



THE INFLUENCE OF BIRTH BALL ON THE LONGER TIME I ACTIVE PHASE IN BABRING WOMEN

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ABSTRACT

Giving birth is A situation in which the baby, placenta and fetal membranes are born from the womb into the outside world. Prolonged labor is a cause of obstetric complications, leading to maternal and fetal mortality and morbidity. Active phase I still has a large number of long-term events. This study aims to see if the birthing ball has an effect on the active phase 1 process for pregnant women. This study used a quasi-experimental research method. All pregnant women in their third trimester participated in this study. The sample of this study was 30 respondents using purposive sampling technique. Data analysis was univariate, bivariate. The results of the study showed that the birthing ball intervention had an effect on the duration of the first active phase of laboring mothers. The p-value was 0.0016. If the significance value is less than the A value (0.000 and less than 0.05). The conclusion of this study is that H0 is rejected, which means that there is a significant difference in the duration of the first active phase between the intervention group and the control group.

Keywords: babring women; bitrth ball; long period of active phase I

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INTRODUCTION

Childbirth is the birth of the baby, placenta and amniotic membranes from the uterus to the outside world. Normal childbirth occurs at term without any complications. Labor begins when the uterus contracts and causes changes in the cervix (opening and thinning) and ends with the complete birth of the placenta (Arifin, 2017). According to the World Health Organization (WHO), more than 85% of births are carried out normally and 15-20% die due to diseases and complications related to pregnancy and childbirth out of 295,000 maternal deaths, the majority of which (94%) are in developing countries. Data from the Ministry of the Republic of Indonesia, the number of mothers giving birth in Indonesia in 2020 was 5,043,078 people, 23.2% of whom experienced birth complications (Indonesian Ministry of Health, 2020). The National Riskesdas Report (2019) found several causes of the biggest birth complications, namely premature rupture of membranes (5.6%), prolonged labor (4.3%), fetal position (3.1%), umbilical cord entanglement (2.9%), hypertension (2.7%), bleeding (2.4%), and others (4.6%).

The cause of complications in childbirth which causes increased mortality and morbidity in the mother and fetus is prolonged labor. Mothers with prolonged labor are at greater risk of bleeding due to uterine atony (33%), laceration of the birth canal (26%), infection (16%),

fatigue (15%) and shock (10%). Meanwhile, in the fetus it can increase the risk of severe asphyxia, cerebral trauma, infection and injury due to procedures (Wiliandari, 2021). The incidence of prolonged labor is caused by several factors such as the position of the fetus, pelvic abnormalities, histology abnormalities, incorrect delivery, large fetus, congenital abnormalities, grand multipara, and premature rupture of membranes (Umu Qonitun, 2019). Birth ball means a birth ball that can be used by mothers in the 1st stage in a position that helps the progress of labor (pelvic rocking movement). The advantages of using a birth ball are that it increases blood flow to the uterus, placenta and baby, relieves pressure and can increase pelvic output by as much as 30%, provides comfort for the knees and ankles, provides counter-pressure on the perineum and thighs. This posture works. gravity pushes the baby down thereby speeding up the birthing process (Tri Maryani, 2017). This study aims to see if the birthing ball has an effect on the active phase 1 process for pregnant women.

METHOD

This research is a quasi-experimental design, namely by looking at the duration of the first active phase using an observation sheet. The design used in this research was a two group only post test design. In the intervention group, the research used the birth ball method, while in the control class the researchers used the light walking method in the room. Population is a generalization area consisting of objects/subjects that have certain quantities and characteristics determined by researchers to be studied and then conclusions drawn (Hidayat, 2014). The population in this study were all pregnant women in the third trimester. The sample is part of the population studied or a number of characteristics possessed by the population (Hidayat, 2014). The sampling technique used was purposive sampling taken from the research population, namely women giving birth normally at PMB Erwina who met the criteria restrictions. The sample is part of the number and characteristics of this population (Sugiyono, 2016). The data used in this research is primary data, data taken directly from respondents by observation. Using a numerical scale and checklist

This analysis was carried out on variables from the research results. In general, this analysis only produces a percentage distribution of each variable. The analysis is carried out to see the frequency distribution, both the independent variable (warm ginger water compress) and the dependent variable (back pain for pregnant women TM III). Bivariate analysis is data analysis on two variables that are thought to have a correlation (Notoadmojo, 2010). The test used is the Independent T test if the distribution of the two data is normal, to see the difference in the length of period I of the Active Phase before and after the intervention variable and the control variable.

RESULTS

Tabel 1.
The mean score for stage 1 of the intervention group and the comparison group

Long Time I	Difference				Total		Difference Mean	p.Value
	Control		Intervention		f	%		
	f	%	f	%				
Fast	0	0	15	100			6,606	
Normal	15	100	0	0				
					15	100		0.016

Table 1, the mean score for stage 1 of the intervention group and the comparison group showed an average difference of 6,606 minutes. The statistical test results showed that the value of $p = 0.016$ was smaller than the value of $\alpha = 0.05$, meaning that there was a difference in the length of the first active phase in mothers giving birth between the intervention group and the control group at PMB Erwina.

