



The Effect of Counseling on Mothers' Knowledge and Attitudes in Changing Mothers' Attitudes Regarding Baby Care Behavior by Musical Healthcare Providers

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Abstract. Baby massage performed by parents provides benefits that can foster parental self-confidence, improve the growth and development of babies. Lack of knowledge about the importance of implementing baby massage, so parents need to be provided with counseling about the benefits and correct techniques in baby massage. The purpose of this study was to determine the effect of baby massage counseling on the knowledge and attitudes of mothers in massaging babies at the Community Health Center. This study is a quantitative study, with the method used being a pre-experiment with a one-group pre-test and post-test design approach, with a total sample of 40 respondents using total sampling. Data collection techniques with observation sheets and questionnaires. Data were analyzed using the Wilcoxon signed-rank test. The results of this study obtained a value of $p = 0.000 < \alpha = 0.05$ there indicating a significant difference in maternal knowledge before and after counseling, namely, from most of the mothers' knowledge of 70% less, increasing to the knowledge of most of the mothers of 72.5% who have good knowledge. The attitude of mothers before and after counseling was given, namely, the majority of mothers' attitudes 77.5% were negative, increasing to the majority of mothers' attitudes 70% were positive. The conclusion of this study is the influence of infant massage counseling on the knowledge and attitudes of mothers in massaging babies at the Community Health Center. The study is expected to provide benefits for the development of nursing science, provide an overview of the benefits of infant massage and how to massage babies correctly, and for further researchers to conduct infant massage counseling more than twice, so that all respondents who participate in infant massage counseling are not only motivated but skilled in massaging babies.

Keywords: Attitude; Baby Massage; Counseling; Knowledge; Mothers

1. INTRODUCTION

Touch is the first human interaction. At birth, babies respond to physical stimulation through their skin, activating their sense of touch. Regularly performing baby massage with the correct technique can be a therapy that provides numerous benefits for babies. Research Nurlaili & Oktariani (2018) examines the effect of infant massage training on maternal behavior in the Plesungan sub-district.

Infant massage can be defined as a form of comfortable, communicative touch between mother and baby. Infant massage offers numerous benefits for both babies and parents, encompassing physical, physiological, and psychological benefits. For babies, it can have positive physical effects on their health, including weight gain and increased breast milk production. This has been demonstrated by research by T. Field and Scafidi from the University of Miami, USA, which showed that 20 premature babies experienced a 20-47% weight gain every three days after receiving 3 x 15-minute massages for 10 days. Full-term infants aged 1-3 months who received a 15-minute massage twice a week for six weeks experienced higher weight gain than the non-massage group. Research Rohmah & Aryaneta (2020) the effect of counseling on infant massage on mothers' behavior in performing infant massage independently.

A well-known fact in society is that although infant massage has significant benefits for both babies and mothers when performed independently, mothers are currently reluctant to massage their own babies, citing fear of performing the massage incorrectly and feeling unsatisfied with the procedure. This is due to mothers' lack of knowledge about the importance of performing infant massage independently, which leads to negative attitudes and behaviors toward independent infant massage stimulation. Research Nurlaili & Oktariani (2018), the effect of infant massage training on maternal behavior in the Plesungan sub-district area.

Therefore, parents need to be provided with counseling on the benefits and correct techniques for infant massage. Providing information in the form of counseling is any planned effort to influence others, whether individuals, groups, or communities, so that they do what the training provider expects (Notoatmodjo, 2014).

The results of Khairani's study, "The Relationship Between Mothers' Knowledge and Attitudes Toward Infant Massage Therapy at the Nurhalma Hasibuan Maternity Clinic, Pasar 10, Tembung, 2017," concluded that behavior based on knowledge, awareness, and positive attitudes will lead to good behavior. Attitudes are predispositions that underlie changes in a person's behavior. Research Khairani (2017) the Relationship Between Mothers' Knowledge and Attitudes toward Infant Massage Therapy at the Nurhalma Hasibuan Maternity Clinic, Pasar 10, Tembung.

