Reducing the Intensity of First Stage Labor Pain through Therapeutic Communication

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ABSTRACT
The direct causes of maternal death during childbirth are bleeding, infection, and eclampsia. Within bleeding and infection as causes of death, deaths due to infected abortion and prolonged labor are also included. Meanwhile, one of the causes of prolonged labor is tension and fear, which aggravates labor pain and ultimately slows down the birth of the baby. One method of non-pharmacological pain control is through nursing communication, namely therapeutic communication. This research aims to determine the effect of implementing therapeutic communication in efforts to reduce the intensity of labor pain in the first stage. This research method is an analytical survey method that uses one group pretest-posttest. The total sample was 25 maternal patients giving birth. Data analysis used the paired sample t-test. The study's results showed a significant difference in the intensity of pain in the first stage of labor before and after the therapeutic communication intervention was given. Therapeutic communication can strengthen the relationship between the midwife and the mother in cases of the intensity of first-stage labor pain, increase the mother's understanding, encourage emotional expression, and reduce worry and anxiety. Based on evidence of the effectiveness of research data, this research contributes to recommending therapeutic communication as a non-pharmacological strategy for overcoming tension and fear that aggravate labor pain.

Keywords: Nursing Communication, Therapeutic, Maternity Care, Pain Care, First Stage Labor Pain, Healthcare

1. INTRODUCTION
The process of releasing viable fetuses from the uterus and outside the body through the vagina is known as childbirth (Swanson & Liu, 2022). Childbirth is a series of processes that end with the expulsion of the products of conception by the mother (Lupu et al., 2023). The placenta is delivered at the last stage of this procedure, which started with actual labor contractions (Grimm, 2021). Normal labor and childbirth involves the natural expulsion of a full-term fetus, typically between 37 to 42 weeks of pregnancy. This includes spontaneous delivery with a posterior presentation lasting up to 18 hours, with no complications affecting either the mother or the fetus (Agrawal et al., 2023). The process of labor and childbirth can deeply impact a woman, her partner, and their family, bringing about significant changes (Schmitt et al., 2022). It is crucial to provide medical attention and emotional assistance to guarantee the well-being and safety of both the mother and the newborn.

Pain, stress, and anxiety naturally unsettle expectant mothers and can lead to increased production of catecholamines, including epinephrine and norepinephrine (Lederman & Weis, 2020). Elevated levels of these stress hormones can prolong labor by decreasing the effectiveness of uterine contractions (Walter et
The Maternal Mortality Rate (MMR) and Infant Mortality Rate (IMR) serve as key indicators of health development in the 2015-2019 National Medium Term Development Plan (RPJMN) and Sustainable Development Goals (SDGs) (Nurlatifah, 2020). According to data from the Indonesian Demographic and Health Survey (SDKI), the MMR saw fluctuations over the period from 1994 to 2012. It was reported as 390 per 100,000 live births in 1994, decreased to 307 per 100,000 live births in 2002, further declined to 228 per 100,000 live births in 2007, but then increased again to 359 per 100,000 live births by 2012. The IMR, on the other hand, showed a consistent downward trend, with the 2012 SDKI reporting a rate of 32 per 1,000 live births. In 2015, both MMR and IMR demonstrated further improvement, with MMR at 305 per 100,000 live births and IMR at 22.23 per 1,000 live births (BKKBN et al., 2018; Fathiyah et al., 2021; Gani & Budiharsana, 2019).

In 2019, North Sumatra, Indonesia recorded a maternal mortality rate of 106 per 100,000 live births, compared to 75 per 100,000 live births in 2018. During the same period, the infant mortality rate in North Sumatra was 8 per 1,000 live births in 2019 and 6 per 1,000 live births in 2018. In 2020, Completed Community Health Centers reported an infant mortality rate of 10 out of 1,134 live births (Lubis et al., 2022).

The primary reasons behind maternal mortality in Indonesia, similar to other nations, include hemorrhage, infection, and eclampsia (Akpan et al., 2020; Mahmood et al., 2021; Makuei et al., 2020; Utami et al., 2020). Deaths attributed to infected abortions and prolonged labor contribute significantly to mortality rates associated with bleeding and infection (Bridwell et al., 2022; Orlowski et al., 2021). Prolonged labor, exacerbated by anxiety and stress, intensifies labor pains and consequently delays childbirth (Chaisitsangguan et al., 2023; Dahan & Odent, 2023; Lederman & Weis, 2020).

Prolonged labor often occurs during the initial phase of childbirth, making it a critical juncture for midwives to assess the possibility of a normal delivery (Gaudernack et al., 2020; Thornton & Ramphul, 2023). The first stage is the longest, characterized by contractions and cervical dilation that the patient must endure. Primiparous women are allowed up to one hour to dilate the cervix by 1 cm, while multiparous women have half an hour for the same progress (Agrawal et al., 2023). Therefore, during this stage, the midwife’s role is crucial; they must offer motivation and comfort to ensure the patient remains calm throughout the birthing process.

