

THE RELATIONSHIP OF THE USE OF GYM BALL TO THE LONG TIME OF LABOR

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ABSTRAK

Latar Belakang: Salah satu komplikasi persalinan yang ikut menyumbang dalam angka kematian ibu adalah partus lama. Berbagai upaya fisiologis dilakukan untuk mencegah persalinan lama, seperti senam hamil, teknik nafas, pelvic rocking dengan Gymball agar dapat berjalan secara fisiologis Gym ball adalah salah satu latihan fisik yang dilakukan ibu mulai dari masa kehamilan bahkan sampai saat proses persalinan yang membantu kemajuan persalinan dan dapat digunakan berbagai posisi.

Tujuan: Penelitian ini adalah untuk mengetahui hubungan penggunaan gym ball terhadap lama persalinan kala I.

Metode: Penelitian ini menggunakan jenis analitik dengan desain cross sectional dengan teknik pengambilan data total sampling sebanyak 113 ibu bersalin di Praktik Mandiri Bidan dengan menggunakan instrumen data yang diambil dari rekam medik.

Hasil: Ibu bersalin dengan lama kala I normal dan menggunakan *gym ball* sebanyak 89 (78,8%), dan ibu bersalin yang lama kala I nya tidak normal terdapat pada ibu yang tidak menggunakan gym ball sebanyak 0 (0%).

Kesimpulan: Berdasarkan analisa data bahwa variabel yang berhubungan dengan penggunaan gym ball terhadap lama persalinan kala I adalah, penggunaan gym ball terhadap lama persalinan ($p=0,04$) bahwa ada hubungan antara penggunaan gym ball terhadap lama persalinan kala I. Gerakan menggunakan gym ball dengan cara menggerakkan panggul ke depan, belakang, kanan, kiri secara perlahan dapat meredakan tekanan dan meningkatkan bidang luas panggul, mendorong turunnya kepala bayi, membantu kontraksi rahim lebih efektif, mempercepat dilatasi serviks, dan membantu relaksasi pada panggul.

Saran: Diharapkan kepada PMB Aminah untuk menjadi wadah serta fasilitator bagi ibu bersalin dalam menghadapi proses persalinan yang nyaman dan menyenangkan dalam melewati kala I yang lebih singkat serta agar dapat lebih mensosialisasikan manfaat dilaksanakan Gymball untuk mempercepat proses persalinan.

Kata kunci: gym ball, kala I, persalinan

ABSTRACT

Background: One of the complications of childbirth that contributes to maternal mortality is prolonged labor. Various physiological efforts are made to prevent prolonged labor, such as pregnancy exercise, breathing techniques, pelvic rocking with Gymball so that you can walk physiologically. used in various positions. Objective: Purpose the relationship between the use of a gym ball on the duration of the first stage of labor.

Methods: This study used an analytical type with a cross sectional design with a total sampling technique of 113 mothers giving birth at the Independent Midwife Practice using data instruments taken from records. medical.

Result Mothers giving birth with a normal first stage of labor and using a gym ball were 89 (78.8%), and mothers who gave birth with an abnormal length of first stage were 0 (0%) mothers who did not use a gym ball.

Conclusion: Based on data analysis that the variables related to the use of a gym ball on the duration of the first stage of labor are, the use of a gym ball on the length of labor ($p = 0.04$) that there is a relationship between the use of a gym ball on the duration of the first stage of labor. Movement using a gym ball by slowly moving the pelvis forward, backward, right, left can relieve pressure and increase the pelvic area, encourage the baby's head to descend, help uterine contractions more effectively, accelerate cervical dilation, and help relax the pelvis.

Suggestion: It is hoped that PMB Aminah will become a forum and facilitator for maternity mothers in facing a comfortable and enjoyable delivery process in passing the shorter first stage and in order to be able to further socialize the benefits of implementing Gymball to speed up the delivery process.

