

THE EFFECTIVENESS OF BIRTHING BALL AS COMPLAINTS REDUCTION PHYSICAL ON PREGNANT MOTHERS TO PREPARATION FOR DELIVERY IN DEBY MATERNAL HOUSE IN MEDAN CITY

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ABSTRACT

Labor is the process of the baby, placenta, amniotic membranes coming out of the mother's uterus, gestational age at term (37 weeks) without any complications, labor pain causes frustration, trauma that can occur to the mother. Labor pain can be treated in an effective way because pain accompanied by a stress reaction will have harmful side effects for the mother and fetus. This study aims to develop knowledge in the field of midwifery knowledge and can educate mothers in labor to reduce physical complaints and can speed up the delivery process. The research method used is a quasi-experimental pre-test and post-test research design, which is a research design to analyze the effectiveness of the Birthing Ball as a Reduction of Physical Complaints in Pregnant Women on Childbirth Preparation. Sampling using consecutive sampling technique, analysis using independent t test to compare the values in the intervention group and control group. There is an effect of the implementation of the birthing ball as a reduction in physical complaints with a value of $p = 0.001$ meaning $p < 0.05$ and there is a difference in the process of labor taking place faster in the first stage of the active phase in the intervention group where birthing balls are carried out 2-3 times a day during the final trimester compared to the group. control. The birthing ball should be done every day during the third trimester of pregnancy to reduce the physical complaints of pregnancy and speed up the delivery process.

Keywords : Birthing Ball, Reduction of Physical Complaints



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INTRODUCTION

Phase of pregnancy which is a time of great change. These changes are not only related to physical changes, but also biochemical, physiological, and even psychological changes that are a consequence of the growth of the fetus in the womb. Discomfort during pregnancy

minor complaints found in pregnancy such as dependent edema, nocturia, constipation, shortness of breath, heartburn, leg cramps and lower back pain. In this period the condition of pregnant women is susceptible to all kinds of "stress", which results in changes in physiological and metabolic functions.

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Physical complaints of pregnant women are conditions that are prone to all kinds of "stress", which results in changes in physiological and metabolic functions. Discomfort during pregnancy minor complaints found in pregnancy such as dependent edema, nocturia, constipation, shortness of breath, heartburn, leg cramps and lower back pain. Along with the enlargement of the uterus and weight gain in the third trimester of pregnancy, the center of gravity moves forward so that the pregnant woman must adjust her position.¹⁻²

Improper body changes will force additional stretching and fatigue on the body, especially in the back area. Approximately 50%-72% of women during pregnancy experience low back pain, the pain will increase with gestational age. Pregnant women complain of low back pain. Therefore, the disruption of daily physical activities such as climbing stairs (47%), walking (40%), strenuous work (28%), participating in exercise (30%), disturbed sleep quality (58%), 10% of all mothers pregnant woman complaining of low back pain was forced to take time off from her job.³

Childbirth is the process of expelling the products of conception

(fetus and placenta) that are already months old or can live outside the womb through the birth canal or through other means, with or without assistance (own strength). Labor is a process in which a woman gives birth to a baby which begins with regular uterine contractions and peaks at the time of expulsion of the baby to the expulsion of the placenta and its membranes where this labor process will last for 12 to 14 hours.¹⁻³

Labor pain causes frustration and hopelessness and can also result in trauma that can occur to the mother. So that some mothers worry that they will not be able to pass the birth process. According to a study conducted by Bonica (1995) on 2,700 parturients in 212 obstetric centers from 36 countries, it was found that labor proceeds without pain 15%, labor with moderate pain 30%, labor accompanied by severe pain 35%, and labor with pain. Which is great 20%.¹⁻³

Labor pain is not continuous and will go away on its own. Labor pain begins to arise in the first stage of labor, the latent phase at 0-3 cm opening. The pain causes uncomfortable pain, at 4-7 cm opening the pain is felt a bit stabbing, and at 7-10 cm opening the pain becomes more intense, piercing and stiff. The pain

is caused by uterine contractions and cervical dilatation. Birthing balls are physically beneficial so they can be used during pregnancy and childbirth. In this case, the birth ball positions the mother's body optimally and the reduction of pain during uterine contractions elicits unusual movements.⁴⁻⁵

The underlying reason for this is that birth ball exercises can work effectively in labour. The suggested benefits of using a birth ball are reduced pain, reduced anxiety. However, some of the reported benefits of birth balls are descriptive, and until now their use has not been studied and evaluated using objective research methods.

MATERIAL AND METHOD

This was a quasi-experimental study and the design used is a pre-test and post-test research design, which is a research design to analyze the effectiveness of the birthing ball as a reduction in physical complaints of preparation for labor between the intervention group and the control group. In the case group, birthing ball intervention will be given, while for the control group no treatment will be given, in the intervention group the

birthing ball will be given 2-3 times a day for 3 months. So the researcher will control the intervention and observe the physical complaints and readiness of the mother to give birth. Data processing was carried out using the independent t test.

The place of research was carried out at the Deby Clinic, Medan City. The sample in this study were all late trimester pregnant women who visited Deby's clinic and met the inclusion criteria. The sample in this study was consecutive sampling, namely all pregnant women aged 35-42 weeks who visited the Deby clinic as many as 30 people (total population) which were then divided into 15 intervention groups and 15 control groups.

