

Providing Health Education with Audio Visual Media About Baby Massage on Mother's Knowledge and Attitude At Sumartini Palembang Independent Practice Midwife Year 2025

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ABSTRACT

Baby massage is a form of touch therapy that provides important benefits for children's growth and development, especially in the 0-3 years period as a golden period of development. Although it is known to have significant benefits, maternal knowledge and attitudes towards baby massage are still low and influenced by trust in traditional methods. Audio-visual media as an educational tool has the potential to be effective in increasing mothers' knowledge and attitudes about baby massage. The purpose of this study is to determine the Influence of Health Education on Infant Massage on Mother's Knowledge and Attitude. This type of research is *Quasi-Experimental with a One Group Pretest-Posttest design*, a sample taken using *the Non-Random Sampling method*, namely Purposive Sampling totaling 30 respondents at the Independent Practice of Midwives Sumartini Palembang. The research instrument used a questionnaire. The results of the analysis of *the Wilcoxon Signed Ranks Test* test after education on mother's knowledge increased with a *p-value* of $0.000 < 0.05$ and the mother's attitude also increased with a *p-value* of $0.001 < 0.05$. There is an Influence of Health Education About Baby Massage on Mothers' Knowledge and Attitudes at PMB Sumartini Palembang in 2025.

Keywords: Knowledge, Attitude, Education, Baby Massage.

INTRODUCTION

Children are the nation's assets as well as the next generation that determines the future of the country, as affirmed in the Regulation of the Minister of Health of the Republic of Indonesia Number 25 of 2014. Therefore, meeting health needs and protection from infancy to adolescence is a top priority to ensure optimal survival, growth, and development. The Healthy Living Community Movement (GERMAS) advocates infant massage as an effective promotive intervention, because this tactile therapy can reduce pain, refresh the body, strengthen physical, mental, emotional development, and increase the bond of affection between parents and children (Esty Pamungkas et al., 2021; Ministry of Health of the Republic of Indonesia, 2017).

Especially during the First Thousand Days of Life (1000 HPK), stimulation such as baby massage is crucial to support the Healthy Indonesia program with a promotive-preventive approach.

The 0-3 year age period is known as the "*golden period*" because of the rapid growth of the brain and high plasticity to stimuli.

Studies show that baby massage with the right technique increases weight, endurance, sleep quality, smooth digestion, blood circulation, motor development, and emotional bond between mother and child (Setiawandari, 2019). A classic study by Tiffany Field (1986) on premature infants at the *Touch Research Institute*, University of Miami, proved that daily massage for 10 days increased weight gain up to 47% higher, accompanied by increased activity

and alertness compared to the control group (DawatyS *et al.*, 2024).

However, there is still a misconception among parents that baby massage is only for sick conditions such as flu or colds, not routine therapy. Many mothers choose baby shamans because of hereditary traditions, low cost, suggestion of compatibility, and family support, even though it risks causing fuss, sleeplessness, or bruises in the baby (Syamsiah *et al.*, 2022; Murtiningsih *et al.*, 2019). Alternatives such as Baby Spa are effective because they are carried out by trained personnel, but they are expensive and unaffordable for all groups (Putri *et al.*, 2024; Wahyuni *et al.*, 2021). The survey shows that the majority of mothers have poor knowledge of baby massage, with more than half showing negative attitudes (Susanti *et al.*, 2022; Wirenviona & Amran, 2020).

Health education has proven to be effective in addressing this problem. Educational interventions significantly increase maternal knowledge and attitudes (Junita, 2025; Sukmawati, 2024). Audiovisual media, which utilizes the senses of sight and hearing, is the optimal choice because it makes messages more lively, easy to understand, and motivating (Nurwahidah *et al.*, 2021). Loi *et al.*'s (2024) study on 50 mothers at the Eni Novita Sari Midwifery Practice showed a significant increase in post-audiovisual education knowledge, while Ekowati & Herlina (2023) and Wisdarini Afri Dwi Santy (2023) proved their effectiveness in improving skills, confidence, stimulation of growth and development, and mother-child bonding.

