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COUNTER PRESSURE MASSAGE WITH PAIN IN THE FIRST STAGE OF LABOR

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ABSTRAK : *MASSAGE COUNTER PRESSURE* DENGAN NYERI PERSALINAN KALA I

Latar Belakang: Persalinan merupakan proses yang dilalui dengan berbagai cara. Pada proses nya persalinan akan menimbulkan rasa nyeri dan ketidak nyamanan. nyeri persalinan disebabkan karena terjadi peregangan pada serviks, kontraksi uterus, dan adanya proses penurunan kepala janin ke pintu bawah panggul. *Massage Counter Pressure* merupakan salah satu metode pengendalian nyeri persalinan berupa pijatan / *massage* dengan menekan daerah sakrum secara mantap dengan telapak tangan, kemudian dilepaskan dan di tekan lagi, begitu seterusnya. Pasien dalam keadaan berbaring miring, *massage* ini dilakukan selama ± 20 menit selama kontraksi.

Tujuan: Mengetahui ada pengaruh *Massage Counter Pressure* dengan Nyeri Persalinan Kala I.

Metode: Penelitian ini menggunakan pendekatan quasi eksperimental untuk menilai efektivitas *Massage Counter Pressure* mengurangi nyeri saat persalinan. Populasi yang diteliti adalah ibu yang sedang melahirkan di Klinik Pratama Jambu Mawar, dengan jumlah sampel sebanyak 15 orang yang dipilih secara purposive sampling. Data dikumpulkan menggunakan skala intensitas nyeri sebelum dan setelah intervensi. Analisis data dilakukan secara univariat dan bivariat menggunakan uji t-dependen.Analisis Data dalam penelitian ini menggunakan analisis dependent t-test (paired t-test).

Hasil: Hasil analisis menunjukkan bahwa rata-rata nyeri sebelum intervensi adalah 7,40 dengan deviasi standar 2,09, sedangkan setelah intervensi menjadi 4,86 dengan deviasi standar 1,68. Hasil analisis menunjukkan bahwa *Massage Counter Pressure* efektif dalam pengurangi nyeri persalinan (p = 0,004).

Kesimpulan: Terdapat Pengaruh *Massage Counter Pressure* dengan Nyeri Persalinan Kala I di Klinik Pratama Jambu Mawar Pekanbaru.

Saran: Diharapkan *Massage* ini dapat diterapkan oleh ibu dan tenaga kesehatan untuk membantu mengurangi nyeri selama persalinan, sehingga meningkatkan kenyamanan ibu.

Kata Kunci : *Massage Counter Pressure*, Nyeri Persalinan.

ABSTRACT

Background: Childbirth is a process that goes through various ways. During the birth process, it will cause pain and discomfort. Labor pain is caused by stretching of the cervix, uterine contractions, and the process of lowering the fetal head to the pelvic floor. Massage Counter Pressure is a method of controlling labor pain in the form of massage by pressing the sacrum area firmly with the palm of the hand, then releasing and pressing again, and so on. The patient is lying on his side, this massage is carried out for ∼20 minutes during contractions.

Purpose: Knowing that there is an effect of Counter Pressure Massage on First Stage Labor Pain.

Methods: This study used a quasi-experimental approach to assess the effectiveness of Massage Counter Pressure in reducing pain during labor. The population studied was mothers who were giving birth at the Pratama Jambu Mawar Clinic, with a total sample of 15 people selected using purposive sampling. Data were collected using a pain intensity scale before and after intervention. Data analysis was carried out univariately and bivariately using the dependent t-test. Data analysis in this study used dependent t-test analysis (paired t-test).

Results: Results: The results of the analysis showed that the average pain before the intervention was 6,57 with a standard deviation of 0,92, while after the intervention it was 3,67 with a standard deviation of 1.68. The results of the analysis showed that Massage Counter Pressure was effective in reducing labor pain (p = 0.000).

Conclusion: There is an Effect of Counter Pressure Massage on First Stage Labor Pain at the Pratama Jambu Mawar Clinic Pekanbaru.

Suggestions : It is hoped that this massage can be applied by mothers and health workers to help reduce pain during labor, thereby increasing maternal comfort.

Keywords : Massage Counter Pressure, Labor Pain.

