Jurnal Keperawatan Respati Yogyakarta, v. 9, n. 1, p. 1 - 6, jan. 2022.
ISSN 2541-2728. doi: http://dx.doi.org/10.35842/jkry.v9i1.650

POSTPARTUM HEMORRHAGIC INCIDENCE BASED ON PARITIES IN PUBLIC HEALTH CENTER OF BOGOR CITY

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Abstract

Acording to the data of World Health Organization (WHO), the number of maternal deaths in the world in 2017 was 216 per 100,000 live births or maternal deaths was about 303,000 death by the highest total occurred at developing country, that was 302,000 deaths. The number of maternal deaths in the developing country was 20 times higher than the maternal deaths at the developed country, that was 239 from 100.000 live births whereas in the developed country 12 per 100.000 live births in 2017. This research used survey method of descriptive quantitative analysis by retrospective approach. The sample of the research is gotten by total technic sampling. The data used in this research was univariate and bivariate analysis with Chi-Square statistical test. Based on the parity, it was found 18 (41.9%) respondents occurred grand multipara. Based on postpartum hemorrhagic, it was found 31 (72.1%) respondents occurred secondary hemorrhagic. From 43 respondents, it was found 16 (37.2%) respondents of grand multipara parity occurred postpartum hemorrhagic. Based on bivariate analysis result by Chi-Square analysis test was found the value of P-value 0,018 ≤ 0,05 (alpha) so H_a is accepted. There is a correlation of parity with postpartum hemorrhagic at Bogor City,Indonesia.

Keyword - *Parity, Postpartum Hemorrhagic, Mother, Parities*

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1. Introduction

Research data from the World Health Organization (WHO) The maternal mortality rate (MMR) in the world in 2017 was 216 every 100,000 live births or it is estimated that the number of maternal deaths is 303,000 with the highest number in developing countries, namely 302,000 deaths. The maternal mortality rate in developing countries is 20 times higher than the maternal mortality rate in developed countries, namely 239 per 100,000 live births, while in developed countries it is only 12 every 100,000 live births in 2017 (WHO, 2019).

Based on the mathematical calculation of MMR in Bogor City from in 2010 - 2012 the graph decreased from 65.69 every 100,000 live birth to 47.55 every 100,000 live birth, but in 2012 - 2014 the graph increased again from 47.55 every 100,000 live birth in 2012 to 58.98 every 100,000 live birth in 2014. Decreased in 2015 back to 55.41 every 100,000 live birth. The MMR from mathematical calculations is very necessary because it is a result real of reports on maternal mortality reported compared to live births in Bogor City. Although different methodology to the calculation of the survey, the results of maternal mortality rate mathematical calculations they used to see the gains / annual evaluation of the MCH program (WHO, 2014).

Postpartum hemorrhagic is a situation where a mother who gave birth to bleed through the birth canal that exceed 500 ml. At term pregnancy the blood flow to the *uterus* is 500-800 ml / minute (Tomori *et al.*, 2020)**.** Factors for the occurrence of postpartum hemorrhage, such as parity, amused age and hydramnios (Rahayu, Nur and Asiyah, 2015). Untreated hemorrhage postpartum can result in shock and decreased consciousness due to the large amount of blood that comes out. This causes disruption of blood circulation throughout the body and can lead to hypovolemia heavy. If this keeps happening, it will cause the mother not to be saved (Agu Yosali and Astry, 2019; Yosali, Magdalena Agu; Girsang, Elpinaria; Yanti, Tisna; Fajria, 2021).

Some symptoms that can indicate hemorrhage uncontrolled postpartum include hemorrhagic, decreased blood pressure, increased heart rate, decreased red blood cell count (hematocrit), swelling and pain in the tissues of the area vaginal and around the perineum (Dutra, Araújo and Micussi, 2019; Fitrianingsih, 2019)

Prevention postpartum hemorrhage Preventing or at least being prepared for cases where hemorrhagic is suspected is essential. Preventive measures are not only taken during childbirth but have been started since pregnant women by doing good antenatal care. Managing anemia in pregnancy is important, mothers who have a predisposition or a history of hemorrhage are postpartum strongly advised to give birth in the hospital (Sanjaya, 2015; Agu Yosali, 2018).

