

# THE EFFECT OF BREATHING ENGINEERING ON CHANGES IN THE LEVEL OF ANXIETY IN THE MOM IN THE TIME OF LABOR AT THE AEK GOTI PUSKESMAS, SILANGKITANG DISTRICT, LABUSEL REGENCY IN 2021

**Niasty Lasmy Zaen**

Midwifery Study Program, Applied Undergraduate Program, Faculty of Health Sciences, Haji University, North Sumatra, Jl. Samanhuri No.292, Binjai Estate, Binjai City, North Sumatra, 20727, Indonesia

---

## ARTICLE INFO

### **Keywords:**

Anxiety Levels,  
Breathing Techniques.

---

## ABSTRACT

Maternity feels anxious and afraid to face the labor process, then the adrenaline hormone will come out and can inhibit the release of oxytocin which is needed for the progress of labor. The purpose of deep breathing relaxation is so that individuals can control themselves when there is a feeling of tension and stress that makes individuals feel in an uncomfortable condition to be comfortable, the purpose of the study is to find out whether there is an effect of deep breathing techniques on the level of anxiety in the first stage of labor at the Aek Goti Public Health Center, district. Silangkitang, Labusel Regency in 2021. This study uses a quantitative research type, the population used is all patients who delivered the first stage of labor at the Aek Goti Public Health Center, Silangkitang district, Labusel Regency which was carried out in August 2021 with a population of 25 mothers during the first stage of labor. sampling technique at the time of the study. Data analysis used Wilcoxon Signed Rank Test. The results of this study were the level of anxiety in the first stage of labor before giving the method of deep breathing relaxation techniques at the Aek Goti Health Center, Kec. Silangkitang Labusel Regency in 2021 the majority experienced severe anxiety as many as 11 respondents. The level of anxiety in the first stage of labor after giving the method of deep breathing relaxation techniques at the Aek Goti Health Center, Silangkitang District, Labusel Regency in 2021, the majority experienced moderate anxiety as many as 12 respondents. Conclusion These results prove that there is a significant effect of deep breathing techniques on the level of anxiety in the first stage of labor at the Aek Goti Health Center, Silangkitang District, Labusel Regency in 2021. These results prove that deep breathing techniques can reduce the level of anxiety in the first stage of labor. It is recommended that midwives are able to be directly involved in the process of deep breathing relaxation techniques so that the implementation of relaxation techniques can be carried out optimally by patients.

---

### **E-mail:**

[niasty05lasmy@gmail.com](mailto:niasty05lasmy@gmail.com)

Copyright © 2022 Science Midwifery.

---

## 1. Introduction

Labor is the process of opening and thinning the cervix and the fetus descending into the birth canal and then ending with the expulsion of a full-term baby or who can live outside the womb arranged by removing the placenta and fetal membranes from the mother's body through the birth canal, or the birth canal with or without assistance. own strength). Labor is considered normal if the process occurs at term (after 37 weeks) without any complications (JNPK-KR, 2017).

Childbirth is a normal and physiological event experienced by women. Labor that cannot be

handled properly can cause the delivery process to not run smoothly so that labor takes a long time. Mother's power is one that can affect labor to last a long time. The long first stage is caused by inadequate uterine contractions (HIS) which causes slow dilatation. Long labor can cause the mother to experience exhaustion so that she runs out of energy. The impact is that uterine contractions are increasingly inadequate and subsequently this condition can lead to failure of labor progress (Oxom, 2017).

Inadequate uterine condition will cause intrapartum and postpartum hemorrhage which is the biggest cause of death.

Other conditions that affect the duration of active phase I labor (Prawirohardjo, 2016). Long labor is labor that lasts more than 24 hours for primiparas, and more than 18 hours for multiparas. The problem that occurs in prolonged labor is the latent phase of more than 8 hours. Labor has lasted more than 12 hours but the baby has not yet been born, cervical dilatation to the right of the alert line in the active phase of labor (Saifuddin, 2018).

According to the 2016 IDHS data, 53% of mothers did not experience complications during childbirth, 12% prolonged labor, 9% excessive bleeding, 7% fever, 2% seizure complications and 17% premature rupture of membranes more than 6 hours. Factors that affect the length of labor are psychological conditions which include the mother's perception of pain and anxiety during childbirth.

