

The relationship between *parity* and the incident of *perineal ruptures* on women's physiological maternity

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Abstract

There are about 2.8 million incident of perineal rupture in maternal physiological labor. In 2050, it is estimated that the incidence of perineal rupture can be 6.3 million if it is not accompanied by a good midwifery care. In 2016, in Trawas, there was (89%) perineal rupture in primiparas and (57%) perineal rupture in multiparas. Perineal rupture incidences due to parity were still very high. This study aims to analyze the relationship between parity and the incidence of perineal rupture. It is quantitative study using a cross sectional approach, by using analysis of physiological maternity women medical record data from January to April 2017 of 130 people in Trawas Public Health Center, Mojokerto Regency. The data analysis used was Chi-Square, indicated by p value = 0,000 with $\alpha = 0,05$. It means that the value of $p < \alpha$, so H_1 is accepted. It can be concluded that there is a relationship between parity and the incidence of perineal rupture on physiological maternity women in Trawas Public Health Center, Mojokerto Regency. Midwives can apply collaboration with patients and their families to have physical and psychological preparation with an alternative of hypnobirthing methods.

Keywords: parity, perineal rupture, physiological maternity

INTRODUCTION

Normal childbirth often lead to the injury of birth canal called rupture perineum. The wound can be minor, but sometimes there is an extensive and dangerous wound (Prawirohardjo, 2010). Perineal rupture can be occurred spontaneously or intentionally (episiotomy). Paritas is one factor that can influence the occurrence of rupture perineum, as described by Winknjosastro (2010), that perineal rupture occurs in almost all primiparas, while occurs rarely in multiparous and grandemultipara. In accordance with the theory proposed by Mochtar (2012), this is caused by musculus perineum in primiparous parity that form the pelvic basic muscles which is stretching or stiff so that it has the risk of perineal rupture on women's physiological maternity. It is estimated in 2050 that the incidence of perineal rupture can be 6.3 million, if it is not accompanied by a good midwifery care. Oliviera's study (2014) in Brazil showed that the average of 25 years old mothers are primipara (54.4%), and almost 38% of the patients experienced perineal rupture. Study of Center for Research and Development in



Bandung in 2009-2011 in several provinces in Indonesia, it was found that 1 out of 5 women who had perineal rupture died due to complications from perineal rupture .

Suryani has done a research in Atiah Maternal Hospital in Jambi city in 2011. An initial research was carried out in 2010. The result of the surveys obtained the number of physiological deliveries in January - December 2010 are 428 people. 158 (37%) childbirth with primiparous parity had experienced perineal rupture, 109 (25%) multiparous parity had experienced perineal rupture and 163 people (38%) did not experience perineal rupture and episiotomy.

The results of the preliminary study at Trawas Public Health Center in Mojokerto District , from the medical record data, there were 203 normal deliveries in 2015. From the data, 134 were primiparous (66%) with 105 (78%) of them experienced perineal rupture; while 69 were multipara (34%) with 48 ruptures (69%). However, the data in 2016 showed there were 105 normal deliveries, 44 were primiparas with 39 (89%) experienced perineal ruptures, 5 (11%) did not experience perineal ruptures; while the other 61 were multipara with 35 (57%) experienced a perineal rupture and 26 (43%) did not experience perineal rupture. Based on available data, it can be concluded that the incidences of perineal rupture due to parity are still very high.

RESEARCH METHODS

This research is a quantitative study with a cross sectional approach . The independent variable of this study is parity and the dependent variable is perineal rupture. Data collection methods in this study used physiological maternity medical record data from January to April 2017 at Trawas Public Health Center, Mojokerto Regency. The population in this study were all maternity women at Trawas Public Health Center Mojokerto Regency from January to April 2017 that are 192 people. The sampling used is Simple Random so that we get 130 samples of women with physiological maternity. Univariate analysis was carried out by descriptive statistics to describe the characteristics of each research variable and bivariate analysis carried out by Chi-Square correlation test technique to determine the relationship of two variables with a 95% confidence level and $p = 0.05$.

RESULTS AND DISCUSSION

1. Characteristics of respondents based on age .

Table 1. The frequency distribution of respondents based on age at Trawas Public Health center Mojokerto Regency

No.	Age	Frequency (f)	Percentage (%)
1.	<20 years	16	12.3
2.	20 - 35 years	82	63.1
3.	> 35 years	32	24.6
	amount	130	100.0

Source: Secondary Data, 2017

Based on Table 1, it can be seen that 82 (63, 1%).out of 130 respondents are 20-35 years old.

