



Analyze the Association Between Birth Attendant, Type Relationship Helper, Type and Problems/Disturbance of Delivery with The Level of Anemia in Mothers

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ABSTRACT

In Indonesia, the causes of anemia in pregnancy are multifactorial, but in general iron deficiency is considered the main cause because anemia diagnosis is generally based on hemoglobin measurements. This research aims to analyze the relationship between helper, type, and birth problems/disruptions, and the degree of anemia in the mother. The type of research was analytical observational with a cross-sectional study design, the sampling technique was purposive sampling with a research period of October-November 2023. Of the 41 in-partum mothers with anemia at RSIA Masyita, Makassar City, there were 85.4% of the mothers with mild anemia, 14.6 % had moderate anemia, and no severe anemia was found in this study. The Chi-Square test was used to see maternal outcomes. For birth attendants with a p-value of 0.01, type of birth 0.06, birth problems/disorders 0.02. There were 16 mothers with anemia who experienced problems during delivery consisting of, 3 (18.7%) experienced hypertension, 3 (18.7%) experienced umbilical cord entanglement, 3 (18.7%) experienced prolonged labor, 5 (31.3%) experienced Premature Rupture of Membranes (PROM), 1 (6.3%) experienced serotinus and 1 (6.3%) experienced placenta previa. The conclusion is that the type of anemia influences the assistance and problems/disruptions during childbirth. Future researchers are expected to carry out monitoring not only focusing on the mother but also on the baby.

Keywords: Anemia, Birth Attendant, Type of Birth, Birth Problems/Disorders

ABSTRAK

Di Indonesia penyebab anemia pada kehamilan bersifat multifaktoral, namun secara umum defisiensi zat besi dianggap sebagai penyebab utama karena anemia diagnosis umumnya didasarkan pada pengukuran hemoglobin. Tujuan penelitian ini yaitu Analisis hubungan antara penolong, jenis dan masalah/ gangguan persalinan dengan derajat anemia pada ibu. Jenis penelitian adalah observasional analitik dengan rancangan cross sectional study, teknik pengambilan sampel yaitu purposive sampling dengan jangka waktu penelitian oktober-november 2023. Dari 41 ibu inpartu dengan anemia di RSIA Masyita Kota Makassar, terdapat 85,4% ibu anemia ringan, 14,6% anemia sedang dan tidak ditemukan anemia berat pada penelitian ini. Digunakan Uji Chi Square untuk melihat luaran maternal. Untuk penolong persalinan dengan hasil nilai p sebesar 0,01, jenis persalinan 0,06, masalah/gangguan persalinan 0,02. Terdapat 16 ibu dengan anemia yang mengalami masalah pada persalinan terdiri dari, 3 (18,7%) mengalami hipertensi, 3 (18,7%) mengalami lilitan tali pusat, 3 (18,7%) mengalami partus lama, 5 (31,3%) mengalami Ketuban Pecah Dini (KPD), 1 (6,3%) mengalami serotinus dan 1 (6,3%) mengalami plasenta previa. Kesimpulan jenis anemia berpengaruh terhadap penolong dan masalah/gangguan pada persalinan. Untuk peneliti selanjutnya diharapkan untuk melakukan pemantauan bukan hanya berfokus pada ibu tetapi juga pada bayinya.

Kata Kunci: Anemia, Penolong Persalinan, Jenis Persalinan, Masalah/Gangguan Persalinan

INTRODUCTION

According to WHO in 2016, the incidence of anemia was 42%, above the average incidence of anemia worldwide, namely 40% (World Health Organization, 2016). Based on 2018 Basic Health Research (Riskesdas) data, the prevalence of anemia in pregnant women in Indonesia increased from 37.1% in 2013 to 48.9% in 2018. This proves that the incidence of anemia in pregnant women is increasing every year so this is a problem. health is one of the main priorities to be addressed immediately (Kementerian Kesehatan Republik Indonesia, 2019). In Indonesia, the causes of anemia in pregnancy are multifactorial, but in general iron deficiency is considered the main cause because anemia diagnosis is generally based on hemoglobin measurements.

