JURNAL VNUS
Vocational Nursing Science Journal
Online ISSN: 2656-8799

Application of Lamaze Breathing Technique to Reduce Labour Pain in The First Stage Of Active Labour at Pelamonia Hospital Makassar

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Citation:
Kasim, E., Harun, I., Nurhayati, N., Hafida, E. ., & Kessi, A. T. F. . Application of Lamaze Breathing Technique to Reduce Labour Pain in The First Stage Of Active Labour at Pelamonia Hospital Makassar. JURNAL VNUS (Vocational Nursing Sciences), 7(2). https://doi.org/10.52221/jvnus.v7i2.877

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Abstract: Labor pain is a common physiological response but often causes physical and emotional discomfort, especially in the first stage of active labor. One non-pharmacological method than can be used to reduce pain is the Lamaze breathing technique. This case study was conducted to determine the application of Lamaze breathing techniques on the reduction of pain during the active phase of the first stage of labour. a descriptive case study research methodology that focuses on one of the main issues in the selected case. Inclusion criteria: Mothers in active phase 1 labour with moderate to severe pain, mothers who are responsive or in good general condition with vital signs within normal limits, mothers under 35 years of age, primiparas/multiparas, mothers with cephalic presentation. Exclusion criteria: Mothers in active phase I labour with multiple pregnancies, malpresentation, haemorrhage, high-risk pregnancies accompanied by conditions such as pre-eclampsia, heart disease, asthma, premature rupture of membranes, pelvic abnormalities. The results show that both respondents experienced a decrease in pain intensity after applying the Lamaze breathing. The mothers appeared calmer, able to control their breathing, and reduced tension during contractions. The Lamaze breathing technique is effective in helping to reduce labor pain and is worth recommending as a non-pharmacological intervention.

Keywords: Pain, Labor, Lamaze Breathing

1. Introduction

The Lamaze method or Lamaze Breathing, also known as psychoprophylaxis, is one of the techniques used in the birthing process to help manage pain. This technique not only serves to reduce the intensity of pain, but also helps mothers stay focused and concentrate on their breathing patterns during contractions. Thus, the mother's attention can be diverted from the pain she feels and any anxiety that may arise can be minimised. Lamaze Breathing emphasises focused breathing control and conscious, controlled relaxation. Through this technique, mothers are taught to breathe slowly, calmly and regularly, thereby increasing body awareness, improving oxygenation and stimulating the parasympathetic nervous system, which has a calming effect.(Rumaitsa et al. 2022).

Lamaze Breathing is a breathing technique based on the principle that controlled breathing can help individuals achieve relaxation and reduce pain perception. Based on data from several

hospitals in Indonesia, it is known that around 15% of pregnant women experience complications during childbirth, 21% report experiencing pain during childbirth, and 63% do not receive adequate information regarding preparation to reduce pain during childbirth. The results of interviews conducted by researchers at the Bendosari Community Health Centre regarding pain management during childbirth using the Lamaze Breathing method showed that out of 10 respondents, 3 had a good level of knowledge, 5 had sufficient knowledge, and 2 had insufficient knowledge. These findings indicate that most pregnant women in their third trimester still do not have an optimal understanding of the Lamaze Breathing technique as a method of pain management during childbirth.(Aurora Shafira Fitria Ikhsanandya 2024).

Labour pain is a subjective experience felt as a physical sensation due to uterine contractions, dilation and thinning of the cervix, and descent of the foetus during the labour process. The body's physiological response to this pain can include increased blood pressure, pulse rate, respiratory rate, sweat production, pupil dilation, and increased muscle tension.

Labour pain is generally characterised by uterine contractions. In fact, contractions begin to occur around 30 weeks of pregnancy, known as Braxton Hicks contractions. These contractions are influenced by changes in oestrogen and progesterone levels, but are irregular, painless, and have a strength of about 5 mmHg. As labour approaches, Braxton Hicks contractions will develop into regular contractions that cause pain. In addition to contractions, another sign that labour is approaching is the rupture of the amniotic sac. The rupture of the amniotic sac generally occurs when the cervix is fully dilated, but in some cases it can occur before labour begins. It is expected that, with the rupture of the amniotic sac, the delivery process will take place within 24 hours.

