

FACTORS RELATED TO PERINEAL RUPTURE IN MOTHERS IN LABOR

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ABSTRAK : FAKTOR-FAKTOR YANG BERHUBUNGAN DENGAN RUPTUR PERINEUM PADA IBU BERSALIN

Latar Belakang: Ruptur pada perineum merupakan alasan kedua dari beramal setelah atonia uteri. Komplikasi yang muncul akibat ruptur perineum melibatkan risiko pendarahan, infeksi, dan ketidaknyamanan. Di Indonesia, pada tahun 2017, ditemukan bahwa sebanyak 75% dari ibu yang melahirkan secara pervaginam mengalami ruptur perineum, dari total 1.951 ibu yang mengalami persalinan spontan pervaginam. Tujuan: Penelitian ini bertujuan untuk mengetahui faktor-faktor yang berhubungan dengan ruptur perineum. Metode: Penelitian ini menggunakan desain observasional analitik dengan pendekatan *penampang*. Metode pengambilan contoh yang digunakan adalah total sampling, yang mencakup seluruh ibu yang melahirkan normal dengan mengalami pecahnya perineum di PMB M M Sri Sunaryanti di Jakarta Selatan, dengan jumlah menanggapi sebanyak 30 orang. Pada penelitian ini analisis bivariat di uji dengan uji statistik *chi kuadrat*. Hasil: Hasil analisis data dengan uji *chi square* didapatkan tidak ada hubungan usia ibu dengan robekan perineum pada ibu bersalin dengan nilai *nilai p* $0,065 > 0,05$. Kesimpulan: Hasil analisis data dengan uji *chi square* didapatkan ada hubungan usia ibu dengan robekan perineum pada ibu bersalin dengan nilai *nilai p* $0,020 < 0,05$. Berdasarkan uji statistik *chi kuadrat* menunjuk *p-value* = 0,05 tidak dapat diketahui hubungan berat badan lahir bayi dengan robekan perineum pada ibu bersalin dikarenakan bayi yang dilahirkan oleh seluruh contoh adalah bayi dengan berat badan lahir normal. Saran: bagi tempat penelitian perlunya memperhatikan faktor paritas ibu dalam Upaya pencegahan dan penanganan ruptur perineum pada saat proses persalinan karena beresiko lebih tinggi mengalami ruptur perineum.

Kata kunci : ruptur perineum, persalinan, usia, paritas, berat bayi lahir

ABSTRACT

Background : Perineal rupture is the second reason for doing charity after uterine atony. Complications that arise due to perineal rupture involve the risk of bleeding, infection, and discomfort . In Indonesia, in 2017, it was found that as many as 75% of mothers who gave birth vaginally experienced perineal rupture, from a total of 1,951 mothers who experienced spontaneous vaginal delivery . Objective: This study aims to determine the factors associated with perineal rupture. Method: This study used an analytical observational design with a *cross-sectional approach* . The sampling method used was total sampling, which included all mothers who gave birth normally with perineal rupture at PMB MM Sri Sunaryanti in South Jakarta, with a total of 30 respondents. In this study, bivariate analysis was tested using the *chi-square statistical test* . Results: The results of data analysis using the *chi-square* test obtained No There is connection age Mother with perineal tear in mother giving birth with mark *p value* $0.065 > 0.05$. Conclusion: Results of data analysis using the *chi square* test obtained There is connection age Mother with perineal tear in mother giving birth with mark *p- value* $0.020 < 0.05$. Based on statistical tests *chi square* pointing *p-value* = 0.05 no can known connection birth weight baby with perineal tear in mother giving birth because of babies born to all example is baby with normal birth weight . Suggestion : share place study the need notice factor parity Mother in efforts to prevent and treat perineal rupture during the labor process Because at risk more tall experienced perineal rupture.