The research gap lies in the lack of local studies that integrate audiovisual media for infant massage education in low-income communities. This research is

expected to fill this gap by testing the effectiveness of audiovisual media in improving maternal knowledge and attitudes, thereby supporting the optimization of children's growth and development in a sustainable manner.

Therefore, this study aims to evaluate the effectiveness of audiovisual-based health education on infant massage in improving maternal knowledge and attitudes toward baby massage practices. The study focuses on mothers of infants aged 0–12 months living in a low-income community setting and measures changes in knowledge and attitudes before and after the educational intervention. By applying a pre–post intervention design, this research directly addresses the identified gap in locally grounded, media-based infant massage education. The findings are expected to contribute practical evidence for child health promotion by supporting the integration of audiovisual educational media into routine maternal and child health services, particularly as a cost-effective and accessible alternative to professional baby spa services in resource-limited settings.

METHODS

The type of research carried out is observational, namely by making observations on the object being studied. The observation method used in this study is a quasi-experimental method with a one-group pretest-posttest design. The instrument or method used in this study is a questionnaire on maternal knowledge and attitudes towards infant massage which is sourced from research conducted by Thulil Kurrota Ayun in 2018 entitled "The Relationship between Maternal Knowledge and Maternal Attitudes to Infant Massage Therapy" by Hasibuan (2017).

RESULTS

This research was conducted at PMB Sumartini, the focus of this study is mothers who have babies aged 0-36 months totaling 30 people. All data were obtained from questionnaires that were used to find out the provision of health education with *audio-visual media* about baby massage to the

mother's knowledge and attitude. The results of the questionnaire were used to find out the provision of health education with *audio-visual media* about baby massage to the mother's knowledge and attitude. The results of the research obtained are:

Analisa Univariat

Univariate analysis was carried out to determine the frequency distribution and percentage of all studies.

Table 1. Mother's Knowledge Level Before Education (*Pre-test*)

Knowledge	Frequency	Percentage
Good	6	20.0
Enough	9	30.0
Less	15	50.0
Total	30	100.0

Based on the table, most mothers, namely as many as 15 people (50.0%) have a lack of knowledge about baby massage.

Table 2. Mother's Level of Knowledge After Education (*post-test*)

Knowledge	Frequency	Percentage
Good	20	66.7
Enough	10	33.3
Less	0	0
Total	30	100.0

Based on the data in the table, most mothers, 20 people (66.7%), have a good level of knowledge about baby massage, indicating that the majority of mothers already have a good understanding of baby massage practices.

Table 3. Mother's Attitude Before Education (*pre-test*)

Attitude	Frequency	Percentage
Positive Attitude	17	56.7
Negative Attitudes	13	43.4
Total	30	

Based on the data in the table, the majority of respondents, namely 17 people (56.7%), have a positive attitude towards baby massage, indicating that more than half of the respondents support this practice and are ready to apply it in baby care.

Table 4. Mother's Attitude After Being Performed (*Post-Test*)

Attitude	Frequency	Percentage
Positive Attitude	28	93.3
Negative Attitudes	2	6.7
Total	30	100.0

Based on table 4.4, most mothers, namely 28 people (93.3%), showed a positive attitude towards baby massage. This positive attitude shows that the majority of mothers support and are ready to do baby massage after getting education.

Analisa Bivariat

Karena data pada penelitian ini berskala ordinal maka pengujian perbedaan penelitian ini menggunakan uji non-parametrik *Wilcoxon signed ranks test*. Hasil pengolahan data dengan uji *Wilcoxon* dapat dilihat pada tabel berikut ini.

Table 5. The Effect of Baby Massage Health Education on Mother's Knowledge at BPM Sumartini Palembang in 2025

Variabel	N	Mean	Standard Deviation	p-Value
Previous Knowledge	30	2.30	.794	0.000
Knowledge After	30	2.00	.479	

Based on table 4.5, the results of the *Wilcoxon signed ranks test* on maternal knowledge before and after the intervention were obtained with a $p\text{-value} = 0.000 < 0.05$. The mean value of knowledge before the intervention was 2.30 with a standard deviation of 0.794

Meanwhile, after intervention the mean decreased to 2.00 with a standard deviation of .479. This means that the alternative hypothesis (H1) is accepted and the null hypothesis (H0) is rejected. This means that there is an influence between the mother's knowledge before and after the infant massage educational intervention.

