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EFFECTIVENESS OF HEALTH EDUCATION ON PREGNANT WOMEN'S KNOWLEDGE ABOUT INFANT SLEEP QUALITY WITH BABY MASSAGE

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ABSTRACT

Garut City area is a sub-district in Garut Regency, West Java Province, Indonesia. The Garut City Government Center is in Tarogong Kidul District. Baby Massage is a light massage given to babies so that it provides a feeling of security, comfort and calm for the baby. Baby massage can be done by the mother, father or family members. The benefits of Baby Massage can result in positive changes in the baby. If done correctly, the baby can increase appetite and improve the quality of the baby's sleep. The involvement of STIKes Karsa Husada Garut as one of the stakeholders in the pregnant women's class is intended to enable them to actively participate in the program to increase pregnant women's knowledge about baby massage which can improve the quality of baby's sleep. For STIKes Karsa Husada, this activity is a community service activity which is one of the obligations of Higher Education Institutions in implementing the Tri Dharma. Activities will be held on Saturday 3 February 2024 at Pendopo Alun Alun Garut by providing education and practice regarding baby massage. Participants who attended were 30 pregnant women in the Garut City area.

Keywords: Health Education, Baby Massage, Sleep Quality

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1. INTRODUCTION

The age of infants under 1 year is a golden period which is an important period of growth and development of infants, therefore special care is needed. One of the factors that influence growth and development is quality sleep that suits the baby's needs. Quality sleep that suits the baby's needs. When babies sleep, there is an increase in the production of growth hormone, which can even be up to 3 times when compared to when the baby is not sleeping or awake. But in reality there are still many babies who experience sleep disorders so that baby massage can be an alternative therapy to overcome sleep disorders so that babies can sleep better (Nurmalasari et al., 2016). The quality of a baby's sleep greatly affects the growth and development of the baby. During sleep, babies experience brain cell repair and growth hormone production. Sleep has a great effect on mental, emotional, physical health and the immune system. The quality of baby's sleep can be seen from the way they sleep, sleep comfort and sleep patterns (Santi; E, 2012).

Therapies to improve sleep quality have been developed using aroma therapy, music and massage. Baby massage is a non-pharmacological therapy that is very useful for improving the quality of infant sleep. The development of brain cells can also be encouraged to develop more optimally with massage stimulus in infants. Even though the duration of baby massage is only 15 minutes, it is very useful to make the baby's muscles more relaxed so that the baby can sleep more soundly. A deep and calm sleep will support the growth and development of a healthier and better quality baby (Afriyanti, 2018).

Baby massage is a fun way to relieve tension and fussiness. Because a gentle massage will help relax the muscles, so that they become calm and fall asleep. The massage of the baby by the mother herself also has its own meaning, because it greatly affects the inner relationship or psychological relationship between mother and baby. For the baby, the mother's massage can be felt as a touch of affection which is very meaningful for the formation of his personality. Through the touch of massage on muscle tissue, blood circulation can be increased to muscle tissue or muscle position can be restored and repaired, so as to improve the functions of the body organs as well as possible (Subakti et al., 2016).

Baby massage is best done by parents, especially in the first three years of age. Massage can be done twice a day in a comfortable atmosphere. It's part of parenting, not medicine. Massaging a baby is an incredibly fun thing to do and very simple, conveying maternal love, understanding and care. Massaging an infant can reduce pain and some symptoms of illness, as well as promote relaxation and calm a crying baby, so that the baby sleeps soundly and longer (Pratyahara, 2012).

Research conducted by Pratiwi (2021) states that there is an effect of baby massage on the quality of sleep of infants aged 1- 6 months (Pratiwi, 2021). This is also in accordance with research conducted by Hartanti et al. (2019) stated that infant massage can effectively be used as a way to strengthen inner bonds and improve the sleep quality of infants aged 3-6 months (Hartanti, 2016). According to Tang's research (2018) which shows that there is a significant effect of giving infant massage on the quality of sleep of infants aged 1-4 months where the quality of infant sleep after massage increases, namely the poor category 0%, good enough 26.7% and good 73.3% while before massage the category is poor 6.7%, good enough 60% and good 33.3%. One of the factors that can affect the growth and development of infants is sleep and rest. According to Tang's research (2018) which shows that there is a significant effect of giving baby massage on the quality of sleep of babies aged 1-4 months where the quality of sleep of babies after massage increases, namely the bad category 0%, good enough 26.7% and good 73.3% while before the massage the category is bad 6.7%, good enough 60% and good 33.3%. One of the factors that can affect the growth and development of infants is sleep and rest. Quality sleep is very important in the growth of babies because when babies are asleep, growth hormone is secreted three times more, which is approximately 75% in babies with good sleep quality (Tang, 2018).

