# PARITY, AGE RELATED TO THE INCIDENCE OF ANEMIA IN PREGNANT WOMEN

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#### ABSTRAK PARITAS, USIA BERKAITAN DENGAN KEJADIAN ANEMIA PADA IBU HAMIL

Latar Belakang: Angka Kematian Ibu (AKI) merupakan salah satu indikator untuk melihat keberhasilan upaya kesehatan ibu, kematian ibu merupakan masalah kesehatan yang menjadi perhatian dunia. Menurut WHO (2017) 43,9 % kematian ibu berkaitan dengan anemia pada kehamilan disebabkan oleh defisiensi besi dan perdarahan akut. Di Indonesia Kejadian anemia atau kekurangan darah pada ibu hamil masih tergolong tinggi, yaitu sebanyak 48,9%. Kondisi ini mengatakan bahwa anemia cukup tinggi di Indonesia dan menunjukkan angka mendekati masalah kesehatan masyarakat berat (*severe public health problem*) dengan batas prevalensi anemia lebih dari 40%. Dampak anemia pada ibu hamil dapat diamati dari besarnya angkat kesakitan dan kematian maternal, peningkatan angka kesakitan dan kematian janin, serta peningkatan resiko terjadinya berat badan lahir rendah (Kementerian Kesehatan, 2022).

Tujuan dari penelitian ini adalah untuk mengetahui Hubungan usia dan paritas ibu hamil trimester III dengan kejadian anemia di PMB Wirahayu Panjang.

Metode Penelitian: Design penelitian adalah deskriptif korelasional dengan pendekatan cross sectional. Populasi pada penelitian ini adalah semua ibu hamil yang mengunjungi PMB Wirahayu pada bulan juli-desember tahun 2022 dengan jumlah 221 responden. Tekhnik pengambilan sample pada penelitian ini adalah total sampling dimana seluruh populasi di jadikan sample penelitian yaitu sebanyak 221 responden. Variabel dalam penelitian ini adalah usia dan paritas dengan kejadian anemia pada ibu hamil. Alat ukur yang digunakan adalah data sekunder yang didapatkan dari rekam medik Pemeriksaan ANC pada ibu. Penelitian ini dilaksanakan pada bulan Januari sampai bulan Agustus pada tahun 2021. Analisis data yang digunakan adalah analisis kuantitatif dilakukan melalui analisis univariat untuk melihat distribusi masing-masing variabel, analisis bivariate menggunakan *Chi Square*.

Hasil penelitian: jumlah ibu hamil yang mengalami anemia sebanyak 48 orang (21,7%) dari total 221 orang ibu yang sedang hamil di PMB Wirahayu, dengan kehamilan multiparitas yang mengalami anemia sebanyak 13 %, dan dengan umur beresiko yaitu <20 tahun dan >35 tahun yang mengalami anemia adalah sebanyak 92,5%. Pada Analisa terdapat korelasi yang signifikan antara paritas dan usia pada ibu terhadap kejadian anemia dalam kehamilan.

Kesimpulan: Terdapat korelasi yang kuat antara anemia dalam kehamilan dengan paritas dan usia ibu.

Saran: Bagi tenaga kesehatan diharapkan dapat memberikan pelayanan berupa konseling terhadap dampak anemia dalam kehamilan, memberikan motivasi yang kuat agar ibu hamil memahami petingnya zat besi dalam kehamilan dengan selalu berupaya mengkonsumsi makanan dengan gizi yang seimbang dan teratur dalam mengkonsumsi tablet tambah darah dalam kehamilan.

Kata Kunci: paritas, usia, anemia

#### ABSTRACT

Introduction : The Maternal Mortality Rate (MMR) is an indicator to see the success of maternal health efforts, maternal mortality is a health problem that is of global concern. According to WHO (2015) 41.8% of maternal deaths related to anemia in pregnancy are caused by iron deficiency and acute bleeding. In Indonesia, the incidence of anemia or lack of blood in pregnant women is still relatively high, namely as much as 48.9%. This condition indicates that anemia is quite high in Indonesia and indicates that the rate is close to a serious public health problem with an anemia prevalence limit of more than 40%. The impact of anemia on pregnant women can be observed from the magnitude of maternal morbidity and mortality, increased fetal morbidity and mortality, and the increased risk of low birth weight (Kementerian Kesehatan, 2022).