Pain in labor is uterine contraction pain which can result in increased activity of the sympathetic nervous system. Severe pain during labor can cause physiological changes in the body, such as an increase in blood pressure, an increase in heart rate, and an increase in respiratory rate, and if not treated immediately, this situation will increase feelings of worry, anxiety, tension, fear and stress. Increased consumption of body glucose in childbirth mothers who experience feelings of worry, anxiety, tension, fear and stress causes fatigue and catecholamine secretion which inhibits uterine contractions, and this causes prolonged labor (Bobat, 2016).

Almost all pregnant women experience worry, anxiety and fear both during pregnancy, when facing childbirth, and during childbirth. The anxiety that is felt generally starts from the fear of not being able to maintain the pregnancy so that the fetus cannot grow perfectly, the fear of miscarriage, the fear of pain during childbirth, the fear that the perineum will be stitched later, even worse, the mother is afraid of complications during delivery so that it can cause death (Aprilia, 2016).

When the delivery mother feels anxious and afraid to face the process of childbirth, the adrenaline hormone will be released and can inhibit the release of oxytocin which is needed for the progress of labor. Once the mother becomes calm and relaxed, oxytocin will flow and endorphins will appear which can relieve pain (Chapman, 2016).

According to Rukmala, (2016: 2) the decrease in pain by deep breathing relaxation techniques is caused when someone relaxes deep breaths to control the pain that is felt, the body will increase the parasympathetic nervous components stimulants, then this causes a decrease in cortisol and adrenaline hormone levels in the body. which affects a person's stress level so that it can increase concentration and make the client feel calm to regulate the rhythm of breathing to be regular.

In addition to breathing relaxation techniques, pain reduction can be done with massage. Massage is the application of hand pressure to soft tissues, usually muscles, tendons, or ligaments without causing movement or changes in joint position to relieve pain, produce relaxation and improve circulation. The massage method consists of several methods including the effleuge method, the counterpressure method, the deep back massage method, and the abdominal lifting method. The implementation of the deep back massage technique is carried out right in the sacrum area with the palms of the hands with the mother lying on her side (Zakiyah, 2015: 74-75).

The purpose of deep breathing relaxation is so that individuals can control themselves when there is a sense of tension and stress that makes individuals feel in uncomfortable conditions to be comfortable. When someone relaxes breathing to control pain, in the body it increases the parasympathetic nervous component stimulants, the hormones adrenaline and cortisol that can cause stress will decrease so that they increase concentration and feel calm to regulate their breath until breathing is less than 60-70x/minute. Then PaCO<sub>2</sub> levels will increase and decrease pH so that it will increase oxygen levels in the blood (Handerson, 2016 in Widiattie, 2015). This respiratory relaxation theory explains that in the spinal cord, Receptor cells that receive peripheral pain stimulation are inhibited by reduced pain stimulation felt by the client (Priharjo, 2003 in Tomy, 2017). Periods of regular breathing relaxation can help to fight fatigue, muscle tension that occurs

# Midwifery Science

journal homepage: [www.midwifery.iocspublisher.org](http://www.midwifery.iocspublisher.org)

due to increased pain (Tomy, 2017).

Based on a preliminary survey conducted by researchers at the Aek Goti Health Center, Silangkitang District, Labusel Regency, with interviews, data obtained from 10 normal patients, 8 of these patients said that stress in childbirth causes excessive pain with deep breathing techniques can reduce stress on the mother, where a total of 10 mothers gave birth, 8 mothers felt stressed

Based on the description above, the researcher is interested in conducting a study with the title "The Effect of Deep Breathing Techniques on Changes in Anxiety Levels in First Stage Labor Mothers at Aek Goti Health Center, Silangkitang District, Labusel Regency in 2021". The general objective of this study is to determine whether there is an effect of deep breathing techniques on the level of anxiety in first-stage labor women at the Aek Goti Health Center, Silangkitang district, Labusel Regency in 2021. 2. To determine the level of anxiety in the first stage of labor after giving the Deep Breath Relaxation Technique Method at the Aek Goti Health Center, Silangkitang District, Labusel Regency in 2021. 3. To find out if there is an effect Deep Breathing Techniques Against Anxiety Levels in First Stage Delivery Mothers at Aek Goti Health Center, Silangkitang District, Labusel Regency in 2021.

