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KARYA ILMIAH: JURNAL NASIONAL

Nomor Urut Karya Ilmiah Judul Karya Ilmiah

: 2

: Abdominal Lifting, Effleurage, and Deep Back Massages Effective in Reducing Pain During Active Phase

of First Stage Labor

Penulis

: Isti Chana Zuliyati, S.ST., M.Keb

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Abdominal lifting, effleurage, and deep back massages effective in reducing pain during active phase of first stage labor 175 Abdominal lifting, effleurage, and deep back mass active phase of first stage labor 1 Departement of Midwifery, University Alma Ata Yogyakarta , Jalan Brawijaya 99, Tamantirto, Yogyakarta *Corresponding author: arantika.meidya@almaata.ac.id ABSTRAK Latar Belakang: Walaupun persalinan merupakan proses alamiah, seringkali nyeri yang dialami saat persalinan membuat wanita merasa takut, cemas dan khawatir, sehingga mempengaruhi proses persalinan itu sendiri yang berakibat timbulnya prolonged labour dan neonatal asphyxia. Dimana persalinan lama merupakan komplikasi penyebab kematian ibu yang terbanyak nomor 5 di Indonesia. Nyeri persalinan dapat mempengaruhi kondisi ibu berupa kelelahan, rasa takut, khawatir dan dapat menimbulkan stress.

Stress dapat menyebabkan melemahnya kontraksi uterus dan berakhir pada persalinan yang lama. Tujuan effleurage dan deep back massage dalam mengatasi nyeri saat persali Metode: Penelitian ini menggunakan metode one-group pretest-posttest dengan total sampel sebanyak 30 ibu bersalin. Ada 3 kelompok yang diberi perlakuan, setiap kelompok diberikan satu Teknik massase. Perubahan nyeri diukur dengan skala nyeri numerik. masing-masing perlakuan. Perbandingan masing-masing uji intervensi yang dilakukan menggunakan Kruskall Wallis.

Hasil : ada perbedaan bermakna skor nyeri sebelum dan sesudah pemberian massage abdominal lifting dengan nilai p = 0.005 (<0,05). ada perbedaan bermakna skor nyeri sebelum dan sesudah pemberian massage effleurage dengan nilai p = 0,011 (p<0,05). ada perbedaan bermakna skor nyeri sebelum dan sesudah pemberian Deep Back Masaage dengan nilai p = 0,004 (p<0,005). Hasil penghitungan Lifting menunjukkan efek sedang dengan nilai d = 0.67. Sedangkan untuk teknik effleurage dan deep back

massage menunjukkan dampak yang kuat dengan nilai d >2,00. tidak ada perbedaan bermakna skor nyeri sesudah pemberian perlakuan antara ketiga kelompok dengan nilai p = 0,080 (p > 0,05).

Kesimpulan efektif untuk menurunkan nyeri persalinan Kala I fase Aktif. Deep back massage adalah Teknik yang paling efektif (diantara ketiga Teknik) untuk menurunkan nyeri persalinan Kala I aktif. Tidak ada perbedaan yang bermakna antara ketiga Teknik massage dalam menurunkan nyeri persalinan. KATA KUNCI: abdominal lifting; effleurage; deep back massage; nyeri; persalinan ABSTRACT Background: Although childbirth is a natural process, the time of childbirth makes women feel afraid, anxious and anxious, thus affecting the labor process which results in prolonged labor and neonatal asphyxia. Where prolonged labor is a complication of the cause of maternal death which is the fifth largest in Indonesia.

Labor pain can affect the condition of the mother in the form of victims, fear, worry and can cause stress. Stress can cause the uterine contractions to weaken and lead to prolonged labor. ISSN 2354-7642 (Print), ISSN 2503-1856 (Online) Jurnal Ners dan Kebidanan Indonesia Indonesian Journal of Nursing and Midwifery Tersedia online pada: http://ejournal.almaata.ac.id/index.php/JNKI JURNAL NERS DAN KEBIDANAN INDONESIA INDONESIAN JOURNAL OF NURSING AND MIDWIFERY Arantika Meidya Pratiwi 1*, Isti Chana Zuliyati 1, Fatimatasari Fatimatasari 176 Arantika Meidya Pratiwi, Isti Chana Zuliyanti, Fatimatasari . JNKI, Vol.

