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EFFECTIVENESS OF BACK EFFLUERAGE MASSAGE THERAPY USING CLOVE OIL ON UNDER BACK PAIN IN POSTPARTUM MOTHER

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ABSTRACT

Background: Low back pain is one of the complaints felt by most or even almost all postpartum mothers since pregnancy. The prevalence of events ranges from 20-90% since pregnancy. About 80% of postpartum mothers experience low back pain after a normal delivery. One type of complementary therapy that can be done to increase the pain threshold is back effluerage massage with clove oil. Cloves contain components of eugenol compounds that have analgesic effects.

Objectives: The purpose of this study was to determine the effectiveness of back effluerage massage therapy using clove oil on lower back pain in postpartum mothers.

Methods: This study uses a Quasi-Experiment method with the design of One Group Pretest-Posttest. The sample in this study was postpartum mothers with vaginal delivery who experienced lower back pain. Consecutive sampling technique will be used to determine the sample. The number of samples taken in this study were 20 people as a treatment group. The instrument used was an observation sheet to determine the pain scale of the respondent. This research will be carried out within one year. The results of the study will be analyzed by paired T test.

Results: The results obtained p value 0.005 (p value <0.05) so that there is an effect of back effluerage massage therapy using clove oil on lower back pain in postpartum mothers.

Conclusion: The results of this study are expected to evaluate the effect of back effluerage massage therapy using clove oil on lower back pain in postpartum mothers.

Key words: Back Effluerage Massage, Clove Oil, Low Back Pain, Postpartum Mothers.

INTRODUCTION

The pleasant period of being a mother is felt after the birth of a baby. In addition to feeling happy, mothers also experience complaints that often-become stressors. The mother will experience some discomfort during the postpartum period. Some discomforts experienced by postpartum mothers are fatigue, episiotomy scars, mastitis, afterpain, lower back pain, psychological problems, postpartum

hemorrhage and anemia (Mousavi, 2013). Low back pain is one of the complaints felt by almost all postpartum mothers since pregnancy (Febris, 2011). In the world, about 80% of postpartum mothers experience low back pain after a normal delivery. Lower back pain occurs in 45-55% of mothers in the first week of postpartum, continuing in 8 weeks postpartum by 68% and 60% in the following 8 months (Corso, 2016). In

Indonesia, 60-80% of pregnant women experience low back pain during pregnancy, and more than 50% of complaints persist during the postpartum period (Mafikasari, 2015).

Complaints of low back pain are discomforts that occur under the ribs and above the inferior gluteal (Wahyuni, 2012). Persistent pain causes inhibition of maternal activity and decreases quality of life. The impact is not only felt by the mother but also by the baby, family and community. Complaints of low back pain interfere with the mother's happy period with the baby including breastfeeding. The postpartum recovery period will last a long time if complaints of low back pain are not treated.

Lower back pain requires the role and comprehensive effort of nurses to intervene to reduce maternal postpartum pain. Management of back pain can be done with non-pharmacological therapy or complementary therapy. Massage is a manual therapy which is the oldest complementary therapy to reduce pain. Back Effluerage Massage is the act of stimulating certain points along the spinal cord meridians that are transmitted through the large nerves to the reticular formation, the thalamus, and the body's limbic system will release endorphins. When doing massage can use massage oil so that the hands are a bit slippery and the mother feels comfortable (Puspitasari, 2010). Clove is an aromatic dried flower and contains a compound of eugenol which has an analgesic effect. Clove oil also has a calming aromatic effect and causes a feeling of relaxation.

Research conducted on postpartum mothers found that there was a significant effect of clove oil massage on the scale of postpartum maternal back pain. Mothers feel comfort when given a massage because of the warmth and aromatic effects of clove oil. Based on the explanation above, the researcher wants to prove the effectiveness of back effluerage massage therapy using

clove oil against postpartum maternal lower back pain.

METHODS

Study Design

This study uses a Quasi-Experiment method with One Group Pretest-Posttest design using treatment groups.

Setting

This research was conducted in the working area of Padang Nanggalo Public Health Center from March-November 2019 and data collection was carried out on 10-17 May 2019.