2. Characteristics of respondents based on education

Table 2. The frequency distribution of respondents based on education at Trawas Public Health center Mojokerto Regency

No.	Education	Frequency (f)	Percentage (%)
1.	Elementary / Junior School	21	16.2
2.	High school	78	60.0
3.	College	31	23.8
	amount	130	100.0

Source: Secondary Data, 2017

Based on Table 2, it can be seen that 78 (60, 0%) out of 130 respondents are high school educated.

3.Characteristics of respondents based on occupation

Table 3. The frequency distribution of respondents based on occupation at Trawas Public Health center Mojokerto Regency

No.	Work	Frequency (f)	Percentage (%)
1.	entrepreneur	16	12.3
2.	Farmer	20	15.4
3.	Housewife	84	64.6
4.	Civil Servant	10	7.7
	amount	130	100.0

Secondary Data Sources 2017

Based on Table 3 above, it can be seen that 84 (64, 4%) out of 130 most respondents are housewives.

4 Characteristics of respondents based on culture prohibition of using contraception .

Table 4. The frequency distribution of respondents based on cultural prohibition of using contraception at Trawas Public Health center Mojokerto Regency

No.	Culture Prohibition of Using Contraception	Frequency (f)	Percentage (%)
1.	Exist	5	3.8
2.	No exist	125	96.2
	amount	130	100.0

Source: Secondary Data, 2017

Based on table 4, it can be seen that only 5 (3 , 8 %) out of 130 respondents embraced the culture of prohibition of using contraception.

5.Characteristics of respondents based on the myth of “the more children, the more fortune”

Table 5. The frequency distribution of respondents based on the myth of “the more children, the more fortune” at Trawas Public Health center Mojokerto Regency

No.	The myth of “the more children, the more fortune”	Frequency (f)	Percentage (%)
1.	exist	1	0.8
2.	No exist	129	99.2
	amount	130	100.0

Source: Secondary Data, 2017

Based on table 5, it can be seen that only 1 (0, 8%) out of 130 respondents who embrace the myth of “the more children, the more fortune”.

6 . Parity

Table 6. Parity frequency distribution on women’s physiological maternity at Trawas Public Health center Mojokerto Regency in January-April 2017

No.	Parity	Frequency (f)	Percentage (%)
1.	Primipara	42	32.3
2.	Multipara	84	64.6
3.	Grandemultipara	4	3.1
	amount	130	100.0

Source: Secondary Data, 2017

Based on table 6, it can be seen that 84 (64, 4%) out of 130 respondents are women physiological maternity with *multipara parity*.

7 . Perineal Rupture Incident

Table 7. The frequency distribution of *perineum ruptur incidence* on women’s physiological maternity at Trawas Public Health center Mojokerto Regency in January-April 2017

No.	Perineal Rupture Events	Frequency (f)	Percentage (%)
1.	Perineal rupture does not occur	25	19.2
2.	Perineal rupture occurs	105	80.8
	amount	130	100.0

Source: Secondary Data, 2017

Based on table 7, it can be seen that 105 (80, 8%) out of 130 respondents are women physiological maternity who experienced *perineal rupture*.

8. Relationship of Parity with *incidence of Perineal Rupture in women’s Physiological Maternity*

Table 8. Distribution of cross-tabulation *parity* with the incidence of *rupture perineum* on women’s physiological Maternity at Trawas Public Health center Mojokerto Regency

Parity	Perineal Rupture Events				amount	%
	Not occur		Happen			
	F	%	F	%		
Primipara	3	2,3	39	30.0	42	32.3
Multipara	18	13.8	66	50.8	84	64.6
Grandemultipara	4	3.1	0	0	4	3.1
amount	25	19.2	105	80	130	100.0

Chi-square test p - value = 0,000

Source: Secondary Data, 2017

Based on Table 8, it can be seen that 66 (50, 8%) out of 130 respondents are *multipara parity* who experienced *perineal rupture* in women’s physiological maternity. From the analysis results using *chi-square*, it was obtained $p = 0,000$ with $\alpha = 0,05$ which means the value of $p < \alpha$, so that H_1 is accepted. It means there is a relationship of *parity* with the incidence of *perineal rupture* on women’s Physiological maternity at Trawas Public Health Center Mojokerto Regency

Based on table 6, it was found that 84 (64, 4%) out of 130 respondents are *multipara* parity. The data obtained from the results of the study showed that the characteristics of respondents were influenced by several factors, those are age, education, occupation, culture, prohibition of using contraception, and the belief on the myth of “the more children, the more fortune”.

