

The Relationship Between Pregnancy Distance And Postpartum Hemorrhage At The UPTD Lotu Health Center, North Nias Regency In 2023

Nila Hayati

Universitas Haji Sumatera Utara

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ABSTRACT

Post partum bleeding is bleeding that exceeds 500 cc after 24 hours. Post partum hemorrhage is the main cause of maternal death. Every day in 2020 nearly 800 women died from preventable causes related to pregnancy and childbirth. One effort to prevent postpartum hemorrhage is to maintain pregnancy spacing. This study aims to determine the relationship between pregnancy distance and postpartum hemorrhage at the UPTD Lotu Community Health Center, North Nias Regency in 2023. This research is a retrospective study with a cross-sectional approach. This research was carried out from 1 September 2023 to 30 September 2023. The population was 20 people. Sampling used total sampling with a sample size of 20 people. The research results showed that the majority of maternal pregnancies in the UPTD of the Lotu Health Center, North Nias Regency were ≥ 2 years and the majority of postpartum bleeding in the UPTD of the Lotu Health Center, North Nias Regency was < 500 ml. Based on the results of the chisquare test, the p value = 0.001 < 0.05 . The conclusion in this study is that there is a relationship between pregnancy distance and postpartum hemorrhage in the UPTD of the Lotu Health Center, North Nias Regency in 2023. The suggestion in this research is that the UPTD of the Lotu Health Center, North Nias Regency, carries out continuous education, especially regarding the risks that may occur if the pregnancy distance is too close, especially as it can cause postpartum hemorrhage.

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Corresponding Author:

Nila Hayati

Program Studi Kebidanan Program Sarjana Terapan, Fakultas Ilmu Kesehatan, Universitas Haji Sumatera Utara

Jl. Selamat No.73t, Sitirejo III, Kec. Medan Amplas, Kota Medan, Sumatera Utara 20226

nilahayati28@gmail.com

INTRODUCTION

Postpartum hemorrhage is bleeding that comes out more than 500 cc after the baby is born vaginally or more than 1,000 ml after abdominal delivery (Sukriyani, 2018). Postpartum hemorrhage or also known as postpartum haemorrhagic is divided into primary postpartum hemorrhage and secondary postpartum hemorrhage. Primary postpartum hemorrhage is bleeding with a volume of > 500 cc that appears in the first 24 hours after the birth of the baby. Meanwhile, secondary postpartum hemorrhage is bleeding that appears after the initial 24 hours with a total = 500 cc (Turiyani, 2023).

Postpartum hemorrhage is the leading cause of maternal death, all pregnant women at the time of childbirth are at risk of postpartum hemorrhage, although maternal mortality rates have dropped drastically in developing countries, postpartum hemorrhage remains the leading cause of maternal mortality in the world (Amirah et al, 2021).

Based on data from the World Health Organization (WHO) in 2023, maternal mortality in the world is still relatively very high, around 287,000 women died during and after pregnancy and childbirth in 2020. Every day in 2020, nearly 800 women died from preventable causes related to pregnancy and childbirth. Almost 95% of all maternal deaths occurred in low- and lower-middle-income countries in 2020 and are largely preventable. Sub-Saharan Africa and South Asia accounted for 87% (253,000) of the estimated maternal mortality in 2020 (WHO, 2023).

The maternal mortality rate in Indonesia increased by 300 cases from 2019 to 4,400 deaths in 2020. Meanwhile, infant deaths in 2019 were around 26,000 cases, an increase of almost 40 percent to 44,000 cases in 2020. According to the chairperson of the Scientific Committee of the International Conference on Indonesia Family Planning and Reproductive Health (ICIFPRH), Meiwita Budhiansana, until 2019 Indonesia's AKI was still high, namely 305 per 100,000 live births (Ministry of Health, 2021).

In North Sumatra in 2019, the Maternal Mortality Rate (MMR) was 179 out of 302,555 live births or 59.16 per 100,000 live births. This figure decreased compared to the AKI in 2018, which was 186 out of 305,935 live births or 60.79 per 100,000 live births. "The maternal mortality rate in North Sumatra throughout 2019 decreased compared to 2018. The figure is also far from the 2019 AKI performance target in the North Sumatra Provincial RJPMD which is set at 80.1 per 100,000 live births," said Alwi (North Sumatra Health Profile, 2019).

Postpartum hemorrhage causes changes in vital signs such as decreased consciousness, paleness, bloating, cold sweats, shortness of breath, and blood pressure < 90 mmHg and pulse > 100/min, so treatment must be carried out immediately. A more meaningful postpartum hemorrhage is a weight loss of 1% or more because 1 ml of blood weighs 1 gram. Postpartum bleeding can occur suddenly and very massively. Bleeding occurs continuously for several days or weeks (Rifdiani, 2016).