Massaging a baby is an incredibly fun and simple thing to do, conveying maternal love, understanding and care. Infant massage can reduce pain and some symptoms of illness, as well as promote relaxation and calm crying babies, so that babies sleep soundly and longer. Children's abilities and growth and development need to be stimulated by parents so that children can grow and develop optimally and according to their age. Stimulation is stimulation that comes from the child's environment. Children who receive directed stimulation will develop faster than children who receive less or no stimulation (Ronald H.S, 2011).

Research conducted by (Santillan et al., 2018) with the research title the effect of health education on knowledge and behavior of giving baby massage by mothers in Brajan Tamantirto Bantul Yogyakarta There is a

significant influence between health education about baby massage on maternal knowledge about baby massage in Brajan Tamantirto Bantul Yogyakarta (Pendidikan Kesehatan Terhadap Pengetahuan dan Perilaku Pemberian Pijat Bayi oleh Ibu di Brajan Tamantirto Bantul Ekawati et al., 2018). Based on the results of Salamah's research (2021), there is a relationship between the source of information and the mother's knowledge about baby massage. Mothers who have good knowledge get information directly, namely 76.5%. Meanwhile, mothers who have less knowledge about baby massage get indirect information from 76.9%. Salamah's research also explained that there was a relationship between education and mothers' knowledge about infant massage. Mothers with good knowledge about baby massage with high education amounted to 75%. While mothers with poor knowledge about baby massage with low education amounted to 71.4% (Salamah et al., 2021).

The involvement of STIKes Karsa Husada Garut as one of the stakeholders in pregnant women's class activities is intended to increase mothers' knowledge about baby massage which can improve sleep quality in the Garut City Region, Tarogong Kidul District. This activity for STIKes Karsa Husada is a community service activity which is one of the obligations of Higher Education Institutions in implementing Tri Dharma. Improving the welfare of mothers and children, one of which can be done by increasing knowledge and skills. Improving the quality of infant sleep will stimulate the growth and development of children. STIKes Karsa Husada is a Health Higher Education Institution that has the potential in the form of science and skills in the field of Health. In line with this potential, STIKes Karsa Husada Garut will contribute knowledge, ideas and ideas in the form of the benefits of baby massage in improving the quality of baby sleep. The target of this activity is pregnant women who take part in pregnant women's class activities in the Garut City area.

2. Method

Sleep quality is a certain quality or physiological state of a person during sleep, so that it can restore the body's condition when waking up. Good sleep quality results in the body's physiological functions (such as brain cells) returning to normal after waking up. The quality of the baby's sleep not only affects physical development, but also affects the attitude the next day. Babies who get enough sleep but do not wake up often will be healthier, less cranky and active when they wake up (Sukmawati & Nur Imanah, 2020). One way to overcome sleep pattern disorders is the provision of massage therapy. The quality of infant sleep can be obtained by paying attention to how to sleep, the environment (room temperature, room lighting), comfort (clothing), sleep patterns and giving touch or massage. The right massage method makes the baby comfortable and relaxed so that the baby's sleep quality improves (Porreca et al., 2017).

Baby Massage is a massage that is carried out closer to the subtle strokes or tactile stimuli carried out on the surface of the skin, manipulation of tissues or organs that aim to produce effects on muscle nerves, and respiratory systems and improve blood circulation (Roesli, 2012). Baby massage is beneficial to improve the baby's concentration and make the baby sleep soundly. In addition, baby massage is also useful for increasing baby's growth and weight, increasing breast milk production, and increasing endurance (Subakti et al., 2016). Babies crave tactile sensations early in life to adapt to their environment. Gentle touch on the baby can increase the bond between baby and parents (Prasetyo, 2017).

