



EFFECT OF DEEP BACK MASSAGE ON THE LEVEL OF LABOR PAIN WHEN 1 ACTIVE PHASE IN NORMAL MATERNITY MOTHERS IN GAJAH MADA TEMBILAHAN HEALTH CENTER

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ABSTRACT

Labor pain causes the mother's breathing and heart rate to increase so that blood flow and oxygen to the placenta is disrupted. Efforts to overcome labor pain can use pharmacological and non-pharmacological methods, one of which is with Deep back massage. Deep back massage in addition to reducing pain also provides comfort, lowers anxiety, accelerates childbirth, promotes blood circulation and stimulates blood vessels. The purpose of this study is to find out the effect of deep back massage on the level of labor pain when I phase is active in maternity mothers. This study uses quasi design experiments with a one group approach. The population of all maternity mothers at Puskesmas Gajah Mada in January 2020 as many as 16 respondents with purposive sampling techniques. Data analysis using Paired Sample T-Test obtained p value of 0.029 which means there is an influence back massage effect on the level of labor pain when I phase is active in the mother of childbirth. It is recommended that the deep back massage technique be given in the right place and performed at the beginning of contractions so that the inpartu mother can feel the benefits of the massage given.

Keywords : *Deep back massage, labor pain*

INTRODUCTION

Labor pain is a manifestation of uterine muscle contractions. It is this contraction that causes pain in the waist/pelvic area, abdomen and extends to the thigh area. Pain during childbirth is one of the factors that causes old partus/jamming can occur, which makes the mother unable to withstand and accept the pain of childbirth and fatigue due to labor pain (Nadia and Ajeng, 2016).

Most childbirths are 90% always accompanied by pain while pain in childbirth is common, pain during childbirth is a physiological and psychological process. Of the 2,700 maternity mothers only 15% of childbirth took place with mild pain, 35% with moderate pain, 30% with severe pain and 20% childbirth accompanied by severe pain (Rejeki and Tri, 2015).

Pain that is not quickly resolved can lead to death in the mother and baby, as pain causes the mother's breathing and heart rate to increase which causes blood flow and oxygen to the placenta to be disrupted. The treatment and supervision of labor pain especially during the 1 active phase is very important, because it is the deciding point whether a maternity mother can undergo normal childbirth or end with an action due to the treatment caused by severe pain (Nafiah, 2018).

Efforts to overcome labor pain can use Pharmacological and non-Pharmacological methods. Pain management with pharmacology techniques is divided into 3 categories of drugs namely opioid agonists (morphine, fetanyl, hydromorphone, meperidine, codeine, methadone), non opioids (acetaminopen, nonsteroidal, antiinflammatory drugs (NSAIDs), and adjuvants (anticonvulsants, antidepressants, local anesthetics) (Hayati,



2014). The non-pharmacological method has a non-invasive effect, simple, effective, and without harmful effects, increasing satisfaction during childbirth because the mother can control her feelings and her strength. Therefore, many people choose non pharmacological methods in comparison to pharmacological methods. Non pharmacological methods that can be used to lower labor pain include Aromatherapy, Relaxation, and Massage methods such as effleurage, firm counterpressure and deep back massage (Fitryanti, 2017).

Massage is one of the techniques of gate control theory application, by using massage can relieve pain and increase blood flow throughout the tissues (Kuswandi, 2011). The basis of gate control theory's first thought is that the presence and intensity of the pain experience depends on certain transmissions of nerve impulses. Second, the gate mechanism along the nervous system controls or controls the transmission of pain eventually. If the gate is open, the impulses that cause pain can reach a level of consciousness. If the gate is closed, the impulse does not reach the level of consciousness and pain sensation is not experienced. An indicator of pain intensity is the mother's report on pain itself. However, the intensity of pain can also be determined in various ways one is to ask the mother to describe her pain or discomfort (Maryunani, 2010).

Deep back massage stimulates the sacrum by doing gentle rubbing with both hands on the mother's sacrum for 20 minutes with a frequency of 30-40x rubbing per minute with movements such as stroking in the mother's maternity at the time of 1 active phase. But the strength of emphasis when contraction differs in strength level after contraction/his is lost. After contraction/his disappear masasse is done with softer emphasis. This is done to give the mother comfort to relax the muscles after contractions. Assessment of the effectiveness of the use of deep back massage can be done after given massase to the mother for 20 minutes since contraction in one of the openings of the active phase 1 but previously observation has been made in mothers with normal childbirth care (relaxation) without being given massase

treatment to know the level of pain experienced by the mother (jumhirah, 2018).

