



The Correlation Between Participation In Pregnancy Workouts And Perineum Ruptures Incidence In Woman With Normal Labor At The Sumengko Village Maternity Cottage, Lamongan District

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A B S T R A C T

Pregnancy workouts are exercise programs intended for pregnant women to tighten the body and prepare the necessary muscles to face labor. Labor often results in perineum tears. This study aims to determine the correlation between participation in pregnancy exercise and perineal rupture incidence. The research method used correlation analysis using a retrospective approach. The population in this study were postpartum mothers at the Sumengko village maternity cottage, Kedungpring District, Lamongan Regency. The sample was 24 respondents using the quota sampling technique and then analyzed using Chi-Square. Most respondents who participated in pregnancy workouts did not experience perineal rupture (54.2%). Meanwhile, respondents who did not participate in pregnancy workouts experienced perineal rupture (33.3%). The chi-square test result was $p=0.000$ ($\alpha<0.05$). There was a correlation between participation in pregnancy workouts and perineal rupture incidence in women with normal delivery. Thus, pregnant women should participate in pregnancy workouts regularly to prevent perineal tears.

INTRODUCTION

A pregnancy workout is a useful exercise for helping pregnant women get the energy to smooth the labor process. It is recommended for mothers who are pregnant for the first time and mothers who have experienced difficulties in childbirth or have given birth to premature children (Widianti and Proverawati 2010). Labor often results in perineum tears or perineum rupture. When perineal rupture does not manage well, it can cause bleeding and infection, and for a long time, discomfort in sexual intercourse (Saifuddin, 2014). In Indonesia, 75% of women who experience normal delivery have perineal lacerations. In 2017, out of a total of 1951 spontaneous vaginal births, 57% of mothers received perineal sutures (28% due to episiotomy and 29% due to spontaneous tears) (Depkes, 2017).

The direct cause of maternal death was bleeding (28%), preeclampsia/eclampsia (24%), infection (11%), prolonged labor (5%), and abortion (5%). Besides, anemia and chronic energy deficiency (CED) in pregnant women are also the leading causes of maternal mortality, as much as 5% of the causes of maternal mortality in Indonesia (Kementrian Kesehatan, 2014). The most common cause of maternal death in Indonesia is postpartum hemorrhage. Postpartum hemorrhage caused by perineal tear is the second cause of bleeding after uterine atony. It happens in almost all first deliveries and not infrequently in subsequent deliveries. Birth canal tears also cause discomfort during the puerperium, giving pain to the

suture marks and interfering with the mobilization of postpartum mothers. The risk of infection can also occur in perineal wounds when there is no appropriate care at home (Mochtar, 2012)

One way to control the perineal rupture incidence is pregnancy workout. It is a useful exercise for helping pregnant women get the energy and smooth the labor process. It is recommended for mothers who are pregnant for the first time and mothers who have experienced difficulties in childbirth or have given birth to premature children (Widianti and Proverawati, 2010). In general, it is recommended for pregnant women so that the mother is ready when labor arrives. With breathing exercise carried out in pregnancy workouts, the mother has no longer trouble following the doctor's or midwife's orders during childbirth. Many benefits can be obtained, especially for mothers whose pregnancy is more than 32 weeks. As a result, the mother is ready to give birth and expedite the delivery process (Fania, 2010).

Based on a preliminary study on December 19, 2016, at PKU Muhammadiyah Bantul Hospital, the number of normal deliveries was 452 from January to December 2016. There were 81 mothers (17.9%) who experienced perineal rupture during childbirth. Based on the data obtained by the Sumengko village maternity cottage (from now on, it is named with polindes), Kedungpring District, Lamongan Regency, ten mothers experienced normal labor from May 17 to 25, 2017. Six women of them had a perineal rupture. Of six women, four women did pregnancy exercise, and two women did not participate in pregnancy exercise. Four women who did not experience perineal rupture regularly did pregnancy exercises. This study analyzes the correlation between participation in pregnancy workouts and perineal rupture incidence at Sumengko Polindes, Kedungpring Sub-District, Lamongan District.

METHOD

Research methods used correlation analysis. The population was postpartum mothers with 24 respondents by quota sampling technique who met the inclusion criteria – postpartum mothers with normal delivery. The instruments utilized questionnaires and medical peer data (rupture perineum examinations), then data processing by editing, coding, scoring, and tabulating. Data analysis utilized the Chi-Square test with significance $p < 0.05$.

RESULT

Table 1 Respondent's Characteristics Based on Age, Parity, Education, and Occupation at Sumengko Polindes

Characteristic	Frequency		Percentage (%)	
Age				
Age < 25 Years	6		25.0	
26 - 35 Years	14		58.3	
> 36 Years	4		16.7	
Education				
Senior High school	18		75.0	
College	6		25.0	
Parity				
Primipara	9		37.5	
Multiparaous	15		62.5	
Profession				
Housewife	8		25	
Private	12		37.5	
Civil servant	4		16.7	

Table 1 shows that most respondents aged 26 - 35 (58,3%), multiparous (62,5%), and private workers (37,5%). They graduate from senior high school (75,0%).