Research Subject

The research was begun by collecting respondents from data at the Nanggalo Public Health Center and then researchers going to respondent's homes to provide interventions. The number of samples taken in this study were 20 people as a treatment group. The sample was selected by criteria Inclusion of postpartum mothers willing to become respondents by signing the consent sheet as a respondent and following the research procedure until the final stage, mothers with vaginal delivery, postpartum mothers a maximum of 7 days. And the exclusion criteria were postpartum mothers in high risk groups. The sampling technique is consecutive sampling technique.

Instruments

The instrument used in this study was a numerical pain intensity scale. The treatment given in this study is giving back effluerage massage therapy using clove oil twice a day in the morning and evening for 30 minutes with 8-10 cc of clove oil within seven days.

Data Analysis

This research data was processed using computerization. the results of the study were processed with a statistical test T dependent test with a 95% confidence level.

Ethical Consideration

This research was conducted after obtaining permission from the Padang City Health Office permit with license number 890/3597/SDMK & Jamker/VI /2019.

RESULTS

Characteristics of Respondents by Age, and Parity Status

Table 1. Distribution of Frequency of Respondents by Age and Parity Status in the working area of Padang Nanggalo Public Health Center (n = 20).

Characteristic	Frequency	Percentage (%)
Age (year) M=29.95, SD=3.486, Min=23, Max=36		
High risk (<20 and >35)	1	5
Normal (20-35)	19	95
Parity M=2.05, SD=0.999, Min=1, Max=5		
Primipara (1)	7	35
Multipara (2-4)	13	65
Grand2multipara (>4)	0	0

Source: Primary data of questionnaire, 2019

Based on table 1. It can be seen that the average age of the respondents obtained a mean value of 29.95 with a median of 30 and a standard deviation of 3,486. The age of most respondents is the normal age 20-35 (95%). The average parity of respondents obtained a mean of 2.05 with a median of 2.05 and a standard deviation of 0.999. The parity of most respondents is multipara 2-4 (65%).

Average of the Lower Back Pain of the Mother Postpartum Before and After Giving Back Effluerage Massage Therapy using Clove Oil

Table 2. Average of the Lower Back Pain of the Mother Postpartum Before and After Giving Back Effluerage Massage Therapy using Clove Oil in the Working Area of Padang Nanggalo Public Health Center (n = 20).

Pain Scale	Mean	SD	Min	Max
Pretest	6.05	0.826	5	7
Posttest	2.06	0.681	2	4

Source: Primary data of questionnaire, 2019

Based on table 2. shows that the average pain scale before back effluerage massage therapy using clove oil is 6.05 with a standard deviation of 0.826. The maximum pretest pain scale is 7 and the minimum is 5 in postpartum mothers. The average pain scale after back effluerage massage therapy using clove oil is 2.06 with a standard deviation of 0.681. The maximum pretest pain scale is 4 and the minimum is 2 in postpartum mothers.

Examination of The Effectiveness of Back Effluerage Massage Therapy Using Clove Oil to Reduce Lower Back Pain in Postpartum Mothers

Table 3. Examination of The Effectiveness of Back Effluerage Massage Therapy using Clove Oil to Reduce Lower Back Pain in Postpartum Mothers with A Statistical Analysis Dependent T Test (n = 20).

Pain Scale	Mean	N	SD	Diff mean	P Value
Pretest	6.05	20	0.826	3.450	0.005
Posttest	2.06	20	0.681		

Source: Primary data of questionnaire, 2019

Based on table 3. shows the statistical test results using paired sample T-test p values obtained 0.005 ($p \leq 0.05$). The results of the study of 20 respondents obtained the average value of pain intensity

before being given back effluerage massage therapy using clove oil is 6.05 and after being given back effluerage massage therapy using clove oil is 2.06 with mean different is 3.450.

DISCUSSION

Based on the result of research, it can be seen that the average age of the respondents obtained a mean value of 29.95 with a median of 30 and a standard deviation of 3,486. The average parity of respondents obtained a mean of 2.05 with a median of 2 and a standard deviation of 0.999. Women who give birth more than once or multiparous have a higher risk for experiencing low back pain during postpartum. Risk factors for the emergence of low back pain in postpartum mothers include a history of back pain before pregnancy, a history of a previous pregnancy, heavy work, multipara, a history of back trauma.