According to the World Health Organisation (WHO), around 90% of pregnant women and women giving birth experience pain and fear during the delivery process. In the United States, it is recorded that 70% to 80% of deliveries are accompanied by pain. Various efforts are made to help mothers give birth without always experiencing excessive pain and to achieve comfort during labour. The pain felt can affect the mother's physical and psychological condition, such as fatigue, anxiety, fear, and stress. Stress during labour risks causing weak uterine contractions, which can ultimately prolong the labour process (Siregar, Siregar, and Batubara 2023).

Data from the Indonesian Ministry of Health (2019) shows that 15% of mothers in Indonesia experience childbirth complications accompanied by pain. As many as 22% of mothers report that their childbirth was very painful due to the severe pain they felt during the process. In addition, 63% of mothers did not receive sufficient information about the preparatory steps that could be taken to help reduce pain during childbirth.

Based on research data from Titin Novayanti dey, Yurizki Telova in 2019 entitled 'The Effect of Counselling on Childbirth Preparation on Pain' in the working area of the Bara-baraya Makassar Community Health Centre. The research results showed that in the control group, all respondents experienced very severe pain during childbirth, totalling 15 people (60.0%). Meanwhile, in the intervention group, the majority of respondents also experienced severe pain (10 individuals, 40.0%), followed by moderate pain (4 individuals, 100%), and mild pain (1 individual, 100%).

In the study conducted (Hamidah, Lailiyana, and Sari 2019) Lamaze exercises have been proven to have a significant effect on reducing the intensity of labour pain during the active phase of the first stage of labour. In addition to providing physiological effects, these exercises also have a positive psychological impact on mothers in labour, such as creating a sense of comfort and increasing confidence in facing the labour process. The anxiety commonly felt due to pain during labour can be reduced when mothers receive positive support and assistance from healthcare professionals. Such support plays an important role in reducing anxiety and helping mothers feel more prepared to face labour.

Related research also includes studies (Kuruvilla and Municipality 2019) with the title 'Effect of Lamaze Method on Pain Perception, Anxiety and Fatigue among Primigravida Mothers During

Labour Process' that the Lamaze method is effective for primigravida mothers in overcoming pain during the first stage of labour.

Other related studies include (Rumaitsa et al. 2022) states that the Lamaze method has been proven effective in reducing labour pain levels. And 6 of the other 17 articles state that the Lamaze method is able to improve good and healthy labour outcomes. According to research (Aurora Shafira Fitria Ikhsanandya 2024) Adequate knowledge is very important, because with a good understanding of the Lamaze Breathing technique, pregnant women in their third trimester can prepare themselves to deal with labour pains without using medication.

According to research (Marsilia and Tresnayanti 2021) There is a relationship between the intensity of labour pain in the active phase of the first stage of labour before deep breathing relaxation techniques are administered and a reduction in pain intensity in mothers in the active phase of the first stage of labour. This is evidenced by measurements using the Numeric Rating Scale and Wong Baker Pain Scale, which demonstrate the effectiveness of these techniques in reducing pain levels.

2. Materials and Methods

This case study uses a descriptive case study research methodology that focuses on one of the main issues in the selected case. This case study will be conducted in the Cempaka room of the Pelamonia Makassar Type II Hospital and will take place from 15 April 2025 to 17 April 2025.

The subjects in this case study are two patients who are experiencing active phase stage 1 labour. Inclusion criteria: Mothers in active phase 1 labour with moderate to severe pain, mothers who are responsive or in good general condition with vital signs within normal limits, mothers under 35 years of age, primiparas/multiparas, mothers with cephalic presentation, and cooperative mothers. Exclusion criteria: Mothers in active phase I labour with multiple pregnancies, malpresentation, haemorrhage, high-risk pregnancies accompanied by conditions such as pre-eclampsia, heart disease, asthma, premature rupture of membranes, pelvic abnormalities, and uncooperative mothers.