Risk factors for postpartum bleeding include prolonged trimesters, third or more deliveries, episiotomy, large fetuses, and a history of postpartum bleeding in previous pregnancies (Sunirah, 2021). Postpartum bleeding can also be caused by risk factors such as age, number of children/parity, history of childbirth, long partus, placental retention, infant birth weight, anemia, knowledge, behavior, antenatal care, health facilities and also pregnancy distance (Defi, 2019).

Pregnancy interval is the time span between the birth of the current child and the birth of the previous child. The safe pregnancy distance between children is 27 to 32 months. At this distance, mothers will have healthy and safe babies when going through the pregnancy process (Sukriyani, 2018). A very tight pregnancy gap has a bad impact on the mother and fetus, because after childbirth, the mother will have a process of restoring the reproductive organs (involution). The condition of the uterus will return 6 months after the partus, but its

function is not optimal and the partus that recurs in a tight period of time results in poor uterine contractions (Turiyani, 2023).

According to the results of Buntoro (2017) research on the Relationship between the Incidence of Postpartum Bleeding and the Characteristics of Maternity Mothers at the Harapan Kita Maternity Home, from the results of the Chi-Square statistical test, p -value = 0.001 was obtained, which means that there is a relationship between the distance of pregnancy and Postpartum bleeding. In line with the research of Turiyani (2023) entitled The Relationship between Pregnancy Distance and Infant Birth Weight with the Incidence of Haemorrhagic Post Partum at the Prambulih City Regional General Hospital, it was found that bivariate analysis was obtained from 87 mothers who had a high-risk pregnancy distance, there were 76 mothers (23.3%) diagnosed with Haemorrhagic Post Partum. Based on the conclusion in the study, it was found that there was a significant relationship between pregnancy distance and Haemorrhagic Post Partum (P -value 0.000).

The results of this study are in accordance with Psiari's research conducted in 2017 regarding factors related to postpartum haemorrhagic at Dr. A. Dadi Tjokrodipo Hospital, Bandar Lampung City, from 75 respondents who were studied, it was found that the results of the Chi-Square statistical test p -value = 0.001 meant that a meaningful relationship was found between pregnancy distance and postpartum haemorrhagic at Dr. A. Dadi Tjokrodipo Hospital, Bandar Lampung City.

Based on an initial survey conducted at the UPTD Puskesmas Lotu in September 2023, it was found that the number of postpartum mothers from January 2023 to September 2023 was 147 people. With the distribution in January 2023 as many as 16 people, in February 2023 as many as 18 people, in March 2023 as many as 15 people, in April 2023 as many as 19 people, in May 2023 as many as 15 people and in June 2023 as many as 13 people, in July 2023 as many as 15 people, in August 2023 as many as 16 people and in September 2023 as many as 20 people. Based on data from the health center, it was found that 10.2% or as many as 15 people experienced postpartum hemorrhage (Profile of Puskesmas Lotu, 2023).

Based on the results of interviews conducted with 7 postpartum mothers, it was found that 4 people said that the pregnancy gap between the first and second children was too close. Where of the four people, 3 people mentioned being pregnant with the second child when the first child was <18 months old, 1 person mentioned being pregnant with the third child when the second child was 20 months old. While the remaining 3 people mentioned that the pregnancy gap was approximately >2 years with the previous child.

METHODS

This research is a retrospective research, which is research by making measurements or observations based on data or problems that have occurred or have passed in the past (Setiadi, 2013). Namely to trace the history of postpartum hemorrhage through the history of maternal pregnancy distance at the UPTD Lotu Health Center, North Nias Regency. The research design uses a cross sectional approach, which is a study that aims to explain the relationship between pregnancy distance and postpartum hemorrhage at the UPTD Lotu Health Center, North Nias Regency in 2023.

The population in this study is all postpartum mothers in September 2023 as many as 20 people. Sampling uses total sampling, which is taking the entire population and using it as a sample (Sugiyono, 2019). So that the sample size will be adjusted to the total number of postpartum mothers (which lasts 6 weeks or 42 days) at the time of the study and the postpartum mothers before 24 hours after delivery. The number of samples obtained was 20 people from October and November.

The instrument used to measure the variables of pregnancy distance and postpartum bleeding is based on the research of Sukriyani (2018) which states that the safe pregnancy distance between children is 27 to 32 months and postpartum bleeding is bleeding that comes out more than 500 cc.