Keywords : perineal rupture , labor , age , parity , weight baby born

INTRODUCTION

Rupture of the perineum is reason second from bleeding after uterine atony. Incident perineal rupture is common seen in labor first , although No also rarely occurs during labor next . When the head

baby out and presses on the perineum during the labor process , the perineum usually experience tension that can cause tear . Perineal rupture can produce bleeding , with bleeding seldom occurs in a tear degrees I and II, while in the case of a tear grade

III and IV bleeding post labor often happened . (Damayanti & Wati, 2021)

In 2020 , it was recorded around 2.7 million case perineal rupture in mother maternity worldwide , with projection increase to 6.3 million cases in 2050 (Misrina & Silvia, 2022) . In Indonesia, in 2017 , it was found that as much as 75% of mother giving birth in a way vaginal experience perineal rupture , from a total of 1,951 mothers who experienced labor spontaneous pervaginam . Perineal rupture can become trigger bleeding in the mother post childbirth , which contributes bleeding postpartum reaching 40% of total deaths mothers in Indonesia. (Puput Anggraini, Silva Altika, 2023)

Complications that arise consequence perineal rupture involves risk bleeding , infection , and discomfort . Perineal wounds that are near with anus has possibility high infection Because prone to contaminated by feces . Condition This can hinder healing wound , causing formation network scars . In addition , perineal rupture can also result in disorders of reproductive organ function women . Therefore that , attention special required in Handling case perineal rupture . (Damaika & Wardiah, 2021)

The occurrence perineal rupture can influenced by factors that are divided become factor mother and factors fetus . Maternal factors involving variable like knowledge mother , technique Menerants used , history give birth to previously (parity) , and perineal conditions . While that , factor fetus related with presentation baby and baby weight moment born . Psychological Mother moment childbirth can also influence tension muscles in the vaginal area. Tension in the vaginal area during labor can become reason the emergence perineal rupture spontaneous . (Hafizah Nurwindayu, 2018)

Based on results studies introduction from survey data the initial work carried out at PMB Midwife M M Sri Sunaryanti in South Jakarta with using secondary data or see record medical patients were found in September to October 2023 , there were 7 mothers normal birth , 5 of them experience perineal rupture . The height number incident perineal rupture so researcher interested For do research that aims For know factors that influence perineal rupture in mother childbirth . Research objectives This For know related factors with incident perineal rupture in mother giving birth .

RESEARCH METHODS

Study This use design observational analytic with approach *cross-sectional* . Research conducted at PMB M M Sri Sunaryanti in South Jakarta during

September- December 2023 period . Withdrawal sample done based on recorded data medical mothers who experience normal delivery . Method of taking sample used is total sampling, with criteria all over mothers who gave birth normally with experience perineal rupture at PMB M M Sri Sunaryanti in South Jakarta, with amount Respondent as many as 30 people (Widya Lestari. at, 2021) . In the study This use analysis univariate and analysis bivariate . In the study This analysis bivariate tested with statistical tests *chi square* , which aims to For know connection every variable . (Kelana Kusuma Dharma, 2019)

RESEARCH RESULTS

Table 1
Distribution Frequency Distribution Frequency Based on Age, Parity , and Birth Weight of Baby

Characteristics	N	%
Age		
< 20 years	0	0%
20-35 years	25	83.3%
>35 years	5	16.7%
Parity		
Primigravida (1)	10	33.3%
Multigravida (2-4)	20	66.7%
Grandmulti (≥4)	0	0%
Birth weight baby		
<2,500 grams	0	0%
2,500-4,000 grams	30	100%
>4,000 grams	0	0%

Based on table 1, part big Respondent that is as many as 25 people (83.3%) were aged 20-35 years and 5 people (16.7%) were aged > 35 years . Mothers with labor perimigravia as many as 10 people (33.3%), mothers with multigravida delivery as many as 20 people (66.7%) . All baby with birth weight 2,500-4,000 grams as many as 30 babies (100%).

Based on Table 2, 25 mothers were found with age reproduction 20-35 years 20 mothers experience rupture and 5 people did not experience rupture , 5 mothers with age > 35 years 2 of them experience rupture and 3 people did not experiencing rupture . The results of data analysis using the chi square test were obtained p value 0.065 > 0.05, yes interpreted No There is connection age Mother with perineal rupture in mother giving birth .