Table 2 Participation in Pregnancy Workout and Perineal Rupture Incidence

Variable	Frequency	Percentage (%)
Participation in pregnancy workout		
Participate	14	58.3
Not Participate	10	41.7
Perineal Rupture Incidence		
Yes	9	37.5
No	14	62.5

Table 2 explains that most respondents participate in pregnancy workouts (58,3%) and do not experience perineal rupture (62,5%).

Table 3 Cross Tabulation Between Participation in Pregnancy Workout and Perineal Rupture Incidence

Participation in Pregnancy Exercise	Perineal Rupture Incidence				Total	
	Yes		No		N	%
	N	%	N	%		
Participate	1	4.2	13	54.2	14	58.4
Not Participate	8	33.3	2	8.3	10	41.6
Total	9	37.5	15	62.5	24	100

p = 0.000

Table 3 describes that most respondents who participate in pregnancy workouts do not experience perineal rupture (54,2%). Meanwhile, respondents who do not participate in pregnancy workouts experience perineal rupture (33,3%). The chi-square test result is $p=0.000$ ($\alpha<0,05$). There is a correlation between participation in pregnancy workout and perineal rupture incidence in a normal delivery at Sumengko Polindes, Kedungpring Sub-District, Lamongan District.

DISCUSSION

Most respondents who participated in pregnancy workouts did not experience a perineal rupture. Pregnancy workouts are carried out from 28 weeks of gestation until birth. The benefits of regular

pregnancy workouts help maintain the health and smoothness of the labor and postpartum process. It will make the body flexible, especially in the birth canal muscles. Anggraini dan Martini (2015) research reported that 36.4% of mothers who did pregnancy workouts graduate from senior high school. Education levels affect the interest in pregnancy exercise. Knowledge is associated with education levels. The higher education levels, the more comprehensive the knowledge, the more interesting mothers to participate in pregnancy workouts. A study by Anasari (2013) about factors analysis related to the participation of pregnant women in doing pregnancy workouts in the pregnant class. Pregnant women who work did not have time to participate in pregnancy workouts and spend more time at the office. Previous studies showed that most pregnant women who participated in pregnancy workouts did not experience perineal tears, and few of them only experienced the first degree of perineal tears (Anggraini dan Martini, 2015; Turlina, 2015). It is because they often do relaxation exercises that can make the perineum flexible. There are pelvic gymnastics in pregnancy workouts. Regular pregnancy workouts can help the pelvic floor muscles' elasticity and get effective results in the labor process. Mother can train calm in facing the labor process, strengthen and maintain elasticity when straining the pelvic floor muscles and inner thigh muscles to relax actively so that the pelvic floor muscles become elastic during labor (Hullian, 2012).

The results showed that most respondents who experienced perineal rupture did not participate in pregnancy workouts. It is in line with Turlina (2015) study regarding the correlation between pregnancy workout and perineal rupture incidence. The study reported that women with normal labor who did not participate in pregnancy exercise experienced perineal tears (62.5%), and 37.5% did not have perineal tears. Oxom & Forte (2010) states that perineal rupture generally occurs in primiparous, but not infrequently also in multiparous. The usual causes of perineal rupture at parity are precipitous labor, forceful straining, edema, and fragility of the perineum, flexibility of the birth canal, and labor with cesarean section. The causes of fetal factors are fetal birth weight, breech presentation, abnormal head position, forceps extraction, shoulder dystocia, and congenital anomalies.

There was a correlation between participating in pregnancy workouts and the perineal rupture incidence in a woman with normal delivery. In line with Riswati (2015) the results showed a significant correlation between pregnancy workout and perineal tears in primigravida at the Tegalrejo Public Health Center, Argomulyo District, Salatiga City. Perineal rupture has many factors that influence both maternal, fetal, and helper factors. Maternal factors consist of uncontrolled and precipitous labor (the most common cause). Other maternal factors are the patient cannot stop pushing, labor resolves hastily with excessive fundal push, edema, and fragility of the perineum. Narrow arcus pubis with narrow lower pelvic gates also presses the baby's head towards the posterior and enlargement the episiotomy. Fetal factors are a big infant with an abnormal head position, facial and occiput posterior presentation, breech birth, forceps

extraction, shoulder dystocia, and congenital anomaly (Oxom & Forte, 2010). Besides, adjuvant factors can also affect the incidence of perineal rupture. Helping factors consist of the way to communicate with the mother. During childbirth, the examination to prevent perineal rupture is a pelvic examination with the suitability of the baby to be born (Oxom & Forte, 2010). Pushing too hard will cause perineal rupture because the baby will be born uncontrollably and too quickly. Health workers should establish cooperation with mothers, guide mothers to rest or breathe quickly and use the correct manual tactics to regulate the baby's birth and prevent lacerations (JPNK-KR, 2008). A straining mother before complete cervical opening can cause edema and cervical laceration (Kementerian Kesehatan Republik Indonesia, 2013).

CONCLUSION

Participation in pregnancy workouts correlates with perineal rupture incidence. Most respondents who participated in pregnancy workouts did not experience perineal rupture at the Sumengko Polindes, Kedungpring Sub-District, Lamongan District. Thus, pregnant women should participate in pregnancy exercise regularly to prevent perineal rupture

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