The Differences Of Intrapartum Types To The Risk Of Postpartum Depression On Primiparous Mother In Public Hospital Of Yogyakarta Municipality

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ABSTRACT

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Postpartum depression is one of serious problems that women experience after giving birth. Depression symptoms found in postpartum mothers include sadness, anxiety, temperament, lack of appetite, insomnia, and inattentive to the baby. It is a part of the symptoms of maternal psychological disorders that lead to the postpartum depression. This study used quantitative research with analytic observational research design. The population of primiparous postpartum mothers is 60 people consisting of 20 postpartum mothers of Sectio Caesarea, 20 spontaneous postpartum mothers, and 20 vacuum extraction postpartum mothers in the Public Hospital of Yogyakarta Municipality. The sampling teachnique used consecutive sampling. The study utilized Edinburgh Postnatal Depression Scale (EPDS) questionnaire. Bivariate analysis used ANOVA statistical test followed by post hoc test and Chi-Square test with 95% of confidence level. The results of the analysis show Respondents data who were at risk of postpartum depression in Sectio Caesarea intrapartum (16 or 80%) compared to vacuum extraction intrapartum (5 or 13%) and spontaneous intrapartum (7 or 35%). There was a difference on the type of Sectio Caesarea intrapartum with spontaneous intrapartum and vacuum extraction with the risk of postpartum depression of p-value = 0.001 (p <0.05). The difference of the risk was significant on the type of Sectio Caesarea intrapartum when compared with vacuum extraction and spontaneous intrapartum, while between vacuum extraction and spontaneous intrapartum was not significantly different. The conclusion of this study is that there are differences in the type of Sectio Caesarea intrapartum with spontaneous intrapartum and vacuum extraction on the risk of postpartum depression among primiparous mothers in Public Hospital of Yogyakarta Municipality.

INTRODUCTION

WHO (2017) mentions that 10% of pregnant women and 13% of women after childbirth experience mental disorders worldwide, especially depression. As many as 1 in 5 women suffer mental health problems during pregnancy or in the first year after the birth of the baby. Depression is very common in women, especially in women of reproductive age. It is estimated that 14% -23% of pregnant women experience depression during pregnancy, and 5% -25% experience postpartum depression (1).

The incidence of postpartum depression in Indonesia is between 50-70% of postpartum women (Wijaya, 2017). The prevalence of postpartum depression is 10-15% in developed countries and around 20-40% in developing countries. Whereas in Yogyakarta the prevalence of postpartum depression was 35.2% (Wahyuntari, 2017). The incidence rate of postpartum depression is 1 to 2 per 1000 births. About 50 to 60% of women who experience postpartum depression when they have their first child, and about 50% of women who experience postpartum have a family history of mood disorders (2).

The Indonesian Government's policy in PERMENKES No. 97 of 2014 article 15, has provided policies in accordance with the basic health of mothers during childbirth, namely at least 3x visits during childbirth, which is done with the provisions of the inspection time includes 1 time in a period of 6 hours to 3 days after giving birth, once in a period of 4 days to 28 days after giving birth and once in a period of 29 days up to 42 days after giving birth. With ongoing monitoring can reduce problems in postpartum mothers can be handled (3).

About 13% of women giving birth to their first child experience postpartum depression in the first year of labor. According to Ann Dunnewold, a psychiatrist in Dallas, United States, 10-20% of women who have just given birth experience depression. Postpartum depression is experienced by mothers who have just given birth to their first baby. Postpartum depression ranging from 10-15% is recognized as a women's health problem in the world (4).

Psychological changes that occur in postpartum mothers because there are several things, namely experience during childbirth, the responsibility of the role od a mother, the presence of a new family member (baby) and a new role as a mother (4). Interventions in

labor such as delivery of assistive devices (forceps or vacuum), treatment of epidural analgesics and cesareansection can have long-term effects on the mother, which can reduce the mother's confidence in carrying out her role, interfere with the natural bonding process and can increase the incidence of postpartum depression (6).

The factors during labor including the length of labor and the medical interventions used during labor will affect the risk of postpartum depression. Mothers with cesarean delivery take longer to heal than vaginal delivery because it will prevent the mother from undergoing her new role as a mother, making mothers with cesarean section more at risk of postpartum depression, so early detection is needed to see the risk of postpartum depression in postpartum mothers and Postpartum mothers who are at risk of postpartum depression will immediately get special treatment (7).