Based on initial data in the Puskesmas area, the number of babies aged 0-12 months since November-January was 40 babies, through interviews, where 35 mothers said they had never massaged their babies independently because they were afraid of massaging them incorrectly and preferred to massage their babies to traditional healers because they did not know the benefits and correct techniques for massaging babies, while 5 people said they already knew the correct techniques for massaging babies. Therefore, researchers are interested in examining whether there is "The influence of infant massage counseling on mothers' knowledge and attitudes in massaging babies in the Puskesmas area". This study aims to determine the influence of infant massage counseling on mothers' knowledge and attitudes in massaging babies in the Puskesmas area.

2. RESEARCH METHOD

This type of research is quantitative research, and the design used in this study is a pre-experimental design with a one-group pre-test-post-test design. This research design was carried out to determine changes in mothers' knowledge and attitudes before and after counseling on massaging babies. This research was conducted in the Community Health Center

area from July 4 - August 4, 2025. The population in this study was all mothers who had babies aged 0-12 who were willing to be respondents, physically and mentally healthy, totaling 40 people. The number of samples was the same as the population. The research sample was 40 mothers who had babies aged 0-12 months in November-January 2026. The sample is part of the population used as research objects through sampling that must represent the criteria of 35 respondents in this study: a. Inclusion criteria: 1) Mothers who have healthy or premature babies. 2) Mothers who have babies aged 0-12 months) and have never received counseling on how to massage babies. 3) Mothers were willing to participate in the study. The exclusion criteria were: 1) Mothers experiencing physical or mental illness; 2) Infants experiencing physical or mental illness. Sampling in this study was conducted using a non-random (non-probability) sampling technique, where the sample size was equal to the population size. The instruments used in this study were a questionnaire, a questionnaire, and a leaflet on infant massage. The method used was a video demonstration. Data collection in this study used a questionnaire and a checklist, consisting of a series of questions and statements obtained from respondents based on the conceptual framework and literature review. The collected data were processed electronically using a computer program, SPSS.

3. RESULTS AND DISCUSSION

Respondent Characteristics

Table 1. Frequency and Percentage Distribution Based on Maternal Age, Education, Occupation, Information on Infant Massage, and Information Source

Respondent Characteristics	N	(%)
Mother's Age		
17-25	13	32.5
26-35	27	67.5
Education		
Elementary School	8	20.0
Middle School	10	25.0
High School	13	32.5
Diploma 3/S1	9	22.5
Occupation		
Laborer	5	12.5
Farmer	6	15.0
Self-Employed/Private Employee	18	45.0
Civil Servant	4	10.0
Housewife	7	17.5
Baby Massage Information		
Never	35	87.5
Ever	5	12.5
Information Source		
None	35	87.5
Electronic Media	5	12.5
Total	40	100.0

Source: Primary Data 2025

The distribution of respondents based on the mother's age shows that the respondents' age is at least in the late teenage age group, namely 13 respondents (32.5%), based on the education level, the highest distribution is respondents whose education level is high school, namely 13 respondents (32.5%), based on the occupation that shows the highest distribution is respondents who work as self-employed or private, namely 18 people (45.0%), and based on the distribution of respondents who have never received information about baby massage, which shows the highest distribution, namely 35 people (87.5%), and the source of information that shows the lowest distribution is at least from electronic media, namely 5 respondents (12.5%).

Univariate Analysis

Mothers' Knowledge of Infant Massage Before and After Education at Community Health Center Areas

Table 2. Distribution of Mothers' Knowledge of Infant Massage Before and After Education at Community Health Center Areas

Mother's knowledge	Before the counseling		After the counseling	
	n	%	n	%
Good	8	30.0	29	72,5
Not enough	32	70.0	11	27.5
Total	40	100.0	40	100

Source: Primary Data 2025

Table 2 shows that before the counseling session, most mothers' knowledge was lacking (32 women (70.0%)), and after the counseling session, mothers' knowledge increased, with most mothers having good knowledge (29 women (72.5%)).