9, Issue 3, 2021, 175-182 KEYWORD: abdominal lifting; effleurage Article Info: Article submitted on August 10, 2021 Article revised on September 27, 2021 Article received on October 01, 2021 DOI: http://dx.doi.org/10.21927/jnki.2021.9(3).175-182 INTRODUCTION Childbirth is a very spectacular condition in a woman's life. Many anthropological studies show that the process of pregnancy and childbirth is very important in the life cycle of women (1). Most (90%) of labor accompanied by pain (2). Labor pain begins to in first due the of thus d occurrenof cemena cervical dilation (3). The pain will get stronger with increasing frequency, intensity, and duration of uterine contractions.

The peak of pain begins to occur during the active phase of labor (4). Although childbirth is a natural process, often the pain experienced during childbirth makes women feel afraid, anxious and worried, thus affecting the labor process itself which results in prolonged labor and neonatal asphyxia (5). Long labor is a complication that causes maternal death in the fifth largest number in Indonesia (6). the form of fatigue, fear, worry and can cause stress. Stress can cause uterine contractions to weaken and result in prolonged labor (7).

Bonica in her study of 2,700 mothers giving birth in 121 obstetric centers from 36 countries found that only 15% of deliveries took place without pain or mild pain, 35% of deliveries with moderate pain, 30% of deliveries with severe pain and 20% of deliveries with very severe pain (8). A previous study conducted at a public health center in the city of Yogyakarta on 57 mothers during the active phase of labor, found that 42.1% of mothers experienced severe pain, 57.9% moderate pain, and none of the mothers experienced mild pain (9). That shows that labor pain is still a problem for most mothers in labor today.

Objectives: study to the of lifting, and deep massage in pain active of stage Methods: This study used one-group pretest-posttest design method with a total sample of 30 Participants mother in labor. There were 3 groups that were given treatment, each group was given one massage technique. Change in pain was measured by a numerical pain Testing using Wilcoxon and size see efficiency of each treatment. comparison of each intervention test performed using Kruskall Wallis. Results: is significant difference and giving abdominal lifting with value p 0.005. There a difference pain scores and giving massage a of = (p There is significant in scores and giving Back with value p 0.004 < 0.005). result calculatin the size the Lifting shows average with value d = 0.67.

Meanwhile, effleurage and deep back massage techniques showed a strong impact with a d value > 0.8. There was significant in scores treatment between the three groups with a value of p = 0.080 (p > 0.05). Conclusions effective reducing pain active of stage Deep massage is most technique the techniques) reducing pain activephaseoffirststagelabor. Therewasnosignificant difference between three massage techniques in reducing labor pain. Abdominal lifting, effleurage, and deep back massages effective in reducing pain during active phase of first stage labor 177 There are two methods that can be used to reduce labor pain, namely pharmacological (using drugs) and non-pharmacological (traditional).

Pharmacological methods have been shown to be more effective at reducing labor pain, but they are more expensive and have the potential for adverse side effects to both the mother and the fetus (7). The advantages of non-pharmacological methods in reducing labor pain are that the mother can control her own feelings and strengths so as to increase satisfaction during childbirth, the methods are usually effective, adverse and relatively cheaper (10). Non-pharmacological (traditional) methods vary widely that can be applied to help reduce pain, including massage / massage. The principle of this method is to reduce maternal tension so that the mother feels comfortable and relaxed in facing childbirth.

This method can also increase stamina to deal with pain and does not cause respiratory depression in the baby being born (10). There are several types of massage that can be done to reduce pain during childbirth, including the effleurage massage method, abdominal lifting, and deep back massage. Previous research has proven that these three techniques can reduce labor pain. So far, most of the studies that have been done comparing the three techniques with the counterpressure technique and almost all of them state that counter pressure is more effective. are in how effectiveness between three is to no effective than counterpressure.

This study is expected topviearelpireotheeeveeo effleurage abdominal and back massage in reducing labor pain so that it can prevent women from prolonging labor, which is a contributor to maternal mortality rate in Indonesia. MATERIALS AND METHODS This study uses a pre-experimental research design with one-group pretest-posttest design. in pain before and after giving massase. Thirty participants were selected in the study using purposive sampling in independent practice midwives, Bantul Regency. The inclusion criteria of the participants were the mother is in active effect, and not in complicating labor.

The sample exclusion criteria were grandemultipara mothers. Scale of labor pain was measured using the Numeric Rating Scale. The scale consists of numbers 1 to 10. The pain scale is measured before and after massase. Data collection was carried out in October- November 2020. Data collection was carried out in three independent midwife practices. Each independent midwife practices was taken 10 mothers and given 1 massage technique. The intervention was carried out by a midwife on duty who had been given prior guidance. To avoid bias, one technique is only performed by one midwife, the massage methods used.