This activity is carried out with strategies and methods of lecture, question and answer, discussion, practice. The media used to convey messages are guidebooks, infocus, laptops, leaflets, benner and mats.

3. Result And Discussion

a. Results

Activities carried out by the community service team were carried out for 1 day on February 3, 2024. The activity starts at 08.00 WIB until 16.00 WIB. This training activity is in order to improve Maternal and Child Health with the theme of assisting pregnant women in an effort to improve Maternal and Infant Health in the Garut City Region. Activities start from providing Health Education education on the material about Baby Massage so that pregnant women increase their knowledge of Baby Massage and practice Baby Massage (table 1).

**Effectiveness Of Health Education On
Pregnant Women's Knowledge About Infant
Sleep Quality With Baby Massage**

Table 1. Education and Training Activities

No	Activities	Date/time Implementation	Source
1.	Baby Massage Health Education		Team Lecture
2.	(Pre-test and Material Delivery)	February 3rd 2024	SKHG
3.	Baby Massage Practice Training		

This community service activity was attended by 30 pregnant women from the local population, the characteristics of mothers where almost all mothers aged 18-30 years as many as 25 people and mothers aged 31-40 years 5 people. A total of 10 mothers work and 20 mothers are housewives. (HOUSEWIFE). There were 12 pregnant women in the second trimester and 18 pregnant women in the third trimester. Primigravida mothers were 19 people and Multigravida mothers were 11 people (Table 2).

Table 2. Mother's Characteristics

Age	Age 18-30	25
	Age 31-40	5
Occupation	Working	10
	Housewife/ Not Working	20
Trimester Preganacy	Trimester II	12
	Trimester III	18
Parity	Primigravida	19
	Multigravida	11

The activities of assisting pregnant women's classes before being given education and baby massage training practices are 25 people's lack of knowledge, 2 people's sufficient knowledge and 3 people's good knowledge. After the Pregnant Women's Class Education assistance and baby massage training practices get a significant increase of 100% all mothers know good knowledge about baby massage (Table 3).

Table 3. Knowledge and Practice before and after Baby Massage

Type	Pretest/Before		Posttest/After	
	F	Presentattion	F	Presentation
Less	25	83,3 %	0	0 %
Enough	2	6,7 %	0	0 %
Goof	3	10 %	30	100 %

b. Discussion

Baby massage is a massage that is carried out closer to the smooth rubbing or tactile stimulation carried out on the surface of the skin, manipulation of tissues or organs aims to produce effects on muscle nerves, and the respiratory system and improve blood circulation. Baby massage is beneficial to increase body weight, make babies calmer, increase the effectiveness of baby rest (baby sleep), increase growth, improve baby concentration, increase breast milk production, help relieve digestive discomfort and emotional distress, spur brain and nervous system development, increase peristalsis for digestion, stimulate the activity of the Nervus Vagus for respiratory improvement, strengthen the immune system. (Syaukani, 2015).

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Baby massage is very important for the health of infants, toddlers and children. Infant, toddler and child massage can create communication between parents and babies through the touch of the massage which contains elements of affection, voice, eye contact, and movement. Infant massage can also involve the closest family to bring the emotional connection closer. The instincts of a baby, toddler and child can respond to touch from their mother as an expression of love, protection, and attention. Massage techniques for babies can help eliminate nausea, colds, and constipation. In addition, massage also stimulates the release of the hormone oxytocin, which is produced by the hypothalamus. It provides a calm, comfortable effect and reduces the frequency of crying in babies. Thus, massage also improves sleep quality in infants (Roesli, 2016). Babies are said to experience sleep disturbances if they sleep less than 9 hours at night, wake up more than 3 times and wake up for more than 1 hour. During sleep, the baby always looks fussy, cries and has difficulty falling back asleep. Babies after massage showed an improvement in the quality of their sleep. This is because massage can have a positive effect on the baby's health. The effect of infant massage is to control stress hormones, so that babies who are massaged have effects such as falling asleep easily and making the baby feel comfortable. A gentle massage will help relieve muscle tension so that the baby becomes calm and relaxed so that it can fall asleep well (Roesli, 2016). Massaging activities will increase the activity of the neurotransmitter serotonin, which increases the capacity of receptor cells that function to increase glucocorticoid (adrenaline, a stress hormone). This process will cause a decrease in adrenaline hormone levels (stress hormones). This decrease in stress hormone levels will increase the body's immune system, especially IgM and IgG. Baby massage will make the baby sleep better and increase alertness or concentration. This is because a good massage can change the brain wave. This alteration occurs by decreasing alpha waves and increasing beta and theta waves which can be proven by the use of EEG (electroencephalogram) (Huls & Detlefs, 2018).

