The Difference In The Effect Between Abdominal Breathing Techniques And Deep Back Massage On Reducing Labor Pain During The Active Phase I At Cengkareng Hospital In 2022

Lili Farlikhatun[1*] , Ira Hanurawati[2]

[1]Lecturer STIKes Abdi Nusantara, Indonesia
[2] Student STIKES Abdi Nusantara, Indonesia
*Coresponding Author:
Email: lilifarlikhatun@gmail.com

Abstract.
Labor pain is the main problem experienced by maternity mothers (Rahayu, 2018). In Brazil, labor pain reaches more than 50% of the birth rate in a hospital which is the highest percentage worldwide (Alam, 2020). A preliminary study conducted by the authors, in May 2022, of 10 maternity mothers, 7 (70%) mothers felt severe pain, 2 (20%) mothers felt moderate pain, and 1 (10%) mothers felt mild pain. Therefore, the author is interested in conducting research on pain management with non-pharmacological methods in the form of relaxation and massage, on this occasion the author will conduct research on the difference between abdominal breathing techniques and deep back massage on reducing labor pain during the active phase I in physiological childbirth at Cengkareng Hospital in 2022. Knowing the difference in the influence between abdominal breathing techniques and deep back massage on reducing labor pain during the active phase at cengkareng hospital in 2022. This type of research is quantitative research, research design using quasi-experiments with one group pretest and posttest design. The sampling technique is a consecutive sampling technique, with a total sample of 44 respondents. Data processing using the T-test. Based on the results of independent analysis-test, a p value of 0.000 (p value < α 0.05) was obtained with a deep back massage standard deviation of 0.512 < 0.528 so that the results were obtained that H0 was rejected and Ha was accepted. From these results, it is concluded that there is a difference between abdominal breathing techniques and deep back massage in overcoming labor pain during the I active phase. Thus from both techniques more effective against pain adaptation response is deep back massage. The conclusion of this study is that deep back massage is more effective than abdominal breathing techniques with a standard deviation of 0.512 < 0.528 and a p value of 0.000 (p value < 0.05).

Keywords : *Abdominal Breathing Techniques and Deep Back Massage.*

I. INTRODUCTION

Childbirth is a process of removing the results of conception (fetus and uri) that can live to the outside world of the womb through the birth canal or other means (Diana, 2019). Childbirth pain is the main problem experienced by maternity mothers (Rahayu, 2018). In Brazil, labor pain reaches more than 50% of the birth rate in a hospital which is the highest percentage worldwide (Alam, 2020). The pain occurs due to contractions of the uterine muscles, hypoxia of the muscles that have contractions, stretching of the cervix, ischemia of the uterine corpus, and stretching of the lower segment of the uterus.

Through the spinal nerve segments of Thoracs 11-12 and the lower thoracic accessory nerve as well as the upper lumbar sympathetic nerve, pain receptors are transmitted (Setyani, 2020).A preliminary study conducted by the authors, in May 2022, of 10 maternity mothers, 7 (70%) mothers felt severe pain, 2 (20%) mothers felt moderate pain, and 1 (10%) mothers felt mild pain. Therefore, the author is interested in conducting research on pain management with non-pharmacological methods in the form of relaxation and massage, on this occasion the author will conduct research on the difference between abdominal breathing techniques and deep back massage on reducing labor pain during the active phase I in physiological childbirth at Cengkareng Hospital in 2022.

II. METHODS

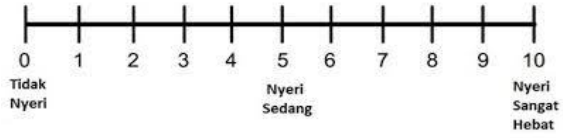
This type of research is quantitative research, research design using quasi-experiments with one group pretest and posttest Design which aims to determine the effect of relaxation of abdominal breathing techniques and deep back massage in reducing the pain adaptation response in inpartu patients during the active phase I. This study used a quasi-experimental research design with pre and post test without control, which means that researchers only intervene in one group without comparison (Sugiyono, 2017).The

population in this study was all patients who gave birth normally in the maternity room of Cengkareng Hospital. The number of patients who gave birth in the maternity room of RSUD Cengkareng for the May-June period was 160 people, so the population in this study was all maternity mothers during the active phase I which amounted to 80 people.The sample of this study was all mothers who were inpartu during the active phase I in the maternity room of RSUD Cengkareng.