INTRODUCTION

Childbirth is something that every mother really wants, but the process causes pain, this is something that mothers who are about to give birth are very worried about. Labor pain occurs due to stretching of the cervix, contractions of the uterus, and the descent of the fetal head into the lower pelvis. During labor, excessive production of hormones such as catechlomine and steroids will cause stress in the birth mother. This hormone will cause smooth muscle stretching and vasoconstriction of blood vessels, which reduces uterine contractions. This causes uterine ischemia or reduced oxygen to the uterus, which increases pain impulses in the uterus (Retnosari, et al, 2022).

90% of mothers experience pain during labor. Of the 2,700 women giving birth, 15% experienced mild pain, 35% experienced moderate pain, 30% experienced severe pain, and 20% experienced very severe pain. Physiological factors that cause labor pain during first labor are cervical dilatation, uterine muscle hypoxia, uterine muscle ischemia, lengthening of the lower uterine segment, and compression of the cervix. This labor pain occurs when the uterine muscles contract, the lower part of the fetus tries to open the cervix, and pushes the baby's head towards the pelvis (Putri et al, 2022).

A woman with pain in the first stage of labor, if not given proper treatment, will cause anxiety, fear, cause increased oxygen demand, and muscle tension, this is because blood pressure increases, catecholamines also increase causing the first stage to lengthen and can cause production to be hampered due to The production of the hormone progesterone increases and can inhibit the onset of contractions, weakening the contractions of the mother's uterus and causing the first stage to lengthen (Taqiyah and Jama, 2021).

Intense pain sensations during childbirth generally encourage mothers to choose the most comfortable and effective pain relief method, because in the early stages of labor, mothers are just starting to adapt to the pain. However, unfortunately, in many cases today, many mothers choose caesarean section without clear medical reasons (Oktavia, 2018).

Pharmacological and non-pharmacological therapies have been used to reduce labor pain. Non-pharmacological methods are considered very helpful because they do not cause allergic or drug effects, do not cause delayed labor if given strong pain control, and do not have dangerous side effects for the mother and fetus (Apriyanti, 2022).

As a health worker, midwives must be able to carry out good labor pain management. Good pain management will provide a sense of security and comfort to the mother in labor. Pain management is often forgotten during the birthing process, leaving a bad experience for the mother. This can cause disruption to the mother's psychological condition after giving birth, because she can potentially experience baby blues syndrome and even depression. Therefore, it is very important to always apply pain control techniques in labor management so that the mother's psychological needs for feeling safe and comfortable can be met. Setyowati, H. (2018).

Massage is a non-pharmacological way to relieve labor pain. Massage or light caress during labor can make the mother comfortable and relaxed because the body releases endorphins, a natural analgesic (Rahmi, 2021).

One non-pharmacological method is counter pressure massage. This technique is done by applying pressure and massage to the sacrum. The back and sacrum areas are areas that have the potential to become centers of pain during labor. Thus, the counter pressure technique can be applied to reduce pain in the first stage of labor. This massage is carried out by positioning the patient or pregnant woman who is about to give birth while sitting, standing or sleeping on her left side. Pressure and massage using the fist are applied to the mother's sacrum steadily and regularly. The massage is carried out for 20 seconds accompanied by giving positive affirmations to the mother. Paseno, M., Situngkir, R., Pontung, H., Wulandari, F., & Astria, D. (2019).

Massage techniques by applying strong pressure produced by counter-pressure massage can activate endorphins from the stopped pain transmission process, thereby reducing the sensation of pain in spinal cord synapses and brain cells. This can reduce pain in the first stage of labor. This massage is done when there are contractions which cause low back pain. Farida, S., & Sulistiyanti, A. (2019).

Massage using the counterpressure technique is the easiest massage method done and does not require a lot of equipment to do it, which can reduce pain by pressing the sacrum area to block the transmission of pain stimuli from the uterus brain.

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This technique can be carried out by health workers or family members The uterus contracts (Lowdermilk, 2015).

Karuniawati's research (2019) entitled the effectiveness of massage counters in reducing the intensity of labor pain in the first stage. The research was conducted using the one group pretest-posttest design. Pain intensity using the Wong-Baker Faces Pain Rating Scale. Treatment for respondents was in the form of a massage counter. From data collection activities, it was obtained that the mean value of pain intensity before and after the massage counter treatment decreased to 5.4. The results of the one sample T-test show that the massage counter is effective in reducing pain in the first stage of labor with a sig value of 0.000.

