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Reducing labor pain with a birthing ball

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A B S T R A C T

Labor is a natural process. The genesis of pain influenced by the mother when facing labor can stimulate fear so that anxiety arises which ends in panic. For this reason, it is necessary to pay attention for to handling deal with pain in the first active phase of labor. One of the non-pharmacological methods of dealing with labor pain is birthing ball therapy. The research objective was to determine the effect of using a birthing ball on the effects of pain during the first active phase of labor. This type of research is a pre-experimental design with a one-group pretest-posttest design. The sample in this research were 18 mothers who labor. The results of the research obtained a p-value of 0.000 <0.05, which means that there is an effect of using a birthing ball toward the effects of labor pain in the first stage of labor active phase.

Kata kunci:

Nyeri Persalinan
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A B S T R A K

Nyeri persalinan adalah hal yang normal dirasakan bagi setiap ibu bersalin. Nyeri yang dialami ibu saat persalinan berlangsung, dapat merangsang ketakutan ibu sehingga timbul kecemasan yang berakhir dengan kepanikan. Untuk itu diperlukan penanganan untuk mengatasi nyeri pada kala I persalinan. Salah satu metode non-farmakologi dalam mengatasi nyeri persalinan antara lain terapi birthing ball. Penelitian ini bertujuan untuk mengetahui apakah penggunaan birth ball dapat mengurangi nyeri persalinan pada kala 1 fase aktif. Jenis penelitian ini adalah penelitian kuantitatif dengan metode pra-eksperimen dengan rancangan one group pre-test-post test group design. Sampel pada penelitian ini adalah 18 ibu bersalin. Hasil penelitian diperoleh p-value 0.000 < 0.05 yang berarti terdapat pengaruh penggunaan birthing ball terhadap skala nyeri persalinan kala 1 fase aktif.

INTRODUCTION

Labor is a natural process. Labor pain is a subjective experience of the fetus associated with uterine contractions, effacement and cervical dilatation, and descent during labor. During the labor process, the mother will feel labor pain which is a normal thing to happen. Physiological responses to pain include increased blood pressure, pulse, breathing, sweating, pupil diameter, and muscle tension (Sari et al., 2018). If it is not handled properly, it will cause other problems, namely increased anxiety or worry because of facing labor, so the production of adrenaline hormones increases and causes vasoconstriction which causes the mother's blood flow to the fetus to decrease (Lowdermilk et al., 2013).

Pain impulses increase if there is a decrease in uterine contractions, decreased uteroplacental circulation, reduced blood and oxygen flow to the uterus, and the occurrence of

uterine ischemia (Azizah et al., 2013). Efforts to reduce pain in labor can be done both pharmacologically and non-pharmacologically. Non-pharmacological methods include managing labor pain, while the action can use music, hypnobirthing, hydrotherapy, hot and cold compresses, counterpressure, aromatherapy, active birth, breathing techniques, visualization, and birth ball exercises (Johariyah & Wahyu, 2012).

Birth ball exercise is a simple body movement exercise using a ball that can be done during pregnancy, childbirth, and after childbirth, to reduce pain and can be tried to increase the emotional and psychological components of pain. Using a birth ball during labor can reduce pain levels. Stimulation of postural reflexes and keeping the muscles and spinal posture in good condition, it was also reported that mothers felt more comfortable and relaxed and 95% of respondents stated that birth ball exercises could increase comfort. Another study found that the duration of the active phase of labor (opening of the uterine cervix) was 30% shorter and barriers during the second stage of labor decreased significantly in the exercise group (Sriwenda & Yulinda, 2017).

The preliminary survey that the researchers conducted at the independent midwifery practice of Widia Astuti after observing six mothers who experienced the active phase of the first stage of labor who stated moderate pain and then women who experienced severe pain. Based on this description, the researcher is interested in researching reducing labor pain by using a birthing ball.

METHOD

This research used a pre-experimental research design and it used a one-group pretest-posttest design. The population in this research were all mothers who gave birth at the independent midwifery practice of Widia Astuti in Way Dadi Bandar Lampung from December 2021 up to January 2022. The sampling technique for this research used a non-probability sampling technique with a purposive sampling technique of 18 samples of mothers who labor. Measuring labor pain using the Numeric Rating Scale (NRS). Data analysis used dependent T-Test.

RESULT AND DISCUSSION

Table 1.
The effect of using a birthing ball toward labor pain

Intervention	N	Mean		Mean	Std.	*p*
		Pre-test	Post-test			
Birthing Ball	18	6.94	5.22	1.722	0.669	0.000

Accordingly to the table 1 it can be concluded that there was an effect of using a birthing ball on decreasing the level of labor pain with a value of p = 0.000, and there was a decrease in the pain scale after using a birthing ball from a scale of 6.94 to 5.22. The same result was also expressed by (Fadmiyanor et al., 2020) which revealed that a woman in labor who experienced labor pain before the therapy was carried out had a value of 6.05 and after being given birth ball exercises therapy obtained a value of 4.95 so that it was seen that there was a decrease in the pain value for a given intervention. In this journal, the exercise is carried out for 30 minutes for mothers in the first stage of labor with an active phase in the opening of the cervix 4 – 8 cm by sitting on the ball, kneeling, and hugging the ball. The same thing was also revealed by (Noviyanti et al., 2020) with the results of their research were that there was an effect of giving a birthing ball on labor pain, but the action was every 1 hour with a time of 30 minutes per session.

A birthing ball can reduce and control labor pain, especially during the first stage. The movement is in a kneeling position and the chest leans forward, like leaning and hugging a ball, then shaking your hips in a clockwise direction. This action will make labor painless and comfortable and help in the progress of labor and also increase the release of endorphins, this is because the elasticity and curvature of the ball stimulate the receptors in the pelvis which are responsible for secreting endorphins (Kurniawati et al., 2017).

Birthing ball can help reduce pain due to contractions, reduce anxiety, shorten the length of the first stage of labour. The use of a birth ball can also help mothers in labor to make changes in position that can help mothers to go through the labor process effectively. The use of a birth ball can enlarge the pelvic outlet by up to 30% to help make it easier for the baby to be born, with the help of gravity the birth ball can help lower the baby's head, the use of a birth ball can speed up the progress of labor, it is effective for reducing pain during contractions and the birth ball can provide counter pressure on the mother's thighs and perineum when occupied (Rahmi Fitria & Romy Wahyuny, 2021).

CONCLUSIONS AND SUGGESTIONS

Based on the results of the research it can be concluded that the use of a birth ball during the first stage of labor for mothers can reduce the pain scale during labor, so it is recommended that mothers can successfully use a birthing ball during the the first stage of labor in the active phase to reduce labor pain

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