The instruments used in this case study were pillows, Lamaze Breathing SOPs used as guidelines for respondents, and Numeric Rating Scale (NRS) pain measurement observation sheets.

Data collection was conducted directly with the respondents after the researcher obtained permission for the case study from the Director of Pelamonia Hospital II in Makassar. Subsequently, the researcher traced the data through observation of the patients' medical records to determine which respondents met the inclusion criteria. Before being given the intervention in the form of the Lamaze Breathing technique in an effort to reduce pain in the active phase of stage I, both respondents were first given an explanation of the general description of the technique and the steps to be taken, so that the changes that occurred after the intervention could be identified. This intervention was carried out while the respondents were experiencing pain in the active phase of stage I.

3. Results and Discussion

This case study was conducted at Pelamonia Hospital II in Makassar over three days, from 15 to 17 April 2025. The study involved two subjects, subject I (Mrs. 'S') and subject II (Mrs. 'T'), who met the criteria as mothers experiencing active phase labour pain. Both subjects received an explanation from the researcher regarding the procedures and objectives of the case study.

Before conducting the assessment process, the researcher first established a relationship of mutual trust with each client, agreed on a time contract, and provided an explanation regarding the implementation of the case study. After that, the clients were asked to sign an informed consent form as a form of willingness to participate. The results of the case study are presented as follows.

Table 1
Observation Results of Pain Levels Before and After the Application of Lamaze Breathing on Patient 'S

Day	Before *Lamaze*			After *Lamaze*		
	Pain scale (0-10)	**Category**	**Observed signs/symptoms**	**Pain scale (0-10)**	**Category**	**Observed signs/symptoms**
Tuesday 15 April 2025 10:00-10:29	7	Currently	Contractions occurred every 3-5 minutes, lasting approximately 40-60 seconds, with a cervical dilation of 4 cm and stable vital signs.The pain was very strong, making it difficult to speak, and she appeared tense but was still able to follow instructions.	5	Currently	Face more relaxed, breathing regular, pain reduced, cervix dilated 4 cm, feeling calmer and more in control, focus on breathing techniques.
Tuesday, 15 April 2025 13:05-13:35	8	Weight	Cervical dilation of 5 cm, contractions feel stronger, more regular, with a frequency of every 3–5 minutes and a duration of 40–60 seconds. the mother appears restless, begins to breathe rapidly during contractions, finds it difficult to speak when contractions come, appears tired and needs assistance, the mother's heart rate increases, breathing becomes rapid, cold sweats begin to appear, the mother is unable to rest calmly and begins to cry or ask for help	4	Currently	The mother appears calmer and is able to regulate her breathing well during contractions, her breathing rate is more controlled, her facial expression is more relaxed, she no longer shows excessive anxiety, appears more focused on the delivery process, the intensity of pain complaints begins to decrease even though contractions continue to occur regularly, the mother appears to be able to cope with pain more patiently and no longer cries or becomes restless when contractions occur. groaning decreased and was replaced by a rhythmic breathing pattern, there was no excessive cold sweat, the mother's heart rate tended to be stable, and overall, the mother was more cooperative in following the instructions of the staff and showed better readiness to face the next stage of labour.

Wednesday, 16 April 2025 06:15-6:45	8	Weight	Contractions every 3 minutes, cervical dilation 7 cm, increasing pain, tense facial expression, hysterical crying. Unable to focus.	5	Currently	The mother appeared calmer and was able to regulate her breathing regularly during contractions. Her facial expression looked more relaxed; she no longer grimaced excessively or cried as she had before. She began to be able to focus when contractions came, following a pattern of breathing in through her nose and out through her mouth regularly. .
Wednesday, 16 April 2025 09:05-09:35	9	Weight	At 8 cm dilation, the mother appeared to be in severe pain with a pain scale of 8. Contractions were very strong and occurred every 2–3 minutes. The mother appeared restless, her face tense, complaining frequently and crying when contractions came. Her breathing was rapid and irregular, she was moaning loudly, and she had difficulty following instructions. She was seen several times holding her stomach, taking short breaths, and complaining that she wanted to push even though it was not yet time. Signs of fatigue began to appear, such as cold sweats, weakness, and the mother showed an expression of despair. .	5	Currently	After receiving education and guidance on Lamaze Breathing techniques, the mother began to follow a regular breathing pattern: inhaling through her nose and exhaling slowly through her mouth when contractions came. Gradually, the mother became calmer, no longer screaming, and began to be able to control her response to pain. Her facial expression was more relaxed, her grunting decreased, and she appeared to be focused on the healthcare team's instructions. The pain scale decreased to 5, and the mother said the pain was still present but more bearable. Her breathing became rhythmic, her heart rate was stable, and overall she appeared more cooperative, strong, and ready to face the next stage of labour.

