



Effectiveness of Perineum Massage in Primigravida Pregnant Women on Perineum Rupture in Materials

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A B S T R A C T

Infection is one of the important causes of maternal mortality and morbidity. One of the risk factors for puerperal infection is due to actions during delivery such as episiotomy and perineal rupture. The perineum is the most common site for rupture during labor. Perineal rupture occurs in 85% of women during birth and 60-70% requires suturing. Perineal rupture occurs in almost all first deliveries. For this reason, efforts are needed to prevent perineal rupture, one of which is a simple method that everyone can do by doing perineal massage. Objective: To determine the effectiveness of perineal massage in women giving birth with perineal rupture at BPM Kusmawati, Amd Keb Surabaya. Methods: The design used is a quasi-experimental design with a Static Group Comparison. The study was conducted at BPM Kusmawati, Amd Keb Surabaya on September 5 to November 5, 2021. The population of all primigravida mothers at 37 - 40 weeks of gestation was 40 people. The sampling technique used Total Sampling which was divided into 20 subjects in the intervention group and 20 in the control group. Data collection techniques using a checklist sheet. The data were analyzed using the Fisher Exact Test. Results: showed p value = 0.000 (<0.05), then perineal massage was effective in preventing perineal lacerations and episiotomy in normal delivery, so perineal massage could be applied especially to primigravida from 37 - 40 weeks of gestation to prevent spontaneous perineal rupture. in normal delivery in women giving birth at BPM Kusmawati, Amd Keb Surabaya.

INTRODUCTION

Infection is one of the important causes of maternal mortality and morbidity. One of the risk factors for puerperal infection is caused by actions during delivery such as episiotomy and perineal rupture which can develop into more severe infections such as abscesses, eviscerations and thrombophlebitis (Dwi Anggraini, 2016). The perineum is the most common site for rupture during labor (Winkjosastro, 2011). Perineal rupture occurs in 85% of women during birth and 60-70% requires suturing. Perineal rupture occurs in almost all first deliveries and is not uncommon in subsequent deliveries. The soft tissue of the birth canal and surrounding structures will be damaged with each delivery. Damage is usually more pronounced in nulliparous women because the tissue in nulliparas is denser and more resistant than in multiparous women (Dwi Masita, 2016). Various methods have been used to reduce perineal rupture both during pregnancy and during delivery. Perineal rupture can be prevented in a very simple way and can be done by everyone by massaging the perineal area or the perineal area of the vagina. In accordance with the aim, namely to determine the effectiveness of perineal massage in maternity mothers with the aim of preventing perineal rupture in maternity mothers. In accordance with the opinion of (Beckmann MM, 2017) that women who perform perineal massage starting at 35 weeks of gestation have a lower risk of

birth canal trauma in normal delivery and statistically significant 16% can reduce the incidence of perineal rupture. Women who do perineal massage an average of 1.5 times per week experienced a decrease of 16%. Safitri (2014) proves that there is an effect of perineal massage in primigravida on the incidence of perineal rupture ($p < 0.05$) in Independent Practicing Midwives in Bengkulu City.

In line with the same study conducted by Dartiwen (2015) which stated that there was an effect of perineal massage in primigravida on the incidence of perineal rupture during delivery in the working area of the Margadadi Public Health Center, Indramayu Regency. As it is known that perineal rupture can cause pararectal rupture, so that the rectum is separated from the surrounding tissue. Injury can cause pelvic floor weakness so that genital prolapse is easy and rectocele can occur (Winkjosastro, 2010).

Complaints that often arise due to infection with ruptured birth canal are pain and dysuria with or without urinary retention, purulent fluoride and fever. In more severe cases the entire vagina will be edematous, ulcerated and may be covered by exudate. Complications can occur due to perineal rupture in the form of mild to severe complications in the form of permanent and chronic complications that occur after the puerperium (Nikmah et al., 2021). Therefore, at BPM Kusmawati, Amd Keb applied perineal massage to pregnant women in the hope that pregnant women who gave birth at BPM Kusmawati, Amd Keb did not experience perineal rupture. Therefore, this study aims to determine the effectiveness of perineal massage in women giving birth to prevent perineal rupture in women during childbirth.