The data obtained through the questionnaire is raw data, data processing can be done with statistical techniques. Univariate data analysis was carried out to obtain an overview of the frequency distribution of respondents including age, education, occupation variables and an overview of independent variables (pregnancy distance) and dependent variables (postpartum hemorrhage). After that, it is then decomposed into a table and narrated. Bivariate analysis is used to see the relationship between independent variables and dependent variables (Notoadmodjo, 2014). Bivariate analysis was carried out to test whether there was a relationship between pregnancy distance and postpartum hemorrhage at the UPTD Lotu Health Center, North Nias Regency in 2023 using chi-square test statistics and then the results were narrated. The reason for choosing this test is because the chi-square test is useful for testing the relationship or influence of two nominal variables and measuring the strength of the relationship between one variable and another nominal variable.

RESULTS AND DISCUSSION

The characteristics of the respondents studied in this study include: Age, occupation, education.

Table 1. Characteristics of Respondents at UPTD Lotu Health Center, North Nias Regency in 2023

| No | Characteristic | Frequency (f) | Percentage (%) |
|----|--------------------|---------------|----------------|
| 1 | Age of Respondents | | |
| | <20 Years | 2 | 10,0 |
| | 20-35 Years | 13 | 65,0 |
| | >35 Years | 5 | 25,0 |
| | Amount | 20 | 100,0 |
| 2 | Work | | |
| | Wiraswasta | 2 | 10,0 |
| | Housewives | 10 | 50,0 |
| | Private Employees | 7 | 35,0 |
| | PNS | 1 | 5,0 |
| | Amount | 20 | 100,0 |
| 3 | Education | | |

| No | Characteristic | Frequency (f) | Percentage (%) |
|----|----------------|---------------|----------------|
| | SMP | 3 | 15,0 |
| | SMA | 14 | 70,0 |
| | College | 3 | 15,0 |
| | Amount | 20 | 100,0 |

Based on table 1, it can be seen from 20 respondents at the UPTD Lotu Health Center, North Nias Regency in 2023, it can be seen that the majority of respondents are 20-35 years old, 13 people (65%), 10 (50%) are housewives, and 14 (70%) are high school students.

Table 2. Distance of Maternal Pregnancy at UPTD Lotu Health Center, North Nias Regency in 2023

| No | Pregnancy Distance | Frequency (f) | Percentage (%) |
|----|--------------------|---------------|----------------|
| 1 | <2 Years | 6 | 30,0 |
| 2 | ≥2 Years | 14 | 70,0 |
| | Amount | 20 | 100 |

From table 2, it can be seen that the majority of maternal pregnancy distances at the Lotu Health Center in North Nias Regency are ≥2 years old, as many as 14 respondents (70%).

Table 3. Postpartum Hemorrhage at UPTD Lotu Health Center, North Nias Regency in 2023

| No | Postpartum Bleeding | Frequency (f) | Percentage (%) |
|----|---------------------|---------------|----------------|
| 1 | ≥500 ml | 4 | 20,0 |
| 2 | <500 ml | 16 | 80,0 |
| | Amount | 20 | 100 |

Postpartum hemorrhage at the UPTD Lotu Health Center, North Nias Regency, the majority was <500 ml for 16 respondents (80%).

Table 4. The Relationship between Pregnancy Distance and Postpartum Bleeding at UPTD Lotu Health Center, North Nias Regency in 2023

| No | Pregnancy Distance | Postpartum Bleeding | | | | Total | P-Value | |
|----|--------------------|---------------------|------|---------|-------|-------|---------|-------|
| | | ≥500 ml | | <500 ml | | | | |
| | | f | % | f | % | | | F |
| 1 | <2 Years | 4 | 66,7 | 2 | 33,3 | 6 | 100,0 | 0,001 |
| 2 | ≥2 Years | 0 | 0 | 14 | 100,0 | 14 | 100,0 | |
| | Total | 4 | 20,0 | 16 | 80,0 | 20 | 100 | |

Based on Table 4 above, it can be seen that the pregnancy distance is in the category of ≥2 years and postpartum hemorrhage is <500 ml for 14 people (100%). However, we can also see based on the table that the <2-year gestation interval contributes the largest data of 66.7% which is the cause of postpartum hemorrhage (>500 ml). Then based on the results of the chisquare test, a value of $p-0.001 < \alpha=0.05$ was obtained, then H_0 was rejected, meaning that there was a relationship between pregnancy distance and postpartum hemorrhage at the UPTD Lotu Health Center, North Nias Regency in 2023.