. Based on Table 1, the observation results show that before the Lamaze breathing technique was applied, Ms. S experienced pain on the first day and during the first intervention. Tuesday, 15 April 2025, 10:00 a.m.: pain with a scale of 7, categorised as moderate. Observed signs/symptoms: contraction frequency every 3-5 minutes, contraction duration approximately 40-60 seconds, cervical dilation 4 cm, vital signs stable. Pain was very severe, difficulty speaking, appeared tense, still able to follow instructions. After applying Lamaze breathing on Tuesday, 15 April 2025, at 10:29, the pain scale felt by Ms. S was 4, categorised as moderate. Observed signs/symptoms: face more relaxed, regular breathing, reduced pain, cervical dilation 4 cm, feeling calmer and more in control, focused on breathing techniques.

During the second intervention on the first day at 13:05, the observation results showed that before the Lamaze breathing technique was applied, Mrs. S's pain level was 8, categorised as severe. The observed signs/symptoms included cervical dilation of 5 cm, stronger and more regular contractions with a frequency of every 3–5 minutes and a duration of 40–60 seconds. the mother appeared restless, began to breathe rapidly during contractions, had difficulty speaking when

contractions came, appeared tired and needed assistance, the mother's heart rate increased, her breathing was rapid, cold sweats began to appear, the mother was unable to rest peacefully and began to cry or ask for help. After Lamaze breathing was applied at 13:35, Ms. S's pain scale was 4, which is moderate. The observed signs/symptoms were that the mother appeared calmer and was able to regulate her breathing well during contractions, her breathing frequency became more controlled, her facial expression was more relaxed, and her cervix was 5 cm dilated. the mother no longer showed excessive anxiety, appeared more focused on the delivery process, the intensity of the pain began to decrease even though contractions continued to occur regularly, the mother appeared to be able to cope with the pain more patiently and no longer cried or became restless when contractions came, groaning decreased and was replaced by a rhythmic breathing pattern, there was no excessive cold sweat, the mother's heart rate tended to be stable, and overall the mother was more cooperative in following the instructions of the staff, and showed better readiness to face the next stage of labour.

Meanwhile, during the first intervention on the second day, Wednesday, 16 April 2025, at 06:15, the observation results showed that before the Lamaze breathing technique was applied, Ms. S's pain level was 8, which is classified as severe. The signs/symptoms observed were contractions every 3 minutes and a cervical dilation of 7 cm. Increased pain, tense facial expression, hysterical crying. She was unable to focus. After the intervention at 6:45, the pain scale experienced by Mrs. S was 5, categorised as moderate. The observed signs/symptoms were that the mother appeared calmer and was able to regulate her breathing regularly during contractions. The mother's facial expression appeared more relaxed, no longer grimacing excessively or crying as before. The mother began to be able to focus when contractions came, following a pattern of breathing in through the nose and out through the mouth regularly.