The sampling method used is "consecutive sampling" is a way of taking samples that meet the criteria until a certain period of time until the number of samples is met. In this study, researchers will take samples of 44 respodens.The tool used in this study was an observation sheet. The first section contains an assessment of demographic data on maternity mothers which includes: mother's name (initials), age, occupation, parity, filled in by researchers. The second part is about questions describing the intensity of maternal pain based on the pain intensity scale (0-10). The picture of pain intensity was obtained by asking the mother about the magnitude of the pain she felt, before and after the intervention was carried out by researchers after the mother showed the scale of pain that the mother felt. This section is used to examine the effect of abdominal breathing and deepback massage techniques on the response of labor pain adaptation during the active phase I. Numerical Rating Scales (NRS) are used instead of word descriptor tools. In this case, the client assesses the pain by using a scale of 0-10. That is, the number 0 indicates no pain and the number 10 indicates the most intense pain. The level of numbers indicated by the client can be used to assess the effectiveness of the pain relief intervention.

According to Solehati & Kosasih (2017), this scale can be perceived as follows:

0 : No Pain
1-3 : slight pain
3-7 : Moderate Pain
7-9 : Severe Pain
10 : The most intense pain



III. RESULTS AND DISCUSSION

The characteristics of the subject of study are as follows :

Table 4.1. Frequency distribution of characteristics of inpartu mothers during the active phase I at Cengkareng Regional Hospital in November-December 2022

No	Characteristic	N	%
1.	Age		
	<20 years	2	4,5 %
	20-35 years	35	79,5 %
	> 35 years	7	15,9 %
2.	Work		
	Work	10	22,7 %
	Not Working	34	77, 3 %
3.	Parity		33,3%
	Primipara	11	25,0 %
	Multipara	33	75, 0 %
	Total	**44**	**100%**

Based on table 4.1 above, most respondents were aged 20-35 years (79.5%), Not working 34 respondents (77.3%), and multipara 33 respondents (75.0%).

Table 4.2. Respondents' Pain Levels Before and After Abdominal Breathing Techniques were Carried Out in Maternity Mothers During the Active Phase I at Cengkareng Regional Hospital in 2022

Pain Level	**Pain Level**			
	Pretest	%	Post test	%
Light	1	4,5	7	31,8
Medium	6	27,3	13	59,1
Heavy	15	68,2	2	9,1
Total	22	100	22	100

Table 4.3. Respondents' Pain Levels Before and After Deep Back Massage in Maternity Mothers During the Active Phase I at Cengkareng Regional Hospital in 2022

Pain Level	Pain Level			
	Pre Test	%	Post Test	%
Light	1	2,3	11	25,0
Medium	10	22,7	11	20,5
Heavy	11	25,0	-	4,5
Total	22	100,0	22	100,0

Table 4.4. Dependent t test analysis of the Effectiveness of Abdominal Breathinng Techniques in Maternity Mothers During the Active Phase I at Cengkareng Regional Hospital

Treatment	N	Mean	Standar deviasi	95% *ci*	T	*P*
Pre test	22	2,68	0,568	2,93	22,15	0,0
Post Test	22	1,77	0,528	2,01		

In table 4.4 The average intensity of pain before the abdominal breathing technique was 2.68 (severe pain) with a standard deviation of 0.568, while after treatment it became 1.77 (moderate pain) with a standard deviation of 0.528. p <0.000 means that there is a significant difference in labor pain scores before and after the abdominal breathing technique, thus it is concluded that the abdominal breathing technique is effective in reducing labor pain during the I active phase.