Discussion

Distance of Maternal Pregnancy at UPTD Lotu Health Center, North Nias Regency in 2023

The results of the study found that the majority of maternal pregnancy spacing at the Lotu Health Center in North Nias Regency was ≥ 2 years old at 70%. Ideally, the interval between two pregnancies and birth is 2–4 years. The ideal birth distance is 2 years or more because a short birth distance will cause a mother not enough time to recover her body after giving birth (Saefuddin et al., 2016).

The pregnancy gap < 2 years in the study was 30%. In this study, it was found that the < 2 -year pregnancy gap accounted for 66.7% of the causes of postpartum bleeding. Pregnancy interval is the time interval between two consecutive pregnancies of a woman. The short pregnancy interval will directly have an effect on the health of the woman and the fetus conceived. Women after giving birth need 2 to 3 years to recover their bodies and prepare themselves for pregnancy and subsequent childbirth (Rifdiani, 2016).

If the pregnancy distance is too close, it tends to cause damage to the female reproductive system both physiologically and pathologically, giving the possibility of anemia in the mother and even causing death (Sawitri et al., 2014). Rebirth with a gestation gap of < 2 years has more risks compared to a gestation interval = 2 years. The distance between the child's pregnancy is < 2 years, the uterus and the health of the mother have not been optimally or fully recovered. In this pregnancy, there is a possibility of accompanying disorders (Rifdiani, 2016).

The factors that affect pregnancy distance in this study are education and employment. Based on the education of the respondents, it was high school at 14%. Where at this level of education it is not necessarily known about the causes of postpartum hemorrhage. Education is an integral part of determining the best way to start the process of behavior change. The higher the level of education, the easier it will be for him to accept new things and easily adjust to these new things (Notoadmodjo, 2018). Meanwhile, from the employment factor, the majority of respondents do not work or are active as housewives by 50%. According to Notoadmojo (2018), a person's job status will also determine the availability of facilities that will be needed for certain activities, so that the job status will affect a person's knowledge.

A mother is in the peak of reproduction and is safe to get pregnant and give birth because they are in a healthy reproductive period. When at the peak of reproduction, there is a possibility in married couples to continue to produce offspring so that they do not pay attention to the distance between before and after births. This can pose a risk for postpartum bleeding (Ramadhan, Rasyid, & Rusni, 2018).

Postpartum Hemorrhage at UPTD Lotu Health Center, North Nias Regency in 2023

The results of the study obtained were postpartum hemorrhage at the UPTD Lotu Health Center, North Nias Regency, the majority of which was < 500 ml by 80%. However, there are as many as 20% who experience postpartum hemorrhage. One of the factors that can cause postpartum bleeding is age. Where in this study, the age of the respondents is the majority of them aged 20–35 years at 65%. This is in accordance with the theory that the age of 20–35 years is the ideal age for women to get pregnant and give birth (Kurniawan, Rahman & Nur, 2019). Risk factors that can cause postpartum bleeding are < 20 years old and > 35

years old. Where in this study it was found that respondents who were <20 years old as many as 10% and >35 years old as many as 25%. At the age of <20 years the mother's reproductive organs and pelvis are not well developed and are not physically and psychologically ready to become a mother and take care of her baby, while at the age of >35 years the mother's reproductive organs have experienced a deterioration in the elasticity of the pelvic muscles so that they are susceptible to complications during pregnancy, complicating the process of childbirth and death in the mother (Puspita, 2020).

Postpartum hemorrhage is vaginal bleeding >500 ml, which can occur in the first 24 hours after childbirth which is referred to as primary postpartum hemorrhage or in the postpartum period after 24 hours which is referred to as secondary postpartum hemorrhage. A healthy pregnant woman can lose as much as 10% of the total volume of blood without experiencing clinical symptoms, new symptoms appear in blood loss as much as 20%. Clinical symptoms are in the form of persistent vaginal bleeding after the baby is born. The loss of a lot of blood causes signs of shock, namely paleness, low blood pressure, fast and small pulse, cold extremities, and others (Sukriyani, 2018).

The Relationship between Pregnancy Distance and Postpartum Bleeding at UPTD Lotu Health Center, North Nias Regency in 2023

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According to the researcher's assumption that the large pregnancy distance has an effect on the cause of postpartum hemorrhage. If the pregnancy distance is getting closer, especially with the age factor of <20 years or >35 years, it will increase to be the cause of postpartum bleeding.

CONCLUSION

The majority of maternal pregnancy distances at the Lotu Health Center in North Nias Regency are ≥ 2 years. Postpartum hemorrhage at the UPTD Lotu Health Center, North Nias Regency, the majority is <500 ml. There is a relationship between pregnancy distance and postpartum hemorrhage at the UPTD Lotu Health Center, North Nias Regency in 2023.

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