RESULT

Table 1. The effectiveness of the Birthing Ball in reducing physical complaints before and after being given treatment to pregnant women

Physical Complaints	Mean	SD	p-value
Pre-test and Post-test	29,300	18,964	0,001

The results of the effect of Birthing Ball in reducing physical complaints before and after being given Birthing Ball in the intervention group and a paired

sample t-test was performed. The results for physical complaints of pregnant women were $p = 0.001$, meaning $p < 0.05$, there was an effect of Birthing Ball in reducing physical complaints about the preparation for delivery of pregnant women.

Table 2. The effectiveness of the birthing ball in preparation for labor before and after treatment for pregnant women

Physical Complaints	Mean	SD	p-value
Pre-test and Post-test	28,723	16,762	0,001

The results of the value of the influence of Birthing Ball in preparation for labor before and after being given a birthing ball in the intervention group and carried out the test showed that for preparation for labor, the value of $p = 0.001$ means $p < 0.05$, there is an effect of birthing ball on preparation for delivery.

DISCUSSION

The control group that was given the Birthing Ball treatment showed results in reducing physical complaints of labor preparation with a value of $p = 0.001$, meaning $p < 0.05$, stating that there was an effectiveness of prenatal yoga in reducing

physical complaints of childbirth preparation in pregnant women. Endorphins are natural hormones produced by the human body, so endorphins are the best pain relievers. Endorphins can be produced naturally by doing activities such as meditation, deep breathing, eating spicy foods, or through acupuncture treatments or chiropractic.⁴

Birthing ball is a physical therapy ball that helps in partum mothers in the first stage into a position that helps the progress of labor. A physical therapy ball that helps labor progress and can be used in a variety of positions. One of the movements is by sitting on the ball and rocking to make you feel comfortable and help the progress of labor by using gravity while increasing the release of endorphins because the elasticity and curvature of the ball stimulate the receptors in the pelvis that are responsible for secreting endorphins.⁴⁻⁵

Practicing yoga during pregnancy is a useful solution as a self-help medium that will reduce discomfort during pregnancy, assist the delivery process, and even mentally prepare for the early days after giving birth and while raising children. Pregnant women who exercised regularly reported lower levels of

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discomfort during pregnancy and faster recovery than those who did not exercise during pregnancy.⁵⁻⁶

The Effectiveness of Birthing Ball in Reducing Physical Complaints Before. The results of the study in the intervention group that were given the Birthing ball treatment showed that the results were to reduce physical complaints in pregnant women with a value of $p = 0.001$ meaning $p < 0.05$, meaning that the birthing ball was effective in reducing physical complaints in pregnant women. The results of the study are in accordance with the results of the research conducted. According to a study conducted by Bonica (1995) on 2,700 parturients in 212 obstetric centers from 36 countries, it was found that labor proceeds without pain 15%, labor with moderate pain 30%, labor accompanied by severe pain 35%, and labor with pain. which is great 20%.⁶⁻⁷

Efforts that can be made to reduce pain in labor are by using non-pharmacological methods such as Birthingball. Birthball is a physical therapy ball that helps inpartum mothers in the first stage into a position that helps labor progress. A physical therapy ball can be used in a variety of positions. Like sitting on a ball and making movements

such as rocking back and forth, these movements can be comfortable and help labor progress using gravity, while increasing the release of endorphins because the elasticity and curvature of the ball stimulate receptors. This study is in line with the results of my research which showed that of the 30 respondents, the majority of primigravida mothers did 24 people (80%) birth ball therapy, while 6 people (20%).⁵⁻⁷

Birth ball therapy is done by sitting on the ball, standing and leaning on the ball, kneeling on the floor, and squatting on the floor. Mothers who are not fluent in birth ball therapy, namely mothers who do not complete bith ball therapy until complete opening with reasons of choosing to sleep lying down, feeling tired, feeling uneasy. In line with the theory of Asrinah (2011) which says that the delivery process is said to be smooth if the first stage primigravida pregnant woman opens for 1-2 hours at each opening. The labor process in Primigravida is the first experience that causes emotional tension, anxiety, and fear that can exacerbate the perception of pain.⁵

Pain induces fear so that anxiety arises which ends in panic. Primigravida

also experienced a longer labor process than multigravida labor so that primigravida experienced longer fatigue. But with birth ball therapy, the delivery process will be smooth. In line with the results of the independent review research according to (Irawati, Susanti, and Haryono 2019), the difference in the average value of pain levels in the treatment group respondents using Birth balls is 1.5 and the control group respondents are 0.9. Judging from the difference in changes, based on the average control respondents experienced an increase in pain scores.⁶⁻⁷

CONCLUSION

Meanwhile respondents in the treatment group experienced a decrease in the difference in pain level scores. Thus, it can be interpreted based on the mean value that the treatment respondents experienced a decrease in pain level scores. These results explain that there are differences in the level of anxiety scores and pain scores in mothers who were treated with Birth ball Exercise and those who were not treated with Birth ball Exercise.

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