The results of the research conducted by (Nafiah, 2018) entitled Effect of Deep Back Massage Method on Pain Intensity In Childbirth During 1 Active Phase at Pratama Mutiara Kawalu Clinic Tasikmalaya City 2018 with the number of respondents 35 people obtained statistical test results using wilcoxon test obtained $z = -5,295$ and significance value ($p=0.001$), which means there is a meaningful difference in pain between before and after the Deep Back Massage method.

Based on the results of preliminary studies conducted by researchers using observation methods in November 2019 at Pukesmas Gajah Mada Tembilahan which researchers conducted from 5 maternity mothers obtained 2 people (40%) with an opening of 6 cm, among them feeling severe pain during childbirth, 2 people (40%) with an opening of 6 cm experiencing moderate pain and 1 person (20%) with an opening of 4 cm experiencing mild pain. The treatment done in maternity mothers to reduce labor pain is to draw deep breaths or known as relaxation techniques, and only 1 mother feels less pain and 2 mothers say the pain is not reduced. Then at puskesmas, there has never been research on the effect of deep back massage on the level of labor pain when 1 phase is active in maternity mothers. Based on the background above, researchers are interested in conducting research on the effect of deep back massage on the level of labor pain in maternity mothers at Gajah Mada Health Center.

MATERIAL AND METHODS

This type of research uses quantitative research with quasi research design experiments that are one group pre experiment - post experiments. In this study, researchers measured normal maternal pain levels during phase 1 of active phase before being given deep back massage intervention, then pain levels were re-observed after being given Deep Back Massage intervention. The research was conducted at Gajah Mada Health Center. The population



of all normal maternity mothers at Puskesmas Gajah Mada Tembilahan in January 2020 with a sample count of 16 respondents and using purposive sampling method for sampling techniques. Data analysis is conducted univariate to see frequency distribution and bivariate by conducting data normality test and paired samples T Test hypothesis test.

RESULTS

a) Univariate Analysis

Table 1
Distribution Of Respondents Based On Pain Scale Assessment Before Being Given Deep Back Massage

Pain scale	f	(%)
1-3 (mild pain)	3	18.75
4-6 (moderate pain)	5	31.25
7-10 (severe pain)	8	50
Total	16	100

In table 1 can be seen the distribution of respondents based on the assessment of pain levels before being given deep back massage treatment namely mild pain numbering 3 respondents (18.75%), moderate pain numbering 5 respondents (31.25%), and with severe pain numbering 8 respondents (50%).

Table 2
The Distribution Of Respondents Based On The Assessment Of Pain Scale After Being Given Deep Back Massage.

Pain scale	f	(%)
1-3 (mild pain)	5	31.25
4-6 (moderate pain)	9	56.25
7-10 (severe pain)	2	12.50
Total	16	100

In table 2, the distribution of respondents based on assessment of pain levels after deep back massage treatment amounted to 5 respondents (31.25%), moderate pain numbered 9 respondents (56.25%), and with severe pain numbered 2 respondents (12.50%).

b) Bivariate analysis

Table 3
Distribution Of Data Normality Test Results

	Shapiro wilk		
	Statistic	df	Sig
Before	0.917	16	0.150
After	0.921	16	0.178

Based on table 3 shows the normality test results of data using Shapiro Wilk because the number of respondents is less than 50 people. The normality test result for the level of labor pain before deep back massage technique is 0.150 and the rate of labor pain after deep back massage technique is 0.178. This indicates that the data is distributed normally.

Table 4
The Effect of Deep Back Massage on The Level of Labor Pain When 1 Phase Is Active

		Paired Differences				t	d	Si	
		me	Std	Std	95% CI				
		an	devia	err	lo	Up			
			tion	or	we	per			
				me	r				
				an					
Pai	Bef	.87	1.455	.36	.10	1.6	2.4	1	.0
red	ore-	5		4	0	50	06	5	29
t-	after								
tes									

Based on table 4 can be seen the effect of deep back massage on the level of labor pain when I active phase in normal maternity mothers obtained the results of Paired Sample T-test with sig value. (2-tailed) from the study of $0.029 < 0.05$ means H_a is accepted that there is an influence of deep back massage on the level of labor pain when 1 phase is active in the mother of childbirth.