Early detection of postpartum depression events can be done using sheets of the Edinburgh Postnatal Depression Scale (EPDS) which is filled in by the patient and can be used easily with a score of more than 13 predicted postpartum depression with a sensitivity value of 86% and a specificity of 78% conducted in Indonesia (8).

The use of screening tools can help the process of detecting diseases compared to usual care. The gold book examination for the diagnosis of postpartum depression is the Edinburgh Postnatal Depression Scale (EPDS). Research on postpartum depression using EPDS has been widely carried out in Indonesia. EPDS was first designed by Cox et al to be used as a screening instrument for secondary prevention of postpartum depression (9).

Based on the background of the problem, researchers are interested in conducting research on the different types of childbirth to the risk of postpartum depression among primiparous mothers in Yogyakarta City Hospital.

METHODE

The research design is structured to guide researchers so that they can help researchers obtain answers to research questions (10). This research is a type of quantitative research using analytic observational research design in which measurements between the independent variables and the dependent variable are carried out simultaneously. subjects were observed only once in the time during the study (11). The independent variable in this

study is the type of labor (Caesarean Sectio, Normal Childbirth, and Vacuum Extraction). The dependent variable in this study was postpartum depression. The sample in this study was consecutive sampling, where the entire population became the study sample, by excluding samples that did not fit the study criteria. The inclusion criteria in this study were postpartum mothers with caesarean, normal, and vacuum extraction labor on days 7-14 at Yogyakarta City Hospital. This study used quantitative research with analytic observational research design. The population of primiparous postpartum mothers is 60 people consisting of 20 postpartum mothers of Sectio Caesarea, 20 spontaneous postpartum mothers, and 20 vacuum extraction postpartum mothers in the Public Hospital of Yogyakarta Municipality.

The sampling teachnique used consecutive sampling. The study utilized Edinburgh Postnatal Depression Scale (EPDS) questionnaire. Bivariate analysis used ANOVA statistical test followed by post hoc test and Chi-Square test with 95% of confidence level.

RESULTS AND DISCUSSION

Table 1. Charcteristics of Corespondents

			Kind of	Labor		
Variabel	Sectio	Caesarea	Vacuum	Extraction	Norm	al labor
	n	%	n	%	n	%
Age (Year)						
< 20	2	10,0	1	5,0	8	40,0
20 - 35	18	90,0	19	95,0	12	60,0
Education						
Low	1	5,0	6	30,0	6	30,0
High	19	95,0	14	70,0	14	70,0
Job						
Not working	8	40,0	6	30,0	11	55,0
Work	12	60,0	14	70,0	9	45,0
Income						
≤ Regional Minimum Salary	13	65,0	15	75,0	16	80,0
> Regional Minimum Salary	7	35,0	5	25,0	4	20,0
Social Support						
Low	5	25,0	7	35,0	7	35,0
High	15	75,0	13	65,0	13	65,0
Living Together						
Live with parent/in laws	10	50,0	4	20,0	8	40,0
Stay at home	10	50,0	16	80,0	12	60,0
Riwayat depresi		•		•		•
Ada	2	10,0				
Tidak ada	18	90,0	20	100,0	20	100,0

		Kind of Labor								
Variabel	Sectio	Caesarea	Vacuum	Extraction	Norm	al labor				
	n	%	n	%	n	%				
Quality of live										
Low	11	55.0	12	60.0	13	65.0				
High	9	45.0	8	40.0	7	35.0				
Pregnancy										
Desired	18	90.0	20	100.0	19	95.0				
Not desirable	2	10,0			1	5,0				
History of child mortality										
There is no	19	95,0	20	100,0	20	100,0				
There is	1	5,0			0	0				
Breastfeeding disorders										
Yes	2	10,0	1	5,0	1	5,0				
No	18	90,0	1	95,0	19	5,0				

The results of statistical tests showed that in all three types of labor, the majority of respondents were productive age (20-35 years) Sectio caesarea delivery was 18 people (90.0%), Vacuum Extraction 19 people (95.0%), and normal labor 12 people (60.0%). In the education variable, the respondents' data were mostly highly educated with SC deliveries of 19 people (95.0%), vacuum extraction labor 14 people (70.0%), and normal labor 14 people (70.0%). In the employment variable, the majority of respondents work (except spontaneous groups where the majority of respondents do not work), income below the UMR, get good social support, stay at home, have no history of depression, good quality of life, desired pregnancy, no breastfeeding disorders, and no history of child mortality in both SC labor, vacuum extraction and normal labor.