Preparation for labor in the hospital, the physical condition, general condition, level checked hemoglobin, blood type are, and if possible, provide a blood donor and deposit it at a blood bank. Insertion of an intravenous catheter with a large opening for preparation when required transfusion is. For patients with severe anemia, should be done immediately transfusion. It is highly recommended for patients at risk of postpartum hemorrhage to save their own blood and use it at delivery (Ghosh and Chandraharan, 2017). More deaths maternal occur in the first 24 hours postpartum, mostly due to hemorrhagic too much. The most common causes of hemorrhagic that occurs within the first 24 hours postpartum or what is commonly referred to as primary postpartum hemorrhage are failure of the uterus to contract properly after delivery, retained placenta and uterus that is receding or inversion. From several causes of hemorrhagic, one of the triggering factors is parity. At parity low (parity 1), causing the mother unpreparedness in the face of labor so that pregnant women are not able to handle the complications that occur during pregnancy, labor and childbirth. At high parity (more than 3) reproductive function has decreased, the uterine muscles are too stretched and unable to contract properly so that the possibility of hemorrhagic postpartum is greater (Jekti and Suarthana, 2011; Yosali, Magdalena Agu; Girsang, Elpinaria; Yanti, Tisna; Fajria, 2021)

Based on research conducted by Rifdiani (2016). entitled " Effect of Parity, LBW, Pregnancy Distance and Hemorrhagic History on Postpartum Hemorrhage Incidence " shows that there is a significant correlation between parity and incidence of postpartum hemorrhage (Rifdiani, 2016).

Based on the above background, the researcher is interested in maternal mortality rate the "Postpartum Hemorrhagic Incidence Based On Parities ".

2. Material And Method

This research used survey method of descriptive quantitative analysis by retrospective approach. It is located at North Bogor Public Health Center Bogor City Indonesia on 18th April 2021. The population of the research is 43 respondents. The sample of the research is

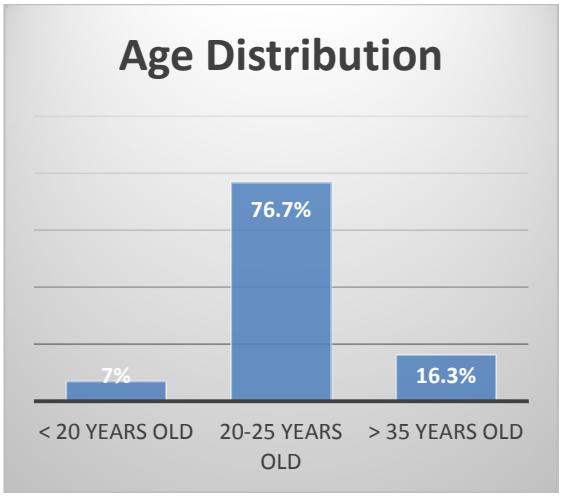
ISSN 2541-2728. doi: http://dx.doi.org/10.35842/jkry.v9i1.650

gotten by total technic sampling. The sample was 43 respondents. The instrument of the research to collect the data used checklist paper analysis. The data used in this research was univariate and bivariate analysis with Chi-Square statistical test.