Anemia has a significant impact on maternal and fetal health, it disrupts oxygen delivery across the placenta to the fetus and disrupts normal intrauterine growth, leading to fetal death and perinatal death. Anemia was associated with increased preterm birth (28.2%), preeclampsia (31.2%) and maternal sepsis. Many studies show that anemia is related to maternal morbidity and mortality. According to WHO, throughout the world, anemia contributes to 20% of all maternal deaths (World Health Organization, 2016).

Anemia in pregnancy is determined using the WHO classification of hemoglobin (Hb) levels < 11 g / dl. The classification of anemia according to WHO is divided into 3, namely the degree of anemia defined as mild anemia (Hb levels 9.0-10.9 g/dL), moderate anemia (Hb levels 7.0-8.9 g/dL), and severe anemia (Hb levels 7.0-8.9 g/dL). Hb less than 7.0 g/dL (Fallatah et al., 2020)

Efforts to overcome iron deficiency anemia have been carried out by the government through a program of giving iron tablets to pregnant women, but these efforts have not provided satisfactory results, this is proven by the still high incidence of anemia, especially in Indonesia, where the incidence of anemia in Indonesia according to WHO in 2016 namely 42%, above the average incidence of anemia worldwide, namely 40% (World Health Organization, 2016).

RSIA Masyita is one of the largest RSIA's in Makassar City, in 2022 ± 400 birth mothers will experience anemia. With this problem, the aim of this research is to the relationship between helper, type, problems/disruptions in childbirth, and the degree of anemia in the mother.

METHODS

This research was carried out at RSIA Masyita. The location for this research was chosen based on the relatively high number of women giving birth at the Mother and Child Hospital. The population in this study is the number of in-partum mothers who are anemic as many as ± 400 in 2022 and the sample in this study is 40 in-partum mothers who are anemic. The approach used in this research is quantitative. This type of research is an analytical observational study with a cross-sectional study design to analyze maternal outcomes for postpartum mothers with anemia in the city of Makassar. Using the chi-square test. Samples were taken using a purposive sampling technique based on certain criteria. This research lasted for 2 months (October-November 2023) with the inclusion criteria being pregnant women with anemia (Hb < 11 gr%) and willing to participate in the research. 3 ml of blood sample was taken and examined using a hematological analyzer.

RESULTS

Table 1. Characteristics of Anemia in Mothers

Characteristics of Anemia in the Mother			N	Percent (%)
Degree of Anemia	Hb 9.0-10.9 gr/dL	Mild Anemia	35	85.4
	Hb 7.0-8.9 gr/dL	Moderate Anemia	6	14.6
Work	Work		7	17.1
	Doesn't work		34	82.9
Education	basic education		35	85.4
	higher education		6	14.6
Parity	High risk ≥ 4 times		6	14.6
	Low risk < 4 times		35	85.4
Birth Interval	High risk < 2 years		6	14.6
	Low risk ≥ 2 years / First time pregnant		35	85.4

Age	High risk < 20 years and > 35 years	12	29.3
	Low risk 20-35 years	29	70.7
History of illness/Health problems and disorders	Once	14	34.1
	Never	27	65.9
Nutritional Status (LiLa)	KEK: <23.5 cm	5	12.2
	Normal: ≥23.5 cm	36	87.8
Total		41	100

From table 1, the results show that of the total sample of 137 in-partum mothers at RSIA Masyita, Makassar City who had routine blood tests, consisting of 41 (29.9%) in-partum mothers with anemia and 96 (70.1%) in-partum mothers without anemia. Of the total sample of 41 inpartum mothers with anemia, there were 35 (85.4%) inpartum mothers with mild anemia and 6 (14.6%) with moderate anemia.

For employment status, there were 7 (17.1%) in-partum mothers with mild anemia with working status, and there were 34 (82.9%) moderately anemic in-partum mothers with non-working status. For education level, there were 35 (85.4%) birth mothers with mild anemia with basic education status, namely elementary school to high school, and there were 6 (14.6%) moderately anemic birth mothers with higher education status, namely Diploma to PhD. For parity, there were 6 (14.6%) in-partum mothers with mild anemia with high-risk parity, namely giving birth ≥ 4 times, and 35 (85.4%) in-partum mothers with moderate anemia with low-risk parity, namely giving birth < 4 times. In terms of birth interval, there were 6 (14.6%) inpartum mothers with mild anemia with high risk, namely birth interval < 2 years, and 35 (85.4%) birth mothers with moderate anemia with low risk, namely birth interval ≥ 2 years / first time give birth to. For age, there were 12 (29.3%) in-partum mothers with mild anemia with high-risk ages, namely < 20 years and > 35 years, while for low-risk ages 20-35 years there were 29 (70.7%) in-partum mothers with moderate anemia. For the history of disease/problems and other health disorders, with mild anemia, there were 14 (34.1%) birth mothers who had a history of disease and 27 (65.9%) mothers with moderate anemia who had never had a history of disease. For nutritional status, there were 5 (12.2%) in-partum mothers with mild anemia with Chronic Energy Deficiency (CED) nutritional status (LiLa < 23.5 cm) and 36 (87.8%) moderately anemic mothers with normal nutritional status (LiLa ≥ 23.5 cm).

