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Research Article

The Effect of Baby Massage in Healing Cough of The Common Cold in Infants at Zhafira Zarifa Clinic

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Abstract

Aims: Infancy or toddlerhood is an important period in the process of human growth and development. Development and growth in infancy or toddlerhood is a determinant of the success of children's growth and development in the next period. The immune system in children under five is still weak and immature, causing toddlers to be very susceptible to ARI.

Research Objectives: To determine the effect of baby massage in healing coughs and colds in infants at the Zhafira Zarifa clinic in 2022

Research Methods: The type of research used in this study is quantitative with a cross sectional research design. The population in this study were infants who visited the Zhafira Zarifa Clinic. A total of 234 infants. The sample in this study were infants who visited the Zhafira Zarifa Clinic. A total of 70 infants. Bivariate analysis using chi square test.

Results: The description of baby massage at the Zhafira Zarifa clinic was carried out by 35 people (50.0%) and 35 people (50.0%). recovered as many as 37 people (52.9%).

Conclusions and Suggestions: It can be concluded that there is an effect of baby massage in healing coughs and colds in infants at the Zhafira Zarifa clinic. It is recommended to parents and the community in order to increase the prevention of the incidence of ARI in infants by doing non-pharmacological baby massage therapy.

Keywords

Baby Massage, Baby, Cold Cough

INTRODUCTION

Infancy or toddlerhood is an important period in the process of human growth and development. Development and growth in infancy or toddlerhood is a determinant of the success of a child's growth and development in the next period (1). The immune system in children under five is still weak and not perfect, causing toddlers to be very susceptible to ARI disease (2).

Acute Respiratory Infection (ARI) is an infection involving the upper and lower respiratory tract organs that can cause various diseases from mild to severe infections. ARI includes Air Bone Disease which is transmitted through the air (3). Acute infections affecting the upper respiratory tract include rhinitis, tonsillitis, pharyngitis, rhinosinusitis and otitis media, while the lower respiratory tract includes epiglottitis, croup, bronchitis, bronchiolitis and pneumonia (4).

ARI is a health problem that is of concern to the world, according to data from the World Health Organization (WHO) in 1990 – 2019 the mortality rate in children under five years old is the highest in Africa, 73.7%. Acute Respiratory Infection (ARI) is the most common cause of under-five mortality with a total of 653 or 22.66% (5).

ARI often occurs in children, episodes of cough and cold in toddlers in Indonesia are estimated at 3-6 times per year (an average of 4 times per year) (6). Based on the results of Riskesdas (2018), the prevalence of ARI in Indonesia is 9.3% with the highest prevalence of ARI in 2 in the one to four year age group, namely 13.7% (7).

The incidence of ARI in West Java province in 2018 based on diagnosis had a prevalence of around 8.2% (range 7.3%-9.2%) and based on symptoms that had been experienced had a prevalence of around 14.7% (range 13.5%-16,0%) (West Java Health Office, 2018).

The Central Bureau of Statistics of Karawang Regency reported that in 2017 there were 173,953 ARI cases and in 2018 there were 175,891 ARI cases. For 2 consecutive years, ARI has become the first ranked disease in Karawang Regency. The current situation is the treatment of the Karawang Health Office towards all puskesmas is the same, there is no special attention to any of the puskesmas. Therefore, the Karawang government should carry out effective handling of ARI disease. In assisting the effective handling of ARI disease, a method is needed to find the area of the spread of ARI disease in Karawang Regency. The goal is that the Karawang government can give special attention, effective treatment, and can assist in policy making on ARI diseases in Karawang Regency, for example which health centers require special attention or more attention (Karawang Health Office, 2018).

ARI does cause high economic consequences because toddlers can experience it about 6-9 times a year.

Whereas cough and cold is generally a symptom of ARI (common cold), it is mild and self-limiting. This edition will discuss the anatomy, airway defense mechanisms, pathophysiology of the common cold and flu, as well as medicines that are often given for coughs and colds in children (8) Many infants or toddlers who suffer from ARI experience sleep deprivation, which is around 44.2% of infants experiencing sleep disturbances such as frequent awakenings at night. However, more than 72% of parents think that sleep disturbances in babies are not a problem or only a small problem (9).