3. Results And Discussion

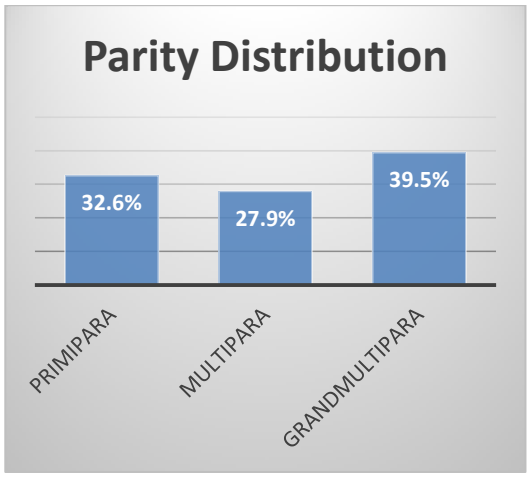
This research was conducted on 18th April 2021 at North Bogor Public Health Center Bogor City Indonesia. In the implementation of data collection, researchers were assisted by 1 land supervisor. The number of respondents was 43 respondents. The results of this study were analyzed by univariate and bivariate, univariate analysis presented in the form of a frequency distribution which includes parity at the North Bogor Public Health Center, Bogor City Indonesia and hemorrhage Postpartum at the North Bogor Public Health Center Bogor City Indonesia. Furthermore, bivariate analysis will be analyzed to determine the relationship between parities and hemorrhagic postpartum at North Bogor Public Health Center Bogor City Indonesia.

Figure 1. Distribution and frequencies of sample based on age at North Bogor Public Health Center Bogor City Indonesia.



Based on Figure 1, distribution and frequencies of sample based on age at North Bogor Public Health Center Bogor City Indonesia, most of the respondents aged 20-35 years 33 people (76.7%).

Figure 2. Distribution and frequencies of parity based on age at North Bogor Public Health Center Bogor City Indonesia.



Based on Figure 2 above, it is known that the distribution and frequencies of parity based on age at North Bogor Public Health Center Bogor City, Indonesia from 43 respondents, there were 17 (39,5%) respondents experiencing grandmultipara.

Figure 3. Distribution and frequencies of hemorrhagic postpartum at North Bogor Public Health Center Bogor City Indonesia

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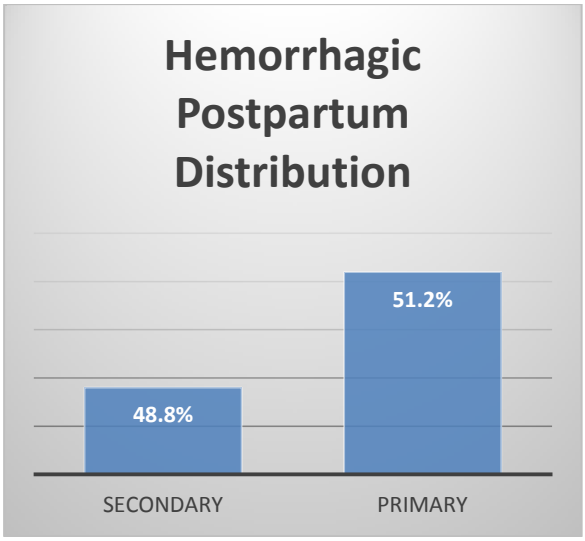

Based on Figure 3 above, it is known that the distribution and frequencies of hemorrhagic postpartum at North Bogor Public Health Center Bogor City Indonesia from 43 respondents, there were 22 (51,2%) respondents who experienced primary hemorrhagic.

Table 1 Correlation between Parity and Postpartum Hemorrhage at North Bogor Public Health Center Bogor City, Indonesia

Parity	Postpartum hemorrhage				Total		*P value*
	Primary hemorrhagic		Secondary hemorrhagic				
	F	%	F	%	F	%	
Primipara	11	25,6	3	7,0	14	32,6	0,018
Multipara	3	7,0	9	20,9	12	27,9	
Grandmultipara	7	16,2	10	23,3	17	39,5	
	21	48,8	22	58,2	43	100	

Based on Table 1, it is known that the correlation parity with hemorrhage postpartum at North Bogor Public Health Center Bogor City, Indonesia from 43 respondents, there are 11 (25,6%) respondents with parity primipara with primary hemorrhagic. Based on the results of bivariate analysis using the analysis test Chi-square, the p-value is 0.018 <0,05 (alpha), meaning that Ha is accepted and H0 is rejected. From this value, the results of the analysis state that there is a relationship between parity and hemorrhage postpartum at North Bogor Public Health Center Bogor City, Indonesia.