Benefits of Research for Research Places Research results can be used as an effective intervention in handling or managing stress in non-pharmacological normal childbirth. For Educational Institutions Research results can be used as a source of theoretical information regarding stress management in normal childbirth and a reference for the development of further research. For Further Researchers Adding insight for other researchers about the results of the study and as a reference for further researchers and can be developed to be more perfect.

## 2. Research Methods

### 2.1 Data analysis

Data analysis is carried out to support the proof of the hypothesis, using:

#### 2.1.1 Univariate Analysis

This analysis is used to determine the descriptive description of each variable. The data collected and analyzed descriptively with see the percentage of data collected and produce the proportion of each variable that is measured and presented in the form of a frequency distribution table.

#### 2.1.2 Bivariate Analysis

The analysis was carried out on two variables that were thought to be related or correlated (Notoatmodjo, 2017), namely the variable method of deep breathing relaxation techniques and the variable Anxiety Levels in Kala Delivery Mothers. The statistical test in this study used the Wilcoxon Signed Rank Test, which is a nonparametric test to analyze the significant differences between two paired data on an ordinal scale but not normally distributed (Sugiyono, 2017). The basis for the decision to accept or reject  $H_0$  in the Wilcoxon Signed Rank Test is probability (Asymp.sign < 0.05, the hypothesis is rejected). If the probability (Asymp.sign > 0.05 then the hypothesis is accepted).

## 3. Result And Discussion

### 3.1. Result

#### 3.1.1 Research Overview

Location This research was conducted at Aek Goti Public Health Center, Silangkitang District, Labusel Regency. The boundaries of the Aek Goti Public Health Center, Silangkitang Subdistrict, Labusel Regency are:

1. North : Bordering Stone Water
2. South side : Bordering Aek Goti
3. East : Borders Aek Raso
4. West Side : Bordering Pinang City

In health services, the Aek Goti Public Health Center, Silangkitang District, Labusel Regency serves: immunization programs, nutrition, family planning (family planning), examination of pregnant women, and services for the delivery process. Puskesmas Aek Goti, Kec. Silangkitang, Labusel Regency has 4 midwives, 2 examination rooms, 2 maternity rooms, 2 postpartum rooms, 1 waiting room, 2 registration rooms and the puskesmas accepts BPJS for childbirth.

### 3.1.2 Univariate Analysis

#### 3.1.2.1 Characteristics of Respondents 7

The characteristics of respondents at the Aek Goti Public Health Center, Silangkitang District, Labusel Regency in this study were grouped by age, education, and parity. Characteristics of respondents are described in table 4.1 as follows:

TABLE 1  
CHARACTERISTICS OF RESPONDENTS IN PUSKESMAS AEK GOTI KEC. SILANGKITANG LABUSEL REGENCY IN 2021

No	Demographic Data	Frequency	Percentage(%)
1	Age		
	<25 years old	6	30.0
	25-35 years old	12	60.0
	>35 years old	2	10.0
	Amount	20	100
2	Education		
	Elementary/Junior High (Low)	2	10.0
	High School (Secondary)	16	80.0
	D-III/ S-1 (High)	2	10.0
	Amount	20	100
3	parity		
	Primipara	11	55.0
	Multipara	9	45.0
	Amount	20	100

Characteristics of respondents based on demographic data by age are the majority aged 25-35 years as many as 12 people (60%), based on education are the majority with secondary school education, namely 16 people (80.0%), based on parity the majority of primiparous mothers are 11 people (55, 0%).

#### 3.1.2.2 Anxiety Levels in First Stage Labor Mothers before Giving the Deep Breathing Relaxation Technique Method

Data on the level of anxiety in the first stage of labor before giving the deep breathing relaxation technique method at the Aek Goti Health Center, Silangkitang District, Labusel Regency in 2021 can be seen in table 4.2 below:

TABLE 2  
THE LEVEL OF ANXIETY IN THE MOM IN THE TIME OF DELIVERY BEFORE THE PROVISION OF THE DEEP BREATH RELAXATION TECHNIQUE METHOD AT AEK GOTI PUSKESMAS KEC. SILANGKITANG, LABUSEL REGENCY IN 2021

When I		
Mild Anxiety	0	0.0
Moderate Anxiety	9	45.0
Severe Anxiety	11	55.0
Amount	20	100

Based on table 4.2, it shows that anxiety in the first stage of labor before giving the deep breathing relaxation technique method, the majority experienced severe anxiety as many as 11 respondents (55.0%).

