

THE EFFECT OF PERINEAL MASSAGE ON THE SPONTANEOUS PERINEAL RUPTURE IN MATERNITY MOTHERS

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Abstract

Background: Perineal rupture is the main cause of postpartum maternal bleeding. Postpartum bleeding is the main cause of 40% of maternal deaths in Indonesia. The number of cases of maternal deaths decreased from 4,999 in 2015 to 4912 in 2016. Perineal rupture is caused by parity, birth spacing, infant weight, labor delivery, cunam extraction, vacuum extraction, tool trauma and episiotomy.

Purpose: The aim was to examine the effect of perineal massage on spontaneous perineal rupture among labor mother at the Paramitra Medika 1 Clinic in intervention and control groups.

Methods: This research was used pre-experiment by using static group comparison. The sample size was 30 labor mother who consisted of 15 in the experimental group and 15 in the control group. Observation form as an instrument. Univariat and bivariate variable were used and used paired t-test with alpha 0,05.

Result: The results showed that 60.0% of mothers given perineal massage did not experience perineal rupture, the average rupture was 1.47 with a standard deviation of 0.64 and as many as 46.7% of mothers who were not given perineal massage had a second degree rupture, on average rupture is 1.40 with a standard deviation of 0.986. Perineal massage has an effect on the spontaneous perineal rupture in maternal (p value 0.008).

Conclusion: It was expected that further study, such as sample are pregnant women so that the massage results are not different.

Keywords: Labor, Perineal Massage, Spontaneous Perineal Rupture.

Introduction

Data of worldwide in 2015 were 2,7 million cases of rupture perineum in maternity mothers. This data was estimated to reach 6.3 million by 2050, along with increasing data of midwives who did not know how well midwifery care.¹

In Asia, rupture perineum was also a considerable problem in society, 50% of

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incidence of the rupture perineum in the world occurs in Asia. The prevalence of labor with rupture perineum in Indonesia has in 25-30 years old was 24%, while in maternity mothers 32-39 years old was 62%. Perineal rupture is one of causes in postpartum maternal hemorrhage.²

Perineal trauma is a common problem seen after vaginal delivery, which has negative effects on different aspects of women's lives. Poor skin elasticity has been introduced as a predictor of perineal trauma. Due to its complications in severe cases, it has negative effects on the physical, psychological, and social aspects of women's lives.³

Perineal massage is a well-known treatment modality that has been shown to stimulate nerve endings in the skin, enhance perineal blood circulation, improve the elasticity and ductility of perineal tissue, broaden the vaginal opening, reduce the probability of perineal incision, and reduce perineal tear. In addition, it facilitates vaginal delivery and probably reduces the risk of perineal injury by stimulating the child's head during childbirth.⁴

Postpartum hemorrhage is the leading cause of 40% of maternal deaths in Indonesia. The number of maternal deaths decreased from 4,999 in 2015 to 4912 in 2016 and in 2017 (first semester) as many as 1712 cases.⁵

In West Java Province, the cause of maternal death in 2015 was caused by bleeding was 46 (30.8%) cases, hypertension was 35 (23.4%) cases, infections were 7 (4.6%) cases, circulatory system disorders were 10 (6.7%) cases, metabolic disorders were 3 (7.0%) cases and others were 48 (32.2%) cases.⁵ Based on the recording and reporting of public health center and hospitals in Bekasi City in 2014, the number of maternal deaths was 22 peoples.

The results of presurvey conducted in January 2019 at the Paramitra Medika 1 Bekasi Clinic on 10 maternity mothers, obtained as many as 7 mothers (70%) experiencing perineal rupture. In interview with the midwife were confirmed that no efforts have been made to prevent perineal rupture such as by doing perineal massage.

From the results of the presurvey above, researchers were interested in conducting a study with the title "The Effect of Perineal Massage Administration on the Incidence of Rupture Perineum Spontaneous Pada Ibu Bersalin at the Paramitra Medika Clinic 1 in Bekasi".

Method

1. Research design

The type of research used in this study was quantitative with pre experiment design. This design was used to reveal cause-and-effect relationships by involving only one group of subjects, so that there was no control for these variables. The design in this study is static group comparison, the existence of a comparison or control group.

2. Setting and samples

This research did in Paramitra Medika Clinic 1 in Bekasi.

3. Intervention (applies to experimental studies)

In this research used sample was 15 mothers in experiment group who gave perineal massage and 15 mothers in control group who did not give anything.