Based on Figure 2, it is known that the distribution and frequencies of parity based on age at North Bogor Public Health Center Bogor City, Indonesia from 43 respondents, there were 17 (39,5%) respondents experiencing grand multipara.

The results of this study are comparable to research conducted by Rifdiani 2016 which examined "Effect of Parity, LBW, Pregnancy Distance and Hemorrhagic History on Postpartum Hemorrhage Incidence." Most of the respondents were respondents grand multipara (parity > 3), namely 22 (64,7%) respondents (Rifdiani, 2016).

Parity is the number of children born either alive or dead. Factors that affect parity include education, work, economy, cultural background and knowledge (Bromley, 2010; Chapman and Durham, 2014). Parity is a condition in which a woman has given birth to a fetus weighing 500 grams or more, dead or alive and if her weight is not known, the age limit is used gestation 22 weeks starting from the first

day of the last normal menstruation (Rahayu, Nur and Asiyah, 2015).

Parity which generally exceeds 35 years, the risk of pregnancy and childbirth is higher because the reproductive organs begin to age and degenerate resulting in decreased function which can cause disturbances in pregnancy and labor. The organs begin to loosen and become stiff, then a deterioration occurs which greatly affects the acceptance of pregnancy and childbirth.[13] Women with parity high face hemorrhagic due to atony uterine that is increasing so that it can cause hemorrhage postpartum early (Jekti and Suarthana, 2011).

Multiparity from the point of view of hemorrhage postpartum can result in death maternal. Primiparity and multiparity have a higher incidence of postpartum hemorrhage. The higher the parity, the higher themortality maternal. The risk of primiparity can be managed with care abstetric better, whereas the risk of multiparity can be reduced or prevented by family planning, some pregnancies in multiparity are unplanned(Kinabo, J., Mamiro, P., Mwanri, A., Bundala, N., Msuya, J., Ntwenya, J., Kulwa, K., Nombo, A., Mzimbiri, R., Macha, E. and Picado and Deye, N., Vincent, F., Michel, P., Ehrmann, S., Da Silva, D., Piagnerelli, 2013). The multiparity risk in the incidence of hemorrhage is fact postpartum due to the muscles uterine that the are often stretched so that the walls thin and the contractions become weak, this results in the incidence of hemorrhage postpartum being 4 times greater in multiparity where the incidence is 2,7% (Ghosh and Chandraharan, 2017).

More deaths maternal occurred in the first 24 hours postpartum, mostly due to hemorrhagic too much. The most common causes of hemorrhagic that occurs within the first 24 hours postpartum or what is commonly referred to as primary postpartum hemorrhage are failure of the uterus to contract properly after delivery, retained placenta and uterus that is receding or inversion. From several causes of hemorrhagic, one of the triggering factors is parity. At parity low (parity 1), causing the mother unpreparedness in the face of labor so that pregnant women are not able to handle the complications that occur during pregnancy, labor and childbirth. At high parity (more than 3) reproductive function has decreased, the uterine muscles are too stretched and unable to contract properly so that the possibility of hemorrhage postpartum is greater (Jekti and Suarthana, 2011).

From the results of the study it can be concluded that between other people's research theories and the results of the researcher's research there is a harmony, where the respondents are mostly aged 20-35 years with parity grand multipara, mothers aged 25-35 years will have grand multipara parity with children more than 3.

Based on Figure 3 above, it is known that the frequency distribution of hemorrhage postpartum North Bogor Public Health Center Bogor City, Indonesia from 43 respondents, there were 22 (51,2%) respondents who experienced primary hemorrhagic.

This study is comparable with research conducted by sustainable Yunadi et.al (2019) about "Identification of Maternal Factors with Post Partum Hemorrhage" Indicates that hemorrhage postpartum is the most primary post partum hemorrhage as many as 50 (69.4%) respondents (Yunadi, Andhika and Septiyaningsing, 2019).

