

Dominant Factors in the Occurrence of Post-Partum Bleeding Period 2015-2018 dr. Sayyidman Hospital Magetan

Fadila Alfiasari¹, Sunarto², Nuryani²

¹*Master Program in Public Health, Universitas Sebelas Maret Surakarta, Indonesia*

²*D4 Midwifery Study Program , Poltekkes Kemenkes Surabaya, Indonesia*

fadila.alfiasari@student.uns.ac.id

Keywords: Postpartum bleeding, mother's age, parity, birth spacing, anemia.

ABSTRACT

Maternal mortality is still a serious health problem in Magetan Regency. According to data from the Magetan District Health Office in 2018, the biggest cause of death was bleeding with a percentage of 31% or 13 cases of death. The purpose of this study was to determine the dominant factor in the incidence of postpartum hemorrhage at dr. Sayyidiman hospital Magetan period 2015 - 2018. This research uses the descriptive research method. With a large sample, the total population (sampling quota) is 40 cases of postpartum hemorrhage. The variables of this study include age, parity, birth spacing, and anemia. The results showed that the age at risk for bleeding was 15%, parity was at risk of 5%, the delivery interval was at risk of 75%, and anemia was 65%. Spacing of risky deliveries and anemia are the dominant factors in the incidence of preeclampsia in pregnancy. The conclusion that can be obtained from this study is that risk factors for birth spacing with a percentage of 75% and anemia at 65% are the dominant factors for the incidence of postpartum hemorrhage in dr. Sayidiman hospital Magetan Period 2015-2018. As health workers, especially midwives, it is advisable to carry out careful screening so that complications do not occur, especially in postpartum hemorrhage. Pregnant women also need routine and regular pregnancy check-ups so that later complications do not occur during childbirth.

INTRODUCTION

The maternal mortality rate worldwide is still a global problem, especially in Indonesia. Indonesia itself has set a target for a maternal mortality rate of 306 per 100,000 live births which must be achieved by 2019 [1]. In the mid-term evaluation of the 2015-2019 National Medium-Term Development Plan on 6 March 2018, the new maternal mortality rate reached 346 per 100,000 live births. Meanwhile, the Maternal Mortality Rate in the Magetan district in 2018 was 158 per live birth or there were 13 cases of maternal death. The problem that arises is that these cases have increased compared to 2017 when maternal mortality was at 97.57 per live birth or there were cases of eight maternal deaths [2]. The biggest cause of maternal death in the Magetan district in 2018 was bleeding with a percentage of 31% [3].

The main causes of postpartum hemorrhage are uterine atony, retained placenta, retained placenta, and tears in the birth canal. Other factors that can affect bleeding are grand multipara, short delivery intervals (<2 years), deliveries performed by action, premature second-stage assistance, assisted delivery by traditional healers, forced deliveries, deliveries with narcotics and anemia [4]. The results of Psiari Kusuma's research which was conducted at dr. A. Dadi Tjokrodipo, Bandar Lampung City, explained that anemia was the most influential (dominant) variable in the incidence of postpartum hemorrhage [5]. Whereas the results of Lestari's research states that 43.5% of mothers who are of unhealthy reproductive age experience bleeding or have a 3.162 chance of experiencing bleeding compared to mothers of healthy reproductive age [6]. Delivery distance also contributed to the number of bleeding events. Mothers with a birth spacing are at risk of having a chance of postpartum hemorrhage of 3.972 times greater than mothers who do not have a risky delivery spacing [5].

Government programs in tackling health problems, especially to reduce the risk of complications and reduce maternal mortality in Indonesia are ANC visits at least four times, integrated ANC, ANC examined by an obstetrician at least once during pregnancy, health promotion through classes for pregnant women in

an effort utilization of the MCH handbook, and administration of 90 tablets of iron [1]. Programs from the central and regional governments of the Magetan district should be able to reduce or even resolve the problem of maternal mortality in Indonesia due to bleeding. But in fact, in the Magetan district itself, it has increased from the previous year and the main cause is also bleeding [3].

Based on the description of the background of the problem, so researchers are interested in proving what are the factors that cause bleeding that occurs in RSUD dr. Sayyidiman Magetan, moreover, the hospital is a secondary health facility which is one of the main references for primary health facilities in the Magetan district.