Toddlers are said to be ARI with signs and symptoms of runny nose, cough and fever within 2 weeks based on these signs and symptoms will cause disturbances in inadequate sleep patterns. Given the importance of sleep time for babies, their sleep needs must be completely met so that they do not adversely affect their development.

Methods that can be used to treat coughs and colds are pharmacological and non-pharmacological methods. According to Hartono, non-pharmacological handling of coughs and colds is safer to use because it does not use side effects such as drugs, non-pharmacological therapy uses physiological processes, one way that can be used to meet these needs is massage (Baby Massage), babies or toddlers are massaged will be able to sleep soundly, while when he wakes up, his concentration power will be fuller (10).

Baby massage has several positive effects in terms of weight gain, better sleep patterns, increased neuromotor development, better emotional bonds, decreased levels of nosocomial infections, one of which is the common cold (11). Baby Massage therapy has shown positive effects for treating problems in infants with digestive problems including constipation and diarrhea, as well as for respiratory diseases such as asthma and the common cold (9).

Based on a preliminary study obtained by researchers at clinic Z in 2022, it shows that

the number of babies is 234 babies and for infant health services as many as 234 babies. The results of the survey on 10 mothers were 6 (six) mothers who had never heard of baby massage, 1 (one) mother who knew and had done baby massage, 3 (three) mothers who had heard of baby massage but had never done it. massage baby massage, and many mothers who do not understand about baby massage techniques, especially for babies. Based on information obtained from one of the officers of Clinic Z, that at Clinic Z, an outreach program has been carried out to mothers when mothers who have babies visit for immunization or babies are sick, to take baby massage classes at Clinic Z. So from Therefore, researchers are interested in conducting research on "The Effect of Baby Massage for Cold Coughs on the Effectiveness of Healing Baby Colds at Clinic Z".

METHODS

The type of research used in this research is quantitative with a cross sectional research design. Researchers conducted measurements and observations between the dependent variable and the independent variable to be collected at the same time to determine the effect of baby massage for coughs and colds on the effectiveness of healing babies with colds at the Zhafira Zarifa Clinic. The population is the entire object of research or the object under study (12). The population in this study were infants who visited the Zhafira Zarifa Clinic. A total of 234 infants. The sample in this study were infants who visited the Zhafira Zarifa Clinic. A total of 70 infants.

Bivariate analysis was carried out to see whether there was an influence between the independent variable and the dependent variable that appeared in the conceptual framework. The reason for the bivariate examination is to see whether there is an influence between two factors,

especially the dependent variable and the independent factor. To examine the effect of the two variables in this study, the researcher used a statistical test, namely the Chi Square test. Conditions for using the Chi Square test using a 2x2 table so that the OR value can be obtained and the research variable is a categorical variable.

RESULTS

Table 1.
Distribution of the frequency of baby massage images at the Zhafira Zarifa klinik clinic

Baby Massage	Frequency	(%)
Conducted	35	50,0
Are not done	35	50,0
Total	70	100,0

Table 1. shows that the description of baby massage at the Zhafira Zarifa clinic was carried out by 35 people (50.0%) and 35 people (50.0%) did not.

Table 2.
Distribution of the frequency of babies experiencing cough and cold at the clinic Zhafira Zarifa

Baby cough cold	Frequency	(%)
Healed	37	52,9
Not cured	33	47,1
Total	70	100,0

Table 2. shows that the distribution of infants with cough and cold at the Zhafira Zarifa clinic mostly recovered as many as 37 people (52.9%) and 33 people who did not recover (47.1%).

Table 3.
The effect of baby massage in healing coughs and colds in infants
at the Zhafira Zarifa klinik clinic

Baby Massage	Cough and cold in babies				Total		P Value 0.000
	Healed		Not cured		n	%	
	n	%	n	%			
Conducted	31	88.6	4	11.4	35	100	
Are not done	6	17.1	29	82.9	35	100	
Amount	37	32.9	33	47.1	70	100	

Based on table 3. that baby massage carried out with babies coughing colds recovered as many as 31 people (88.6%) and 4 people did not recover (11.4%) while those who did not do baby massage with babies coughing colds recovered as many as 6 people (17, 1%) and 29 people did not recover (82.9%). The results of the chi-square test obtained $P = 0.000$ 0.05 , meaning that there is an effect of baby massage in healing coughs and colds in infants at the Zhafira Zarifa clinic.