Based on the results of community service conducted on pregnant women, it shows that the knowledge of pregnant women about baby massage can improve the quality of baby sleep from before and after being given education and training conducted baby massage / baby massage there is a change in maternal knowledge. Significant differences before and after being given baby massage training were carried out with the pretest and posttest distributed to pregnant women in the form of a maternal knowledge questionnaire, where after being given baby massage training 100% of pregnant women had good knowledge. Baby massage has been proven from research that it can effectively improve the growth and development of babies, Babies who are routinely given massages will have a high immune system (not easily sick) and a healthy body. Babies who are routinely given massage will have a high immune system (not easily sick) and faster motor development compared to babies who are not given massage, so it is necessary to apply baby massage / baby massage to improve the quality of growth and development of babies. This community service with pregnant women uses the method of delivering lecture material, question and answer / discussion, practice and using leaflet / brochure media. In accordance with the health counseling carried out by (Perceka, 2018) and Counseling (Perceka, 2020). Mentioned that providing education through health counseling is proven to increase community knowledge, in this case pregnant women. Providing counseling material, the community can listen well. In this extension process, a method of lecture, question and answer and discussion is needed, this extension method is a method or strategy carried out by an extension agent in the process of providing counseling to the community to achieve goals. (Kusnan et al., 2020; Rangki et al., 2020). The delivery of counseling material is not only sufficient by providing material and definitions, but also providing leaflet media. However, if the material and leaflets will make the community bored so that a fun method is needed in learning. So to get a fun extension learning and better understand the material we can use the questionnaire method, because this method can involve aspects (cognitive, psychomotor, and affective) (Sabda Nirwana et al., 2022; Sartika et al., 2023). The increase in average skills followed by the increase in knowledge of respondents after receiving counseling is in line with some previous research results. Skill formation mainly occurs due to education/training in addition to personal experience, influence, culture, mass media, and one's emotional state (Handayani et al., 2021)

The post-test results are better than the pretest results, this is due to the treatment, namely before the post-test pregnant women are given health education. Health education is a process of change, which aims to change individuals, groups and communities towards positive things in a planned manner through

the learning process. These changes include knowledge, attitudes and skills through the health education process. Health education about baby massage is an important aspect in improving community skills because by doing baby massage regularly, you will get considerable benefits, especially being able to optimize child growth and development so that it can become quality human resources and Increased knowledge and understanding of pregnant women about baby massage, understanding baby massage, the benefits of baby massage and the purpose of baby massage.

Health Education Community Service Activities Socialization / counseling and implementation of baby massage practices went very well. This can be seen from the enthusiasm of pregnant women who were present during the activity, many mothers asked questions showing their curiosity about the material presented. During this time, the mother's knowledge about baby massage is still very lacking. So that after being given counseling pregnant women understand the importance of baby massage and how to carry out safe baby massage, so as to prepare when their children are born later, especially in experiencing problems with sleep.

2. Conclusion

The implementation of Community Service Activities carried out by a team of lecturers and students from STIKes karsa husada garut has been carried out and running well. This activity has an impact on the ability and increased knowledge of pregnant women regarding the importance of complementary midwifery care, especially baby massage with sleep quality and child growth and development. Baby massage is one of the fun ways that will make the baby feel comfortable. Because a gentle massage will help relieve muscle tension so that the baby becomes calm. So baby massage is very important and useful in providing the comfort needed by babies and can support the growth and development of babies. This activity received a good response and support from the local community.

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