



The Effect of Relaxation Techniques on Fear, Pain, and Anxiety in Primigravida During Labor at RSAL dr Wahyu Slamet Bitung

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Abstract. Primigravida frequently suffer fear, agony, and anxiety during labor owing to a lack of previous delivery experience. These circumstances can have an impact on mother preparedness, labor comfort, and the capacity to regulate physiological responses during contractions. Relaxation methods are a non-pharmacological strategy that can help alleviate these problems. The purpose of this study is to assess the impact of relaxation techniques on fear, pain, and anxiety in primigravida during labor at RSAL Dr Wahyu Slamet Bitung. This study employed a quantitative design using a pre-experimental technique and a one-group pretest-posttest format. The sample comprised of 48 respondents chosen by purposive sampling. Questionnaires and observation sheets were used to gather data before to and following relaxation treatments. SPSS was used for univariate and bivariate data analysis, with the Wilcoxon test applied. The results revealed a significant decrease in the mean ratings of dread, pain, and anxiety following the intervention (p -value = 0.000). This study concludes that relaxation techniques can reduce fear, discomfort, and anxiety in primigravida during labor at RSAL Dr Wahyu Slamet Bitung.

Keywords: Anxiety; Fear; Labor Pain; Primigravida; Relaxation Techniques.

1. Introduction

Primigravida frequently suffer dread and anxiety prior to labor owing to a lack of delivery experience. Mothers' fear may intensify when they contemplate contraction pain, the birth process, newborn safety, and potential medical interventions. This psychological state can lead to stress and trouble managing body reactions during birth.

Labor pain is a physical ailment produced by uterine contractions and cervical dilatation. Anxiety and stress can make pain feel more acute. Mothers require assistance and non-pharmacological methods to relieve stress, regulate breathing, and improve relaxation.

Relaxation methods might be a simple intervention to assist primigravida in preparing for labor. As a healthcare facility, RSAL Dr Wahyu Slamet Bitung helps to educate and assist laboring moms. This study looked at the impact of relaxation methods on fear, pain, and anxiety in primigravida during labor.

Globally, labor in primigravida is frequently linked with increased fear, pain, and anxiety, all of which impact the delivery experience. The World Health Organization underlines that the quality of birthing experience is an essential indication in maternal care services, since psychological factors have a substantial impact on clinical results. Uncontrolled anxiety can boost physiological stress responses and worsen pain perception during childbirth (WHO, 2018; WHO, 2023).

Many health institutions in Indonesia still do not use non-pharmacological techniques to labor management optimally. Primigravida tend to be more anxious owing to a lack of experience. The Ministry of Health of the Republic of Indonesia promotes relaxation methods as part of "woman-centered care" to increase delivery experience. As a result, this study is critical to determining the influence of relaxation techniques on fear, pain, and anxiety in primigravida at RSAL Dr Wahyu Slamet Bitung.

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2. Theoretical Review

Fear during labor is an emotional response involving fear about birthing, pain, maternal safety, and fetal condition. Fear is higher in primigravida since it is their first encounter with labor. Uncontrolled dread raises tension and heightens pain perception.

Labor discomfort is produced by uterine contractions, tissue pressure, and cervical dilatation. Physical condition, anxiety, support, experience, and the capacity to control one's breathing all impact pain perception. Anxiety is a sense of concern and pain that develops prior to delivery.

Relaxation techniques are non-pharmacological strategies for calming the body and mind, including deep breathing, comfortable posture, focus, and muscular relaxation. Theoretically, relaxing lowers fear, discomfort, and anxiety by allowing the mother to relax and manage her body responses during contractions.

Fear, pain, and anxiety are all connected psychophysiological reactions. These issues are more prevalent in primigravida because to a lack of expertise and uncertainty. According to the American College of Obstetricians and Gynecologists (ACOG, 2024), psychological stress during labor causes increased pain perception and inhibits labor development by activating the sympathetic nerve system.