Table 2. The Risk of Postpartum depression

]	Kind of Labo	r	
The risk of postpartum depression		ectio esarea	Vacuum	Extraction	Nor	mal labor
	n	%	n	%	n	%
At risk	16	80,0	11	55,0	10	50,0
Not at risk	4	20,0	9	45,0	10	50,0
Total	20	100	20	100	20	100

The results of the statistical tests showed that the largest percentage of those at risk for postpartum depression was the type of SC labor 16 people or (80.0%), then followed by

a vacuum of 11 people or (55.0%), and the lowest risk for normal labor 10 people or (50.0%).

Table 3. Differences in Types of Labor Against the Risk of Postpartum Depression

	The	risk of post	partum dep	ression	Т	a4a1	
Type of labor	A	t risk	No	ot at risk	_ ı	otal	p-value
	n	%	n	%	n	%	
Sectio Caesarea	16	80	4	20	20	100	
Vacuum Extraction	5	13	15	75	20	100	0,001
Normal labor	7	35	13	65	20	100	

The results of statistical tests showed the results of bivariate analysis with the Post Hoc Anova test showed there was a relationship between the type of labor and the risk of postpartum depression (p = 0.001). Significant risk differences were seen in the type of SC labor when compared to vacuum and normal while between vacuum and spontaneous did not differ significantly. This can be seen from the cross table which shows that respondents who are at risk of postpartum depression are more than double the number of SC deliveries (16 or 80%) compared to vacuum and spontaneous (5 or 13% and 7 or 35%). Likewise, on the contrary, the number of respondents who were not at risk was found to be 3 times smaller in SC labor than vacuum and normal.

Table 4. The Relationship of the Disturbing Variables with the Type of Childbirth to the Risk of Postpartum Depression Primipara in Yogyakarta City Hospital

			Sp	ontan			
Variabel		p-value					
	Be	risiko	Tidak	k berisiko	Tota	al	
	n	%	n	%	n	%	
Umur (tahun)							
<20	4	20	4	20	8	40	0,356
>20 – 35	3	15	9	45	12	60	
Total	7	35	13	65	20	100	
Pendidikan							
Rendah	2	10	4	20	6	30	1,000
Tinggi	5	25	9	45	14	70	
Total	7	35	13	65	20	100	
Pekerjaan							
Tidak bekerja	6	30	5	25	11	55	0,070
Bekerja	1	5	8	40	9	45	
Total	7	35	13	65	20	100	

			S_1	pontan						
Variabel	Risiko terjadinya depresi postpartum									
	Berisiko			k berisiko	Total		p-value			
	n	%	n	%	n	%				
Pendapatan										
≤ UMR	7	35	9	45	16	80	0,249			
>UMR	0	0	4	20	4	20				
Total	7	35	13	65	20	100				
Dukungan sosial										
Rendah	3	15	4	20	7	35				
Baik	4	20	9	45	13	65	0,651			
Total	7	35	13	63	20	100				
Kualitas hidup										
Rendah	6	30,0	7	35,0	13	65%				
Baik	1	5,0	6	30,0	7	35%	0,329			
Total	7	35	13	65	20	100				

Table 5. The Relationship of the Disturbing Variables with the Type of Childbirth to the Risk of Postpartum Depression Primipara in Yogyakarta City Hospital

				Sectio Caesar	еа		
			Risik	o terjadinya	depresi postj	partum	
Variabel	Beris	siko		k berisiko		otal	p-value
	n	%	n	%	n	%	
Umur (tahun)							
<20	2	10	0	0	2	10	1,000
>20 – 35	14	70	4	20	18	90	
Total	16	80	4	20	20	100	
Pendidikan							
Rendah	1	5	0	0	1	5	1,000
Tinggi	15	75	4	20	19	95	
Total	16	80	4	20	20	100	
Pekerjaan							
Tidak bekerja	5	25	3	15	8	40	0,255
Bekerja	11	55	1	5	12	60	
Total	16	80	4	20	20	100	
Pendapatan							
≤ UMR	10	50	3	15	13	65	1,000
>UMR	6	30	1	5	7	35	
Total	16	80	4	20	20	100	
Dukungan sosial							
Rendah	2	10	3	15	5	25	0,032
Baik	14	70	1	5	15	75	
Total	16	80	4	20	20	100	
Kualitas hidup							
Rendah	10	50	1	5	11	55	0,285
Baik	6	30	3	15	9	45	
Total	16	80	4	20	20	100	