The general aim of this research is to find out the dominant factors that influence the incidence of postpartum hemorrhage in dr. Sayyidiman for the 2015-2018 period. While the specific objectives of this study are:

- a. Identifying the characteristics of respondents to cases of postpartum hemorrhage at dr. Sayyidiman for the 2015-2018 period.
- b. Knowing the dominant factors causing postpartum hemorrhage in dr. Sayyidiman for the 2015-2018 period

MATERIALS AND METHODS

Materials

This study used a descriptive survey type where the results of this study described age, parity, delivery spacing, and anemia in the incidence of postpartum hemorrhage. The location of this research was carried out at dr. Sayyidiman Magetan Jl. Hero No. 01 Magetan. The time of this research was conducted during February - April 2019. The total population, namely all data on mothers with postpartum hemorrhage at dr. Sayidiman Magetan in the 2015-2018 period, there were 40 cases from medical record data.

Methods

The sampling technique uses *Quota Sampling*, where this technique takes all types of populations that have the same characteristics or criteria, so the sample size used is the same as the total population, namely 40 cases. The variables in this study were age, parity, birth spacing, anemia, and postpartum hemorrhage. The data analysis carried out in this study was descriptive analysis. This analysis seeks to describe the various characteristics of the data derived from a sample. Descriptive statistics such as mean, median, mode, percentile, decile, and quartile, in the form of numerical analysis or pictures/diagrams.

RESULTS

Table 1. Description of Age Characteristics Maternity Mother with Postpartum Bleeding

Age	Frequency	Percentage (%)
Healthy Reproduction	34	85
Unhealthy Reproduction	6	15
Total	40	100

Table 2. Description of the Characteristics of Parity of Mothers with Postpartum Hemorrhage

Parity	Frequency	Percentage (%)
No Risk	38	95
risky	2	5
Total	40	100

Table 3. Description of the Characteristics of Delivery Spacing Maternity Mother with Postpartum Bleeding

Delivery Distance	Frequency	Percentage (%)
Less Risky	10	25
risky	30	75
Total	40	100

Table 4. Description of the Characteristics of Hb Levels for Mothers with Postpartum Bleeding

Hb levels	Frequency	Percentage (%)
Anemia	26	65
Not Anemia	14	35
Total	40	100

Table 5. Characteristics of Postpartum Bleeding Cases

Bleeding	Frequency	Percentage (%)
Primary	26	65
Secondary	14	35
Total	40	100

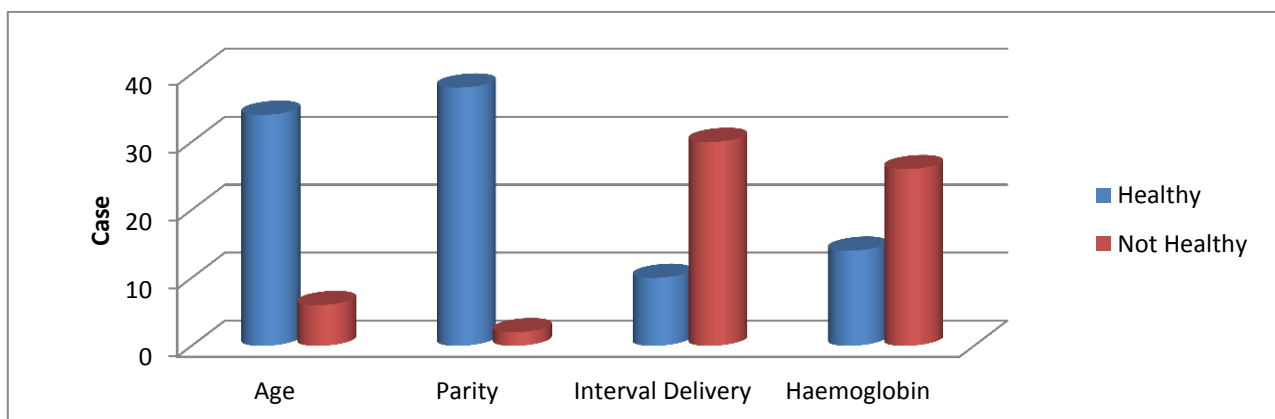


Figure 1. Graph of Characteristics of Postpartum Hemorrhage Cases for the 2015 – 2018 Period at dr. Sayyidiman Magetan

The dominant factors of the four predictors of postpartum hemorrhage are unhealthy reproductive age, at-risk parity, close/too far spacing of labor, and anemia during pregnancy. The percentage results for each of these dominant factors were six cases (15%) at risk, parity of two cases (5%), 30 people (75%) at risk of

delivery, and 26 cases of anemia (65%). Of the four factors, the highest number of cases in the order of the most was spacing of delivery, anemia, maternal age, and parity.