Table 2
Connection Age with Perineal Rupture in Women in Labor

Age	Incident Perineal Rupture		P (value)
	Yes	No	
< 20 years	0	0	0.065
20-35 years	20	5	
>35 years	2	3	

Based on Table 3, of the 10 primigravida mothers all experience perineal rupture , 30 multigravida mothers , 12 mothers experience rupture and 8 people did not experience perineal rupture . The results of data analysis using the chi square test obtained p value $0.020 < 0.05$, yes

interpreted There is connection parity Mother with perineal rupture in mother giving birth.

Table 1
Connection Parity with Perineal Rupture in Women in Labor

Parity	Incident Perineal Rupture		P (value)
	Yes	No	
Primigravida (1)	10	0	0.020
Multigravida (2-4)	12	8	
Grandmulti (≥ 4)	0	0	

Table 4
Relationship between Birth Weight of Babies and Perineal Rupture in Women in Labor

Baby Birth Weight	Incident Perineal Rupture				N	%
	Yes	%	No	%		
<2,500 grams	0	0	0	0	0	0
2,500-4,000 grams	22	73.3	8	26.7	30	100
> 4,000 grams	0	0	0	0	0	0

Based on table 4, it is known that all over Respondent give birth to baby with heavy baby normal birth , from 30 mothers giving birth giving birth heavy normal babies as many as 22 respondents (73.3%) experienced perineal rupture , while those who do not experience perineal rupture as many as 8 respondents (26.7%). Based on the chi-square statistical test, it shows p-value = 0.05, not can known because of babies born to all sample is baby with normal birth weight .

Classification level severity and extent perineal rupture , differentiated into 4 degrees . Degree I, namely tear degrees One occurs on the network vaginal mucosa , vulva part front , and perineal skin . Grade II, namely tear degrees two involving network vaginal mucosa , vulva part front , perineal skin , and perineal muscles . Grade III, namely tear degrees three occurs on the network vaginal mucosa , vulva part front , perineal skin , perineal muscles , and muscles *external anal sphincter* . Degree , namely tear degrees four can covers all over perineal tissue and *anal sphincter* are enlarged until reach mucosa . (Yulizawati et al., 2019)

DISCUSSION

Perineal Rupture

Perineal rupture is tear that occurs in the perineum area during labor vaginal , good in a way experience and also Because action episiotomy . Condition This often occurs in women who experience labor child first , especially Because muscles base pelvis they Not yet Once experience stretching previously . During the labor process , optimal elasticity of the muscles base pelvis become important , enabling optimal and natural stretching . This helps facilitate birth baby with comfortable , and after that , the muscles This can contract return For supports the pelvic organs after baby born . (Fatimah, 2019)

Connection Age with Perineal Rupture in Women in Labor

Results of data analysis using the *chi square* test obtained mark *p value* $0.065 > 0.05$, can interpreted No There is connection age Mother with perineal rupture in mother giving birth .

This matter opposition with literature previously indicated that women aged under 20 years and over 35 years own greater risk tall For experience perineal rupture . This is due to the fact that at the age of more from 20 years , function reproduction a woman Not yet fully developing . On the other hand , at the age of not enough from 35

years, function reproduction woman has experience decline, so that opportunity experience distant perineal rupture more big. (Darmawati, 2023)

Study This in line with study Previously, what was done by Risma Aliviani Putri and Puji Lestari 2020. Research results show that age Mother No There is connection with incident laceration road born mark p value $0.208 > 0.005$.