Keywords: gym ball, first stage, labor

INTRODUCTION

Childbirth is the process of expelling conceptions (fetus and placenta) that have been enough months or can live outside the womb through the birth canal or through other means with or without assistance (own strength). This process begins with true labor contractions, which are characterized by progressive cervical changes and ends with the birth of the placenta. Delivery is the process of expulsion of conceptions (fetus and placenta) that have reached term or can live outside the womb through the birth canal or through other means with or without assistance. help (own strength). This process begins with true labor contractions, which is characterized by progressive cervical change and ends with delivery of the placenta⁽¹⁾

The birth process is identical to the pain that will be experienced, although it can be said that pain in labor is a physiological process. Pain can result in a state of frustration and hopelessness, so some mothers worry that they will not be able to get through the labor process⁽¹⁾

Midwifery care given to women during childbirth has a physical and emotional impact. Inappropriate management of the delivery process can result in prolonged or delayed labor so that the risk of dehydration, fatigue, uterine rupture, postpartum hemorrhage and sepsis during the puerperium is high. Prevention and early detection in early and late pregnancy will significantly reduce complications during the delivery process⁽²⁾

The first stage of labor is defined as the start of true contractions that can cause cervical dilation and end with complete dilation⁽³⁾

The first stage of labor consists of the first stage of the latent phase and the first stage of the active phase. The first stage of the latent phase is a condition in which the cervical dilatation takes place slowly until the opening of 3 cm which lasts for 7-8 hours, while the first stage of the active phase is a condition in which the cervical dilatation takes place starting from the opening of 4 cm to 10 cm which lasts for 6 hours consisting of: 2 hours of acceleration period, 2 hours of maximal dilatation period and 2 hours of deceleration period. This phase is found in primigravida. So normally the length of the first stage of labor in primigravida lasts for 13-14 hours while in multigravida it lasts for 6-7 hours⁽⁴⁾

In primigravida the duration of labor in the first stage has a longer duration compared to multigravida, where the duration of labor in the first

stage in primigravida is about 20 hours while multigravida is about 14 hours.⁽⁵⁾

Long labor is one of the complications associated with sepsis, especially if the membranes rupture prematurely and can lead to death. Prolonged labor is also a cause of fetal death. The fetus dies from excessive pressure on the placenta and the umbilical cord.⁽⁶⁾

The government's efforts to overcome long labor are contained in the Regulation of the Minister of Health Normal 369/Menkes/SK/III/2007 concerning the professional standards of midwives, namely as a midwife profession, they are required to provide services in midwifery care during the first stage of labor such as positioning, relaxation, providing moral support, monitoring the progress of labor. normal use of a pathograph and assist the process of fetal descent during labor and birth⁽⁷⁾

During labor, you can use various ways to make delivery run smoothly, such as perinatal yoga, hypnobirthing, gym ball, etc. Gym ball is one of the physical exercises that mothers do from the time of pregnancy even until the delivery process⁽⁸⁾. Besides being able to reduce pain during opening in the first stage, birth balls have other benefits including reducing the incidence of prolonged first stage, accelerating cervical opening, stimulating uterine contractions, widening the diameter of the pelvis and accelerating the descent of the fetal head.⁽⁹⁾ The use of Gymball makes the mother feel safe and comfortable in moving, making it easier for the fetus to descend into the pelvis⁽¹⁰⁾.

When the length of the first stage of the active phase becomes shorter with the use of a birthing ball, it can prevent fatigue in laboring mothers caused by the long duration of labor. Fatigue in childbirth which includes physical and mental discomfort during labor can be prevented as much as possible because fatigue in labor is correlated with causing delays in cervical dilatation or complications in the first stage of the active phase⁽¹¹⁾

The presence of assistance by birth attendants during the first stage of the active phase is also one of the keys to the successful implementation of this birthing ball. With full assistance, the birth attendant can monitor the accuracy of the movements made by the respondent while on the ball. In addition, the presence of assistance can increase the comfort of the mother when facing the delivery process. This is in accordance with the statement that the role of the helper is to monitor carefully and provide support and

comfort to the mother both in terms of emotions or feelings as well as physically⁽¹²⁾.

When providing inpartu care through a birth ball, it can create a good sense of self-confidence so that the mother quickly accepts directions. Pregnant women and maternity mothers who have received delivery preparations in the form of birth balls and psychological exercises, so that they can better prepare themselves for pain and discomfort during the labor process ⁽¹³⁾.