Table 6. Cross Table Between Maternal Age and Postpartum Bleeding

Age		Bleeding		Total
		Primary	Secondary	
Healthy Reproduction	Frequency	22	12	34
	Percentage	55%	30%	85%
Unhealthy Reproduction	Frequency	4	2	6
	Percentage	10%	5%	15%
Total	Frequency	26	14	40
	Percentage	65%	35%	100%

In the study, it was found that healthy reproductive age had the dominant result of experiencing primary postpartum hemorrhage in 22 cases or 55%.

Table 7. Cross Table Between Parity and Postpartum Bleeding

Parity		Bleeding		Total
		Primary	Secondary	
No Risk	Frequency	25	13	38
	Percentage	62.5%	32.5%	85%
risky	Frequency	1	1	2
	Percentage	2.5%	2.5%	5%
Total	Frequency	26	14	40
	Percentage	65%	35%	100%

In the study, it was found that parity was not at risk of having a dominant outcome of experiencing primary postpartum hemorrhage, namely 25 cases or 62.5 %.

Table 8. Cross Table Between Delivery Distance and Postpartum Bleeding

Delivery Distance		Bleeding		Total
		Primary	Secondary	
Less Risky	Frequency	5	5	10
	Percentage	12.5%	12.5%	25%
risky	Frequency	21	9	30
	Percentage	52.5%	22.5%	75%
Total	Frequency	26	14	40

Percentage	65%	35%	100%
------------	-----	-----	------

In the study, it was found that the spacing of the risky deliveries had the dominant outcome of experiencing primary postpartum hemorrhage, namely 21 cases or 52.5 %.

Table 9. Cross Table Between Hb Levels and Postpartum Bleeding

Haemoglobin levels		Bleeding		Total
		Primary	Secondary	
Anemia	Frequency	18	8	26
	Percentage	45%	20%	65%
Not Anemia	Frequency	8	6	14
	Percentage	20%	15%	25%
Total	Frequency	26	14	40
	Percentage	65%	35%	100%

In the study, it was found that the spacing of the risky deliveries had the dominant outcome of experiencing primary postpartum hemorrhage, namely 18 cases or 45%.

Table 10. Table of Median Values of Primary Bleeding Cases

	Mother's Age	Parity	Delivery Distance	Hb levels
Frequency	26	26	26	26
Median	28,5000	2,0000	4,2500	9,1500

The *cut point* or *median value* in the case of primary postpartum hemorrhage shows the results, namely mothers with maternal age ≥ 28 years, parity ≥ 2 children, birth spacing ≥ 4 years, and haemoglobin levels ≤ 9 gr%.

Table 11. Table of Median Values of Secondary Bleeding Cases

	Mother's Age	Parity	Delivery Distance	Hb levels
Frequency	14	14	14	14
Median	27,5000	2,0000	5,0000	10.2000

The *cut point* or *median value* in the case of secondary postpartum hemorrhage shows the results, namely mothers with maternal age ≥ 27 years, parity ≥ 2 children, birth spacing ≥ 5 years, and hemoglobin levels ≤ 10.2 gr%.

DISCUSSION

Delivery distance and anemia are the dominant factors in the case of postpartum hemorrhage in the results of this study which can be seen in Figure 4.1. Manuaba said that the factors that can affect bleeding are grand multipara, short delivery intervals (<2 years), deliveries performed through action, help in the second stage prematurely, assisted deliveries by traditional birth attendants, forced deliveries, deliveries with narcotics and anemia [4]. The Ministry of Health also added that the factors that become a problem for complications are shortened to 4 T, namely too young to get pregnant (<20 years), too old to get pregnant (>

35 years), too often pregnant (children > 3) and too close or meeting spacing of their pregnancies (<2 years). From the explanation above it is clear that anemia and spacing of labor are indeed risk factors for postpartum hemorrhage [2].