Age 20-35 years considered as range the most suitable age for Woman For experience pregnancy and childbirth. At a more mature age young (< 20 years), from perspective biological, development tool reproduction Not yet reach optimality. On the other hand, when age over 35 years, elasticity muscle pelvis and structure surrounding areas, as well as the reproductive organs in general, experience decline. Women at the age of this is also risky experience tired, so increase risk complications during pregnancy and childbirth. (Jayanti et al., 2023)

Connection Parity with Perineal Rupture in Women in Labor

Results of data analysis using the *chi square* test obtained mark p value $0.020 < 0.05$, can interpreted There is connection age Mother with perineal rupture in mother giving birth. Study This in line with research conducted by Indah Sari and colleagues in 2023. Based on statistical test results *chi square*, found p -value of 0.012, which is more small from level significance $\alpha = 0.05$. Therefore that, can concluded that there is significant relationship between parity and perineal rupture during childbirth. Parity interpreted as amount child who has born from a mother, both those who are still life or those who died. Parity Mother shared become three categories, namely primipara (1 child), multipara (2-4 children), and grandemultipara (>5 children). Parity it turns out own impact on the occurrence perineal tear, as per with the theory that states that primiparous mothers have risk more tall experience perineal tear vs. with mother who has parity more from one. This is due to the fact that road born to a primiparous mother Once passed by the head baby, so that the perineal muscles are not yet experience sufficient stretching (Putri & Lestari, 2020)

Laceration or tearing of the birth canal is a tear that occurs in the midline and can be extensive if the fetal head is born too quickly during labor, the angle of the pubic arch is smaller than usual, the fetal head passes through the pelvis with a larger size. The many cases of laceration of the birth canal in mothers with normal labor have led to efforts to suppress and even prevent the occurrence of such cases so as not to increase the Maternal Mortality

Rate (MMR). The purpose of this study was to analyze what factors influence the occurrence of laceration of the birth canal in mothers with normal labor at PMB Sri Harti, Banyu Biru, Semarang Regency. The population in this study were mothers who gave birth in 2018 at PMB Sri Harti Banyu Biru. Sampling used Total Sampling with the data collection technique used was data from mothers who gave birth who experienced lacerations in 2018. Data analysis used a non-parametric statistical test, namely Chi square. The results of the chi square test on maternal parity and birth spacing factors obtained p -values < 0.05 so that there was a significant relationship to the incidence of laceration of the birth canal. The factor of baby's weight on the incidence of birth canal lacerations obtained a p value of $0.533 > 0.05$ so that there is no significant relationship with the incidence of birth canal lacerations (Putri & Lestari, 2020). Primiparous women have risk more tall experience perineal rupture vs. with multiparous women, depending on treatment childbirth and care provided by medical personnel medical and support Mother during the labor process. (Subriah et al., 2021)

Relationship between baby's birth weight and Perineal Rupture in Women in Labor

All over Respondent give birth to baby with heavy baby normal birth weight is 2,500-4,000 grams. Based on statistical tests *chi-square* show p -value = 0.05 no can known connection birth weight baby with perineal rupture in mother giving birth, because babies born to all sample is baby with normal birth weight.

This matter in line with research conducted by Indah Sari and colleagues in 2023, statistical tests *chi-square* show mark p -value of 0.05. However, the value This No can give sufficient information Because all baby involved in sample own normal birth weight. Mother experienced it labor first (primigravida) and gave birth baby with body weight between 2500-4000 grams is known own risk more tall to perineal rupture vs. with baby who has birth weight not enough from 2500 grams (Sari et al., 2018). Some factors that can increase risk perineal rupture involves maternal perineal stiffness, head the fetus passing through base pelvis with fast, and technique the one who doesn't right. There is a risk the can happen good for mothers who experience labor First as well as for mothers who have give birth to previously. In primigravida mothers, the lining the mucosa and skin of the perineum tend to more prone to to rupture, which can cause bleeding vaginally. (Rahmawati, 2023)

CONCLUSION

Based on results research that has been done about the factors that influence perineal rupture can concluded that there is no meaningful relationship between age Mother with perineal rupture in mother giving birth , obtained p value $0.065 > 0.05$. There is a meaningful relationship you parity Mother with perineal rupture in mother giving birth , obtained mark p value $0.020 < 0.05$.

SUGGESTION

The need for notice factor parity Mother in effort prevention and treatment of perineal rupture during labor and labor history previously Because at risk more tall experience perineal rupture .