Table 6. The Relationship of the Disturbing Variables with the Type of Childbirth to the Risk of Postpartum Depression Primipara in Yogyakarta City Hospital

			Vacu	um Extraction	1		
Variabel			p-value				
	В	erisiko	Tidak	berisiko	Tot	al	p-vaiue
	n	%	n	%	n	%	
Umur (tahun)							
<20	0	0	1	5	1	5	1,000
>20 $-$ 35	5	25	14	70	19	95	
Total	5	25	15	75	20	100	
Pendidikan							
Rendah	0	0	2	10	2	10	1,000
Tinggi	5	25	13	65	18	90	
Total	5	25	15	75	20	100	
Pekerjaan							
Tidak bekerja	3	15	3	15	6	30	0,131
Bekerja	2	10	12	60	14	70	
Total	5	25	15	75	20	100	
Pendapatan							
≤ UMR	4	20	11	55	15	75	1,000
>UMR	1	5	4	20	5	25	
Total	5	25	15	75	20	100	
Dukungan sosial							
Rendah	3	15	4	20	7	35	0,290
Baik	2	10	11	55	13	65	•
Total	5	25	15	75	20	100	
Kualitas hidup							
Rendah	4	20	8	40	12	60	0,603
Baik	1	5	7	35	8	40	
Total	5	25	15	75	20	100	

The table above show that there are not confounding variables related to the risk of ostpartum depression (p>0.05) based on the type of delivery with variables of age, education, occupation, income, social support and quality of life of respondents.

The majority of respondents' characteristics in the three types of childbirth are productive age (20-35 years), highly educated, working (except spontaneous groups where the majority of respondents do not work), income below the minimum wage, receiving good social support, staying at home alone, not there is a history of depression, good quality of life, desirable pregnancy, no breastfeeding disorders, and no history of child mortality. This shows that in general, the majority of mothers who were respondents of this study were in good condition so that they were less at risk for postpartum depression.

That depression in postpartum mothers is more common in minors to carry out the role of a mother. In addition, work factors also play an important role, housewives who do not work affect family income. Most respondents in this study stated that they received good social support (12).

During the process of adjustment to becoming a mother, mothers are very susceptible to emotional disturbances especially during pregnancy, childbirth and the postpartum. A strong and consistent support system is a major factor in successfully adjusting for mothers (13).

In a study conducted by (Nurfatimah, 2017) the age factor concerned during pregnancy and childbirth is often associated with the mental readiness of the woman to become a mother coupled with public confidence that the right time for a woman to give birth between the ages of 20-30 years, and this supports the problem of the optimal period for baby care by a mother.

The analysis showed that there was a difference between the type of delivery and the risk of postpartum depression (p = 0.001). The group of mothers who gave birth with a SC delivery had a higher risk of experiencing postpartum depression compared to a normal delivery and those who were through a vacuum extraction labor. There was no difference in the risk of postpartum depression in women who had normal labor and vacuum extraction.

Mothers with cesarean section deliveries are longer healing than vaginal delivery. This will prevent the mother from undergoing her new role as a mother, so that mothers with cesarean delivery are more at risk of postpartum depression, so early detection is needed to see the risk of postpartum depression in postpartum mothers and postpartum mothers at risk of postpartum depression will immediately get treatment (5).

Births through sectio caesarea can be at risk of causing physiological and psychological disorders especially in unplanned or unplanned cesarean sections (Amperaningsihet al., 2018). Sectio caesarea has an impact on the psychological of the mother. Mothers who deliver with an unintended (emergency) cesarean section express concerns such as fear of death, fear of the safety of their baby's life, anesthesia and

operating room (Somara et al., 2010). Mothers are depressed before, during and after sc who are experienced namely expressing their lack of satisfaction and negative perceptions of sc. Mothers often experience psychosocial and physical worries. Mothers complain of feelings of fear, loss of concentration, irritability, anxiety and impaired perception of cesarean section with other effects of post-traumatic depressive disorders.

The number of respondents who are at risk of postpartum depression is more than double the number of SC deliveries compared to vacuum and spontaneous. Vice versa, the number of respondents who are not at risk of postpartum depression was found to be three times smaller in SC deliveries than vacuum and normal. These results are in line with Ariyanti's study that mothers with cesarean delivery have a 3,716 times greater risk of postpartum depression than mothers who have vaginal delivery.(5) Likewise, the results of logistic regression analysis in the study showed that the risk of postpartum depression was lower in women with normal labor or instrumental vaginal delivery compared with women with emergency cesarean section (14).