Mothers' Attitudes in Massaging Babies Before and After Counseling in the Community Health Center Area

Table 3. Distribution of Mothers' Attitudes in Massaging Babies Before and After Counseling in the Community Health Center Area

Mother's Attitude	Before the counseling		After the counseling	
	n	%	n	%
Positive	9	22.5	28	70.0
Negative	31	77.5	12	30.0
Total	40	100	40	100

Source: Primary Data 2025

Table 3 shows that before the counseling session, the majority of mothers' attitudes were negative (31 women (77.5%)), while after the counseling session, the majority of mothers' attitudes were positive (28 women (70.0%)).

Discussion

Overview of Mothers' Knowledge of Infant Massage Before and After Counseling

According to Ekawati's (2018) research, the majority of respondents, 17 (56.67%), who received health education on infant massage, performed the massage technique correctly. The study Angraini & Ekawati (2018) showed the influence of health education on mothers' knowledge and behavior regarding infant massage. The results of a study by Asnaniar and Munir on optimizing diabetes self-care management in diabetes mellitus patients at the Parangloe Community Health Center in Gowa Regency revealed that after health counseling, participants' knowledge about diabetes increased to 86.67%, and those with insufficient knowledge decreased to 13.3%. The results of this activity showed an increase in participants' knowledge about diabetes. The study Asnaniar & Munir (2020) showed that optimizing diabetes self-care management in diabetes mellitus patients at the Parangloe Community Health Center in Gowa Regency.

The researchers assumed that a person's knowledge would increase after being provided with accurate information on how to properly perform infant massage. This is supported by the fact that most mothers have a fairly good education, with 32.5% having a high school education. A high school education is considered sufficiently capable of understand any information provided. This finding is also supported by Soekanto's (2017) theory that education shapes mindsets, facilitating the acceptance of information or the provision of health education about infant massage by healthcare workers. Educational institutions emphasize the concept of understanding, suggesting that the higher a person's education, the greater their knowledge. Research (Soekanto and Sulistyowati, 2017). *Sociology: An Introduction*.

This also aligns with Suliha's (2019) theory, which states that behavior is also influenced by education (Suliha & Resnayati, 2019).

The researcher assumes that information is crucial in life because it can influence a person's behavior. The less information received, the lower their motivational abilities. Conversely, the more information received about infant massage, the better. With information, a person will have a better understanding, comprehension, and ability to take appropriate action and avoid actions that could harm themselves and their baby. This can be seen by the fact that 87.5% of mothers have never received information about infant massage. This is in accordance with Ningsih's theory (2017) and research results, which show an influence between information sources and respondents' level of knowledge. Obtaining information from any source will make someone understand more about infant massage than those who have not received information (Ningsih, 2017).

Description of Mothers' Attitudes towards Infant Massage Before and After Counseling

Before the counseling session, 77.5% of mothers' attitudes were negative, and after the counseling session, mothers' attitudes improved, with 70% being positive. According to Azwar (2016), knowledge determines a person's behavior. Knowledge is the driving force behind a person's behavior, as it is through this knowledge that feelings or thoughts are expressed through behavior, whether positive or negative (Azwar, 2016). In line with Mauliddina's (2018) research, there was a significant difference in mothers' attitudes before and after counseling, with a mean score increasing from 26.76 to 47.53 (Mauliddina, 2018). The Effect of Infant Massage Counseling on Mothers' Knowledge and Attitudes in Implementing Infant Massage in the Melati I Community Health Center, Sleman. Supported by Ayun's (2018) research, which shows that mothers with good knowledge about infant massage will influence positive behavior in performing infant massage independently. Conversely, mothers with inadequate knowledge about infant massage will significantly influence negative behavior in performing infant massage (Ayun, 2018). The Relationship Between Mothers' Knowledge About Infant Massage and Their Behavior in Performing Infant Massage Independently in Ceweng Village, Diwek District, Jombang Regency.

The researcher assumes that mothers' negative attitudes towards infant massage are because the majority of respondents (67.5% are in the 26-35 year age range, making them less mature in their thinking and actions. This is in accordance with Andriyani's (2017) research, which states that experience and mental maturity are due to increasing age and maturity in thinking (Andriyani & Sari, 2017). In line with the theory, according to Azwar (2016), the older a person is, the more constructive they are in coping with the problems they face (Azwar, 2016). 10 Strengthened by research by Ferianto (2017) that as a person gets older, they will be more mature in thinking and taking lessons from events that give rise to new knowledge in themselves, related to the behavior of massaging babies, so that it is not done by other people, such as shamans (Ferianto & Mawarti, 2017). The influence of health education about baby massage on the behavior of mothers doing baby massage in Trimurti village, Srandakan, Bantul.

