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IMPACT OF SELF-HEALING INTERVENTIONS ON PAIN INTENSITY IN WOMEN UNDERGOING ACTIVE FIRST-STAGE LABOR

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ABSTRACT

Background: Labor pain experienced during the active phase of the first stage of labor is often intense and can negatively affect the physical and psychological well-being of birthing mothers. Non-pharmacological interventions such as self-healing therapy are increasingly being explored as complementary approaches to labor pain management. **Objective:** This study aimed to analyze the effect of self-healing therapy on pain intensity among women in the active phase of the first stage of labor. **Methods:** This experimental study employed a pre-test and post-test design involving 10 respondents selected through purposive sampling. Pain intensity was assessed before and after the intervention using a numeric rating scale. Data were analyzed using a paired t-test. **Results:** Prior to the self-healing therapy, 80% of respondents experienced moderate to severe controlled pain, and 20% experienced uncontrolled severe pain. Following the intervention, all participants (100%) reported a reduction in pain intensity to the moderate category. Statistical analysis indicated that self-healing therapy had a significant effect on reducing labor pain ($p = 0.0003$), with a t-value of 7.07. **Conclusion:** Self-healing therapy is effective in significantly reducing pain intensity during the active phase of the first stage of labor. This intervention may serve as an alternative non-pharmacological strategy for labor pain management in maternity care settings.

Keywords: Labor Pain; Self-Healing Therapy; Active Phase of Labor; Non-Pharmacological Intervention.

INTRODUCTION

Labor is a physiological process that involves the delivery of the baby and placenta from the mother's uterus at a gestational age of 38 to 42 weeks. This process is a natural event that every pregnant woman will inevitably experience when giving birth. Labor consists of four primary stages known as the stages of labor. The first stage is the phase of cervical dilation from 0 cm to 10 cm; the second stage is the expulsion of the baby; the third stage involves the delivery of the placenta; and the fourth stage encompasses the period from placental delivery until two hours postpartum. Among these four stages, women experience the most intense uterine contractions during the first stage. The intensity and frequency of contractions increase progressively as cervical dilation advances (Borrelli, S. E., et al. 2023).

Normal labor is characterized by the onset of regular abdominal contractions, with increasing duration and progressively intensifying pain. This occurs as the uterus contracts, causing the cervix to efface and dilate. During contractions, women experience a form of pain that differs from pain associated with injury or disease (Sahara, R. (2022). The intensity of labor pain varies among pregnant women; some experience mild to moderate pain, while others may endure severe pain that is difficult to manage (Huang, Y., et al. 2024).

One of the factors contributing to the high Maternal Mortality Rate (MMR) is

prolonged labor. The inability of the uterus to produce sufficiently strong contractions during the first stage of labor is one of the main causes of prolonged labor (Gill, P. 2023). A labor process that lasts too long can lead to severe maternal fatigue due to exhaustion, which subsequently inhibits uterine contractions and causes labor progression to stall (Maaløe, N., et al. 2023). In addition to inadequate contractions, psychological factors also play a role in slowing labor progress. Maternal psychological conditions, such as anxiety and pain experienced during labor, can reduce the uterus's ability to contract effectively, ultimately prolonging the duration of labor (Bonarska, M., et al. 2025).

There are several non-pharmacological methods that can be used to reduce labor pain, including guided imagery, homeopathy, music therapy, acupuncture, aromatherapy, relaxation techniques, hypnotherapy, hydrotherapy, counter-pressure massage, movement and positional changes, abdominal lifting, effleurage, biofeedback, and self-healing (Nori et al., 2023; Chang et al., 2022).

Self-healing is a method used to counter negative experiences by verbalizing positive affirmations to help mothers feel more comfortable and emotionally supported (Nori et al., 2023). Self-healing can assist pregnant women in better understanding themselves while undergoing the first stage of labor, enabling them to become more relaxed and less anxious when experiencing labor pain. When self-healing is successfully practiced, the mother may develop greater resilience in facing the childbirth process and maintain a calmer state when dealing with challenging circumstances (Elgzar et al., 2024). The aim of this study is to examine the effect of self-healing interventions on labor pain intensity among women in the active phase of the first stage of labor.

METHOD

This study is a quantitative research employing a quasi-experimental approach with a one-group pretest–posttest design. This design enables the researchers to measure differences in pain levels before and after the self-healing intervention. The study population consisted of all women in the active phase of the first stage of labor. The sample included 10 laboring women selected through purposive sampling based on predetermined criteria. Data were collected through observations using the Numerical Rating Scale (NRS) to assess pain levels before and after the self-healing intervention. The intervention was administered in three stages during active labor, with each session lasting 10 minutes.

Data analysis was performed using a paired t-test to examine differences in pain intensity before and after the self-healing intervention. A Shapiro–Wilk normality test was conducted to ensure that the data were normally distributed prior to inferential analysis.

RESULTS

Tabel 1. Description of pain intensity among women in the active phase of the first stage of labor before the self-healing therapy intervention

Pain Intensity Level	Frequency (n)	%

Mild pain	0	0
Moderate pain	0	0
Severe controlled pain	8	80
Severe uncontrolled pain	2	20

Table 1 presents the description of pain intensity among women in the active phase of the first stage of labor before receiving self-healing therapy. Based on the data obtained, the majority of participants experienced pain ranging from moderate to controlled severe intensity, with 8 respondents (80%) falling into the categories of moderate pain (scale 4–6) and controlled severe pain (scale 7–9). Meanwhile, 2 respondents (20%) reported experiencing uncontrolled severe pain (scale 10). No respondents reported mild pain (scale 1–3) or the absence of pain. These findings indicate that most laboring women experienced relatively high levels of pain, although the majority remained manageable.