During the second intervention on the second day at 09:05, the observation results showed that before the Lamaze breathing technique was applied, Mrs. S's pain scale was 9, which is classified as severe. The signs/symptoms observed were cervical dilation of 8 cm, and the mother appeared to be in severe pain with a pain scale of 8. The contractions were very strong and occurred every 2–3 minutes. The mother appeared restless, her face tense, frequently complaining, and crying during contractions. Her breathing was rapid and irregular, she moaned loudly, and she seemed to have difficulty following instructions. Several times she was seen holding her stomach, taking short breaths, and complaining that she wanted to push even though it was not yet time. Signs of fatigue began to appear, such as cold sweats, weakness, and the mother showed an expression of despair. After intervention at 9:35, Mrs. S's pain level was rated at 5, which is moderate. After education and guidance using the Lamaze Breathing technique, the mother began to follow a regular breathing pattern: inhaling through the nose and exhaling slowly through the mouth when contractions came. Gradually, the mother became calmer, no longer screaming, and began to be able to control her response to pain. Her facial expression was more relaxed, her grunting decreased, and she appeared focused on the healthcare provider's instructions. The pain scale decreased to 5, and the mother said the pain was still there but more bearable. Her breathing becomes rhythmic, her heart rate is stable, and overall she appears more cooperative, strong, and ready to face the next stage of labour

Table 2
Observation Results of Pain Levels Before and After the Application of Lamaze Breathing on Patient "T"

Day	Before *Lamaze*			After *Lamaze*		
	Pain scale (0-10)	**Category**	**Observed signs/symptoms**	**Pain scale (0-10)**	**Category**	**Observed signs/symptoms**
Wednesday **April 16 2025** **08:23-08:41**	6	Currently	Tense facial expression, irregular breathing pattern, restlessness, strong and frequent contractions, 3 cm cervical dilation, cold sweat and facial flushing, intense and unbearable pain, difficulty speaking during contractions, high anxiety.	3	Lightweight	More relaxed facial expression, cervical dilation of 3 cm, regular breathing pattern according to the Lamaze technique, appears calmer, pain is lighter and more manageable, able to divert attention during contractions.
Rabu 16-april-2025 13:00-13:30	7	Currently	Mom began to focus during contractions, breathing rapidly, her face tensing up, cervix dilated to 4 cm.	4	Currently	The mother appeared calmer and able to control her breathing during contractions. Her breathing became more regular and deeper, and she no longer appeared panicked or overly anxious. Her facial expression showed a decrease in tension, and her cervix was 4 cm dilated.
Thursday, April 17, 2025 **07:00-07:30**	8	Weight	The mother was more focused, using Lamaze breathing techniques, her expressions of pain increased, her face was tense, cervical dilation was 8 cm.	5	Currently	The mother appeared more focused and calm, able to follow breathing instructions rhythmically, inhaling slowly through her nose and exhaling through her mouth at the peak of contractions. Her facial expression was more relaxed, no longer showing extreme tension as before, with cervical dilation at 8 cm.
Thursday, April 17, 2025 **09:00-09:30**	9	Weight	The mother began to push spontaneously, the contractions grew stronger, she gripped tightly, sweating profusely, but continued to follow instructions, with cervical dilation at 9 cm.	6	Currently	The mother appeared calmer and was able to control her breathing when contractions came. Her facial expression was more relaxed, she moaned softly, and did not show excessive pain. She gripped the side of the bed in response to the pain, but remained cooperative and focused. There was no cold sweat or gasping for breath. During the breaks between contractions, she was able to rest and talk briefly. Overall, the pain felt more manageable, and she seemed ready to face the next phase of labor, 9 cm dilation.

Based on Table 2, the results of observations on the first day and the first intervention on Wednesday, April 16, 2025, at 08:23 showed that before Lamaze breathing was applied. The pain

scale for Ms. "T" was 6, categorized as severe. Observed signs/symptoms included a tense facial expression, irregular breathing pattern, restlessness, strong and frequent contractions, cold sweats and facial flushing, intense and unbearable pain, difficulty speaking during contractions, and high anxiety. After the Lamaze breathing technique was applied at 08:41, the pain scale decreased to 4, categorized as moderate. Observed signs/symptoms included a more relaxed facial expression, regular breathing pattern in accordance with the Lamaze technique, appearing calmer, lighter and more controlled pain, and the ability to divert attention during contractions.