4. Measurement and data collection

The purpose of collecting data for this study was observation sheets.

5. Data analysis;

Analysis for this research with paired t test with p value 0,05.

Results

Table 1.

Characteristics of Respondents

Variable	Category	Sum	Percentage
Age	18-20 years	2	6.7
	21-25 years	6	20.0
	26-30 years	10	33.3
	31-35 years	9	30.0
	36-40 years	3	10.0
Total		30	100
Pregnancy	First (G1)	9	30.0
	Second (G2)	16	53.3
	Third (G3)	5	16.7
Total		30	100

Based on table 1, it is known that the most age is 26-30 years old, which is 10 mothers (33.3%), the most pregnancy is the first pregnancy (G2) which is 16 mothers (53.3%).

Table 2.
Frequency of Spontaneous Perineal Rupture Incidence in two groups

Variable	No Tearing	1st degree	2nd degree	3rd degree	N
Experiment group	9 (60%)	5 (33,3%)	1 (6,67%)	0 (0%)	15 (100%)
Control group	3 (20%)	4 (26,7%)	7 (46,7%)	1 (6,7%)	15 (100%)

Based on this table showed the frequency of no perineal rupture in mothers who gave perineal massage (experiment group) was 60%, while mothers who did not give perineal massage (control group) was 20%.

Table 3.
Normality test

Variable	Skewness	Std. Error	Desc.
Experiment group	1.085	0.580	Normal
Control group	-0.315	0,580	Normal

Based on table 4.4 above, each variable has a skewness value and an error standard, if the *skewness* value divided by the *standard error* or produces a number ≤ 2 , then the distribution is normal, if the data is normally distributed, it can be continued for the test (*t dependent*).⁶

Table 4.
Effect of Perineal Massage on Spontaneous Perineal Rupture In Maternity Mothers

Result	Mean	SD	T-Test	p-value	N
Experiment group	0,47	0,640	-3.108	0.008	15
Control group	1,40	0,910			15

Based on the results of the analysis bivariate test in table 4 above, the statistical test results were obtained $p\text{-value} = 0.008$ ($p\text{-value} < \alpha = 0.05$) which means that there was effect of perineal massage with spontaneous perineal rupture in maternity mothers at Paramitra Medika Clinic 1 In Bekasi.

Discussion

Based on this research of results obtained was 60.0% of mothers who were given perineal massage did not experience perineal rupture and 46.7% of mothers who were not given perineal massage experienced 2nd degree perineal rupture.

Perineal rupture is a tear that occurs at the moment when the baby is born either spontaneously or by the use of tools or actions. Perineal tears generally occur in the midline and can become widespread if the head of the fetus is too fast. Perineal tearing occurs in almost all primiparas.⁷

The perineum consists of the skin and muscles between the vagina and rectum. When head of the fetus appear in the vagina, the perineum naturally stretches to give the fetus a way out. Perineal massage performed in the last months of pregnancy increases hormonal changes that soften the connective tissue, so the perineal tissue is more elastic and stretches more easily. At the same time trains the future mother to actively relax the perineum when feeling pressure when the baby's head appears. This can also reduce pain from stretching. Increased elasticity of the perineum will prevent the occurrence of perineal tears and episiotomy. Perineal massage is also very important for successful hypno-birthing.⁸

In line with research conducted by Savitri (2014), the effect of perineal massage on primigravida on the incidence of perineal rupture during childbirth at the Independent Practice Midwife in Bengkulu City in 2014. The incidence of perineal rupture in the intervention group after perineal massage was only 21.4%.⁹ Dartiwen's research (2015) The Effect of Perineal Massage on Primigravida on the Incidence of Perineal Lacerations During Childbirth in Independent Practice Midwives (BPM) Working Area of the Margadadi Health Center, Indramayu Regency in 2015, the results of research conducted on 45 primigravida, namely the incidence of perineal lacerations in the Experimental group after perineal massage was carried out only 13.3%.¹⁰

Same with Anggraini's research (2015), entitled the relationship between perineal massage and birth canal tears in primiparous maternity mothers in BPM South Metro District, Metro City in 2015. The results showed the results that out of 70 mothers with tears who did not do perineal massage as many as 46 people. Research by Dartiwen (2015), Effect of Perineal Massage on Primigravida on the Incidence of Perineal Laceration During Labor, namely the incidence of perineal laceration in the

control group 63.3%.¹¹

Based on the table of research results, $p\text{-value} = 0.008$ ($p\text{-value} < \alpha = 0.05$) was obtained, which means that there was effect of perineal massage decrease the incidence of spontaneous perineal rupture in maternity mothers at the Paramitra Medika Clinic 1 in Bekasi.