DISCUSSION

From the results of the analysis, it was found that baby massage performed with babies with coughs and colds recovered as many as 31 people (88.6%) and 4 people did not recover (11.4%) while those who did not do baby massages with babies with coughs and colds recovered as many as 6 people (17,1 %) and 29 people did not recover (82.9%). The results of the chi-square test obtained $P = 0.000$ 0.05 , which means that there is an effect of baby massage in healing coughs and colds in infants at the Zhafira Zarifa clinic.

The recovery of a baby's cough and cold is strongly influenced by the continuous provision of baby massage. Basically, babies who are massaged will experience an increase in levels of absorption enzymes and insulin so that the absorption of food juices becomes better as a result, the baby becomes hungry faster and therefore

breastfeeds more often, thereby increasing milk production (4). Massage also increases the absorption of food by the vagus nerve so that the baby's appetite will also increase which can directly improve the healing of coughs and colds in infants (13).

According to Rini Sekartin, a pediatrician from the Faculty of Medicine, University of Indonesia, massage for babies can stimulate motor skills, help the sleep process, reduce anxiety and complaints. There is an increase in food substances in the digestive tract and mental development of children, making body temperature more stable and able to increase the hormones gastrin and insulin which play a role in food absorption so that the healing of baby's coughs and colds recovers faster (14).

Based on qualitative observations, it is known that confounding factors such as nutritional intake obtained by the respondents of this study also have a significant influence. Research on baby massage was also conducted by Gajah Mada University in 2012, baby massage is an opportunity that has an effect on healing coughs and colds by 2.68%. Cough and cold in infants who were given massage treatment for 1 week were greater than infants who were not massaged (15).

Another study conducted by (16), a researcher on children's problems from Warwick Medical School, Institute of Education and the University of Warwick Coventry stated that massage performed on

infants and toddlers will improve physical health and body resistance from various diseases. Baby massage was also researched by Stikes Fort De Kock Bukit Tinggi, the average weight in the first week was 5,716.67 grams from 12 baby respondents aged 3-4 months then baby massage was carried out for approximately 15 minutes four times a week in 1 month time. The average baby's cough and cold recovered (17).

As already explained, there are several factors that can influence the healing of cough and cold in infants including mother's knowledge, health status, baby's psychology, as well as personal factors and preferences that cannot be removed as confounding factors in this study. Socio-economic status and food culture have a considerable responsibility for the health status of infants. However, this research specifically proves that giving baby massage can help optimize the healing of babies' coughs and colds.

Babies who are massaged experience increased levels of absorption enzymes and insulin so that the absorption of food juices becomes better. As a result, babies become hungry quickly and therefore suckle more often, thereby increasing milk production (18). Massage also increases the mechanism of food absorption by the vagus nerve so that the baby's appetite will also increase which can directly increase the baby's weight.

Massage activity will increase serotonin neurotransmitter activity, which increases the capacity of receptor cells that function to increase glucocorticoids (adrenaline, a stress hormone). This process will cause a decrease in levels of the adrenal hormone (stress hormone). This decrease in stress hormone levels will increase the body's resistance, especially IgM and IgG. Baby massage will make the baby sleep more soundly and increase alertness (alertness) or concentration. This is because a good massage can change brain waves. This change occurs by lowering alpha waves and

increasing beta and theta waves which can be proven by the use of EEG (electroencephalogram) (19).

Based on the results of the research on the effect of baby massage on coughing and colds in babies, it is known that baby massage provides enormous benefits for healing coughs and colds in babies. In addition, baby massage has also been proven to be effective on the growth and development of babies by several researchers from various universities and experts state that babies who are routinely given baby massage will have a higher immune system (babies don't get sick easily) and show motoric development attitudes. which is faster than babies who are not given baby massage. Therefore, it is necessary to apply baby stimulation using baby massage so that baby's growth and development is more optimal in order to improve the quality of superior human resources that are created and honed in the first 1000 days of life.

CONCLUSION

The description of baby massage at the Zhafira Zarifa clinic was carried out by 35 people (50.0%) and 35 people (50.0%) did not do baby massage. The distribution of babies who had colds and coughs at the Zhafira Zarifa clinic mostly recovered 37 people (52.9%), There is an effect of baby massage in healing coughs and colds in infants at the Zhafira Zarifa clinic. $P= 0.000$ 0.05 .

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