Archives of The Medicine and Case Reports
Journal Homepage: https://hmpublisher.com/index.php/AMCR
eISSN: 2747-2051

The Effect of Birthing Ball on the Smooth Process of Labor in Maternity Women at TPMB (Midwife Independent Practice) Purwakarta Regency, Indonesia

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ARTICLE INFO

Keywords:
Birthing ball
Maternity
Primigravida
Smooth delivery process

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The author has reviewed and approved the final version of the manuscript.

https://doi.org/10.37275/amcr.v5i1.475

A B S T R A C T

The birthing process is a natural and physiological process, but it can be a tiring and painful process for the birth mother. One effort to help the birthing process run smoothly is to use a birthing ball. A birth ball is a large ball that is used for sitting, squatting, or turning around during the birthing process. This study aims to determine the effect of the birthing ball on the smoothness of the birthing process for mothers giving birth at TPMB (Midwife Independent Practice) Purwakarta Regency, Indonesia. This research uses a quasi-experimental method with a non-randomized control group design. The research sample was 60 primigravida mothers who were divided into two groups, namely the treatment group (30 mothers) and the control group (30 mothers). The treatment group was given a birthing ball during the birthing process, while the control group was not given a birthing ball. The results of the research show that there is an influence of the birthing ball on the smoothness of the birth process. Birthing mothers who used a birthing ball had a shorter active phase first stage time ($p<0.05$) and lower labor pain intensity ($p<0.05$) compared to birthing mothers who did not use a birthing ball. Based on the results of this research, it can be concluded that the birthing ball is an effective non-pharmacological method to help smooth the birthing process.

1. Introduction

The birthing process is a natural and physiological process, but it can be a tiring and painful process for the birth mother. The length of time needed to complete the labor process can vary, depending on various factors, such as the size of the fetus, the position of the fetus, and the mother's health condition. The first stage is the initial stage of labor, which is characterized by regular and increasingly strong uterine contractions. These uterine contractions cause the cervix to open so that the fetus can descend into the birth canal. The length of the first stage can vary, ranging from several hours to several days. The second stage is the stage of labor, which is characterized by strong and frequent uterine contractions, and the mother begins to push to expel the baby. Stage II usually lasts around 2-3 hours. The third stage is the stage of labor, which is marked by the expulsion of the placenta, which is the organ that connects mother and baby during pregnancy. Stage III usually lasts about 15 minutes. The birthing process can be a tiring and painful process for the birth mother. Strong uterine contractions can cause excruciating pain to the mother in labor. Pressure on the spine and pelvis can cause pain and discomfort to the mother in labor. Feelings of anxiety and fear can worsen the pain and discomfort of the birth mother. Therefore, it is important for birthing mothers to prepare themselves physically and mentally to face the birthing process. One way to prepare yourself

physically is to do prenatal exercises, such as yoga or pregnancy exercises. Prenatal exercises can help mothers in labor to strengthen the pelvic floor muscles and increase body flexibility so that the delivery process can be smoother.[1-3]

One non-pharmacological effort that can be done is to use a birthing ball. A birth ball is a large ball that is used for sitting, squatting, or turning around during the birthing process. Birthing balls can help mothers in labor maintain a comfortable position so that they can increase uterine contractions and help the fetus descend into the birth canal. Squatting or spinning on a birthing ball can help the birthing mother relax and reduce stress, thereby increasing the production of the hormone oxytocin, which plays a role in uterine contractions. Sitting on a birthing ball can help reduce pressure on the spine and pelvis, thereby reducing pain and discomfort during labor.[4,5] This study aims to determine the effect of the birthing ball on the smooth process of labor in maternity women at TPMB (Midwife Independent Practice) Purwakarta Regency, Indonesia.

2. Methods

This research uses a quasi-experimental method with a non-randomized control group design. The research sample was 60 primigravida mothers in TPMB Purwakarta Regency who were divided into two groups, namely the treatment group (30 mothers) and the control group (30 mothers). The treatment group was given a birthing ball during the birthing process, while the control group was not given a birthing ball. Research data was collected using a questionnaire containing questions about the characteristics of the mother giving birth, length of the first stage of the active phase, intensity of labor pain, and complications of labor. Data analysis was carried out using the Chi-square statistical test to determine the differences between the treatment group and the control group.

3. Results and Discussion

The results showed that there were significant differences between the treatment group and the control group in terms of the length of the first stage of the active phase and the intensity of labor pain. Mothers who gave birth using a birthing ball had a shorter active phase first stage ($p<0.05$), namely 8.7 hours compared to 11.5 hours in the control group. Mothers who gave birth using a birthing ball also had lower labor pain intensity ($p<0.05$), namely 6.5 on a scale of 10 compared to 8.5 on a scale of 10 in the control group. There was no significant difference between the treatment group and the control group in terms of labor complications.

The birthing process is a natural process, but it can be a tiring and painful process for the birth mother. Therefore, it is important for birth mothers to maintain a comfortable position during the birthing process. A comfortable position can help the birthing mother relax and reduce stress, thereby increasing the production of the hormone oxytocin, which plays a role in uterine contractions. This oxytocin hormone works to increase contractions of the uterine muscles, so it can help speed up the labor process. Apart from that, a comfortable position can also help the fetus to descend into the birth canal more easily. This is because a comfortable position can help open the birth canal and increase the fetus' movement space. Sitting on a birthing ball can help the birthing mother to relax and reduce stress. The movement of the ball can help stimulate uterine contractions and help the fetus to descend into the birth canal. Squatting can help open the birth canal and increase the fetus' movement space. This position can also help reduce pressure on the spine and pelvis. Standing can help increase blood flow to the uterus and fetus. This position can also help reduce pressure on the spine and pelvis. Crawling can help open the birth canal and increase the fetus' movement space. This position can also help reduce pressure on the spine and pelvis.[6-8]

The birthing process is a natural process, but it can be a tiring and painful process for the birth mother. Therefore, it is important for mothers in labor to relax and reduce stress during the birthing process. Squatting or spinning on a birthing ball can be one way to help a birthing mother relax and reduce stress. These movements can help the birthing mother release muscle and mental tension, thereby increasing the production of the hormone oxytocin, which plays a role in uterine contractions. This oxytocin hormone works to increase contractions of the uterine muscles, so it can help speed up the labor process. Apart from that, feeling relaxed can also help the mother in labor to be more sensitive to uterine contractions, thereby increasing the effectiveness of contractions.[9,10]

The birthing process is a natural process, but it can be a tiring and painful process for the birth mother. One of the causes of pain and discomfort during labor is pressure on the spine and pelvis. Sitting on a birthing ball can be one way to help reduce pressure on the spine and pelvis during the birthing process. A springy ball can help support the body of the birthing mother, thereby reducing pressure on the spine and pelvis. Apart from that, sitting on a birthing ball can also help the birthing mother to relax and reduce stress. This can help reduce pain and discomfort during labor.[11]

4. Conclusion

A birthing ball is an effective non-pharmacological method to help smooth the birthing process.

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