This study used a one-group pretest-posttest design, in which the mother's pain level was measured before the intervention. Then given an intervention in the form of one type of massage for + 15 minutes. After the intervention, the mother again measured the level of pain. Univariate analysis was used to determine the frequency of each variable. For the bivariate test analysis, we used Wilcoxon test with a 95% size formula from Cohen. To determine the comparison of each intervention test, the Kruskal- Wallis test was used. The data analysis used SPSS Statistics 20.

The study was ethically approved by the Alma Ata Ethics Committee, Alma Ata University, Indonesia, with approval number No. 093/A/SM/PSIB/AA/IX/2020. All of the respondents in this study were given formally 178 Arantika Meidya Pratiwi, Isti Chana Zuliyanti, Fatimatasari . JNKI, Vol. 9, Issue 3, 2021, 175-182 informed consent. The respondents had the right to refuse to participate without penalty if they want to do so.

RESULTS AND DISCUSSION Characteristic of Respondents Table 1.

Frequency Distribution of Respondent Characteristics Characteristic F % AGE 17-25 9 30 26-35 17 56,7 36-45 4 13,3 Total 30 100 PARITY primipara 7 23,3 multipara 23 76,7 Total 30 100 OCCUPATION Housewife 19 63,4 Teacher 1 3,3 Worker 4 13,3 Employe 3 10 Enterpreneur 3 10 Total 30 100 EDUCATION Junior 8 26,7 Senior 16 53,3 College 6 20 Total 30 100 Based on Table 1, it is known that the majority of respondents are in the range of early adulthood or age between 26-35 years and had given birth more than once (multiparous). Most of the respondents were housewives and the most recent education of the majority of respondents was Senior High School (SMA).

The effectiveness of Abdominal Lifting, Effleurage, and Deep back Massage Based on Table 3, the results of the Wilcoxon paired nonparametric difference test show the value of p = 0.005, p = 0.011, p = 0.004 (p < 0.05), which means that there are significant differences in pain scores before and after giving the Abdominal Lifting Effle dee. The result of calculating the effect size for the Abdominal Lifting shows moderate with value d = 0.67. the and deep back massage techniques showed a strong impact with a d value > 0.8. Table 3.

Differences in pain scores for Abdominal Lifting, Effleurage, and Deep Back Massage
Techniques
N Mean Pre Test Mean Post Test p-value Abdominal Lifting 10 7.4 5 0.080
Effleurage 10 8.1 6.2 Deep Back Massage 10 8.5 5.8 DISCUSSION Labor pain is a physiological condition that is felt by almost all mothers who give birth. Labor pain began to appear since the first stage of the latent phase. As the intensity and frequency of uterine contractions increase, the pain you feel will get stronger, the peak of pain

occurs in the active phase where there is a complete opening up to 10 cm (4).

One of the non-pharmacological methods to reduce pain is massage. Massage Massage is a method that provides relief to many manipulation performed on soft tissue that aims to address physical, functional or sometimes psychological problems (11). sensations are produced by dilatation of the cervix and lower uterine segment and uterine distension. The intensity of pain in the first stage of labor due to involuntary uterine contractions is felt from the waist and radiates to the abdominal wall with varying quality of pain (12).

The pain impulses of the first stage of labor are transmitted through the lower thoracic spinal nerves (T10-12) and the upper lumbar spinal nerves (L1). The afferent fibers of these nerves originate from the uterine body and cervix. Sensory impulses from the uterus are transmitted through synapses in the posterior horn of the spinal cord, thoracic segments 10, 11, 12 and lumbar 1. Certain groups of nerve cells in the spinal cord, brain stem and cerebral cortex have the ability to regulate pain impulses through an inhibitory mechanism (Gate Control Theory).

According to the Gate Control theory, pain sensations are transmitted along sensory nerves leading to the brain and only a certain number of sensations or messages can be transmitted through these nerve pathways at the same time (12). The results of statistical tests showed that before and after giving the Abdominal Lifting of the Latent Stage I labor, with p value = 0.005 (<0.05). Abdominal lifting is effective in reducing labor pain during the 1st active phase with d value = 0,67. The results of this study are in line with the results of Malawat's research which method on the Intensity of Pain in the Phase I Inpartum Active Phase I of Dr.

The results of abdominal lifting method on reducing the intensity of pain in the active phase I part of the mother (p value 0.0001) (13). Anita's Systematic Review research related to techniques for reducing labor pain also states that abdominal lifting can be a way to reduce labor pain (14). The abdominal lifting technique is done by giving the opposite stroke towards the top of the stomach without pressing inward.