Tabel 4.5. analisis Dependen t test Efektifitas Deep Back Massage Pada Ibu Bersalin Kala I Fase Aktif di RSUD Cengkareng

Treatment	N	Mean	SD	95% *ci*	T	*P*
Pre test	22	2,45	0,596	2,72	19,32	0,000
Post Test	22	1,50	0,512	1,73		

In table 4.5 The average intensity of pain before the deep back massage technique was 2.45 (severe pain) with a standard deviation of 0.596, while after treatment it became 1.50 (moderate pain) with a standard deviation of 0.512. p <0.000 means that there is a significant difference in labor pain scores before and after deep back massage, thus it is concluded that deep back massage techniques are effective in reducing labor pain during the I active phase.

Table 4.6. Differences in the effectiveness of abdominal breathing and deep back massage techniques with independent t tests

Treatment groups	Mean df	SD	T	*P*
Deep Back Massage	1,500	0,512	13,748	0,000
Tehnik Abdominal breathing	1,773	0,528	15,735	0,000

Based on the results of the independent analysis-test, a value of 0.000 (p value < α 0.05) was obtained with a deep back massage standard deviation of 0.512 < 0.528 so that the results were obtained that H0 was rejected and Ha was accepted. From these results, it is concluded that there is a difference between abdominal breathing techniques and deep back massage in overcoming labor pain during the I ac-

tive phase. Thus from both techniques more effective against pain adaptation response is deep back massage.From the results of this study, it can be seen that the average value of pain intensity before being given abdominal breathing techniques and deep back massage ranges from 7-9 (severe pain). After abdominal breathing techniques and deep back massage the intensity of pain becomes 4-6 (moderate pain). The results of the statistical test obtained t count 15.738 and standard deviation 0.528. As for group II after deep back massage was done, it became 4-6 (moderate pain). The results of the statistical test obtained t count 13.748 and the standard deviation 0.512 with a p value of 0.000 < 0.005. The results of this study show that deep back massage is more effective in reducing labor pain during the active phase I than abdominal breathing techniques, where the standard deviation of deep back massage is smaller than abdominal breathing techniques with results of 0.512<0.528.Deep back massage technique is performed by placing emphasis on the sacrum area during contraction, starting at the beginning of contraction and ending after the contraction stops. Emphasis can be done with fisted hands like tennis balls on sacrum 2, 3, 4. The suppression can stimulate the kutaneus, so that it can inhibit pain impulses from reaching the thalamus.

This is in accordance with the theory of Gate Control and Melzack. In addition, it will also help increase myometrial contractions that will speed up the opening process (Anonim, 2018).Emphasis on sacrum can reduce sacroiliakus joint tension thus stimulating the body to release endorphin compounds which are natural pain relievers and create a feeling of comfort and well-being. Gate control theory illustration that pain fibers carry pain stimulation to the brain smaller and the course of sensations is slower than that of broad tactile fibers. When touch and pain are stimulated together, the sensation of touch travelling to the brain closes the inner gate of the brain. With massage that has a distraction effect, it can also increase the formation of endorphins in making muscle relaxation. (Anonymous., 2018).This research is in accordance with research conducted by Ni Gusti Ayu Ratmi Ningsih, (2019) reported that there is a difference in labor pain during the active phase I before and after abdominal breathing with deep back massage with p = 0.000, and the deep back massage technique is more effective than abdominal breathing to reduce pain during the active phase I in maternity mothers.Therefore, health workers (Midwives) can apply nonpharmacological methods to reduce the intensity of pain during the active phase I in providing physiological normal childbirth care, so as to reduce pain in childbirth during the active phase I and eliminate the risks that occur in the mother and fetus if using pharmacological methods or not using any method. So that the care of the mother's affection can be applied even better than before.

IV. CONCLUSION

The conclusion of this study is that there is a difference in the influence between abdominal breathing and deep back massage techniques in overcoming labor pain during the active phase I. And of the two techniques that are more effective against pain adaptation responses is deep back massage, with a standard deviation of deep back massage of 0.512 < 0.528 and a p value of 0.000<0.005.

V. SUGGESTION

Researchers and readers who work as health workers (midwives) can always improve the quality of health services, especially in efforts to treat labor pain in a non-pharmacological manner in order to minimize the negative impacts that can occur on the mother, fetus and the progress of childbirth.

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