DISCUSSION

Intervention And Control Group

Frequency of respondents in the control group and intervention group based on the length of the first stage of the active phase of the mother giving birth. It can be seen that of the 15 who were not given a birth ball, 15 respondents (100%) were mothers who gave birth normally and all mothers who gave birth balls who were given a birth ball in the first active phase were faster, namely 15 respondents (100%). The results of this study are supported by (Setyorini et al., 2021) who stated that there is an influence of pelvic rocking exercise on the progress of labor, this is because by making rotating movements in the pelvis it can help the process of fetal descent where the cervix dilates more quickly, apart from that The area of the pelvis is wider, making it easier for the baby's head to descend to the pelvic floor. This movement can reduce pain during contractions. The position of sitting on a ball with pelvic rocking is preferred because the mother is more relaxed and doesn't get tired easily. By sitting, the mother can still help lower the head with gravity but doesn't get tired because she doesn't carry the weight of the stomach, so this position makes the mother last longer. Performing the movement of sitting on the ball and rocking back and forth makes you feel comfortable and helps the progress of labor by using gravity while increasing the release of endorphins because the elasticity and curvature of the ball stimulates the receptors in the pelvis which are responsible for secreting endorphins, thus pelvic rocking exercise is one method which really helps respond to pain in an active way and reduces the length of labor during the first active phase.

This research is supported by (Batubara & Lia, 2021) who states that the upright position by sitting on a birthing ball or what is called the pelvic rocking technique and walking, standing, are both in an upright position. Both have the effect of speeding up the labor process. However, the position sitting on the ball with pelvic rocking is preferred because the mother is more relaxed and does not get tired easily. By sitting, the mother can still help lower the head with gravity but is not tired because she is not carrying the weight of the stomach. So this position makes the mother stay longer in the upright position. All of the positions above have a good influence on the process of speeding up the length of labor, but comfort is the reason for choosing the upright position. Increasing the size of the pelvic cavity when doing pelvic rocking allows the mother to relax and train the smooth muscles in the pelvic cavity. The sacrotuberous ligament and the supine sacrospinous ligament which run from the lateral part of the sacrum and coccyx to the ischial spine affect the joints in the pelvic bones. Sitting on the ball can be assumed to be squatting, opening the pelvis, thus helping the process of lowering the fetal head. Slow pelvic rocking movements can reduce pain during contractions. Apart from that, the movements of leaning back, shaking the pelvis, kneeling and resting on the ball can be considered comfortable mobilization movements.

Average Length of Stage I Active Phase in the Intervention and Control Groups

The length of the first stage in the intervention group (birth ball) was 165 minutes (2 hours 45 minutes) and the control group was 220 minutes (3 hours 40 minutes). This is also in line with research (Darma et al., 2021) which states that it is faster progress of the 1st stage of labor with the use of a Birth Ball compared to not using a birth ball. Birthball helps speed up the duration of the first stage of labor. By doing movements such as sitting on the ball and rocking back and forth, you will move your thighs and rotate them. This will encourage the baby's head to press on the cervix and help speed up labor in the first stage. In line with research (Purwati, 2020) which states that the use of a birth ball during labor prevents the mother from being in the supine position continuously. The birth ball encourages the mother in an upright position whether in a sitting, kneeling or standing position. This position is

useful for opening the pelvic cavity and pushing the baby down. Changes in position during labor can change the shape and size of the pelvic cavity which will help the baby's head descend to an optimal position during the first stage of labor and help the baby rotate and descend during the second stage of labor.

Effect of Birthball Intervention on the length of the first stage of the active phase

From the research results, it was found that the duration of the first stage of the intervention group and the comparison group had an average difference of 6,606 minutes. The statistical test results showed that the value of $p = 0.016$ was smaller than the value of $\alpha = 0.05$, meaning that there was a difference in the length of the first active phase in mothers giving birth between the intervention group and the control group at PMB Erwina. This research is in line with research (Gemini, 2019) which states that there is an influence of the birthing ball on the length of the first active phase in primigravida. The birth ball can affect the length of the first active phase in primigravida due to the adoption of an upright position combined with movements on the ball. When respondents use a birthing ball, respondents not only benefit from an upright position which allows the force of gravity to help lower the fetal head, but also the movements made can make uterine contractions stronger and more efficient to help lower the fetal head and open the cervix, making it last longer. In stage I, the active phase becomes faster.

This research is in line with research (Wiliandari, 2021) which states that during the birthing process, a birthing ball can be a medium/tool to be used in various positions. Sitting on a ball while pushing like a swing or making pelvic rotation movements can help the process of lowering the fetus into the pelvic floor. The ball provides support to the perineum without much pressure and helps speed up the labor process. Apart from that, the advantage of sitting upright on a ball is that it can increase blood flow to the uterus, placenta and baby. This posture allows the force of gravity to push the baby's head down.

CONCLUSION

The average length of the first stage in the intervention group (birth ball) was 203 minutes (3 hours 38 minutes) and the control group was 248 minutes (4 hours 13 minutes) for women giving birth at PMB Erwina. There is a difference in the average length of the first stage of the active phase in mothers giving birth between the intervention group and the control group. There is an influence of Birthball intervention on the length of the first stage at PMB Erwina

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