Hemorrhagic is a condition when blood comes out of the blood vessels and causes the sufferer to lose blood in his body. Postpartum is the period after childbirth which can also be called the puerperium period (Puerperium), which is the period after childbirth that is needed to recover the uterine uterus which is 6 weeks long. Hemorrhage Postpartum is a condition in which a mother who has given birth has blood through the birth canal that exceeds 500 ml (Rahayu, Nur and Asiyah, 2015). Hemorrhage Postpartum Primary is

hemorrhage postpartum that occurs within the first 24 hours of birth. The main cause of hemorrhage postpartum primary are uterine atony / retained placenta / remaining placenta / birth canal tear and blood clot factors. Hemorrhage Postpartum secondary is hemorrhage postpartum that occurs within the first 24 hours of birth. Hemorrhage Postpartum secondary is caused by infection / improper shrinkage of the uterus or remaining placenta (Ghosh and Chandraharan, 2017).

Many of the factors that have significance in the cause of haemorrhage postpartum as an atonic uterus, retained placenta, placenta lremnant, rips the birth canal and factors of blood clots (Jekti and Suarthana, 2011).

Hemorrhage Postpartum that left untreated can lead to shock and downs of consciousness due to the amount of blood that comes out. This causes disruption of blood circulation throughout the body and can lead to hypovolemia heavy. If this continues, it will cause the mother not to be saved(Ghosh and Chandraharan, 2017). Hemorrhage postpartum results in significant blood loss that can affect the general condition of the patient. Less blood loss does not really affect the general condition of the patient. The patient can look conscious but looks a little anemic, the large blood loss causes the patient to be anemic to the point of shock weight hypovolemic(Ghosh and Chandraharan, 2017).

Based on the theory and results of other people's research and the results of research by researchers, there is harmony. Where most of the respondents experienced hemorrhage postpartum primary with most of them aged 25-35 years.

Based on Table 1, it is known that the Correlation between Parity and Postpartum Hemorrhage at North Bogor Public Health Center Bogor City, Indonesia from 43 respondents, there were 11 (25,6%) respondents with parity primiparous who experienced primary hemorrhagic. Based on the results of bivariate analysis using the analysis test Chi-square, the p-value is 0,018 <0,05 (alpha), meaning that Ha is accepted and H0 is rejected. From this value, the results of the analysis state that there is a correlation between parity and postpartum hemorrhage at North Bogor Public Health Center Bogor City, Indonesia.

The results of this study are comparable to that of Rifdiani, 2016 which examined "Effect of Parity, LBW, Pregnancy Distance and Hemorrhagic History on Postpartum Hemorrhage Incidence", the results were 22 (64,7%) respondents who experienced hemorrhage postpartum. Meanwhile, 25 respondents did not experience hemorrhage postpartum (73,5%). The results of the analysis Chi-square obtained a p-value of 0,019 (p-value < 0,05), which means that parity has a significant relationship with hemorrhage postpartum (Rifdiani, 2016).

Hemorrhagic is a condition when blood comes out of the blood vessels and causes the sufferer to lose blood in his body. Postpartum is the period after childbirth which can also be called the puerperium period (Puerperium), which is the period after childbirth that is needed to recover the uterine uterus which is 6 weeks long. Hemorrhage Postpartum is a condition in which a mother who has given birth to bleed through the birth canal that exceeds 500 ml.[15] Parity is the number of children born either alive or dead. Parity is a risk factor for hemorrhage postpartum (Yulizawati; Aldina Ayunda Insani, 2019).

Based on the results of the research and the theory above, the researchers concluded that there is an agreement between the theory and the results of the study, namely that parity has an effect on hemorrhage postpartum because the higher the parity, the higher the maternal mortality rate. Parity high can cause several problems for the mother concerned, so that the mother cannot perform her role properly as a parent. It concluded that

parity is a risk factor that can cause hemorrhage postpartum.

4. Conclusion

Most of the respondents at the North Bogor Health Center in Bogor City experienced grand multipara. Most of the respondents at the North Bogor Health Center in Bogor City experienced primary bleeding. There is a relationship between parity and postpartum hemorrhage at the North Bogor Public Health Center, Bogor City.

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