Observation results On the second intervention on the first day at 13:00, the observation results showed that before Lamaze breathing was applied, Ms. T's pain scale was 7, which is categorized as moderate. The signs/symptoms observed were that the mother began to focus during contractions, took quick breaths, her face began to tense up, and her cervix was 4 cm dilated. Meanwhile, after the Lamaze breathing technique was applied at 13:30, the pain scale dropped to 4, which is categorized as moderate. The signs/symptoms observed were a more relaxed facial expression, cervical dilation of 3 cm, regular breathing patterns in accordance with the Lamaze technique, appearing calmer, feeling less pain and more in control, and being able to divert attention during contractions. The mother appeared calmer and able to control her breathing during contractions. Breathing frequency became more regular and deeper, no longer showing signs of panic or excessive anxiety. The mother's facial expression showed reduced tension, cervical dilation 4 cm.

On the first intervention on the second day, Thursday, April 17, 2025, at 07:00, the observation results showed that before the Lamaze breathing technique was applied, Mrs. T's pain scale was 8, categorized as severe. Observed signs/symptoms included the mother being more focused, using Lamaze breathing techniques, increased expressions of pain, a tense face, and cervical dilation of 8 cm. After applying Lamaze breathing at 7:00 a.m., the pain scale decreased to 5, categorized as moderate. The observed signs/symptoms were that the mother appeared more focused and calm, able to follow breathing instructions rhythmically by inhaling slowly through the nose and exhaling through the mouth at the peak of contractions. Her facial expression was more relaxed, no longer showing the extreme tension as before, with cervical dilation at 8 cm.

On the second intervention on the second day, Thursday, April 17, 2025, at 09:00, the observation results showed that before Lamaze breathing was applied, Mrs. T's pain scale was 9, which is categorized as severe. The signs/symptoms observed were that the mother began to push spontaneously, her contractions became stronger, she gripped tightly, sweated profusely, but she continued to follow instructions, with cervical dilation at 9 cm. After the Lamaze breathing technique was applied at 9:30 AM, the pain scale decreased to 6, categorized as moderate. The observed signs/symptoms included the mother appearing calmer and able to control her breathing during contractions. Her facial expression was more relaxed, she made light moaning sounds, and did not show excessive pain reactions. The mother gripped the side of the bed in response to the pain, but remained cooperative and focused. There was no cold sweat or labored breathing. During the contraction interval, the mother was able to rest and speak briefly. Overall, the pain felt more manageable, and the mother appeared ready to face the next stage of labor, with cervical dilation at 9 cm

Discussion

Based on a case study conducted on Ms. "S" and Ms. "T" regarding the application of the Lamaze Breathing Technique to reduce labor pain during the active phase of the first stage of labor, which was carried out over three days from April 15-16, 2025.

The first respondent, Ms. S, was a primigravida mother, meaning she was undergoing her first labor. As a mother with no prior experience in dealing with the labor process, Ms. S indicated that before being given the Lamaze Breathing technique, her pain level was in the moderate to severe category, with physiological and psychological symptoms reflecting discomfort and anxiety during

active labor. On the first day, Tuesday, April 15, 2025, at 10:00 a.m., when the cervix was 4 cm dilated, Mrs. S felt pain with a scale of 7 (moderate category). Contractions occurred every 3–5 minutes with a duration of 40–60 seconds, and the mother showed a tense expression, difficulty speaking, and was only able to follow instructions to a limited extent. After the Lamaze technique intervention was administered at 10:29 a.m., the pain decreased to a level of 4. The signs and symptoms also changed: her face was more relaxed, her breathing was regular, and she appeared calmer and able to control herself.

During the second intervention on the same day at 1:05 p.m., the pain scale increased to 8 (severe category) with a cervical dilation of 5 cm. The contractions felt stronger and more regular, the mother began to breathe rapidly, became restless, had difficulty speaking, and showed signs of fatigue such as cold sweats and an increased heart rate. After being given Lamaze Breathing at 1:35 p.m., the pain scale decreased to 4. The mother appeared more cooperative, was able to breathe rhythmically, her face was relaxed, she was no longer crying, and she was more focused on the delivery process.