This is likely due to factors during labor which include the length of labor, the type of labor and medical interventions used during labor will affect the risk of postpartum depression. Mothers with cesarean section deliveries take longer to recover than vaginal delivery. This will prevent the mother from undergoing her new role as a mother, making mothers with cesarean delivery more at risk of developing postpartum depression. In addition, prolonged and stressful labor will make mothers have unsatisfactory labor experiences which can make it difficult for mothers to control themselves, become irritable, and reduce the effective coping ability of mothers.(15) Furthermore, prolonged labor is usually terminated by actions such as labor with assistive devices (vacuum), the use of epidural analgesics, and seceso saesarea. Interventions in labor can have long-term effects on the mother, which can reduce the confidence of the mother in carrying out her role thereby increasing the incidence of postpartum depression (5).

The results of the study suggest that this type of delivery might be a risk factor for postpartum depression. However, only a few studies provide support for this conclusion.

Thus, Kaya (2019) in his study mentioned that psychological factors compared to the type of labor, more influence the risk for postpartum depression.

In this study, most respondents were categorized as moderate depression risk, with a score between 10-12. In this case according to the research of Munawaroh (2008) from 60 respondents it was found that 8.33% of primiparous mothers had moderate depression. However, the Restarina study (2017) said the results showed that the level of postpartum depression among respondents varied, ranging from non-depression (minimal depression) of 48 respondents (55.8%), mild 18 respondents (20.9%), while 13 respondents (15.1%) and the weight of 7 respondents (8.1%). The results of this study indicate that postpartum depression is experienced by every respondent with varying degrees of depression, so it is expected that health care institutions and health education can provide psychological facilities and services that can prevent and treat mental disorders as early as possible.

Based on the results of the analysis, it was found that there were no confounding variables namely age, education, work, income, social support, and quality of life that were significantly related to postpartum depression. These results are in line with Ariyanti's study that age, parity, education, economic status, family support, and marital status do not significantly influence the risk of postpartum depression (5). The Goker Study (2012) also concluded that there was no significant difference between EPDS scores when compared according to age, education, gravidity, desired pregnancy, fear about birth, sex, family type, and income level (p> 0.05). The risk of postpartum depression to look out for is in women who do not work with a history of hyperpermesis gravidarum and depression.

Likewise, Rich's study (2019) that no significant relationship was detected between age groups, occupations, income, and residence with EPDS scores. However, the study found in more detail that postpartum behavior and infant feeding methods were significantly related to EPDS scores in the first postpartum month, but not to EPDS scores in the third postpartum month. The difference between EPDS scores in the first and third months was probably due to sleep disorders more prominently affecting mothers in the postpartum period in the study. In the early postpartum period, a decrease in self-care and sleep disorders can negatively impact the mood of the mother.

The results of statistical tests in the study (Wahyuni, 2014) prove that education has no significant relationship with postpartum depression with a value of p = 0.452 ie there is no depression in respondents with secondary education and there is no depression in respondents with secondary education.

The results of this study explain that the type of delivery has an influence on the risk of postpartum depression so that routine screening during childbirth visits to identify the risk of postpartum depression, so that you can get optimal obstetric care in addition can also be immediately referred to a psychiatrist to establish diagnoses and treatment more continued.

RESEARCH LIMITATIONS

Researchers are aware that there are still many shortcomings in terms of research design, perhaps still lacking in exploring the factors that contribute to postpartum depression in primiparous mothers, and researchers have obstacles caused by hospital regulations not to document data from medical records.

CONCLUSION

- 1. Characteristics of respondents in the three types of childbirth groups show that the majority of respondents are of productive age (20-35 years old), highly educated, working (except spontaneous groups where the majority of respondents do not work), income below the UMR, get good social support, live in own home, no history of depression, good quality of life, desirable pregnancy, no breastfeeding disorders, and no history of child mortality.
- 2. The largest percentage at risk for postpartum depression is the type of sectio caesarean delivery, followed by vacuum extraction labor, and the lowest risk for normal type of labor.
- 3. There is a difference between the type of delivery and the risk of postpartum depression (p=0.001). A significant difference in risk was seen in the type of caesarean

section compared to vacuum and normal while between vacuum and spontaneity did not differ significantly.

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