### 3.1.2.3 Anxiety Levels in First Stage Labor Mothers After Giving the Deep Breathing Relaxation Technique Method

Data on the level of anxiety in the first stage of labor after giving the deep breathing relaxation technique method at the Aek Goti Health Center, Silangkitang District, Labusel Regency in 2021 can be seen in table 4.3 below:

TABLE 3  
THE LEVEL OF ANXIETY IN THE MOTHER IN DELIVERY IN THE I TIME AFTER THE PROVISION OF DEEP BREATH RELAXATION TECHNIQUE METHODS IN AEK GOTI PUSKESMAS KEC. SILANGKITANG, LABUSEL REGENCY IN 2021

When I		
Mild Anxiety	6	30.0
Moderate Anxiety	12	60.0
Severe Anxiety	2	10.0
Amount	20	100

Based on table 4.3 shows that the level of anxiety in the first stage of labor after giving the method of deep breathing relaxation techniques the majority experienced moderate anxiety as many as 12 respondents (60.0%).

### 3.1.2.4 Normality test

The normality test was conducted to determine whether the data was normally distributed or not and to determine the statistical test to be used.

TABLE 4  
TEST DATA NORMALITY WITH SHAPIRO-WILK

Labor Pain During Active Phase	p-value	Information
Before	0.043	Abnormal
After	0.041	Abnormal

From table 4.4 where the normality test using the Shapiro-Wilk test, the value before being given deep breathing techniques = 0.043 and the value after being given a deep breathing technique = 0.041 which means  $< 0.05$  which indicates that the data is not normally distributed, then the statistical test can be followed by an alternative test, namely the Wilcoxon test to determine the difference in the level of anxiety in the first stage of labor before and after being given treatment.

### 3.1.3 Bivariate Analysis

#### 3.1.3.1 The Effect of Deep Breathing Techniques on Anxiety Levels in First Stage Delivery Mothers at Aek Goti Health Center, Silangkitang District, Labusel Regency in 2021

This analysis is used to determine the effect of two variables, namely whether there is a difference in the level of anxiety in the first stage of labor before and after the deep breathing technique with statistical tests. The statistical test used is the Wilcoxon test can be seen in table 4.5 below

TABLE 5  
LEVEL OF ANXIETY IN MOM IN DELIVERY BEFORE AND AFTER DEEP BREATH ENGINEERING AT PUSKESMAS AEK GOTI KEC. SILANGKITANG, LABUSEL DISTRICT, IN 2021

Anxiety Level	N	Medium (minimum-maximum)	Z	p value
Before	20	62.0 (50-70)	3,873	0.000
After	20	48.5 (37-61)		

From table 4.5 it can be seen that the level of anxiety in the first stage of labor after being given treatment is lower than the level of anxiety before being given treatment, indicated by the median values of 62.0 (Pre) and 48.5 (Post). Before being given treatment, the highest level of anxiety was a score of 70 (severe anxiety) and the lowest was a score of 50 (moderate anxiety). Meanwhile, after being given deep breathing technique treatment, the highest level of anxiety scored 61 (severe anxiety) and the lowest score was 37 (mild anxiety).

Based on the results of statistical tests using the Wilcoxon test, it is known that the p value (0.000) < (0.05) means  $H_0$  is rejected, so there are differences in the level of anxiety in the first stage of labor before and after being given deep breathing relaxation techniques. These results prove that there is a significant effect of deep breathing techniques on the level of anxiety in the first stage of labor at the Aek Goti Health Center, Silangkitang District, Labusel Regency in 2021. These results prove that deep breathing techniques can reduce the level of anxiety in the first stage of labor.