METHOD

This research is a Quasi-Experimental Design. This study uses a Static Group Comparison design where the treatment or intervention has been determined, then measurements (observations) are made by adding a control group or a comparison group. The results of these observations were then controlled or compared with the results of observations in the control group who did not receive the program or intervention. The population in this study were all primigravida mothers starting at 37-40 weeks of gestation with an estimated delivery from 5 September to 5 November 2021 which was seen based on the delivery bag at BPM Kusmawati, Amd Keb Surabaya as many as 40 people. The sample in this study was the entire population or the total sampling available at the time of the study that met the specified criteria and the controls adjusted to the number of cases with a ratio of 1:1. The number of samples in cases is 20 people and the number of control cases is 20 people. This research was conducted on the 5th of September to the 5th of November 2021. The type of data used was primary data in the form of a checklist regarding the implementation of perineal massage and secondary data obtained from partograph sheets of maternity mothers which were used to determine whether there was rupture of the perineum or not. at BPM Kusmawati, Amd Keb Surabaya. The data collection technique used in this study was obtained from primary data obtained directly through structured direct interviews by providing education

to respondents about the implementation of perineal massage including benefits, indications and contraindications, implementation time and method of perineal massage and secondary data see partograph observation sheet. Then the mother and husband were asked to read and sign the informed consent as mother's consent to participate in this study. Bivariate analysis in this study used the Fisher Exact Test.

RESULT

Table 1. Frequency Distribution of Respondents' Characteristics of Perineal Massage on Primigravida Mothers at BPM Kusmawati, Amd Keb Surabaya

No	Characteristics	Intervention Group		Control Group	
		Frequency	%	Frequency	%
1	Age				
	- < 20 Year	3	15	8	40
	- 20 - 35 Year	17	85	12	60
	- > 35 Year	0	0	0	0
	Total	20	100	20	100
2	Level Of Education				
	- College	5	25	6	30
	- Diploma	5	25	7	35
	- Senior High School	10	50	7	35
	Total	20	100	20	100
3	Work				
	- IRT	18	90	20	100
	- Entrepreneur	2	10	0	0
	- Civil Servants	0	0	0	0
	Total	20	100	20	100

Based on Table 1, it can be seen that the characteristics of respondents in the control group are mostly aged 20-35 years as many as 12 people (60.0%), based on the latest education level, most respondents are SMA and SMP each with 7 people (35.0%), based on the occupation of the majority of respondents as housewives as many as 20 people (100%). While the characteristics of respondents in the intervention group are mostly aged 20-35 years as many as 17 people (85.0%), the last education level is mostly junior high school as many as 10 people (50.0%) and most of the respondents as housewives are 18 people (90.0%).

Table 2. Frequency Distribution of Perineal Rupture Degrees in Maternal Maternity at BPM Kusmawati, Amd Keb Surabaya

No		Perineal Rupture Degree			
		Intervention Group		Control Group	
		Frequency	(%)	Frequency	(%)
1	No Ruptur	16	80	1	5
2	Degree 1	3	15	1	5
3	Degree 2	1	5	18	90
4	Degree 3	0	0	0	0
5	Degree 5	0	0	0	0
	Total	20	100	20	100

Table 2 shows that in the control group, most of the respondents experienced second-degree perineal lacerations as many as 18 people (90.0%), while in the intervention group most of the respondents did not experience perineal lacerations as many as 16 people (80.0%).

Table 3. Analysis of the Effectiveness of Perineal Massage on Perineal Rupture at BPM Kusmawati, Amd Keb Surabaya

Perineal Massage	Perineal Rupture			
	Rupture	%	No Rupture	%
No Massage	19	95	1	5
Massage	4	20	16	80
Total	23	57,5	17	43,5

P Value = 0,000

Based on Table 3 shows that of the 20 respondents who underwent perineal massage intervention, most of the perineal rupture did not occur 16 people (80.0%), respondents who had perineal laceration were 4 people (20.0%), while of the 20 respondents who did not Most of the perineal massagers experienced perineal lacerations as many as 19 people (95.0%) and 1 person (5.0%). The results of the Fisher's Exact test analysis showed *p value* = 0.000 (<0.05), then perineal massage affected the occurrence of perineal lacerations in primigravida mothers in normal delivery.