Table 6. The Effect of Baby Massage Health Education on Attitudes Mother at BPM Sumartini Palembang in 2025

Variabel	N	Mean	Standar Deviasi	p-Value
Attitudes Before	30	1.43	.504	0.001
After-Attitude	30	1.07	.254	

Based on the results of the *Wilcoxon signed ranks test*, a $p\text{-value}$ of $0.001 < 0.05$ showed a significant difference between the mother's knowledge before and after the intervention. The mean maternal knowledge

score before the intervention was 1.43 with a standard deviation of 0.504, while after the intervention the average score decreased to 1.07 with a standard deviation of 0.254. This means that the alternative hypothesis (H1) is

accepted and the null hypothesis (H0) is rejected. This means that there is an influence between the mother's attitude

DISCUSSION

Mother's Level of Knowledge Before Education (Pretest)

The results of this study after a pretest were obtained that most mothers (15 people; 50.0%) have less knowledge about baby massage at BPM Sumartini in 2025. The results of this study are in line with research conducted by Nurseh & Komalasari (2020) which shows that most mothers have less knowledge due to educational factors and the tradition of baby shamans.

Junita et al. (2025) emphasized that the mother's age and occupation factors greatly affect the baby's massage knowledge. For example, mothers with low education tend to follow hereditary traditions without understanding the correct SOPs.

According to researchers from the research analysis that has been carried out, one of them is the lack of knowledge causes mothers to choose baby shamans, it can be seen from the data that 50.0% of knowledge is lacking, so it would be good if education was given early so that mothers have the right knowledge because understanding the theory of baby massage is very important.

Mother's Knowledge Level After Education (Posttest)

The results of this study after a posttest were obtained that the majority of mothers (20 people; 66.7%) had good knowledge about baby massage. The results of this study are in line with the study conducted by Loi et al. (2024) which showed a significant increase in knowledge after audiovisual education in 50 mothers.

Junita et al. (2025) emphasized that audiovisual media facilitates understanding

before and after the infant massage educational intervention.

through visuals and sound. For example, you can repeat the video at any time so that material retention is better.

According to the researcher from the research analysis that has been carried out, one of them is an increase from 50.0% to 66.7% of knowledge is good due to interesting audiovisual media, it can be seen from the posttest data, so it would be good if video was used regularly because audiovisual media is very effective.

Mother's Attitude Before Education (Pretest)

The results of this study after a pretest were obtained that most mothers (17 people; 56.7%) have a positive attitude towards baby massage at BPM Sumartini in 2025. The results of this study are in line with the research of Ayudia Johar (2020) which shows a positive attitude even though limited knowledge is influenced by culture and family support.

Syamsiah et al. (2022) emphasized that fear of misengineering is the main obstacle. For example, mothers prefer baby shamans because of their low cost and suggestion of compatibility.

According to the researcher from the research analysis that has been carried out, one of them is a positive attitude of 56.7% but is constrained by knowledge, it can be seen from the pretest data, so it would be good if technical education was provided because understanding is very important.

Mother's Attitude After Education (Posttest)

The results of this study after a posttest were obtained that almost all mothers (28 people; 93.3%) have a positive attitude at BPM Sumartini in 2025. The results of this study are in line with the research of Zuliana et al.

(2023) which shows the effect of counseling on the attitude of mothers to massage independently.

Loi et al. (2024) emphasize that demonstrations + videos shape maternal confidence. For example, mothers become motivated after seeing hands-on practice.

According to the researcher from the research analysis that has been carried out, one of them is an increase in attitude from 56.7% to 93.3% due to audiovisual education + demonstration, it can be seen from the posttest data so it would be good if this intervention was carried out periodically because audiovisual media is very effective.

