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IMPLEMENTATION OF DEEP BACK MASSAGE TO REDUCE PAIN INTENSITY IN MATERNITY

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ABSTRACT

The maternal mortality and illness rate in Indonesia is still high. In 2022, the number of maternal deaths in Indonesia was 3,572 cases (Kemenkes RI, 2023). The number of maternal deaths in Sleman Regency in 2022 is 11 cases with a maternal mortality rate of 91.61 per 100,000 live births. The cause of maternal death in Sleman Regency was due to bleeding (4), preeclampsia (2), acute respiratory distress syndrome (ADRS) severe degrees due to lung problems (1), septic shock (1), sepsis (1), heart disease (1), and ileus (1). Based on the results of the perinatal maternal audit in Sleman Regency of the 11 deaths, 7 deaths did not experience delays and 4 experienced delays in making decisions to refer, both from family decisions and decisions from health workers who handle patients (Sleman Health Office, 2023). So midwifery care Continuity Of Care It needs to be implemented as an effort to reduce maternal mortality rates. Purpose: To find out the results of the implementation deep back massage to reduce the intensity of pain in pregnant women during the first active phase. Method: This type of research is qualitative research with a case study method and uses an approach Continuity of Care Mrs. R was 23 years old. Result: After doing deep back massage During Phase I Active Phase labor, the mother's pain decreases from a pain scale of 8 to 6. Conclusion: It can be concluded that the implementation of deep back massage in pregnant women during the first active phase, it can reduce pain.

Keywords: continuity of care; deep back massage; maternity

INTRODUCTION

The maternal mortality and illness rate in Indonesia is still high. In 2022, the number of maternal deaths in Indonesia was 3,572 cases. The causes of maternal mortality in Indonesia in 2022 are hypertension in pregnancy as many as 801 cases, bleeding as many as 741 cases, heart disease 232 cases, infection 175 cases, *corona virus disease* A total of 73 cases, circulatory system disorders as many as 27 cases, ectopic pregnancy 19 cases, and other causes as many as 1,504 cases (Kemenkes RI, 2023).The number of maternal deaths in Sleman Regency in 2022 was 11 cases with AKI of 91.61 per 100,000 live births. The cause of maternal death in Sleman Regency was due to bleeding (4), preeclampsia (2), *acute respiratory distress syndrome* (ADRS) severe degrees due to lung problems (1), septic shock (1), sepsis (1), heart disease (1), and ileus (1). Based on the results of the perinatal maternal audit in Sleman Regency of the 11 deaths, 7 deaths did not experience delays and 4 experienced delays in making decisions to refer, both from family decisions and decisions from health workers who handle patients (Sleman Health Office, 2023) Community participation in efforts to reduce AKI is quite optimal, namely by developing community empowerment in the health sector, the Integrated Family Planning (KB) program and Posyandu (Knowledge, 2021).

The government has established several programs, one of which is the *Sustainable Development Goal* (SDG's) which focuses on SDG's goal number 3, namely about healthy and prosperous lives by 2030, one of the programs was made as an effort by the government to reduce AKI so that AKI

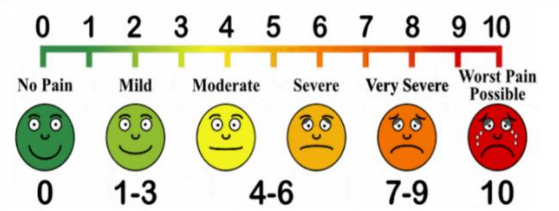
reaches 95% or 70 maternal deaths per 100,000 live births (Alisjahbana & Murniningtyas, 2018). The government has also made other efforts to improve maternal and child health as stipulated in the Regulation of the Minister of Health No. 71 of 2013 concerning health services in the National Health Insurance (Permenkes, 2013).A phenomenon in society, nowadays many mothers feel so afraid to give birth naturally or give birth through the vagina. This fear often occurs because of hearing terrible stories during childbirth or the experience of giving birth with severe pain.The pain felt by the mother who gives birth which is originally a physiological condition can be something that affects the continuity of the delivery process. Labor pain can have an impact on increasing catecholamines by 20-40%. Increased sympathetic response can eventually increase peripheral resistance, increase cardiac output, increase blood pressure and increase maternal oxygen consumption during childbirth. Hyperventilation will in turn lead to respiratory alkalosis, increased adrenaline levels, and decreased blood flow to the uterus. This can eventually cause uterine activity to become uncoordinated which has an impact on labor for a long time. This condition can cause anxiety with increasing anxiety about the increasing intensity of pain, so that it will affect the length of labor (Darmayanti et al., 2024).