Postpartum mothers experience low back pain on a moderate to severe scale. The main complaint that is often found in postpartum mothers is low back pain. Low back pain is pain that is confined to the lumbar region, but the symptoms are more evenly distributed and are not limited to one nerve root, but are broadly derived from the lumbar intervertebral discs. Complaints of low back pain are discomforts that occur under the ribs and above the inferior gluteal part. Lower back pain in postpartum mothers is defined as pain that is recurrent or persistent for more than one week in the area of the spine during pregnancy and continues after pregnancy or during the postpartum period (Fabris 2011).

Pain is a sensation of discomfort that is individual. Pain is influenced by a person's endorphin levels, the higher the endorphin levels, the lighter the pain felt. Endorphin production can be increased through skin stimulation (Corso, 2016).

Based on paired sample T-test, p values obtained 0.005 ($p \leq 0.05$). The results of the study of 20 respondents obtained the

average value of pain intensity before being given back effluerage massage therapy using clove oil is 6.05 and after being given back effluerage massage therapy using clove oil is 2.06 with mean different is 3.450.

One of the skin stimulations is back effleurage massage therapy using clove oil. Previous research conducted by Netnrvathi & Vijaitha (2015), carried out clove oil therapy given for 3 days in the morning and evening with a duration of 5-6 minutes as much as 8-10 ml of clove oil. Giving with this time effectively reduces the intensity of low back pain in postpartum mothers (Mafikasari, 2015). Massage using oil 24 hours after postpartum is a traditional method used to relieve back pain. The use of cloves has been recommended for toothache and anti-joint pain medications. is an aromatic dried flower and contains a component of the eugenol compound which has an analgesic effect. The composition of Eugenol is around 72-90% of clove extract. Clove. Clove oil also has a calming aromatic effect and causes a relaxed feeling (Parik, 2016).

In line with research conducted by Richard (2017) on the effectiveness of effleurage techniques and warm compresses on reducing back pain in pregnant women at the Pesantren 1 Puskesmas Kota Kediri, the results of effleurage techniques and warm compresses effectively reduce back pain, there is no difference in the effectiveness of the two therapies so that both techniques can be used to reduce back pain in third trimester pregnant women (Puspitasari, 2010).

Back effluerage massage therapy is massage on the back using the palm of the hand that puts gentle pressure on the surface of the body in a circular direction repeatedly. The massage starts from the lower waist to the shoulder with movements like a butterfly. This therapy stimulates certain points along the spinal cord meridians that are transmitted through

the large nerves to the reticular formation, the thalamus, and the body's limbic system releasing endorphins. Endorphins are neurotransmitters or neuromodulators that inhibit the delivery of pain blocks by attaching to the opiate receptors in the nerves and spinal cord so that they can block pain messages to a higher center and can reduce pain sensation (Nethravathi, 2015).

The effects of massage therapy given to the body including back effluage massage will cause more objective physiological changes such as heart rate, blood pressure and cortisol levels) and psychological, more subjective changes such as mood, well-being and stress). Certain effects of therapy such as decreased pain, increased range of motion and muscle relaxation. Back effluage massage can minimize pain because it can relax muscle tension that stimulates pain and when doing therapy, the mother breathes slowly so that she feels comfortable and can turn her attention to pain (Speziali, 2015). The results showed that back effluage massage therapy using clove oil can be used as an alternative choice to reduce the intensity of pain in the lower back of the mother's postpartum.

CONCLUSION

Based on the results of research on back effluage massage therapy on the intensity of low back pain in postpartum mothers, it can be concluded that there is an effect of back effluage massage therapy using clove oil on lower back pain in postpartum mothers with *p* value 0.005.

SUGGESTIONS

The results of this study suggest that health workers can use complementary therapy, namely effluage massage with clove oil to reduce low back pain in postpartum mothers.

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DECLARATION OF CONFLICTING INTEREST

No potential conflict of interest was reported by the authors.

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AUTHOR CONTRIBUTION

Rini Rahmayanti: Prepare research proposals, Conducting, research permit, promote research plans at the Public Health Center, selecting samples based on inclusion and exclusion criteria, collecting pretest and posttest data, intervening back effluage back therapy using clove oil, and compile research report, presentation of results report.

Yola Yolanda: Conduct preliminary studies, assist in preparing proposals, help make arrangements for a research permit, helps collect research data, perform data processing, help compile research results reports, and assist in the preparation of publications and manuscripts.

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