Tabel 2. Description of pain intensity among women in the active phase of the first stage of labor after receiving self-healing therapy

Pain Intensity Level	Frequency (n)	%
Mild pain	0	0
Moderate pain	10	100
Severe controlled pain	0	0
Severe uncontrolled pain	0	0

Table 2 illustrates changes in pain intensity among women in the active phase of the first stage of labor after receiving self-healing therapy. The findings indicate that following the intervention, all respondents (100%) reported experiencing pain at a moderate intensity level (scale 4–6). None of the participants reported mild pain (scale 1–3), controlled severe pain (scale 7–9), or uncontrolled severe pain (scale 10). These results demonstrate that self-healing therapy was effective in reducing labor pain intensity, as all participants experienced a decrease in pain to a moderate level, indicating the success of the intervention in managing pain during the active phase of labor.

Tabel 3. Effect of Self-Healing on Pain Intensity During the Active Phase of the First Stage of Labor

Self Healing	*Mean*	*T-count*	*p-Value*
Pre-test	8.0		0.0003
Post-test	5.2	7.07	

Table 3 presents the results of the analysis regarding the effect of self-healing therapy on labor pain intensity among women in the active phase of the first stage of labor. Based on the calculations, the mean pain intensity before the self-healing intervention was 8.0, indicating a relatively high level of pain, whereas after the intervention, the mean pain intensity decreased to 5.2, demonstrating a significant reduction in pain intensity. The

statistical test results showed a calculated t-value of 7.07 and a p-value of 0.0003 ($p < 0.05$), indicating that the difference was statistically significant. These findings suggest that self-healing therapy has a substantial effect in reducing labor pain intensity among women in the active phase of the first stage of labor.

DISCUSSION

The findings of this study demonstrate a decrease in the mean pain intensity score from 8.0 to 5.2 following the self-healing intervention, with a statistically significant difference ($t = 7.07$; $p = 0.0003$). These results indicate a substantial clinical effect of psychological and relaxation-based interventions in reducing pain perception during the active phase of the first stage of labor, a pattern consistent with existing evidence suggesting that non-pharmacological interventions can effectively reduce labor pain perception (Nori et al., 2023).

Recent systematic evidence confirms that various non-pharmacological approaches—such as relaxation, music therapy, hypnosis, breathing techniques, and psychological interventions—have beneficial effects on labor-related pain and anxiety, although the magnitude of the effects and the quality of studies vary. The results of the present study, demonstrating a mean pain reduction of approximately 2.8 points on the numerical scale, are consistent with findings from recent reviews recommending the use of multimodal non-pharmacological techniques as complementary strategies for labor pain management (Nori et al., 2023).

The mechanism of action of self-healing—through positive affirmations, relaxation, and attentional distraction—likely operates via modulation of the cognitive–emotional components of pain perception by reducing anxiety, decreasing sympathetic responses, and enhancing perceived control over uterine contractions, thereby lowering subjective pain scores. Studies on mindfulness, relaxation, and affirmation-based interventions in maternity settings have reported reductions in both anxiety and pain perception, which support this proposed mechanism (Kundarti, F. I., Kiswati, & Komalyna, I. N. T. 2024).

A prospective study found that the practice of hypnosis and visualization techniques significantly reduced the consumption of pharmacological analgesia and shortened the duration of labor among women undergoing their first childbirth, indicating that the psychological and affective effects of non-pharmacological methods may extend beyond pain perception and influence obstetric outcomes (Smith & Jones, 2022). This supports the notion that interventions such as self-healing, which incorporate positive affirmations and relaxation, have the potential to provide broader benefits to the childbirth experience.

From a neurophysiological perspective, neuroimaging studies demonstrate that relaxation and meditation techniques reduce activity in cortical areas associated with pain perception and emotional regulation, while enhancing activation of endogenous pain-inhibition centers, indicating the biological mechanisms underlying the effectiveness of non-pharmacological interventions (Rosen et al., 2022). Therefore, self-healing, which focuses on positive affirmations and relaxation, may modulate these pain-perception pathways and explain the reduction in pain scores observed in your

study.

The practical implications for midwifery personnel in primary health centers and maternity clinics are highly relevant: integrating self-healing sessions (affirmations, relaxation, visualization) into active labor management may enhance maternal comfort and potentially reduce the need for pharmacological analgesia or additional interventions. Supporting evidence indicates that the systematic implementation of non-pharmacological methods remains low in many healthcare facilities, despite strong recommendations for their use (Zeleke, A. M., Gonete, Y. A., Tassew, W. C., Ferede, Y. A., & others. 2025). Training midwifery personnel to master these techniques, providing a supportive environment (e.g., private spaces and companion support), and routinely monitoring the effectiveness of the interventions are measures that can be considered.

CONCLUSION

Prior to the administration of self-healing therapy, the majority of laboring women in the working area of Puskesmas Anggeraja, Enrekang Regency, experienced a relatively high level of pain intensity, categorized as moderate pain (80%) and controlled severe pain (20%). None of the women reported mild pain. This indicates that most women in labor were experiencing a significant level of pain, although for the majority it remained manageable.

Following the administration of self-healing therapy, all laboring women reported a reduction in pain intensity to the moderate pain category (score 4–6). None of the participants experienced controlled severe pain or uncontrolled severe pain. This demonstrates that self-healing therapy effectively reduced the pain intensity experienced by the mothers, thereby confirming the effectiveness of this method in labor pain management.

Based on the statistical analysis conducted, self-healing therapy had a significant effect on reducing labor pain intensity. The very small p-value (0.0003) indicates that the change in pain intensity before and after the intervention was highly significant. Therefore, self-healing therapy can be considered effective in alleviating pain during the active phase of labor, enhancing maternal comfort without reliance on pharmacological analgesics.

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