In addition, pain that is not resolved quickly can cause death in the mother and baby, because the pain causes breathing and the mother's heart rate to increase, which causes the flow of blood and oxygen to the placenta to be disrupted. The handling and supervision of labor pain, especially in the 1st active phase, is very important, because this is the determining point whether a mother can undergo normal labor or end with an action due to complications caused by very severe pain (Nafiah, 2018)Midwives in providing midwifery care services must pay attention to the comfort of the mother, one of which is the handling of labor pain. Pain control techniques are often neglected when providing midwifery care, so that it will result in the mother having a poor childbirth experience, childbirth trauma that can have an impact on the incidence of postpartum blues. Because it is very important for birth attendants to meet the mother's needs for a sense of security and comfort. It is necessary to provide proper care to reduce labor pain, which is a highly recommended action (Sari & Jumiati, 2024).

Labor pain can be overcome by pharmacological and non-pharmacological methods. Pharmacological methods consist of analgesics (inhalation and opioids) and analgesia/regional anesthesia (spinal anesthesia and epidural analgesia), while non-pharmacological methods consist of relaxation, hypnotherapy, imagination, *massage* like *deep back massage*, *music*, Acupuncture, *transcutaneous electrical nerve stimulation* (TENS), hydrotherapy, as well as position, posture and ambulation (Gaidaka, 2018).Complementary therapy is included in maternal care to reduce maternal mortality and pain. By research conducted by (Rahmawati et al., 2022) shows the effectiveness of the implementation *deep back massage* to reduce pain in childbirth during the first active phase.Other research conducted by (Sofiyanti & Maulana, 2023) menyebutkan method *deep back massage* effective in reducing the intensity of pain in pregnant women during the first active phase. Research conducted by (Sofiyanti & Maulana, 2023) proves that the provision of interventions with the *deep back massage* effective in reducing the intensity of pain in pregnant women during the first active phase. In addition, the research conducted (Fitrianingsih & Prianti, 2017) concluded that there was a decrease in the intensity of labor pain during the first active phase after the intervention with the *deep back massage*. This is further clarified by the research conducted (Ning4 & Mudhawaroh, 2018) explains that There is an influence *deep back massage* on the reduction of labor pain during the first active phase.

METHOD

This type of research is qualitative research with a case study method and uses the *Continuity of Care approach.* This case study was carried out at PMB Kuswatiningsih starting from February 25 to April 28, 2024. The subject of this case study is Mrs. R aged 23 years G1P0Ab0Ah0 UK 36 weeks to birth control. The complementary midwifery care provided is adjusted to the problems faced by the mother during the mentoring time. In this study, it was found that mothers felt pain during childbirth during the first active phase so they were given complementary care, namely *deep back massage*. To measure the intensity of pain using a *pretest-posttest design* where pain measurement is carried out using a facial scale (*Wong-Baker Faces Pain Rating Scale*), by paying attention to the patient's expression.



RESULT AND DISCUSSION

Table 1.
Observation of the Pain Scale

Date	Jam	Pain Scale	
		Before massage	After mass
13/04/ 2024	07.00	6	4
	07.10	6	4
	07.20	6	4
	07.30	6	4
	07.40	6	4
	07.50	6	4
	08.00	8	6
	08.10	8	6
	08.20	8	6
	08.30	8	6

Based on table 1.1 on Pain Scale Observation, it can be concluded that pain decreases after deep *back massage.*

Pain in labor is caused by various things, including the emphasis on the nerve endings between the muscle fibers of the uterine corpus fundus. Muscle spasm is caused by the stimulation of pain receptors that are mechanoreceptors, or by compression of blood vessels and causes ischemia. If the blood flow to the tissue is blocked, the tissue becomes painful due to a lack of oxygen supply. Stage I labor pain is mainly caused due to dilation of the cervix and the lower segment of the uterus during contractions. Fear and anxiety that can be released in large amounts of stress hormones can result in the onset of long and severe labor pains (Rejeki, 2020).Acupressure points associated with a decrease in pain intensity during labor include LI4 (*Hegu*), BL67 (*Zhiyin*), SP6 (*Sanyinjiao*), PC6 (*Neiguan*), BL19 (*Danshu*), BL21 (*Weishu*), BL60 (*Kunlun*), and BL32 (*Ciliao*). Point BL32 (*Ciliao*) which is located in the second hole of the sacrum bone (Mustafida &; Mukhoirotin, 2020).