Table 2. Relationship Analysis Between Helper, Type, and Problems/Disorders of Childbirth with The Degree of Anemia in The Mother

Variable	Degree of Anemia		p-value	RR (CI 95%)
	Light (Hb 9.0-10 g/dL)	Currently (Hb 7.0-8.9 gr/dL)		
Childbirth assistant				
Midwife	26 (96.3%)	1 (3.7%)	0.01	1.49 (1.00-2.22)
Ob-gyn doctor	9 (64.3%)	5 (35.7%)		
Types of childbirth				
Normal	26 (92.9%)	2 (7.1%)	0.06	1.34 (0.92-1.95)
Cesarean section	9 (69.2%)	4 (30.8%)		
Childbirth problems/disorders				
There is	11 (68.8%)	5 (31.3%)	0.02	0.71 (0.51-1.00)
There isn't any	24 (96.0%)	1 (4.0%)		

From Table 2, the results show that of the total sample, there were 41 inpartu mothers with anemia whose birth was assisted by a midwife with a mild degree of anemia, 27 (96.3%) and 1 (3.7%) with a moderate degree of anemia. Meanwhile, births assisted by an ob-gyn doctor with mild anemia were 9 (64.3%) and moderate anemia 5 (35.7%). The chi square test was used with a p value of 0.01, meaning there was a relationship between the degree of anemia and birth attendant. For the type of delivery, there were 26 (92.9%) mothers who gave birth normally with mild anemia and 2 (7.1%) with moderate anemia, while 9 (69.2%) mothers who gave birth by cesarean section (SC) had mild anemia and moderate anemia 4 (30.8%).). The Chi-square test was used with a p-value of 0.06, meaning there was no significant relationship between the

degree of anemia and the type of delivery. For birth problems/disruptions, 11 (68.8%) mothers experienced labor disturbances/problems with mild anemia, and 5 (31.3%) with moderate anemia, while anemic mothers who did not experience labor problems/disruptions had mild degrees of anemia. 24 (96.0%) and 1 (4.0%) with moderate anemia. The chi-square test with a p-value of 0.02 means there is a relationship between the degree of anemia and problems/disruptions in childbirth.

DISCUSSION

Characteristics of Inpartum Mothers with Anemia

From the results of routine blood tests carried out at RSIA Masyita, the majority of in-partum mothers experienced mild degrees of anemia followed by moderate degrees of anemia, and no in-partum mothers were found who experienced severe degrees of anemia. This research is in line with Adebo et. al, 2019 at the University Hospital Center of Abomey-Calavi/ So-Ava Zone in Benin, Africa, showing that 57% of pregnant women experience anemia and 83% of them have mild anemia (Adebo et al., 2019). This research is not in line with Abbas (2020), where the majority have moderate type anemia 55%, followed by mild anemia 37% and severe anemia 8% (Abbas, 2020). Physiological anemia is a term often used to describe the decrease in hemoglobin concentration that occurs during normal pregnancy due to an increase in plasma volume above normal at the end of the gestation period even though the red blood cell mass itself increases some and still causes a decrease in hemoglobin concentration. Physiologically, the lowest decrease in hemoglobin levels in pregnant women is in the second trimester of pregnancy where Hb is 10.5 g/dL, in the third trimester of pregnancy the Hb levels of pregnant women increase again after a decrease in the second trimester, this allows mothers with greater anemia in anemia with mild levels compared with moderate and severe levels (Adamu et al., 2017).