Perineal tearing can actually be prevented with a very simple method and can be done by everyone, namely by doing a massage on the perineal area. Research shows, that massage of the perineal area reduces tearing and possible episiotomy, improves the ability of the perineum to stretch at the time of opening during I labor, improves blood flow, nourishes the tissues around the perineum, and reduces the use of other labor aids. Many mothers feel a change in the stretching power of their perineal area after one to two weeks of massage.⁸

The theory states that by doing regular perineal massages after 34 weeks of gestation, it can help the muscles of the perineum and vagina become elastic, thereby reducing the risk of tearing and episiotomy. This may also be supported because the mother is properly placed and gets the right way to support the perineum during childbirth.¹¹

Antenatal Perineal Massage (APM) reduces the incidence of episiotomy and increases the incidence of women with an intact perineum after vaginal delivery. It also reduces the risk of flatus incontinence after childbirth without increased maternal or neonatal complications. Women should therefore be counseled on the likely benefits of APM and the information provided during antenatal care. Obstetricians should consider the technique as routine prenatal care for nulliparous women so as to reduce the incidence of perineal trauma during vaginal birth.¹²

Based on the results of this study, in the experimental group there were 9 mothers who did not experience the perineal rupture event, while in the control group it was found that as many as 3 mothers did not experience the perineal rupture event, as many as 7 mothers experienced the 2nd degree of rupture and 2 mothers experienced the 3rd degree of rupture. From the results, it can be seen that in the experimental group that did not experience more rupture degree events when compared to the control group.

In the opinion of researchers from this research was still mothers who do perineal massage but have a perineal rupture of 2nd degree who mothers on 18 years old

and pregnancy is now the first pregnancy, opinion of researchers the tearing that occurs is something that can happen in connection with the age of the mother who is still young, with that age the perineum is usually still is very stiff and thick so it is very likely that if you do not do exercises for the elasticity, it will be torn and based on the results of observations it was also seen that mothers often forget and lazy to do recommendations from researchers, where researchers recommend to daily perineal massage which is carried out in the morning and evening but in the observation results it can be seen that the mother did not carry out the recommendations that have been conveyed by the researcher.

If the perineal massage is done regularly, the benefits can be felt. For best results, perineal massage needs to be done constantly every day. The result will not be obtained within a day. In addition, the occurrence of perineal tears is also influenced by several factors, namely maternal, fetal and auxiliary factors. Maternal factors include a fragile perineum, primigravida, narrowness of the lower door of the pelvis, flexibility of the birth canal, straining too strongly, partus prespitatus, and childbirth with such actions as vacuum extraction, forceps. Factors of the fetus include a large fetus, an abnormal position, and shoulder dystocia. Helper skills, including how to lead straining when the opening is complete and contractions have arisen, how to communicate with the mother, keterampilan holding the perineum at the time of expulsion of the fetal head, and at the time of the position of meneran.

According to researchers, perineal massage has various advantages that are pseudo-aimed at reducing the incidence of trauma during childbirth. The advantages include stimulating blood flow to the perineum which will help speed up the healing process after childbirth, helping the mother relax more during vaginal examination (*Vaginal Touche*), helping to mentally prepare the mother for the pressure and strain of the perineum when the baby's head is about to come out and avoiding episiotomy or tearing of the perineum during childbirth by increasing the elasticity of the perineum.

Limitation

There are limitations in this study was the implementation of perineal massage was not carried out by the researchers themselves so that the results of the massage could differ from one respondent to another.

Conclusion

As many as 60.0% of mothers who gave perineal massage did not experience perineal tearing, and 46.7% of mothers who did not give perineal massage experienced a degree 2 rupture. There was effect of perineal massage for reducing spontaneous perineal rupture in maternity mothers at the Paramitra Medika Clinic 1 in Bekasi (p value 0.008). Researchers argue that the sooner a perineal massage is performed, the better the results will be. Within a few weeks after performing a perineal massage, the mother will feel that the perineal area becomes more elastic. Perineal massage can be given or done when pregnant women take mother's classes.

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Conflict of Interest

There is no a conflict of interest among authors.

Author contribution

The first, second, and third authors played a role in this research and data processing, the second author revised the discussion formulation for the article.

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