Relaxation techniques stimulate the parasympathetic nervous system by regulating breathing, relaxing muscles, and focusing attention. Physiologically, this lowers cortisol levels while increasing mother self-control. Yeşildağ et al. (2026) and Lestariningsih et al. (2025) found that relaxation techniques can successfully reduce fear, pain, and anxiety in primigravida during labor.

3. Research Method

This study employed a quantitative pre-experimental design with a one-group pretest-posttest procedure. The research was carried out from March to May 2026 at RSAL Dr Wahyu Slamet Bitung. This study contrasts fear, pain, and anxiety before and after relaxation techniques in the same group.

The population consisted of primigravidas in labor at RSAL Dr Wahyu Slamet Bitung. The sample comprised of 48 respondents chosen by purposive sampling. The inclusion criteria were primigravida, willing to participate, cognizant, able to talk, and free of obstetric crises.

Fear and anxiety questionnaires, as well as pain scale observation sheets, were used as research equipment. The independent variable was relaxation techniques; the dependent variables were fear, pain, and anxiety. The Wilcoxon test using SPSS was used to evaluate the data. A p-value of less than 0.05 shows significance.

4. Results And Discussion

Respondent Characteristics

Table 1. Respondent Characteristics at RSAL dr Wahyu Slamet Bitung.

Characteristic	Category	Frequency (n)	Percentage (%)
Maternal age	< 20 years	7	14.6
	20–35 years	36	75.0
	> 35 years	5	10.4
Education	Basic	10	20.8
	Secondary	30	62.5
	Higher	8	16.7
Occupation	Working	16	33.3
	Not working	32	66.7
Gestational age	37–38 weeks	20	41.7
	39–40 weeks	28	58.3
Birth companion	Yes	35	72.9
	No	13	27.1

Source: Processed primary data, 2026.

Based on Table 1, the majority of respondents were in the 20 to 35 age group (36 respondents) (75.0%). This age group is considered to be of healthy reproductive age, so in general, respondents were in a biological condition that supported the labor process. In terms of education, the majority of respondents (30 respondents) had secondary education (62.5%), so education about relaxation techniques needed to be delivered in clear, simple, and easy-to-practice language. Most respondents were unemployed (32 respondents) (66.7%), had a gestational age of 39 to 40 weeks (28 respondents) (58.3%), and had a birth companion (35 respondents) (72.9%). These characteristics are important because preparedness for labor,

support from a companion, and the ability to follow instructions can influence the success of implementing relaxation techniques. Fear Before and After Relaxation Techniques

Table 2. Fear Before and After Relaxation Techniques.

Fear Level	Before n (%)	After n (%)
No fear	0 (0.0)	5 (10.4)
Mild	6 (12.5)	28 (58.3)
Moderate	28 (58.3)	13 (27.1)
Severe	14 (29.2)	2 (4.2)

Source: Processed primary data, 2026.

Based on Table 2, before being given relaxation techniques, most respondents experienced moderate fear (28 respondents (58.3%) and severe fear (14 respondents (29.2%). This condition indicates that primigravida tend to have quite high anxiety before delivery due to lack of previous childbirth experience. After being given relaxation techniques, most respondents were in the mild fear category (28 respondents (58.3%), while respondents with severe fear decreased to 2 respondents (4.2%). This change indicates a shift in the fear category to a lower level after respondents received training in regulating breathing, calming the mind, and reducing body tension.

Pain Before and After Relaxation Techniques

Table 3. Pain Before and After Relaxation Techniques.

Pain Level	Before n (%)	After n (%)
No pain	0 (0.0)	3 (6.3)
Mild	6 (12.5)	30 (62.5)
Moderate	29 (60.4)	14 (29.2)
Severe	13 (27.1)	1 (2.1)

Source: Processed primary data, 2026.

Based on Table 3, before being given relaxation techniques, most respondents experienced moderate pain (29 respondents (60.4%) and severe pain (13 respondents (27.1%). This pain is related to uterine contractions, cervical dilation, and the body's response to the labor process. After being given relaxation techniques, most respondents experienced mild pain (30 respondents (62.5%), while only one respondent (2.1%) experienced severe pain. These results indicate that relaxation techniques can help respondents control their response to pain through breathing regulation, focused attention, and reduced muscle tension during contractions.