## **3.2. Discussion**

### **3.2.1 Anxiety Levels in First Stage Labor Mothers before Giving the Deep Breathing Relaxation Technique Method**

At the beginning before the deep breathing technique was performed, there were 9 people who had moderate anxiety and 11 people who had severe anxiety. This can be due to the delivery process which will cause tension and anxiety, fear of facing the birth process, unable to withstand heartburn, and worry about the condition of the fetus.

The results of observations obtained from this study in primigravida on average experience severe anxiety because the delivery process is a new thing for them. Women are anxious about the possible complications of childbirth, pain during childbirth (Kartono, 2011), especially when they have heard of trauma or failure in dealing with childbirth, considers childbirth to be heavy and a burden, lacks confidence that they will be able to face childbirth (Yessi, 2010).

The birth process is one of the factors that can cause anxiety, because the process of giving birth to a baby is not always somatic but also psychomatic. Because many psychics also have a smooth or delayed process of giving birth to the baby or also accelerate the birth of a baby, the biological function of reproduction is strongly influenced by the psychological life and emotional life of the woman concerned (Kartono, 2011).

The effort that needs to be done is to educate prospective mothers to eliminate their fears and try to ensure that pregnancy and childbirth are normal and natural (Nolan, 2013). This mental health development effort can be carried out by doctors, midwives, and the people around them.

The researcher assumes that this affects the perception of pain and the ability of self-control in the mother about the delivery process, mothers who have not been able to control the pain they feel during labor will find it difficult to control the pain they feel related to the absence of pain management, namely deep breathing relaxation techniques. The opening of the cervix also affects the intensity of the pain felt, the more the intensity of the pain is followed by the process of opening the cervix, the greater the pain felt. The anxiety felt by the mother begins in the first stage of the latent phase until it enters the active phase. This can be seen from the facial expressions when the researcher makes observations, the respondents seem to hiss so that it affects the intensity of pain in labor.

### **3.2.2 Anxiety Levels in First Stage Labor Mothers After Giving the Deep Breathing Relaxation Technique Method**

After being given a deep breathing technique, the level of anxiety in the first stage of childbirth changed, namely 6 people had low anxiety, 12 people had moderate anxiety and 2 people had severe anxiety. The decrease in anxiety was caused by the provision of simple relaxation techniques, namely deep breathing techniques.

This study is in line with the research of Henik and Murwati (2016) researching that before the deep breathing relaxation technique was carried out that 72% of respondents experienced anxiety in the severe category, and at the time of the post test it became 4%, this condition was caused because respondents had increased ability to adapt. to their birth. Changes in the respondent's ability to adapt occurred because of the addition of information on the respondent's self through deep breathing relaxation techniques, making the respondent and partner very helpful in overcoming anxiety and increasing self-confidence in the respondent so that the respondent becomes more relaxed and able to think positively about the childbirth they are facing.

The decrease in anxiety levels in first-stage labor patients after being given deep breathing technique treatment according to the tori proposed by Chilson in Henik and Murwati (2016) explained that patients who did not experience a decrease in anxiety levels if they did not receive information on the delivery procedure and the anxiety of the delivery patient will decrease if given

strong information or explanation by health workers. In addition, there are also experts who state that patients who have received an explanation before delivery will feel calmer than these things reduce pain, or other complications after delivery, in addition to shortening the length of treatment at the maternity clinic.

According to Smeltzer and Bare (2012), deep breathing relaxation techniques are a form of care in which nurses/midwives teach clients how to do deep and slow breaths to increase alveolar ventilation, maintain gas exchange and reduce stress both physical and emotional stress, namely reduce the intensity of pain and anxiety.

In the opinion of the researcher, from the results of the study, it is known that the level of anxiety in the first stage of childbirth decreased after the deep breathing technique was performed. By giving the deep breathing technique, it can provide a perfect relaxation effect and can reduce muscle tension and feelings of saturation and anxiety so as to prevent the painful stimulus from exhaling slowly. In addition, deep breathing relaxation training can be an alternative intervention used to reduce anxiety in primiparous mothers.