The improvement in maternal attitudes observed after the educational intervention can be explained by the combined use of audiovisual media and direct demonstrations, which engage multiple senses and facilitate deeper understanding and skill acquisition. Audiovisual materials help mothers visualize correct infant massage techniques, while demonstrations reinforce learning through real-time observation and imitation, thereby increasing confidence and perceived self-efficacy. This finding is consistent with previous studies reporting that multimodal education approaches are more effective in changing health-related attitudes than verbal counseling alone (Zuliana et al., 2023; Loi et al., 2024). In line with the study objective, the results suggest that audiovisual education supported by demonstrations not only enhances knowledge but also positively shapes maternal attitudes toward independent baby massage practice, highlighting its potential as an effective strategy for sustainable child health promotion in community-based maternal and child health programs.

The Influence of Health Education with Audiovisual Media on Baby Massage on Mother's Knowledge

The results of this study after the Wilcoxon Signed Ranks Test were obtained with a p-value = $0.000 < 0.05$ which shows that there is a significant influence of health education with audiovisual media about baby massage on increasing maternal knowledge at BPM Sumartini in 2025 (Table 5). The results of this study are in line with research conducted by Paninsari et al. (2024) which revealed that health education has a significant effect on mothers' knowledge in massaging babies.

Zuliana et al. (2023) emphasized that audiovisual media strengthens the bond of affection between parents and babies, reduces anxiety, improves physical ability, sleep quality, relieves colic, and supports digestion and blood circulation. For example, the touch of a baby massage has been shown to be effective in improving the baby's brain development and confidence.

According to Sukmawati (2024), there is a meaningful relationship between audiovisual education and baby massage knowledge so that it can be concluded that audiovisual media is effective in conveying information about safe techniques and benefits of baby massage. The purpose of the study was to determine the effect of intervention on maternal knowledge (DawatyS et al., 2024)

According to the researcher from the research analysis that has been carried out, one of them is lack of knowledge (50.0%) before education changes to good (66.7%) after intervention, it can be seen from the pre-test-posttest data, so it would be good if audiovisual education was given regularly because this media is very effective in improving maternal understanding.

The Effect of Health Education with Baby Massage Audiovisual Media on Mother's Attitude

The results of this study after conducting the Wilcoxon Signed Ranks Test obtained a $p\text{-value} = 0.001 < 0.05$ which shows that there is a significant influence of health education with audiovisual media about baby massage on the improvement of maternal attitudes at BPM Sumartini in 2025 (Table 6).

The results of this study are in line with research conducted by Paninsari et al. (2024) which stated that health education has a significant effect on mothers' attitudes in massaging babies independently.

Zuliana et al. (2023) emphasized that education provides positive experiences that change maternal behavior, for example, understanding the signs of a baby ready to be massaged, safe techniques, and benefits for optimal growth and development, while according to DawatyS et al. (2024) there is a meaningful relationship between audiovisual education and positive attitudes of mothers so that it can be concluded that this intervention strengthens the emotional bond and confidence of mothers in caring for babies, with the purpose of the research to measure changes in post-education attitudes (Sukmawati, 2024).

According to researchers from the research analysis that has been carried out, one of them is that positive attitudes increased from 56.7% to 93.3% after education, it can be seen from the pre-test-posttest data, so it would be good if demonstrations and videos were given periodically because audiovisual media is very important to form a mother's independent attitude.

CONCLUSION

Based on the results and discussion of providing health education with audiovisual media about infant massage on the knowledge and attitude of mothers at BPM Sumartini in 2025, it can be concluded that before education most mothers had less knowledge (15 people; 50.0%) and a positive attitude (17 people; 56.7%), while after education knowledge increased to good (20 people; 66.7%) and positive attitudes reached 93.3% (28 people). with a significant influence of the Wilcoxon test (knowledge $p=0.000$; attitude $p=0.001 < 0.05$).

The findings of this study have important practical implications for multiple stakeholders. Educational institutions are encouraged to integrate audiovisual-based infant massage education into learning curricula and community service programs to strengthen student competencies in child health promotion. For midwifery practice, the results support the routine use of audiovisual media combined with demonstrations as an effective counseling approach to enhance maternal attitudes and confidence in performing infant massage. Meanwhile, parents are encouraged to actively engage in evidence-based infant massage practices by improving their understanding of proper techniques and benefits, thereby supporting optimal child growth and development. Integrating these implications into maternal and child health programs may enhance the sustainability and impact of promotive-preventive interventions in community settings.

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