Based on a preliminary survey at PMB Aminah SST, there were 10 mothers giving birth, 4 primigravida mothers who used the gym ball technique during the first stage of the active phase, the mother got an average of 4-6 hours of the first stage process, 4 multigravida mothers who used the gym ball technique during the process. the first stage of the smooth process - an average of 2-4 hours, and 2 grandemultigravida, who do the gym ball technique to help smooth the delivery process. Meanwhile, 1 grandemultigravida mother did not succeed in doing the gym ball technique, due to age and the mother was tired, and the opening was above 7 which made the mother unable to get out of bed or change position. So from 10 mothers giving birth 9 people (90%) got the first stage with a faster process.

RESEARCH METHODS

This research uses analytic research with cross sectional design. The location of this research is PMB Aminah SST Kp. The new time is Sukatenang Village, Sukawangi District, Bekasi Regency.

The population taken is maternal data from medical records at PMB Aminah SST (January – December) 2020. A total of 113 mothers gave birth. Using a sampling technique by means of total sampling, that is, the entire population is sampled⁽¹⁴⁾

Data retrieval using secondary data seen from medical records in the form of patographs. Analysis of the data used is univariate and bivariate with Chi-square test with a degree of 95% which means that if the P-Value <0,05, it means that there is a relationship between the independent variable and the dependent variable

Bivariate Analysis

Table 2.
The Relationship Between the use of Gymball on The First Stage of Labor at PMB Aminah,S.ST in 2020 Sukatenang Village, Bekasi

Use Gymball	Long Time I	N	p-value
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RESULTS AND DISCUSSION

Univariate analysis

Table 1.
Distribution of Data Frequency Based on First Stage of Labor Duration, Use of Gym Balls, Age, Parity, Occupation, Education in the Independent Practice of Midwife Aminah, Sukatenang Village, Bekasi in 2020.

Variable	Frekuensi	%
Long Time I		
Normal	107	94,7%
AbNormal	6	5,3%
Use of Gym ball		
Use	95	85,1%
Unuse	18	15,9%
Age		
Risk	35	31%
No Risk	78	69%
Parity		
Primipara	46	40,7%
Multipara	37	32,7%
Grande multipara	40	26,5%
Profession		
Work	18	15,9%
No Work	95	84,1%
Education		
Low	77	68,1%
High	36	31,9%

	Normal		Abnormal			
	N	%	N	%		
Use	89	78.8	6	5.3	95	0,04
Unuse	17	15.9	0	0,0	18	

DISCUSSION

Based on table 2, mothers who gave birth with a normal 1st stage and used a gym ball were 89 (78.8%), and 0 (0%) mothers who gave birth with an abnormal length of the first stage and who did not use a gym ball.

From the results of statistical tests there is a value of $p = 0.04 = 0.05$ so that there is a relationship between the use of a gym ball on the length of the first stage of labor. there is a significant relationship between birth ball therapy with the smooth delivery process, where p value = $0.04 = 0.05$.

In line with the theory that pelvic rocking with a birthing ball is able to help facilitate the delivery process, especially the first stage and the benefits are that the pressure from the baby's head on the cervix remains constant when the mother is in an upright position, so that cervical dilatation (opening) can occur more quickly. a wider pelvis that makes it easier for the baby's head to descend to the pelvic floor is in accordance with the results of the study. Exercise or therapy using a birthball can strongly encourage the mother's energy needed during childbirth, an upright body position will support the birth process and help the fetus to be in an optimal position making it easier to give birth normally. In addition, the delivery mother becomes more relaxed so that the flow of oxygen is smooth where the availability of this oxygen will affect the activity of uterine contractions, the more oxygen is transferred to the uterine muscles, the more adequate uterine contractions so that labor becomes shorter.⁽¹⁵⁾

Mothers giving birth in this study sat on the ball and rocked so that the elasticity and curvature of the ball could stimulate the receptors in the pelvis that are responsible for excreting endorphins. The advantage of using other birthballs is that it can increase the pelvic outlet by 30%, work with gravity which pushes the baby down so that it speeds up the delivery process⁽¹⁶⁾.