Research conducted by Muldaniyah and Arniati (2022) found a value of ρ = 0.000 < 0.05, which means there is an effect of counterpressure massage on reducing the intensity of pain in mothers giving birth during the first active phase. From the research, it can be concluded that counterpressure massage is effective in reducing the intensity of pain during the first active phase in women giving birth because it really focuses on pain points.

Another research conducted by Paseno, Situngkir, Pantung, Wulandari, & Astria (2019) regarding massage counter pressure and massage effleurage effectively reduce labor pain, This study uses a Quasi Experiment research method with a pre-test post-test control design approach. The sample selection is done by consecutive sampling technique, the number of samples is 20 respondents (10 respondents for counterpressure massage and 10 respondents for effleurage massage). Data were processed using the Mann-Whitney test. From the data analysis, the results obtained p-value = 0.009. This shows that the value of p < α, then the null hypothesis (Ho) is rejected and the alternative hypothesis (Ha) is accepted.

Research conducted by Eko Riyanti, et al (2022) where the research was a case study using 2 research respondents and the results obtained were that before being given counterpressure massage, the respondents felt severe pain and moderate pain. Meanwhile, after being given counterpressure massage, the pain scale dropped to moderate pain and mild pain.

RESEARCH METHODS

The type of research used was a quasi-experiment with a one group pretest and posttest design. This study took a population of all mothers who were giving birth in the active phase at the Jambu Mawar Pratama Clinic, with a sample of 15 people selected using the purposive sampling method. This massage is carried out during the first stage of labor, where the mother feels pain when experiencing the opening of labor. Massage counter pressure is applied at point L1 to S5 with a circular motion using your fist or thumb, massage done during 30 minutes. The mother said there was a reduction in pain after doing the counter pressure massage.

Data was collected through the use of a pain intensity scale before and after the intervention was carried out. Data analysis was carried out univariate and bivariate using the dependent t-test. Data analysis in this research uses dependent t-test analysis (paired t-test). The method used to evaluate the normality and homogeneity of research data is through the Kolmogorov-Smirnov test.

RESEARCH RESULTS

Univariate Analysis

Table 1
General Characteristics of Respondents

Characteristics	F	%
Age		
20-30 years	13	87
>30 years	2	13
Parity		
Primipara	8	54
Multipara	5	33
Grande	2	13

The majority of respondents, as many as 13 people (87%), were aged between 20 and 30 years, according to table 1. Characteristics of respondents, the majority of respondents were primigavida, 8 respondents (54%).

Bivariate Analysis

The mean in the cunter pressure massage group was 6,57 before intervention and 3,67 after intervention, and the P value was 0.000. The results of this study show that there is a difference in the pain scale before and after using the deep back massage technique

Table 2
Effect of deep back massage technique on reducing pain in women during first stage labor

Characteristics	Mean	SD	P Value

Before Intervention	6,57	0,92	0.000
After Intervention	3,67	0,72	

DISCUSSION

Younger mothers tend to experience more intense sensory pain compared to older mothers. Younger age is often associated with a psychological state that is still unstable, which can trigger anxiety and the intensity of the pain felt. Apart from that, age is also one of the factors used to determine the level of tolerance to pain.

This finding is in line with research by Susilawati (2019), where the majority of mothers are at a relatively safe age to give birth. Age affects childbirth because age is a cause of pain because a person's body will change and be different.

Primiparous mothers experience longer labor so they will feel tired quickly. This causes increased pain. The pain that occurs during the first stage of the active phase is also caused by uterine contractions which continue to increase to achieve complete cervical opening. As the volume and frequency of uterine contractions increase, the pain will also increase. The pain will continue to increase as the opening increases from 1 cm to a complete opening of 10 cm (Widyaningsih, H., & Yustantina, R. (2023).

Research conducted by Farida, Sulistiyanti (2019) showed that there was a significant difference before and after counter pressure massage in overcoming labor pain in the active phase of the first stage with a value of 0.043 < 0.05, so it can be concluded that counter pressure massage is effective. reduce labor pain in the first stage.