Therapeutic communication is a non-drug method used to manage pain (Kim et al., 2021; Mohamed Bayoumi et al., 2021). Its purpose is to aid in patient healing by offering supportive communication that promotes relaxation, proper posture, movement, massage, therapeutic touch, and a nurturing emotional environment during childbirth. A competent midwife should communicate her thoughts effectively when addressing client concerns to maintain the client’s calmness (Plimmer et al., 2022). This approach ensures that therapeutic communication serves its ultimate goal as a form of therapy for patients (I. Siregar et al., 2021).

Based on the preliminary survey conducted by the researchers, it was discovered that 10 mothers in early labor did not receive therapeutic communication. Consequently, these mothers reported feeling ongoing pain during labor. The significance of therapeutic communication in alleviating childbirth pain underscores the necessity for midwives to enhance maternal self-confidence. Anxiety during childbirth can escalate pain levels, highlighting the critical role of midwives in providing supportive communication. Therefore, this study aims to determine the effect of implementing therapeutic communication on reducing the intensity of pain during the first stage of labor.

2. METHOD

This research uses an analytical survey method design with a one-group pretest-posttest approach. This design involves taking a pretest before the implementation of therapeutic communication and a posttest after the implementation of therapeutic communication to allow for a more accurate comparison between before and after the intervention. The pain scale is assessed using the Visual Analog Scale (VAS), which ranges from 1 to 10, categorized as mild (1-3), moderate (4-6), and severe (7-10) (Bielewicz et al., 2022). The research location is the Eliza Bestari Clinic, Asahan Regency, North Sumatra, Indonesia. The research sample consisted of 25 women giving birth with pain intensity in the first stage at the Eliza Bestari Clinic from March to May 2023. The sampling technique used was accidental sampling. Data analysis was carried out using the paired sample t-test. The hypothesis of this research is a significant difference in pain intensity in the first stage of labor before and after the therapeutic communication intervention was given.

3. RESULTS AND DISCUSSION

3.1. Results

Table 1 below shows the distribution of women giving birth with pain intensity in the first stage at the Eliza Bestari Clinic from March to May 2023, with characteristics by age, education, and childbirth.
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Table 1

<table>
<thead>
<tr>
<th>Demographic Data</th>
<th>Frequencies</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td></td>
<td></td>
</tr>
<tr>
<td>≤20</td>
<td>2</td>
<td>8</td>
</tr>
<tr>
<td>21-35</td>
<td>19</td>
<td>76</td>
</tr>
<tr>
<td>&gt;35</td>
<td>4</td>
<td>16</td>
</tr>
<tr>
<td>Education level</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Elementary or middle school</td>
<td>6</td>
<td>24</td>
</tr>
<tr>
<td>High school or vocational school</td>
<td>16</td>
<td>64</td>
</tr>
<tr>
<td>Diploma or bachelor</td>
<td>3</td>
<td>12</td>
</tr>
<tr>
<td>Childbirth</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1st</td>
<td>9</td>
<td>36</td>
</tr>
<tr>
<td>2nd</td>
<td>8</td>
<td>32</td>
</tr>
<tr>
<td>3rd</td>
<td>5</td>
<td>20</td>
</tr>
<tr>
<td>4th</td>
<td>3</td>
<td>12</td>
</tr>
</tbody>
</table>

Based on Table 1, the majority of women giving birth with pain intensity in the first stage were aged 21-35, with 19 respondents (76.0%). Most mothers’ education levels were high school or vocational school graduates, with 16 respondents (64.0%). Most mothers were still in their first delivery, with 9 respondents (36.0%). Table 2 below shows data on pain intensity before and after therapeutic communication intervention on women giving birth with pain intensity in the first stage of labor.

Table 2

<table>
<thead>
<tr>
<th>Pain Intensity Before and After Therapeutic Communication Intervention</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pain Scale</td>
</tr>
<tr>
<td>----------------------------</td>
</tr>
<tr>
<td>Mild (1-3)</td>
</tr>
<tr>
<td>Moderate (4-6)</td>
</tr>
<tr>
<td>Severe (7-10)</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>

Based on Table 2, the intensity of labor pain in the first stage before therapeutic communication was carried out, the majority of mothers experienced pain intensity in the severe category, 13 respondents (52.0%) and 12 respondents (48.0%) in the moderate category. Meanwhile, the intensity of labor pain in the first stage after therapeutic communication was carried out in the majority of mothers experienced mild pain intensity, 14 respondents (56.0%), 9 respondents (36.0%) experienced moderate pain intensity, and 2 respondents (8.0%) experienced severe pain intensity. The hypothesis test analysis used the paired sample t-test to determine the difference in pain intensity in the first stage of labor before and after a therapeutic communication intervention. The results of the difference test can be seen in Table 3 below.