The Effect of Infant Massage Counseling on Mothers' Knowledge of Infant Massage in Community Health Centers

The research results showed that infant massage counseling had an effect on mothers' knowledge of infant massage in Community Health Centers. The value of $\xi = 0.000 < \alpha = 0.05$. This is because mothers' knowledge changed significantly after the counseling. While the

majority, or 70% of mothers, had insufficient knowledge before the counseling, after the counseling, their knowledge increased to 72.5% with good knowledge.

This is in line with research by Ayunda (2019), which states that counseling is a good and effective approach to the community in providing or conveying health messages or information with the aim of changing behavior by increasing community knowledge and skills. This ensures that the community is not only aware, knows, and understands but is also willing and able to implement health-related recommendations, namely infant massage, which will improve mothers' knowledge and skills (Ayunda, 2019). Based on the results of Amir and Munir's research, there was an increase in knowledge before and after health education, where the average score before health education was 11.6. After health education, the average score was 15.0. The results of the Paired T-Test statistical test showed a significance of $p = 0.000$ or $p < 0.05$. It can be concluded that health education has an effect on increasing knowledge of diabetes mellitus in preventing diabetic ulcers at Tidore Islands Regional Hospital. Research (Amir & Munir, 2020). *The Effect of Health Education on Increasing Knowledge of Diabetes Mellitus Patients in Preventing Diabetic Ulcers at Tidore Island Regional Hospital.*

This is supported by research by Rohmah & Aryaneta (2020), which shows that there is an effect of infant massage education on mothers' behavior in performing infant massage independently. The researcher assumes that health education is part of health education carried out by disseminating messages and instilling beliefs so that the community is not only aware, knowledgeable, and understands, but also willing to take health-related actions (Rohmah & Aryaneta, 2020).

The Effect of Infant Massage Counseling on Mothers' Attitudes in Massaging Babies in the Community Health Center (Puskesmas)

The results of this study indicate that infant massage counseling has an effect on mothers' attitudes in massaging babies in the Community Health Center (Puskesmas). The value of $p = 0.000 < \alpha = 0.05$. Mothers' attitudes before the counseling had a mean score of 16.5, a low score of 10, and a high score of 29. After the counseling, mothers' attitudes changed, with most being positive, with a mean score of 33, a low score of 18, and a high score of 40. This is in line with Hamzah's (2021) research, which found that infant massage training had an effect on improving respondents' attitudes in performing infant massage independently due to increased maternal knowledge about the importance of infant massage. The training provided a positive experience for mothers, enabling them to understand the benefits of providing infant massage independently (Hamzah & Hamzah, 2021). Infant massage training on changes in mothers' behavior and skills in performing infant massage. Another study conducted in Tiyyaran

Village, Sukoharjo Regency, on 50 mothers who had babies aged 0-24 months found that there was an influence of health education on mothers' attitudes about baby massage during the pretest and posttest, with a p value of 0.000 (Johar, 2020).

4. CONCLUSION AND SUGGESTIONS

Mother's knowledge before being given counseling was mostly or 70% of mothers' knowledge, lacking, and after counseling, the mothers' knowledge increased, with most of the mothers' knowledge being good or 72.5%. Before being given counseling, most of the mothers' attitudes (77.5%) were negative, and after being given counseling, the mothers' attitudes increased; most of the mothers' attitudes were positive. There is an influence of infant massage counseling on the knowledge and mothers in massaging babies in the Puskesmas area. With a value of $p = 0.000 < \alpha = 0.05$. It is hoped that this study can be used as input and a contribution of ideas, and provide knowledge for health workers, mothers, and babies who make immunization visits in the Puskesmas area. For further researchers, the researcher suggests that for further research to be conducted, infant massage counseling more than twice so that all respondents who participate in infant massage counseling are not only motivated but also do and are skilled in massaging their babies.

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