DISCUSSION

1) Deep Back Massage Labor Pain Before And After Deep Back Massage Technique

The results showed that the level of maternal pain in the first active phase before deep back massage technique was 3 respondents (18.75%), moderate pain numbered 5 respondents (31.25%), and with



severe pain numbered 8 respondents (50%). The level of maternal pain in the first active phase after deep back massage technique amounted to mild pain of 5 respondents (31.25%), moderate pain numbered 9 respondents (56.25%), and with severe pain numbered 2 respondents (12.50%). Of the 16 respondents before the deep back massage technique the majority (8 respondents) experienced severe pain (pain scale 7-10) after deep back massage resulted in the majority (9 respondents) experienced a decrease in pain intensity and were in the moderate pain category (pain scale 4-6).

Based on the results of statistical test using Paired Sample T-test is interpreted that the value of p value $0.029 < 0,05$ which means H_a is accepted that there is an influence of deep back massage on the level of labor pain when 1 phase is active in the mother of childbirth. This is in line with research conducted by (jumhirah, 2018) entitled the effect of deep back massage on the reduction of labor pain when 1 active phase at Dewi Sartika General Hospital Kendari City 2018 with a p value of 0,000 and this is also in line with the principle and purpose of deep back massage method which is to reduce or stop the delivery of pain impulses. Deep back massage technique is a procedural method that is applied as a treatment instrument to groups who get deep back massage. In principle this method is effectively carried out at the opening of 4-7 cm. Deep back massage during childbirth can serve as an epidural analgesic that can reduce pain and stress, and can provide comfort to the mother of childbirth. Deep back massage technique with suppression stimulates kutaneus so that it can inhibit pain impulses not up to hypohalamus. Therefore, essential maternal care is needed during childbirth to reduce pain and stress due to childbirth which can increase midwifery care in maternity mothers (jumhirah, 2018).

Labor pain can be affected by various factors such as physiological, psychological, and psychosocial factors. Physiological factors include age, history of dismenorrhea, fatigue and medical procedures. Then the psychological factors consist of anxiety and fear. as well as psychosocial factors consisting of parity or previous experience and culture. Based on the results of this study obtained from 16 respondents as many as 10 respondents with multigravida pregnancy and 6 respondents with primigravida pregnancy. According to (Indrayani and Moudy E.U.D., 2016) parity affects the perception of labor pain because primigravida has a longer and more laborious labor process compared to multigravida. Previous experience of childbirth and pain can affect a woman's pain description and ability to cope with pain. The nature of previous childbirth experiences can also affect a woman's response to pain.

According to (jumhirah, 2018) age is also used as one of the factors in determining tolerance to pain, and mothers who have a high risk age feel 4 times greater than mothers who do not have a high risk age. In childbirth less than 20 years old and over the age of 35 years are at great risk to the health of the mother and her fetus. Pregnancy and childbirth in mothers aged 20-35 years are the optimal reproductive health age group. Childbirth is influenced by age because age is the cause of the onset of pain because the older a person will change and differ according to age (Wiknjastro, 2010).

Based on the results of the study obtained from 16 respondents as many as 9 respondents with the age of <20 years and 7 other respondents have an age that is not at risk (20-35 Years). According to the theory of healthy reproductive age is a good age for pregnant, maternity, nifas and physically healthy, mentally, and social well-being in whole on all things related to the system and functions and reproductive processes and not just conditions that are free of disease or disability (Kumalasari, 2012). Younger mothers have more intense pain sensory than mothers who have more



age. Young age tends to be associated with a persistent psychological condition that triggers anxiety so that the pain is felt stronger (Lydwina, 2011).

Massages given to reduce labor pain should be given in the right place and performed at the beginning of contractions so that the inpartum mother can feel the benefits of the massage given.

CONCLUSION

There is an influence of deep back massage on the level of labor pain when 1 phase is active in the mother of childbirth.

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