Various ways are carried out to reduce pain in childbirth, one of which is giving *massage*. *Massage* is to apply hand pressure on soft tissues usually muscles, tendons, or ligaments without causing movement or a change in joint position to relieve pain, produce relaxation and improve circulation. *Deep Back massage* is an emphasis on the sacrum that can reduce tension in the sacroliacuous joint from the posterior occiput position of the fetus (Riska & Mariza, 2016). Technical *deep back massage* can manipulate the soft tissues of the body, especially in the sacrum area. Manipulation *deep back massage* By using body parts in the form of hands can be regulated with the aim of affecting nerves, muscles, respiratory system, blood circulation and lymph which are local and comprehensive. Applying pressure to the sacrum area will increase the release of endorphins, stimulating receptors in the pelvis that are responsible for secreting endorphins. This pressure can also stimulate the body to release endorphin compounds which are natural pain relievers.The pressure applied depends on the comfort level of the mother, which can be expected to change the level of pain, as the labor process progresses (Widyaningsih & Yustantina, 2023).

Gift *deep back massage* referring to the endogenous opiate theory. Martin & Koniak (1998) in (Lestari et al., 2012) suggests that when pain is felt, there are opiate receptors in the brain and spine that determine the central nervous system to release substances such as morphine (*endorphine* and *enkephalins*). Endogenous opiates clamp down on receptors and interfere with pain perception. This theory is very much related to pain reduction by using *pressure* or pressure including sacrum pressure to release endogenous opiates. Endorphins that are released in large quantities will affect the transmission of pain impulses. Endorphins work as neurotransmitters and neuromodulators to inhibit the transmission of pain impulses to the brain. Endorphins are found in synapses that function to inhibit or reduce pain sensations (Lestari et al., 2012).Theory *gate control* can be used to assess the effectiveness of this study. Theory *gate control* explains that pain fibers carry less pain stimulation to the brain and the sensory journey is slower than that of extensive touch fibers. When touch and pain are stimulated together, the sensation of touch travels to the brain closing the inner gate in the brain. With a massage that has a distraction effect, it can also increase the formation of endorphins in making muscle relaxation (Taqiya & Friday, 2021).

Deep back massage is excellent and is a gentle way to help the mother feel more refreshed during labor. The touch and gentleness of the massage make the mother of childbirth more relaxed. One study showed that women who received a massage for 20 minutes every hour during the active labor phase felt calmer and more pain-free. This happens because massage can stimulate the body to release endorphine compounds which are natural pain relievers. This endorphine can create a comfortable and delicious feeling. When massaging, the masseur must pay attention to the mother's response whether the pressure applied is appropriate (Katili et al., 2019).How to perform the method *deep back massage* That is by positioning the patient lying on its left side or sitting, then applying pressure to the sacrum area steadily with the palm of the hand. Emphasis, release and repress. This pressure is done for 30-40 seconds in 20-30 minutes when contractions or his (Rosita & Lowa, 2020).

Action *deep back massage* During contractions it is done by pressing on the sacrum when the contractions occur and ends after the contractions stop. The emphasis will stimulate the cutaneous, so that the pain impulse is inhibited and reaches the thalamus more slowly. *Deep back massage* given when the mother who is about to give birth feels very excruciating pain and disturbs the sense of comfort. Actually, the perception of pain in each individual is different, so with an emphasis on

the sacrum area will help mothers to reduce pain and anxiety felt during childbirth, especially in mothers who have a greater perception of pain (Dewie & Kaparang, 2020). According to (Elawanti et al., 2021) Success of Therapy Delivery *deep back massage* in determining pain depends on the respondent's perception and pain tolerance. Gift *massage* and ongoing information about maternal pain during pregnancy and childbirth is essential to prepare mothers physically and psychologically for labor.From the results of this study, *the deep back massage* technique has the potential to be a safe and effective non-pharmacological method in labor pain management. With proper integration in obstetric practice, this technique can be a valuable option for improving a woman's childbirth experience as well as reducing dependence on pharmacological analgesia which may have certain risks and side effects. This is in line with the research conducted (Anita et al., 2023) Pain reduction techniques in childbirth using *deep back massage* can reduce the pain of childbirth felt by the mother giving birth.Reinforced with *literatur review* written by (Rahmi et al., 2021) From several studies, it can be concluded that *deep back massage* It is an effective massage technique that can be used to relieve muscle tension, smooth the circulatory cycle, provide a sense of comfort, and reduce anxiety so that the pain felt during the labor process is felt.

CONCLUSION

After a deep back massage was performed on the mother in the Active Phase I of labor, the mother's pain was reduced from a pain scale of 8 to 6. It can be concluded that the implementation of deep back massage in pregnant women during the first active phase can reduce pain. Based on the results of this study, deep back massage can be used as complementary care/non-pharmacological method to reduce the intensity of labor pain during the active phase I.

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