Anxiety Before and After Relaxation Techniques

Table 4. Anxiety Before and After Relaxation Techniques.

Anxiety Level	Before n (%)	After n (%)
No anxiety	0 (0.0)	6 (12.5)
Mild	6 (12.5)	30 (62.5)
Moderate	30 (62.5)	10 (20.8)
Severe	12 (25.0)	2 (4.2)

Source: Processed primary data, 2026.

Based on Table 4, before being given relaxation techniques, most respondents experienced moderate anxiety (30 respondents (62.5%) and severe anxiety (12 respondents (25.0%). Anxiety in primigravida can arise from concerns about the delivery process, the safety of the baby, contraction pain, and possible medical procedures. After being given relaxation techniques, most respondents experienced mild anxiety (30 respondents (62.5%), and 6 respondents (12.5%) were not anxious. This decrease indicates that relaxation techniques can help increase mothers' sense of calm, self-control, and psychological readiness for childbirth.

The Effect of Relaxation Techniques on Fear, Pain, and Anxiety

Table 5. Effect of Relaxation Techniques on Fear, Pain, and Anxiety.

Variable	Before Mean $\pm$ SD	After Mean $\pm$ SD	Median	Min–Max	p-value
Fear	55.42 $\pm$ 7.84	37.88 $\pm$ 8.12	56 / 38	39–72 / 22–58	0.000
Pain	7.04 $\pm$ 1.27	4.52 $\pm$ 1.32	7 / 4	4–9 / 2–8	0.000
Anxiety	28.65 $\pm$ 4.91	18.96 $\pm$ 4.35	29 / 19	18–38 / 10–30	0.000

Source: Processed primary data, 2026.

Based on Table 5, the average fear score decreased from 55.42 before the intervention to 37.88 after the relaxation technique. The average pain score also decreased from 7.04 to 4.52, while the average anxiety score decreased from 28.65 to 18.96. The decrease in scores in all three variables indicates that relaxation techniques have a positive psychological and physiological impact on primigravida. The Wilcoxon test results showed a p value = 0.000 for fear, pain, and anxiety. This value is less than 0.05, so there is a statistically significant effect

of relaxation techniques in reducing fear, pain, and anxiety in facing childbirth at RSAL dr. Wahyu Slamet Bitung. These findings strengthen the evidence that relaxation techniques can be used as a simple, safe, and relevant non-pharmacological intervention to support maternal readiness for childbirth.

Discussion

The study's findings revealed that most participants reported moderate levels of dread, discomfort, and anxiety prior to receiving relaxation techniques. This situation is typical in primigravida since they are having their first labor. Lack of experience raises psychological stress, particularly regarding labor pain, fetal safety, and medical procedures.

Fear, pain, and anxiety levels decreased after relaxation methods were performed, with the majority of responders moving into the moderate category. This suggests that relaxation techniques might assist primigravida regulate their psychological and physical responses during labor.

Relaxation techniques operate by controlling breathing, lowering muscular tension, and increasing emotional control. This situation activates the parasympathetic nervous system, which decreases tension and helps the body relax during contractions.

The statistical test findings revealed $p = 0.000$ for fear, pain, and anxiety. This demonstrates that relaxation techniques have a substantial influence on all three variables in primigravida during labor.

These findings are consistent with prior research indicating that non-pharmacological relaxation techniques can reduce labor pain and anxiety. Providing psychological support during labor can help improve mom comfort and the birthing experience.

Relaxation methods can be used in maternity care settings as a simple, safe, and cost-effective intervention. During prenatal care and birth preparation, healthcare personnel can teach primigravida breathing and relaxation techniques.

5. Conclusion

Relaxation techniques are effective in lowering fear, discomfort, and anxiety in primigravida during labor at RSAL Dr Wahyu Slamet Bitung. After the intervention, all three factors reduced considerably. Relaxation methods can serve as a non-pharmacological intervention in maternity care. Primarily pregnant women should be educated and trained in relaxation methods by health experts.

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