On the second day of the first intervention on Wednesday, April 16, 2025, at 6:15 a.m., the pain scale increased again to 8 with a cervical dilation of 7 cm. The mother cried hysterically, had difficulty focusing, and showed a tense expression. However, after the Lamaze technique was performed at 6:45 a.m., the pain decreased to a level of 5. The mother appeared calmer, began to focus, and was able to follow the breathing pattern that was taught.

The last intervention at 9:05 a.m. showed severe pain with a level of 9 at 8 cm dilation. The contractions were very strong, the mother was very restless, complained frequently, and was unable to follow instructions. However, after the intervention at 09:35, the pain decreased to a level of 5. The mother began to follow the Lamaze breathing pattern, became calmer, no longer screamed, her face was more relaxed, and she showed readiness to face the next stage of labor.

Overall, the results of the observation show that the Lamaze Breathing technique consistently has a positive impact on reducing pain levels in primigravida mothers. This technique also improves mothers' ability to control their response to pain, improves breathing patterns, reduces anxiety, and increases emotional and physical readiness for childbirth. The reduction in pain scale from severe to moderate or mild indicates the effectiveness of the Lamaze technique as a non-pharmacological intervention in labor pain management.

Meanwhile, the second respondent, Mrs. T, was a multigravida mother, i.e., a mother who had previous childbirth experience. From the beginning of the observation, Mrs. T On the first day, Wednesday, April 16, 2025, at 08:23, before the intervention, Mrs. T experienced pain with a scale of 6, categorized as severe pain. She showed a tense facial expression, irregular breathing patterns, restlessness, strong and frequent contractions, a red face, and cold sweats. The pain was described as very intense, making it difficult for the mother to speak during contractions and appearing anxious. After being given the Lamaze Breathing technique at 08:41, the pain scale decreased to 4 (moderate category). Changes were also seen in her facial expression, which became more relaxed, her breathing pattern became regular according to the technique, and she became calmer and able to shift her focus during contractions.

At 1:00 p.m. on the same day, during the second intervention, the pain scale increased again to 7 (severe category) with signs of rapid breathing and a tense face, but she was able to focus during contractions. The cervical dilation at that time was 4 cm. After the intervention was performed at 1:30 p.m., the pain scale decreased to 4. The mother appeared more relaxed, her breathing pattern was regular, she was able to control her breathing during contractions, and she no longer showed panic or excessive anxiety. Her facial expression showed a decrease in tension. Cervical dilation remained at 4 cm.

On the second day, Thursday, April 17, 2025, at 7:00 a.m., the first intervention showed an increase in the pain scale to 8 (severe category). Although the mother had tried to use the Lamaze breathing technique independently, the expression of pain became more apparent with a tense face

and cervical dilation reaching 8 cm. After repeating the Lamaze technique at the same time, the pain scale decreased to 5 (moderate category). The mother was able to follow a rhythmic breathing pattern by inhaling slowly through her nose and exhaling through her mouth at the peak of the contraction. Her facial expression appeared calmer and no longer showed extreme tension as before.

The second intervention that day was performed at 9:00 a.m., when the pain scale reached 9 (severe category). The mother began to push spontaneously, the contractions became stronger, she gripped the bed tightly, appeared to be sweating profusely, but remained cooperative in following instructions. Cervical dilation had reached 9 cm. After the intervention at 9:30 a.m., the pain decreased to a level of 6. The mother appeared calmer, was able to control her breathing during contractions, and emitted light moans, but did not show excessive pain reactions. She remained cooperative, was able to speak briefly during contractions, and appeared ready to face the next phase of labor.

From the entire process, it can be seen that the Lamaze Breathing technique is effective in helping multigravida mothers reduce pain intensity, improve breathing patterns, reduce anxiety, and increase their ability to adapt to each phase of labor. The pain scale decreased consistently after the intervention, and clinical symptoms showed significant improvement. This technique also provides important psychological comfort for mothers undergoing a long and intense labor process.

The gap between the two respondents, Mrs. S (primigravida) and Mrs. T (multigravida), showed a decrease in pain scale after the Lamaze Breathing technique intervention. However, there was a significant gap in their responses to labor pain, both physiologically and psychologically.