Based on age factors, the data obtained shows that from 130 respondents, 82(63, 1 %) respondents were 20-35 years old. According to the researchers, the age of 20-35 years is a relatively safe age for a woman to manage the distance of her pregnancy or to plan the next pregnancy. It can affect the readiness of the woman, both physically and mentally to experience pregnancy or next labor. According to Saifudin, (2010) based on the characteristics of each reproductive period, the time to manage fertility/manage pregnancy is in the age range of 20-35 years. According to Setianingrum, (2007) generally at the age of 20-35 years is a productive age when the female reproductive organs have developed optimally and functioned properly, so that it is the right time to experience pregnancy or childbirth.

Beside the age factors, parity is also influenced by educational factors. The data obtained shows the majority of respondents, that are 75 (58%) respondents are high school educated. According to the researchers, high school education is classified as secondary education. Someone who has secondary education are easier to receive information, so it will affect the way of thinking, including in making decisions to manage the distance of the next pregnancy. According to Friedman (2010), education means that the guidance given by someone towards others leads to certain hopes or ideals.

Parity is also influenced by occupational factors. Based on the data obtained, 83 (64%) respondents are housewife. According to researchers, respondents who are housewives have more free time to take care of their children/family. They are considered to be able to determine when they will have their next pregnancy. According to Jacinta F Rini, (2008) occupation is a series of tasks or activities that must be carried out by someone according to their respective positions or professions.

Perineal Rupture Incident

The results of the study in table 7 can be seen that from 130 respondents, 104 (80, 8%) of them experienced *perineal rupture*. According to the results of interviews with midwife coordinator and several midwife assistants of physiological labor at Trawas Public Health Center, the presence of scarring on the perineum and the occurrence of fast labor can increase the risk of *perineal rupture*, even though the delivery assistance that performed by the helper is in accordance with the 58-step of NCC standard. A good cooperation between helpers and mothers is needed in labor preparation. If the mother pushes according to the direction of the helpers, it will help the readiness of the helpers to help, so that the acceleration of the baby's head decreases when labor can be controlled.

Scarring on the birth canal will block or hinder the progress of labor, so episiotomy in this case can be considered. Sign of scarring is the presence of scar in the perineum (Normal Childbirth Care Reference Book, 2008). Labor that ends less than 2 hours after the onset of uterine contractions (Liu, 2010). Helpers are not ready to help the labor and if the mother push strongly uncontrolled, the fetal head is deflected too

quickly. Spontaneous lacerations in the vagina or perineum can occur when the head and shoulders are born. The incidence of lacerations will increase if the baby is born too fast and short (Affandi, 2010).

Most of the *multipara* respondents experienced *perineal rupture*. According to the researchers, in accordance with the results of the interview with the assistant midwife at Trawas Public Health Center, the factor of the presence of scarring on the perineum, usually due to birth scars on past physiological labor. The labor that is too fast in the mother is vulnerable when the labor occurs less than 1 hour, when contractions begin to occur until labor. This caused the unpreparedness of the helpers to help with the birth of the baby's head. The helpers could not hold the *perineum* properly so that the *perineal rupture* could not be avoided especially during labor. When there is *perineal rupture* in *multiparous*, the potential for bleeding is also greater. It is because in *multiparous*, the incidence of *perineal rupture* is unavoidable. In addition, the stiff *perineal* during *partu-rition precipitate* affect the occurrence of *perineal rupture* because the stiffness *perineum* cannot stretch maximally. The stretch of the *perineum* is also influenced by the presence of scar tissue in the *perineum* which is caused by the previous labor. If the *perineum* cannot stretch maximally, an *episiotomy* can be done. According to the theory of scarring on the birth canal, it will block or inhibit the progress of labor. The *episiotomy* in this case can be considered. Signs of sure scar tissue is *sicatric* on the *perineum* (APN, 2008).

CONCLUSION

Most of the *Parity* on women's physiological maternity at Trawas Public health center Mojokerto Regency are *multiparas*. Most of the *Perineal rupture* on women's physiological maternity women at Trawas Public health Center Mojokerto Regency experienced *rupture of the perineum*. There is a relationship between *Parity* and the incidence of *perineal rupture* in women's physiological maternity at Trawas Public health center Mojokerto Regency

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