According to research conducted by Ma'rifah and Sutiningsih (2015), it was concluded that the counter pressure massage technique is more effective than the endorphin massage technique. Counterpressure can overcome sharp pain and provide a pleasant sensation that counteracts discomfort during contractions or between contractions.

According to research conducted by Chasanah, Novita and Fatimah (2023) with the title the effect of counter pressure massage techniques with aromatherapy on reducing labor pain in mothers in the first stage of labor in Depok City, it was concluded that the use of counterpressure massage with aromatherapy was more effective in reducing labor pain. compared to just using counterpressure massage. The use of aromatherapy together with counterpressure massage has been proven to be more successful in reducing labor pain than just using counterpressure massage alone.

Based on research conducted by Fitri and Dwi Nadia (2020), the average level of labor pain given by counterpressure massage intervention was 5 (moderate pain), the average level of labor pain given by counterpressure massage intervention using lavender essential oil was 3.4 (mild pain).). It can be concluded that counterpressure massage using lavender essential oil is more effective than counterpressure massage in reducing the level of labor pain.

According to research by Maisaroh, & Maryani, (2021) with using quasi design experimental studies. Study using combined effectiveness between counter pressure and massage endorphins. Research result indicates that the counter pressure and deep effective endorphin massage reduce pain during childbirth.

Research conducted by Raana, &Fan, (2020) tested the comparison effectiveness between acupressure and placebo The results obtained were in active and transition phase, acupressure significantly reduces labor pain when compared with placebo.

Based on research conducted by Wardiyaningtuti, Indiati, Retnaningsih, obtained a p-value of 0.004 < 0.05 so there is an influence of massage technique counterpressure to reduce pain during the first active phase in mothers giving birth.

Neurologically based gate control theory, application of counters pressure can reduce the resulting pain First stage of labor due to massage carried out during the capable action inhibits the propagation of painful stimuli to spinal cord receptors and brain. Apart from that, massage carried out is known to stimulate endorphins in the synapse spinal cord and brain. With the existence of both mechanisms hence the sensation of pain with application counter pressure technique can lowered (Pasongli, S., Rantung, M., & Pesak, E.,2016).

Apart from that, another theory is that contributes to flavor emphasis pain through counter pressure techniques is the endogenous opiate theory. This theory states that opiate receptors located in the spinal cord and brain helps the secretion of endorphins and enkephaline if stimulated painful. Pressure or massage from the counter pressure helps activate opiate receptors located at the tip sensory peripheral nerves, Pratiwi, D., & Nurullita, U. (2017).

Counter pressure is more effective in dealing with pain in the active phase of labor in the first stage. With Giving massage using counterpressure techniques can close the gates of pain messages will be delivered to the spinal cord and brain, apart from

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that with strong pressure on When you use this technique, you will be able to activate endorphin compounds is located at the synapse of spinal nerve cells and the brain, so that pain messages can be transmitted inhibited and causes a decrease in pain sensation (Rejeki Sri, 2013).

Providing counterpressure massage intervention to mothers giving birth during the first active phase is possible helps reduce the level of labor pain, because of the way counterpressure massage works namely applying pressure to help reduce the pain felt. Emphasis on the pelvis reduces strain on the sacro iliacs due to internal pressure from the head fetus (Rohani et al, 2015).

In endorphin massage, it is a technique that uses light touch and massage, apart from having a relaxing effect and releasing endorphins, it turns out that light touch can also stimulate the release of the hormone oxytocin which plays a role in labor contractions. In labor in the active phase, the pain level is already above moderate pain. This can cause the light touch of endorphin massage to be less effective in reducing labor pain.

CONCLUSION

Based on research, the intensity of labor pain in the first stage of labor with contour pressure massage was 6.57 before intervention and 3.67 after intervention, and the p value was 0.000. The results of this study show that there is a difference in the scale of pain before and after doing contourer pressure massage, thus there is an effect of giving contourer pressure massage to reduce pain in the first stage of labor.

SUGGESTION

The results of this research can be useful as reading material and learning reference, especially about how to reduce pain levels using contourer pressure massage so that it can help improve the quality of learning to produce more professional, skilled and qualified health workers. To always improve the quality of health services, especially in efforts to treat labor pain non-pharmacologically, one of which is by means of contourer pressure massage therapy.

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