### **3.2.3 The Effect of Deep Breathing Techniques on Anxiety Levels in First Stage Delivery Mothers at Aek Goti Health Center, Silangkitang District, Labusel Regency in 2021**

Based on the results of data analysis, it is known that the level of anxiety in the first stage of labor after being given treatment is lower than the level of anxiety before being given treatment, indicated by the median values of 62.0 (Pre) and 48.5 (Post). Before being given treatment, the highest level of anxiety was a score of 70 (severe anxiety) and the lowest was a score of 50 (moderate anxiety). Meanwhile, after being given deep breathing technique treatment, the highest level of anxiety scored 61 (severe anxiety) and the lowest score was 37 (mild anxiety).

Based on the results of statistical tests using the Wilcoxon test, it is known that the p value  $(0.000) < (0.05)$  means that  $H_0$  is rejected, so there are

Anxiety Levels in First Stage Labor Mothers before and after deep breathing techniques. These results prove that there is a significant effect of deep breathing techniques on the level of anxiety in the first stage of labor at the Aek Goti Health Center, Silangkitang District, Labusel Regency in 2021. These results prove that deep breathing techniques can reduce the level of anxiety in the first stage of labor.

The results of this study are in line with Sri Gustini's research (2016) which states that there is an effect of deep breathing techniques on changes in maternal anxiety levels during the first active phase in the VK room of RSUD dr. Slamet Garut with a p-value of 0.001. Doing this deep breathing relaxation technique has benefits both emotionally and psychologically. Likewise with Henik and Murwati's research (2016) that the treatment of deep breathing techniques has a lot of effect on decreasing anxiety levels after being treated for 15 minutes. It can be said that giving deep breathing techniques is effective in reducing the anxiety level of first stage labor patients, the average score shows a score of 11.9 SD = 43.16 with HAM-A (very severe anxiety category) to severe anxiety with SD 11.5 = 31,

The decrease in anxiety levels in first-stage labor patients after being given deep breathing technique treatment according to the tori proposed by Chilson in Henik and Murwati (2016) explained that patients who did not experience a decrease in anxiety levels if they did not receive information on the delivery procedure and the anxiety of the delivery patient will decrease if given strong information or explanation by health workers. In addition, there are also experts who state that patients who have received an explanation before delivery will feel calmer than these things reduce pain, or other complications after delivery, in addition to shortening the length of treatment at the maternity clinic. Judging from the statistical tests in this study,

The results of the analysis showed that giving deep breathing techniques had a significant effect on reducing anxiety experienced by maternity mothers. This anxiety can be reduced by breathing deeply, slowly or slowly which makes the body and mind relax (Smeltzer and Bare, 2012). Breathing is controlled automatically by the respiratory center in the brain, and can be controlled by voluntary control. The respiratory center responds to the level of carbon dioxide flowing through the center. Other factors that affect the respiratory center are fear, anxiety, overwhelming joy, anger, frustration and pain. Most of these symptoms will appear during labor along with the

onset of contractions. Anxiety and fear in labor can result in irregular uterine contractions (Chamidoen, 2015).

Strong uterine contractions cause the condition to use oxygen and produce excess carbon dioxide, but the body will automatically correct this condition. However, if the mother shows a condition that is deep and fast breathing, then she is in a dangerous condition because she can experience hyperventilation or shortness of breath which is a symptom of anxiety. Symptoms include dizziness, paleness, sweating, palpitations and tingling in the extremities (Henik and Murwati, 2016).

According to researchers, deep breathing relaxation training can be an alternative intervention used to reduce anxiety in primiparous mothers. The process of childbirth is a physiological thing for every woman. But some women feel afraid because of the pain that appears. Therefore relaxation techniques can be used because they are easy and do not cost money. So that this maternity mother can adapt to her delivery. The delivery went smoothly, safe mother and baby.

### **3.2.4 Research Limitations**

The decrease in the level of anxiety in first-stage labor patients after being given appropriate deep-breathing techniques explained that patients who did not experience a decrease in anxiety levels if they did not receive or did not receive information on the delivery procedure and the anxiety of the delivery patient would decrease if they were given strong information or explanations by health workers. In addition, there are also experts who state that patients who have received an explanation before delivery will feel calmer than these things reduce pain, in this study there was a lack of an analyzer of maternal anxiety levels.