This can stimulate large nerve fibers to increase the mechanism of activity of the substantia gelatinosa which results in the closing of the mechanism door so that T cell activity is inhibited and causes the transmission of stimuli to be inhibited and pain will not be transmitted to the cerebral cortex (15). The results of statistical tests showed scores and giving effleurage the Latent Stage 1st labor, with p value = 0,011 (<0.05). Table 3 shows that effleurage is effective in reducing labor pain during the 1st active phase with d value = 2,1. The results of this study are 180 Arantika Meidya Pratiwi, Isti

Chana Zuliyanti, Fatimatasari . JNKI, Vol.

9, Issue 3, 2021, 175-182 in accordance with previous research, namely research by Paseno M, et al which states that there is a diffe first stage labor pain before and after effleurage action with the statistical test results p value = 0,000 with t count = 9,000 (t table = 1,833) (16). The results of this study were also supported by the results of research conducted by Santy and Ramly that effleurage massage had an effect on labor pain with a p value of 0.001 (p < 0.05) where experienced a decrease in labor pain compared to the group that did not get effleurage massage the abdomen slowly in rhythm with breathing during contractions, used so that the mother does not focus her attention on contractions.

This massage can stimulate tactile fibers in the skin so that pain signals can be inhibited. When the touch is made with circular motions of both hands such as butterfly movements in the abdomen with soft and light strokes slowly, it will increase abdominal relaxation and reduce muscle tension so as to provide comfort to the mother and reduce pain itesi6m thelltinf eeze it shows that the effleurage technique (d value = abdominal lifting technique (d value = 0.67), but is not more effective than the deep back massage technique (d value = 2.4).

scores before and after giving the deep back massage of the Latent Stage 1st labor, with p value = 0,004 (<0.05). Based on the results of statistical tests, it was found that deep back during first phase d = The results of this study are in line with the results of research by Oktarina et al, which states that pain before and after being given deep back massage. The results of data analysis using the T-test with p value: 0.000 and alpha: 0.05, so the p value <alpha 0.05 (18).

Idyawati's research also obtained similar results where it was found that method on reducing the intensity of labor pain during the active phase of labor. The results of the independent t-test concluded that there method was carried out in the intervention group, namely the value of P = 0.001 (19). Deep back massage is done by pressing on the sacrum using the palms of the hands and the mother's position in lying on her side.

Deep back massage can reduce the tension of the sacroiliac joint from the occiput posterior position of the fetus by applying pressure to the sacrum. The technique is performed in a reclining position to provide a relaxing condition for the mother, thereby increasing circulation in the genital area and improving cervical elasticity (20). From the calculation of effect size, it shows that deep back than effleuraginal lifting. Based on the unpaired nonparametric difference test performed by Kruskal Wallis according to the results of Table 4, it shows that the value of p = 0.080 > 0.05, which means there

treatment between the three groups, namely the abdominal lifting, effleurage, and deep back groups. massage. Based on the results of the study, the three massage techniques studied were proven effective in reducing labor pain.

Basically, massage can improve the circulatory system that can deliver acids and foodstuffs to the cells more optimally and the remains of unused substances will be repaired. So there will be a better exchange process, increased cell activity will reduce local pain (21). Giving massage helps relaxation and reduce pain by increasing blood flow to the affected areas, stimulating skin touch receptors so as to relax muscles, change skin Abdominal lifting, effleurage, and deep back massages effective in reducing pain during active phase of first stage labor 181 temperature and generally provide a feeling of comfort associated with a close human relationship (22).

The massage given is believed to stimulate the release of endorphins, reduce the production of catecholamine hormones, and stimulate the results of afferent nerve fibers blocking the transmission of pain stimuli (gate control theory), thereby helping to reduce labor pain (22). Research in Canada states that mothers who are massaged for 5 hours can delay the use of epidural analgesics compared to mothers who are not massaged (23). Touch relaxation will help the mother relax by touching or rubbing her body parts. Gently massage will help the mother feel more refreshed, relaxed and comfortable during labor.

Massage stimulates the body to release endorphins, which are natural pain relievers. Endorphins can also create a feeling of comfort and goodness (24). Other studies also prove that massage techniques are very useful in supporting maternal and infant health such as breastfeeding, perineal rupture during delivery, and others (25)(26). CONCLUSION AND RECOMMENDATION Abdominal lifting, effleurage, and deep back massage are contribute in reducing the pain to the during phase first stage labor. There was no significant difference between the three massage techniques in reducing labor pain.

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