Job characteristics in this study show that most of the anemic mothers are housewives, this research is in line with Abbas (2020), where pregnant women with anemia are greater in mothers who do not work 55 (73%) compared to pregnant women who work 20 (27%). Pregnant women who take care of household work have a big burden because even though they are pregnant, household work such as cooking, washing, and taking care of children is also still carried out so these activities can make the mother tired quickly and make less time for carrying out pregnancy checks which can increase the risk incidence of anemia (Abbas, 2020).

Educational characteristics in this study showed that most of the anemic mothers were mothers who had basic education levels, namely elementary to high school. This is in line with research by Okia et al., 2019 where the majority of mothers have a basic education level, namely 88%, followed by higher education at 12% (Okia et al., 2019). Not in line with Abbas 2020, most pregnant women with anemia have higher education 47 (66.1%) compared to mothers who have primary education 24 (33.9%) (Abbas, 2020). It is assumed that the level of education can influence a person because of a person's ability to accept and understand something. Reception and understanding of information received by someone with a high education is better than someone who has a low education or no education.

Parity characteristics in this study showed that most of the anemic mothers were mothers who had low-risk parity, namely giving birth <4 times. This research is in line with Fallatah et al. (2020), most pregnant women with anemia have low-risk parity and the majority have mild degrees of anemia 71.9% (Fallatah et al., 2020). The more frequently mothers become pregnant, the more iron reserves will decrease during pregnancy, the higher the frequency of pregnancy, the greater the number of mothers experiencing iron loss.

The birth interval characteristics in this study showed that most of the anemic mothers were mothers who had a low-risk birth interval, namely birth interval ≥ 2 years / First time giving birth. This research is in line with Melku et al., (2014), 66% of mothers were anemic with a birth interval of ≥ 2 years, 4% with a birth interval of <2 years, and the rest were mothers who were pregnant for the first time (Melku et al., 2014). But it is not in line with Alemayehu et al. (2016), the majority of mothers had 89.2% mild degrees of anemia but in terms of birth interval the majority of mothers with anemia 51.1% had high-risk birth intervals (< 2 years) and 48.9% had birth intervals ≥ 2 years (Alemayehu et al., 2016). Repeated pregnancies in a short period of time can deplete iron reserves in pregnant women, which can cause anemia in pregnant women. The

iron in the mother's body becomes divided for needs during the next pregnancy, this is what can cause LBW in babies. Apart from that, the type of birth carried out by the mother will affect the subsequent birth process if the birth distance is too close.

The characteristics of maternal age in this study show that the majority of mothers were at low risk (20-35 years). This research is in line with Fallatah et al. (2020), the majority of pregnant women with low-risk age (20-35 years) are more likely to be pregnant women with mild degrees of anemia 81.4% (Fallatah et al., 2020). The younger and older the age of a pregnant mother will likely influence the nutritional needs required. In this study, the majority of mothers with mild degrees of anemia were mothers with a low-risk age (20-35 years), this age is a good reproductive age for pregnancy and childbirth. Lack of adequate nutrition during pregnancy, especially at ages < 20 years and > 35 years, will increase the risk of anemia in pregnant women.

The characteristics of the mother's history of disease/problems and health disorders in this study showed that the majority of mothers did not have a history of disease/problems and health disorders. This research is in line with Smith et al. (2019) There are 12.8% of pregnant women with anemia, of which 11.8% have mild anemia and the majority of pregnant women with anemia have no history of the disease (Smith et al., 2019). The mother's history of illnesses in this study included gastric disease, diabetes, infectious diseases, hypertension and cancer. Anemia should be considered a sign, not a disease. This can be caused by various systemic disorders and diseases, as well as primary hematological disorders. The anemia suffered by the mother during birth may be due to the disease she is suffering from, resulting in increased damage or loss of red blood cells which causes anemia in the mother.

The characteristics of maternal nutritional status in this study showed that the majority of mothers had normal nutritional status, where the upper arm circumference (LiLa) was ≥ 23.5 cm. This research is in line with the research Tanziha et al., (2016), Anemic mothers with CED nutritional status (LiLa < 23.5 cm) are 32.6% while anemic pregnant women with normal nutritional status (LiLa ≥ 23.5 cm) are 67.4%, the majority of anemic pregnant women have normal nutritional status (Tanziha et al., 2016). But it is not in line with Derso, Abera and Tariku (2017), where the majority of anemic mothers have a KEK nutritional status of 64.2% and anemic pregnant women with a normal nutritional status of 35.8%. The degree of anemia is mostly mild anemia, followed by moderate and severe anemia (Derso, Abera & Tariku, 2017). The level of energy requirements is less than the nutritional adequacy of pregnant women, caused by inadequate protein intake as an energy source. Lack of protein consumption as an energy source can cause anemia, this occurs because the breakdown of protein is no longer intended for the formation of red blood cells, but red blood cells become reduced and the formation of hemoglobin is incomplete. If energy requirements during pregnancy are insufficient, it can cause anemia which also results in anemia during labor and postpartum.