## **4. Conclusion**

The conclusions of this study are as follows: (1) The level of anxiety in the first stage of labor before giving the method of deep breathing relaxation techniques at the Aek Goti Health Center, Kec. Silangkitang Labusel Regency in 2021 the majority experienced severe anxiety as many as 11 respondents (55.0%). (2) The level of anxiety in the first stage of labor after giving the method of deep breathing relaxation techniques at the Aek Goti Health Center, Silangkitang District, Labusel Regency in 2021, the majority experienced moderate anxiety as many as 12 respondents (60.0%). (3) There is a difference in the level of anxiety in the first stage of labor before and after being given deep breathing relaxation techniques, with a p value  $(0.000) < (0.05)$ . These results prove that there is a significant effect of deep breathing techniques on the level of anxiety in the first stage of labor at the Aek Goti Health Center, Silangkitang District, Labusel Regency in 2021. These results prove that deep breathing techniques can reduce the level of anxiety in the first stage of labor.

Suggestions that can be given after completing this research are as follows: (1) For Health Workers. It is expected that nurses or midwives are able to be directly involved in the process of deep breathing relaxation techniques so that the implementation of relaxation techniques can be carried out optimally by patients. In addition, it is expected that nurses or midwives in reducing anxiety in maternity mothers, especially primiparous mothers, can use deep breathing techniques because this method is effective in dealing with anxiety levels in the first stage of labor, because this technique does not require costs and the tool only involves the mother completely. (2) For Nursing Services. The results of this study can add insight to researchers in developing methods of reducing labor pain, especially in developing methods of reducing anxiety levels, especially in non-pharmacological methods, one of which is deep breathing techniques. (3) For Respondents. For mothers in labor, it is hoped that mothers in the first stage of active childbirth can use deep breathing techniques as an effort to reduce the respondent's level of anxiety in facing the first stage of labor. (4) For further research, it is hoped that this research can be a reference for further research. There are many methods to reduce anxiety levels such as massage techniques, acupressure and others. In addition, other researchers can continue to similar research by increasing the number of samples and expanding the research area by using the right method.

## **References**

Dita, et al. 2015. The Effect of Deep Breathing Relaxation Techniques on Anxiety Levels in First Stage Labor

Table of contents available at [IOCScience](https://www.iocscience.com)

## Midwifery Science

journal homepage: [www.midwifery.iocspublisher.org](http://www.midwifery.iocspublisher.org)

- Mothers in Patients with Post Surgery Sectio Caesarea at Bengkulu Hospital. *Journal of Holistic Health*, Vol.12, No.1, January 2018: 26-28.
- Hartati, Suryani. 2015. *Nursing Care of Post Partum Sectio Caesarea Mothers (Selfcare and Comfort Model Theory Approach)*. East Jakarta: CV.Trans Info Medan.
- Hidayat, AA 2014. *Research Methods and Data Analysis Techniques*. Jakarta: Salemba Medika.
- Husnul. 2016. *Nursing Care of Patients with Postoperative Sectio Caesarea with Placenta Previa Indications*. Thesis, University of Muhammadiyah Malang.
- Notoatmodjo. 2016. *Health Research Methods*. Jakarta: Rineka Cipta. Nursalam. 2018. *Concept and Application of Research Methodology*, 3rd ed. Jakarta: Salemba Medika.
- College of Health Sciences Hajj North Sumatra. 2015. *Guidebook for the Provision of Scientific Writing*. Medan: High School of Hajj Health Sciences, North Sumatra.
- Sugiyono. 2017. *Quantitative, Qualitative, and R&D Research Methods*. Bandung: Alfabeta.
- Tommy. 2017. *The Effect of Deep Breathing Relaxation Techniques on Reducing Pain Levels in the Elderly With Rheumatoid Arthritis*. Thesis, College of Health Sciences Insan Cendekia Medika Jombang.
- Widiati, Wiwik. 2015. *The Effect of Deep Breathing Relaxation Techniques on Anxiety Levels in First Stage Labor Mothers in Post Sectio Caesarea Mothers at Unipdu Medika Hospital Jombang*. *Journal of Nursing*. Volume.1, No.2.
- Widit. 2016. *Nursing Care for Patients with Post Surgery Sectio Caesarea*. Faculty of Health Sciences UMP.
- Zakiah, Ana. 2015. *Pain: Concepts and Management in Evidence-Based Nursing Practice*. South Jakarta: Salemba Medika.