Short pregnancy intervals will directly have health effects on the woman and the fetus. After giving birth, women need 2-3 years to recover their bodies and prepare themselves for further pregnancy and childbirth. If the spacing of pregnancies is too close, it tends to cause damage to the female reproductive system, both physiologically and pathologically, thus giving the possibility of anemia in the mother and even causing death. The distance between pregnancies of children <2 years, the uterus and the health of the mother have not recovered optimally so that accompanying disorders can occur, one of which can cause bleeding [7]. The Qur'an also explains how to maintain pregnancy spacing so that the mother and baby are healthy according to His Word in the Qur'an Surah Al Luqman (31): verse 14 " *And We command humans (to do good) to their parents. His mother had carried him in a state of increasing weakness and weaned him at the age of 2. Grateful to Me and your parents. Only to Me will you return* ". The distance between the pregnancies of children who are < 2 years, the uterus and the health of the mother has not experienced optimal or perfect recovery. In these pregnancies, there may be accompanying disorders.

The dominant factor in his research was anemia from other factors studied, namely prolonged labor, parity, age, birth spacing, and history of postpartum hemorrhage [5]. The pregnant women who have haemoglobin levels <10 g% results in a lack of oxygen being carried to the body's cells as well as brain and uterus cells. The amount of oxygen in the blood that is less causes the muscles in the uterus to not be able to contract adequately, causing uterine atony which results in heavy bleeding [8] Oxorn added that the direct causes of postpartum hemorrhage are uterine atony, retained placenta, trauma, and coagulation disorders. Apart from these factors, other predisposing factors are maternal age, parity, birth spacing, and anemia [9].

In addition, the facts on the ground according to Basic Health Research data for 2018 also show an increase in the number of pregnant women with anemia, namely 48.9% compared to 2013 which was 37.1%. Indonesia itself is an area with severe cases of anemia [10]. This is consistent with the classification of anemia prevalence for an area based on the level of the problem according to the World Health Organization, namely severe $\geq 40\%$, moderate 20-39.9%, mild 5-19.9%, and normal $\leq 4.9\%$ [11]. Anemia in pregnant women is a health problem associated with a high incidence and complications can arise for both the mother and the fetus. More than 50% of pregnant women have anemia, and it causes morbidity and death for pregnant women [12].

CONCLUSION

Based on the results of the research and discussion previously described, the following conclusions can be drawn:

- a. The results of the description of the characteristics of the factors that cause postpartum hemorrhage are a small proportion of healthy reproductive age, a small proportion of less-risk parity, almost all of the delivery intervals are at risk, most are anemic, and most experience primary postpartum hemorrhage.
- b. The dominant factors in the occurrence of postpartum hemorrhage cases are the risky delivery distance and below-standard Haemoglobin levels (anemia).

REFERENCES

- [1] Kemenkes RI, (2016a), *Profil Kesehatan Indonesia*. (2015).
- [2] Kemenkes RI. (2016b), *Rencana Strategis Kementerian Kesehatan Tahun 2015 - 2019*. Kementerian Kesehatan RI.
- [3] Dinkes Magetan, *Profil Kesehatan Kabupaten Magetan*, (2018).

- [4] Manuaba, I. B. G, *Ilmu Kebidanan, Penyakit Kandungan dan KB*. EGC, (2013).
- [5] Psiari Kusuma, W, Faktor-Faktor Faktor Yang Mempengaruhi Terjadinya Perdarahan Postpartum. *Jurnal Ilmu Kesehatan*, 2(1), (2017), 51–60.
- [6] Lestari, G. I., Analisis Hubungan Anemia dengan Perdarahan Postpartum di RSUD Jendral Ahmad Yani Kota Metro Tahun 2013, *Jurnal Kesehatan Metro Sai Wawai*, VII(2), (2014), 65–75.
- [7] Sawitri, L., Ririn, H., & Koni, R, Hubungan Jarak Kehamilan dengan Kejadian Hemoragik Postpartum, *The Journal of Midwifery*, 1, (2014).
- [8] Saifuddin, A. B, *Ilmu Kebidanan*, Yayasan Bina Pustaka Sarwono Prawirohardjo, (2014).
- [9] Oxorn, H, *Ilmu Kebidanan Patologi dan Fisiologi Persalinan*, Yayasan Esseentia Medika, (2010).
- [10] Kemenkes RI, *Hasil Utama Riskesdas 2018*, (2018).
- [11] World Health Organization, Haemoglobin concentrations for the diagnosis of anaemia and assessment of severity. *Vitamin and Mineral Nutrition Information System*. Geneva. *World Health Organization*, 1–6. <https://doi.org/2011>, (2011).
- [12] Achebe, M. M., & Gafter-Gvili, A, How I treat anemia in pregnancy: Iron, cobalamin, and folate. *Blood*, 129(8), 940–949. <https://doi.org/10.1182/blood-2016-08-672246>, (2017).