DISCUSSION

Based on the results of this study, it was proven that perineal massage was effective in preventing spontaneous perineal rupture or episiotomy in normal labor for primigravida mothers with $p = 0.000$ (<0.05). In accordance with the opinion of Beckmann (2013) that women who perform perineal massage starting at 35 weeks of gestation have a lower risk of birth canal trauma in normal delivery and statistically significant 16% can reduce the incidence of episiotomy.

Another study conducted by Dwi Masita (2016) found that the incidence of perineal rupture in the intervention group after perineal massage was only 21.4% while in the control group it was 71.4% with $p = 0.02$ (< 0, 05). According to the Indonesian Ministry of Health. (2004) perineal massage can make the perineum more elastic, easily stretched and reduce the incidence of trauma and pain during childbirth. Warm compresses of tissue on perineal massage for approximately 10 minutes will increase blood circulation so that the muscles in the perineal area are relaxed (not contracted or tense)(Beckmann MM, 2017).

The results showed that in the control group there were 19 people (95.0%) experienced perineal rupture with an episiotomy as many as 18 people (94.7%) and spontaneous perineal rupture was 1 person (5.3%). While in the intervention group the number of respondents who experienced perineal rupture spontaneously was only 4 people (20.0%), namely 3 people with degree I laceration and 1 person with degree II laceration.

Episiotomy was performed on most of the control group respondents because of the indication of a rigid perineum. According to Mochtar (2011) a rigid and inelastic perineum will inhibit the second stage of labor and can increase the risk to the fetus and can cause extensive perineal tears up to the third stage. The perineum is soft and elastic and wide enough, in general, it does not make it difficult to expel the fetal head, if there is a tear only to degree 1 and degree II. The number of respondents in the intervention group who did not experience perineal rupture was 16 people (80.0%) more than 1 person in the control group (5.0%). The number of respondents in the intervention group who did not have perineal rupture after doing perineal massage starting at 37 weeks of gestation, this can be influenced by the level of compliance of respondents in practicing perineal massage techniques correctly as many as 17 people (85.0%) with a massage frequency of at least 4 times a week. With the characteristics of the primiparous respondent group aged between 20 - 35 years as many as 17 people (85.0%), the level of education in junior high school as many as 10 people (50.0%) and high school as many as 5 people (25.5%), the most respondents as 18 housewives (90.0%), so that the respondents have a readiness to receive information and good motivation to practice new knowledge.

According to the results of a study published in the American Journal of Obstetrician and Gynecology concluded that perineal massage during pregnancy can protect perineal function for at least 3 months postpartum. The Cochrane Review recommends that this perineal massage should always be explained to pregnant women so that they know the benefits of this perineal massage. This perineal massage is very safe and harmless (Carroli G, 1999). In the intervention group, there were 4 respondents who experienced first-degree and second-degree perineal lacerations (40.0%), one of the reasons was that the mother's pressing technique at the time of the baby's birth was not correct and the perineal massage technique was still not appropriate. According to Dwi Anggraini (2016) pushing too hard makes delivery of the head faster and releases pressure suddenly, both of which increase the risk of intracranial damage to the baby and lacerations of the birth canal. One of the most important factors to prevent the occurrence of perineal lacerations other than through perineal massage, the correct way of pushing must be considered. Perineal massage can help reduce the occurrence of perineal rupture, especially if this perineal massage is carried out from 37-40 weeks of gestation.

The cause of perineal rupture is not only prevention of perineal massage, but many things that can cause perineal rupture, including babies that are too big, delivery assistance that is not up to standard and many other factors that can cause perineal rupture.

CONCLUSION

Based on the results of the research conducted, it can be concluded that perineal massage can prevent perineal rupture in normal delivery between the intervention group and the control group. Perineal

massage that is carried out correctly 4 or more times a week regularly for 10 minutes every day in the intervention group, namely primigravida from 37-40 weeks of gestation until delivery can reduce the incidence of perineal rupture. So that perineal massage can be applied to pregnant women, especially physiological primigravida women starting at 37-40 weeks of gestation to prevent spontaneous perineal rupture. Unless there are other causal factors that can lead to rupture of the perineum.

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