Mrs. S, as a primigravida mother, had no experience with the delivery process, so at first she appeared more anxious, panicked, and difficult to guide. Her pain level was quite high, and her adaptation to the Lamaze technique was gradual. Several interventions were necessary before Mrs. S was able to regulate her breathing rhythmically and show signs of reduced tension. This shows that mothers who have never given birth tend to need a more intensive approach and greater emotional support in dealing with labor pain.

In contrast, Mrs. T, as a multigravida, showed better preparedness in dealing with contractions and pain. Although the pain scale she felt was also quite high, Mrs. T was able to follow the Lamaze technique instructions more quickly and effectively. After the intervention, positive physiological signs were observed, such as a more relaxed facial expression, regular breathing patterns, and the ability to divert attention during contractions. This speed of adaptation was supported by her previous childbirth experience, which allowed Mrs. T to better recognize her body's processes and manage pain more calmly.

From these differences, it can be concluded that although the Lamaze Breathing technique generally provides positive results in reducing labor pain, its effectiveness can vary depending on the individual characteristics of each mother. Therefore, a more personalized, patient, and tailored approach to the patient's emotional state and experience is crucial to the successful application of the Lamaze Breathing technique in the delivery room.

The results of the observation show that the Lamaze Breathing technique is able to reduce the intensity of labor pain during the active phase of the first stage. Both respondents experienced a reduction in pain after performing breathing exercises for approximately 30 minutes.

These findings are in line with research by (Sari, Utami, and Veronica 2021), which states that the Lamaze Breathing technique significantly reduces the pain scale in the active phase of stage I compared to the group that did not receive intervention.

The results of this study are in line with research conducted by (Fadlu 2023) entitled "The Relationship Between Lamaze Breathing Techniques and Pain Levels During the Active Phase of Labor in the Mounda Community Health Center Work Area in Bima City." The study involved 30 mothers in labor and showed that the group given Lamaze intervention experienced a more significant reduction in pain compared to the control group that did not receive intervention. The

average reduction in pain in the intervention group was 3.7 points on the NRS scale. These results support the use of Lamaze as an effective approach to pain management.

In addition, research by (Rumaitsa et al. 2022) The journal Jurnal Kebidanan Sejahtera also showed similar results. A study titled "The Effectiveness of the Lamaze Method on the Level of Pain Experienced by Mothers in Labor" found that this technique was able to significantly reduce pain during the active phase of labor. In the study, the Lamaze technique not only reduced the intensity of pain, but also increased the mother's confidence, reduced muscle tension, and helped speed up the delivery process because the mother became more cooperative in pushing.

From a psychological perspective, the Lamaze technique gives mothers a sense of control over their own bodies, which is very important in the delivery process. When mothers feel in control and are mentally prepared, their response to pain will be better, and stress can be minimized. This technique also strengthens the connection between mothers and the delivery process, making it a more positive and empowering experience.

Considering the results of this case study and the support of previous studies, it can be concluded that the Lamaze Breathing technique is very suitable as a non-pharmacological method for managing labor pain, especially in the active phase of the first stage of labor. This method is inexpensive, safe, has no side effects, and can be easily applied by health workers and mothers who have received prior education.

Thus, this technique is effective as a non-pharmacological intervention that supports the comfort of the mother and reduces anxiety during the delivery process

4. Conclusions

Based on the results of research conducted on the application of the Lamaze Breathing technique to reduce pain during the active phase of labor at Pelamonia Hospital II in Makassar, it can be concluded that this technique has a positive effect in reducing the intensity of pain experienced by mothers in labor. Through the controlled breathing approach taught in the Lamaze technique, mothers in labor are able to deal with contractions in a calmer and more controlled manner. Observations show a significant reduction in pain levels after the intervention. In addition, the application of this technique also has a positive psychological effect, with mothers appearing more relaxed, focused, and less panicked when facing labor pain. Thus, the Lamaze Breathing technique can be considered an effective, safe, and practical non-pharmacological method to help manage pain in the early stages of labor. It is recommended that Lamaze breathing be introduced routinely in antenatal education and supported by trained midwives to improve maternal comfort and labor outcomes.

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