Table 3

<table>
<thead>
<tr>
<th>The Hypothesis Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pain Scale</td>
</tr>
<tr>
<td>----------------------------</td>
</tr>
<tr>
<td>Before</td>
</tr>
<tr>
<td>After</td>
</tr>
</tbody>
</table>

Table 3 displays that the average reduction in pain intensity during the initial phase of labor decreased by 3.16 (from 6.72 to 3.56) following therapeutic communication. These findings demonstrate a shift in labor pain severity from severe to moderate to mild subsequent to therapeutic communication sessions with postpartum mothers.

The results of the paired sample t-test indicate a significant pretest-posttest difference (p = 0.000 < α = 0.05), thereby accepting the hypothesis. Hence, it can be inferred that therapeutic communication effectively decreases pain intensity during the first stage of labor.
3.2. Discussion

Labor pain predominantly arises during contractions, varying intensity according to individual perception. It is often described as the most intense pain experienced. Both physiological and psychological factors influence it (Deng et al., 2021; Hoffmann & Banse, 2021; Mathur et al., 2020). The severity of pain correlates with the strength of contractions and pressure exerted; pain intensifies as the cervix fully dilates, compounded by pressure from the baby against pelvic structures and the stretching of the birth canal. Labor pain is distinct and personalized, reflecting not only the physical but also psychological aspects of childbirth.

Furthermore, according to Sood & Sood (2020), labor pain may lead to hyperventilation, increasing oxygen demand and blood pressure. This physiological response triggers elevated catecholamine levels, potentially disrupting uterine contractions and leading to uterine inertia. Untreated labour pain can result in prolonged labor (Ashagrie et al., 2020).

The results of the hypothesis test depicted in Table 3 indicate that therapeutic communication effectively decreases pain intensity in the initial stage of labor. Participants who received therapeutic communication reported feeling significantly more at ease and relaxed. This was attributed to midwives explaining the birthing process, providing information, addressing questions from both the mother and her family, attentively listening to concerns, offering emotional support, fostering self-confidence, and cultivating a sense of comfort and security. These factors collectively contributed to a reduction in pain perception during labor without the participants necessarily realizing it. Conversely, participants who did not receive therapeutic communication (non-therapeutic communication) experienced feelings of anxiety, panic, and fear. According to Molin et al. (2022) and Buback et al. (2022), the inability to effectively communicate their feelings to the midwife left them feeling uncomfortable, exacerbating their perception of pain during childbirth.

The goal of therapeutic communication is to assist mothers in clarifying and alleviating the emotional and mental burdens they experience during childbirth (Pereda-Goikoetxea et al., 2021; P. A. Siregar, 2022). By providing clear explanations, it is hoped that mothers will feel more at ease and gain a comprehensive understanding of how to navigate the birthing process smoothly. Without such explanations, mothers may feel discomfort and anxiety, potentially leading to muscular tension, including in the pelvic muscles, which can hinder fetal movement and result in pain from this mutual pressure.

Therefore, it is recommended that healthcare professionals, particularly midwives, engage in therapeutic communication throughout labor. This approach aims to help mothers identify and express their feelings, assess issues that arise, and determine appropriate actions. Research findings indicate that therapeutic communication can impact the intensity of labor's initial stage. Healy et al. (2020) and Mwakawanga et al. (2022) said that as healthcare providers, midwives should consistently inform mothers about labor progress and their condition, explaining the physiological aspects and the nature of pain experienced during childbirth. This helps mothers gain clarity and physiological understanding, promoting a sense of relaxation during the birthing process.

Based on the results of an analytical survey, the researchers obtained therapeutic communication benefits in cases of intensity of first-stage labor pain: 1) Strengthening the relationship between midwives and mothers. In line with Faridah et al. (2021), therapeutic communication helps build positive relationships between healthcare providers (doctors, nurses, or midwives) and patients. A strong relationship is essential to increase patient trust and comfort in discussing health problems (Drossman & Ruddy, 2020). 2) Increase the mother's understanding. Ra’uf (2021) said that healthcare providers can better help patients understand their health conditions by using therapeutic communication. According to Tietbohl (2022), clear explanations and empathy can reduce patient confusion and anxiety. 3) Encourage the expression of emotions in mothers. Patients often feel overwhelmed by emotions related to their health condition. According to Sulastri et al. (2019), therapeutic communication helps patients better identify and express their emotions, thereby reducing stress and improving coping. 4) Reduce worry and anxiety in mothers. According to I. Siregar et al. (2021), patients often feel anxious or afraid of specific medical procedures or treatments. Therapeutic communication can reduce this anxiety by providing accurate and supportive information.

4. CONCLUSION

The pain experienced during labor is unique and individualized, encompassing both physical sensations and psychological dimensions inherent to childbirth. Therapeutic communication has been found effective in reducing the intensity of pain during the first stage of labor. This suggests that it plays a crucial role in enhancing the relationship between midwives and mothers, promoting better understanding, facilitating emotional expression, and alleviating anxiety. The research underscores the importance of therapeutic communication as a non-pharmacological approach to manage labor pain by addressing tension and fear.
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