bayi*. Surabaya; 2020.
21. Lorenz L;, Moyes K SH. Manfaat Pijat Bayi. *Paediatr Nurs*. 2005;17:8–15.

22. Lee HK. Pengaruh Pijat Bayi Terhadap Berat Badan, Tinggi Badan, dan Interaksi Ibu-Bayi. *Taehan Lanhoe Hakhoe Chi*. 2006;36(9):1331.
23. Retnowati R. Pengaruh Fisioterapi Oral Terhadap Refleks Hisap Pada Bayi Berat Badan Lahir Rendah Di Ruang Perinatologi Rsd Dr. Soebandi Jember. *unmuh jember*. 2012;
24. Fitriahadi Enny. Pengaruh Pijat Bayi Terhadap Peningkatan Frekuensi dan Durasi Menyusu pada Bayi. *J Kesehat Masy*. 2016;10(2).
25. Walker P et al. *Enjoy Baby Massage*. United Kingdom. 2017;
26. Abdallah B, Badr L, Hawwari M. The efficacy of massage on short and long term outcomes in preterm infants. *Infant Behav Dev*. 2013 Aug 6;36:662–9.
27. Dewi V. *Asuhan Neonatus Bayi Dan Anak Balita*. Jakarta: Salemba Medika; 2012.

EFFECTIVENESS OF BABY MASSAGE ON THE GROWTH AND DEVELOPMENT OF TODDLERS: A SCOPING REVIEW

ORIGINALITY REPORT

29%

SIMILARITY INDEX

PRIMARY SOURCES

1	www.coursehero.com Internet	170 words — 4%
2	newinera.com Internet	162 words — 3%
3	www.ncbi.nlm.nih.gov Internet	145 words — 3%
4	jurnal.stikeskesdam4dip.ac.id Internet	107 words — 2%
5	Putri Rhadiyah, Silvia Widyani Heriyanti, Aisah Nurhayati, Nadhiati Awlia Nasution et al. "PRENATAL YOGA'S EFFECTIVENESS IN RELIEVING THIRD-TRIMESTER PREGNANCY DISCOMFORT: A SCOPING REVIEW", Jurnal Aisyah : Jurnal Ilmu Kesehatan, 2023 Crossref	103 words — 2%
6	Indanah Indanah, Dessie Wanda, Nani Nurhaeni. "Empowerment of Parents with Stunting Children", Jurnal Aisyah : Jurnal Ilmu Kesehatan, 2022 Crossref	85 words — 2%
7	www.thejmch.com Internet	79 words — 2%
8	jurnal.unived.ac.id Internet	57 words — 1%
9	www.grafiati.com Internet	

47 words — 1%

10 ejurnal.malahayati.ac.id
Internet

45 words — 1%

11 Eka Damayanti, SKeb., Bdn, Prof. Dr. Mufdlillah, S.SiT., M.Sc, Dr. Asri Hidayat S.SiT., M.Keb. "COMPARISON EFFECTIVENESS OF SWING AND MASSAGE ON SLEEP QUALITY IN INFANTS : A SCOPING REVIEW", Jurnal Aisyah : Jurnal Ilmu Kesehatan, 2025
Crossref

12 Hellen Febriyanti, Nur Alfi Fauziah, Inggit Primadevi. "PENYULUHAN PENGARUH PIJAT BAYI UNTUK KUALITAS TIDUR BAYI DI DESA WAY NIPAH TANGGAMUS", Jurnal Pengabdian Kepada Masyarakat Ungu(ABDI KE UNGU), 2023
Crossref

13 p.pdfkul.com
Internet

38 words — 1%

14 Milatin Kusniati, Rose Nur Hudhariani. "THE CONTINUITY OF CARE FROM PREGNANCY TO NEWBORN FOR MRS. FR AT PUBLIC HEALTH WELAHAN I JEPARA", Journal for Quality in Women's Health, 2023
Crossref

15 Yanti Herawati, Desi Trisiani. "Effect Massage On Baby Weight", Jurnal Kebidanan Malahayati, 2023
Crossref

16 Sitti Radhiah, Nurhaya S. Patui, Elvaria Mantao, Rahma Dwi Larasati, Ulfa Aulia. "Effectiveness of Infant Massage on Increasing Baby Weight and Length in Nosarara Community Health Centers during the Covid-19 Pandemic", Open Access Macedonian Journal of Medical Sciences, 2022
Crossref

17	Internet	32 words — 1%
18	jkp.poltekkes-mataram.ac.id Internet	29 words — 1%
19	oamjms.eu Internet	29 words — 1%
20	Risa Arieska, Kadek Agustina Puspa Ningrum, Ni Luh Linda Ayuni Tani. "The effectiveness of baby massage in increasing infant's body weight", Malahayati International Journal of Nursing and Health Science, 2025 Crossref	27 words — 1%
21	eprints.ukh.ac.id Internet	26 words — 1%
22	repository.akperkyjogja.ac.id Internet	26 words — 1%

EXCLUDE QUOTES OFF

EXCLUDE BIBLIOGRAPHY ON

EXCLUDE SOURCES

EXCLUDE MATCHES

< 1%

OFF