Relationship analysis between helper, type, and problems/disorders of childbirth with the degree of anemia in the mother

There is a relationship between the degree of anemia (mild and moderate) and birth attendant. This is associated with birth complications caused by anemia suffered by the mother such as premature rupture of membranes, prolonged labor, hypertension, and placenta previa. Birth attendants are also associated with problems indirectly related to maternal anemia such as umbilical cord entanglement and serotinus. Due to the complications that arise during the birth process, even though the mother can give birth vaginally, the delivery method is still assisted by a specialist ob-gyn. In this study, 80% of mothers with anemia who were in labor were helped by ob-gyn specialists, this was because the complications that arose if the degree of anemia was lower were greater than those with mild degrees of anemia.

This research is in line with Smith et al., (2019), in mothers with anemia for delivery assistance, there was a significant relationship found between pregnant women with anemia and the delivery method using SC performed by an ob-gyn specialist, where mild anemia was the dominant group in delivery using the SC method performed by an ob-gyn specialist (Smith et al., 2019). However, this is not in line with research (Al Kahtani et al., 2012), the results in both groups of types of delivery showed a $p\text{-value} > 0.05$, which means there is no significant effect

between birth attendants and maternal anemia. This study did not divide the level of anemia in pregnant women (Al Kahtani et al., 2012).

There is no relationship between the degree of anemia (mild and moderate) and the type of delivery. The types of delivery in this study were normal delivery and delivery via Sectio Caesarea (SC) operation. This is in line with the research Al Kahtani et al., 2012, the results in both groups of types of delivery show a p-value > 0.05 , which means there is no significant influence between the type of delivery and anemia in pregnant women (Al Kahtani et al., 2012). But it is not in line with Smith et al., (2019), in mothers with anemia for the type of delivery, there was a significant relationship found between pregnant women with anemia using the CS method of delivery, where mild anemia was the dominant group in delivery using the SC method, followed by moderate and severe degrees of anemia (Smith et al., 2019).

Delivery by Sectio Caesarea (SC) operation is intended for certain medical indications which are divided into maternal indications and fetal indications. Sectio Caesarea delivery should be understood as an alternative delivery when vaginal birth is not possible. One of the indications for having a Sectio Caesarea is if the distance between previous births was too close where the method of delivery used was also Sectio Caesarea, in conditions like this the mother is not recommended to give birth vaginally. Apart from birth spacing, the nutritional status of pregnant women can also have a positive impact on the growth and development of the fetus and the birthing process. In the case of Sectio Caesarea, the mortality rate is twice as high compared to vaginal delivery, in addition, the morbidity rate due to infection, blood loss, and damage to internal organs is higher in SC delivery (Field & Halob, 2016).

Even though anemic mothers can give birth normally/vaginally, the possibility of slow progress in labor often occurs due to inadequate uterine contractions. Lack of hemoglobin in the blood results in a lack of oxygen supply to all body organs, including the uterus. If the contractions are ineffective then the descent of the presenting part of the fetus will be slow and the cervix will open longer (Field & Halob, 2016).

There is a relationship between the degree of anemia (mild and moderate) and birth problems. Childbirth problems that occurred in this study consisted of, 3 (18.7%) experienced hypertension, 3 (18.7%) experiencing umbilical cord entanglement, 3 (18.7%) experienced prolonged labor, 5 (31.3%) experiencing Premature Rupture of Membranes (PROM), 1 (6.3%) experienced serotinus and 1 (6.3%) experienced placenta previa.