REFERENCES

- Damaika, S., & Wardiah. (2021). Factors Associated with Road Lacerations. *Maieftika Journals* , 1 (2), 111–122.
- Damayanti, DS, & Wati, DF (2021). The Relationship Between Perineum Massage, Parity, and Newborn Weight with Perineal Rupture Incidence. *Journal for Healthy Society (JUKMAS)* , 5 (1), 52–60. <https://doi.org/10.52643/jukmas.v5i1.1119>
- Darmawati, D. (2023). The Relationship between Parity and Age with the Incidence of Perineal Rupture in Normal Childbirth. *Journal of Midwifery, Ummi Khasanah Polytechnic* , 9 (1), 46–50.
- Fatimah, PL (2019). *Perineum Massage* (Desi Rachmawati (ed.)). NEW PUSTAKA PRESS.
- Hafizah Nurwindayu. (2018). *The Relationship of Kegel Exercises in Primigravida Pregnant Women with the Incidence of Perineal Rupture at the Jannah Medan Tembung Primary Clinic and the Tanjung Deli Tua Primary Clinic in 2018* . <http://journals.sagepub.com/doi/10.1177/1120700020921110%0Ahttps://doi.org/10.1016/j.reuma.2018.06.001%0Ahttps://doi.org/10.1016/j.arth.2018.03.044%0Ahttps://reader.elsevier.com/reader/sd/pii/S1063458420300078?token=C039B8B13922A2079230DC9AF11A333E295FCD8>
- Jayanti, K., Pujiati, P., Ambariani, A., & Damayanti, R. (2023). Number of Parities and Its Relationship to the Incidence of Perineal Rupture During Physiological Childbirth. *SENTRI: Scientific Research Journal* , 2 (7), 2865–2870. <https://doi.org/10.55681/sentri.v2i7.1227>
- Kelana Kusuma Dharmas. (2019). *Nursing Research Methodology* .
- Misrina, & Silvia. (2022). The Relationship of Parity and Newborn Birth Weight With Perineal Rupture in Mothers in Normal Maternity at Independent Practice Midwife Hj. Rosdiana, S. Sit Sub District Jeunib Regency Of Bireuen. *Journal of Health Care Technology and Medicine* , 8 (1), 2615–109.
- Puput Anggraini, Silva Altika, D. (2023). *The Relationship between the Skills of the Assistant's Hand Position in Holding the Perineum and the Incidence of Perineal Rupture in Spontaneous Childbirth* . 8 (2).
- Putri, RA, & Lestari, P. (2020). Analysis of Factors Associated with the Occurrence of Laceration of the Birth Canal in Normal Delivery at Pmb Sri Harti Banyu Biru. *Indonesian Journal of Midwifery (IJM)* , 3 (1), 57–63. <https://doi.org/10.35473/ijm.v3i1.310>
- Rahmawati, MA (2023). The Effect of Newborn Weight on the Incidence of Perineal Rupture in Normal Delivery at TPMB Eni Musfirotn, Pendem Village, Junrejo District, Batu City. *Indonesian Journal of Health Development* , 5 (1), 17–23. <https://doi.org/10.52021/ijhd.v5i1.112>
- Sari, I., Suprida, Yulizar, & Dewi Sartika Silaban, T. (2018). *Analysis of Causal Factors of Perineal Rupture in Women Giving Birth* . 13 (Askeb II).
- Subriah, S., Agustina, A., Puspita, EW, Rahmawati, N., & Nurfatimah, N. (2021). The Relationship between Parity and the Incidence of Perineal Rupture in Normal Childbirth. *Smart Midwife Journal* , 3 (4), 176–182. <https://doi.org/10.33860/jbc.v3i4.369>
- Widya Lestari. at. (2021). *Midwifery Research Methodology* .
- Yulizawati, Aldina, IA, Lusiana, S. El, & Feni, A. (2019). Birth Care Book. In *Indomedika Pustaka* .