The results of this study agree with the research by Surtiningsih, Kun Aristiati Susiloretni and Sri Wahyuni with the title The Effectiveness of Pelvic Rocking Exercise on the length of labor time in primiparous women in 2017 which gives the result that respondents who do Pelvic Rocking Exercise have relatively long duration of labor in the first stage of active phase. shorter than the group without Pelvic Rocking Exercise⁽¹⁷⁾

This study is also in line with the results of the study, it was found that 70% of the respondents in the treatment group experienced a rapid duration of the first active phase, while in the control group, only 30% of respondents experienced a rapid duration of the first active phase⁽¹⁸⁾

The results of this study can prove that there is an effect of using a gymball on the progress of labor in the active phase I inpartum mother. The results of this study are supported by the results of χ^2 count $>$ χ^2 table ($13.333 > 9.488$), and p -value ($0.01 < 0.05$).⁽¹⁹⁾

This study is also supported by research by Zaky (2016) which states that there is a relationship between pelvic rocking and birth balls on the development of labor in terms of decreasing the interval and increasing the duration and frequency of uterine contractions, cervical dilatation and a decrease in the fetal head. Researchers recommend that pelvic rocking with a birth ball can affect the progress of labor, manage pain, promote self-control and achieve a more satisfying delivery experience.⁽²⁰⁾

As research was conducted on healthy birth practices by walking, switching and changing positions during labor that labor was shortened by approximately 1 hour and 22 minutes for mothers randomly assigned to the upright position compared to mothers who were lying down⁽²¹⁾

Another study that is in line with the results of this study is a study conducted by Hiyana in 2019. The results of the study The results of the p -value of 0.006, so that there is an effect of pelvic rocking with a birthing ball on the duration of the first stage of labor in the active phase. The pelvic rocking technique with a birthing ball is practical and effective in accelerating the first stage of labor, so it can be socialized to pregnant women⁽²²⁾. By doing a birth ball exercise, it is able to facilitate the delivery process, especially in the first stage and help mothers experience a normal first stage of labor⁽²³⁾. Research in Taiwan shows that a group of women who do Birth ball exercises experience a shorter labor period⁽²⁴⁾

The gymball helps the mother to stay in a standing position and also opens the pelvis, encouraging the baby to move downwards. Changing positions during labor will change the shape and size of the pelvis which will help the baby's head move to an optimal position during the first stage of labor and help the baby to rotate⁽²⁵⁾.

In contrast to mothers who only lie down during the first stage, the pressure of the head to the cervix will be more on the posterior cervix (cervix at 6 o'clock) so that in the end there are many cases of anterior cervical lips which make the labor process longer and more painful⁽²⁶⁾

Gymball is very good to use in the active phase of the first stage of labor, especially to help the progress of labor. However, there are some conditions for mothers in labor that are not recommended to use a birthing ball. According to the American College of Obstetricians and Gynecologists in Artal (2003) the conditions of maternity women who are not recommended to do an exercise are mothers who give birth with heart disease or lung disease, incompetent cervix, multiple pregnancies, premature birth, antepartum bleeding, premature rupture of membranes. , the mother gave birth with hypertension and decreased fetal movement. These conditions can be identified through the history that has been written in the medical record or MCH book as well as through screening of pregnant women⁽²⁷⁾

The important factor when a woman is in labor is not when she finally gives birth, but when she is still able to move restlessly during labor, because with movement or mobilization during labor uterine contractions become more adequate which allows the fetus to be born physiologically and mobilize as well. help mom to stay in control⁽²⁸⁾.

Gymball allows women giving birth to be in an upright position which can have an effect on accelerating the duration of the first stage of the active phase⁽²⁹⁾.

Gymball can help shorten the first stage of the active phase where the mother in labor will sit on the ball with a rotating hip movement. This allows the baby's head to press against the cervix which can promote dilation.⁽³⁰⁾

According to the researcher's assumption, there is no gap between the results of this study and the theory. Gymball therapy greatly affects the smooth delivery process, especially in primigravida mothers who are in the process of inpartu. By doing the Gymball technique, it is able to facilitate labor and help mothers experience a normal first stage of labor.

CONCLUSION

The relationship between the use of a gym ball on the length of the first stage of labor, the highest number of mothers who had a normal delivery time and using a gym ball with an average length of delivery of 3 - 8 hours were 89 mothers giving birth (78, 8%), and the smallest number of mothers who had a long labor. labor was abnormal

with an average length of labor (9-14 hours) and 0 mothers did not use a gym ball (0%).

SUGGESTION

So that the Independent Midwife Practice can provide care in the use of Gymball for inpartu mothers, in order to make mothers more comfortable and speed up the first stage of the process. Develop techniques for using Gymball as a pain reduction technique in carrying out midwifery practice care through training and seminars.

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