This research is in line with Fallatah et al., (2020), There is a problem of giving birth to mothers with anemia, namely PROM, there are 81.05% of mothers with mild anemia (Fallatah et al., 2020). This research is also in line with the research Setiati and Oktaviani (2020) where there are 71.6% of mothers who experience anemia with contractions that are not strong, causing prolonged labor during labor (Setiati & Oktaviani, 2020). This is also in line Smith et al., (2019), where there were anemic pregnant women with maternal outcomes who experienced placenta previa (Smith et al., 2019), as well as research by Fallatah et al, (2020) there were 56% of pregnant women with anemia and there were 3 mothers with placenta previa with mild anemia (Fallatah et al., 2020).

Complications in childbirth include prolonged labor which is a form of poor contractions. In anemia, the number of red blood cells decreases, causing the amount of oxygen (HbO_2) bound in the blood to be small, thereby reducing the amount of oxygen delivered to vital organs. The reduced amount of oxygen in the blood causes the uterine muscles to not contract adequately, resulting in histitis resulting in the birth process not proceeding normally. A reduced amount of hemoglobin can cause the amount of oxygen bound in the blood (HbO_2) to decrease so that the partial pressure of oxygen going to the uterus also decreases. The insufficient amount of oxygen in the blood causes the myometrium muscles to not be able to contract adequately. Inadequate uterine contractions prolong the duration of the first stage. Normal stage I for primigravida is 13-14 hours for multigravida 6-7 hours. The length of labor will be longer if the mother experiences problems with uterine contractions resulting in prolonged labor. Prolonged labor is labor that lasts > 24 hours in primigravida and > 18 hours in multigravida. Prolonged labor is where the latent phase is more than 8 hours. Labor has lasted 12 hours or more and the baby has not been born. Ineffective contractions during this period are a result of a lack of oxygen supply to the uterus, so the descent of the lowest part of the fetus will be slow and the cervix will open longer (Cunningham et al., 2014).

Premature rupture of membranes (PROM) is the rupture of the membranes before the signs of labor begin. Anemia is one of the predisposing factors for the occurrence of PROM, anemia causes disturbances in the degeneration and perfusion of the amniotic membranes, causing fragility of the amniotic membranes. Premature rupture of membranes is generally caused by repeated uterine contractions and stretching. The amniotic membrane ruptures because in certain areas biochemical changes occur that cause the inferior amniotic membrane to become fragile. Changes in structure, cell number, and collagen catabolism cause collagen activity to change and cause the amniotic membrane to rupture. Decreased hemoglobin mass in the tissue, so that it is unable to fulfill its function as a carrier of oxygen throughout the body. Lack of oxygen, especially in the amniotic tissue, causes brittleness of the amniotic membrane (Patil & Patil, 2014).

Placental abnormalities/problems occur in mothers giving birth with anemia, possibly due to a decrease in blood reserves during pregnancy or physiological changes related to decreased oxygen. It has been shown to be different from mothers without anemia, especially the development of placental blood vessels, which can cause different physiological responses to stress during pregnancy. Hypoxic stress such as Corticotropin Releasing Hormone (CRH) has been proven to have an effect on mothers with anemia which can cause problems with the placenta. Hypertension causes abnormal trophoblast invasion of the uterus resulting in poor placentation. Incomplete trophoblast invasion in the walls of the spiral arterioles causes the formation of narrow-diameter blood vessels with high resistance, resulting in placental oxidative stress. This oxidative stress triggers the release of placental factors into the system, causing endothelial dysfunction and vasoconstriction. Vasoconstriction of the decidual spiral arteries causes a decrease in blood flow to the placenta (Beckert et al., 2019).

The incidence of anemia in the mother is not directly related to the umbilical cord entanglement in the fetus, but because of anemia in the mother, the incidence of umbilical cord entanglement is greater. Anemia in pregnancy causes a decrease in hemoglobin levels in the blood of pregnant women, which causes blood flow to the fetus to become obstructed and causes the flow of oxygen and nutritional supply from the mother to the fetus to be disrupted. This will inhibit fetal growth and lead to stunted fetal weight gain. Because fetal weight gain is hampered, fetal turnover will occur more frequently so that umbilical cord entanglement can occur (Cunningham et al., 2014).

CONCLUSION

The degree of anemia contributes to the type of delivery and birth problems/disruptions. The most common birth problems/disruptions in mothers with anemia are hypertension, umbilical cord entanglement, and prolonged labor. Future researchers are expected to carry out monitoring not only on the mother but also the baby.

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