The purpose of this study was to determine the relationship between the age and parity of third trimester pregnant women with the incidence of anemia at PMB Wirahayu Panjang.

Method : The research design is a correlational descriptive with a cross sectional approach. The population in this study were all pregnant women who visited PMB Wirahayu in July-December 2022 with a total of 221

respondents. The sampling technique in this study was total sampling where the entire population was used as the research sample, namely 221 respondents. The variables in this study were age and parity with the incidence of anemia in pregnant women. The measuring tool used is secondary data obtained from medical records of ANC examination on mothers. This research was conducted from January to August in 2021. The data analysis used was quantitative analysis carried out through univariate analysis to see the distribution of each variable, bivariate analysis using Chi Square.

The results: the number of pregnant women who experienced anemia was 48 people (21.7%) out of a total of 221 pregnant women at PMB Wirahayu, with multiparity pregnancies who experienced anemia as much as 13%, and with a risk of <20 years and > 35 years who experience anemia is as much as 92.5%. In the analysis, there is a significant correlation between parity and maternal age on the incidence of anemia in pregnancy.

Conclusion: There is a strong correlation between anemia in pregnancy with parity and maternal age.

Suggestion: Health workers are expected to be able to provide services in the form of counseling on the impact of anemia in pregnancy, provide strong motivation so that pregnant women understand the importance of iron during pregnancy by always trying to consume foods with balanced nutrition and regularly taking blood-boosting tablets during pregnancy.

Keywords: parity, age, anemia

## INTRODUCTION

The Maternal Mortality Rate (MMR) is an indicator to see the success of maternal health efforts, maternal mortality is a health problem that is of global concern. According to (WHO, 2017) 43.9% of maternal deaths related to anemia in pregnancy are caused by iron deficiency and acute bleeding. In Indonesia, the incidence of anemia or lack of blood in pregnant women is still relatively high, namely as much as 48.9%. This condition indicates that anemia is quite high in Indonesia and shows a rate close to a severe public health problem with an anemia prevalence limit of more than 40%. (Ministry of Health, 2022)

In Lampung Province, the trend for maternal mortality cases in 2021 has increased compared to 2020, namely from 115 cases to 187 cases (Reihana, 2020). The cause of AKI is high risk/obstetric complications which include the incidence of anemia in pregnancy where in 2021 there will be an increase in the handling of obstetric complications to 100% (Lampung, 2022)

Anemia does not only have an impact on the mother, but also on the baby being born. Babies who are born are likely to have little or no iron reserves at all, so that it will cause anemia in babies who are born. The impact of anemia on pregnant women can be observed from the magnitude of maternal morbidity and mortality, increased fetal morbidity and mortality, and increased risk of low birth weight (Ministry of Health, 2022). Unfavorable health conditions and nutritional status of pregnant women (pregnancy anemia) can adversely affect the fetus, pregnant women and the delivery process. In the fetus, premature stillbirth (prenatal death), less normal body weight (low birth weight) known as Low

Birth Weight (LBW), growth failure, miscarriage and birth defects. During labor, bleeding occurs and the labor takes a long time (Wiji, 2019). Many factors influence the incidence of anemia in pregnant women, the age of the mother during pregnancy has a significant risk of anemia (Rahmaniah, 2019).

Maternal age that is too young or too old greatly affects the incidence of anemia, because at a young age it requires more iron for both maternal and fetal growth, while pregnancies that occur at age > 35 years experience more hypertension, diabetes mellitus, anemia and other diseases. other chronic conditions that can affect pregnancy (Cristina et al., 2018). Based on research (Hara, J.F., Wibowo, A., Oktamiati, 2020) age is strongly associated with anemia in pregnant women

In addition, the causes of anemia in pregnant women are too frequent pregnancies and deliveries. Parity  $\geq$ 3 is a factor for anemia that is closely related to spacing of pregnancies that are too close <2 years (Husna, 2019). According to the theory, the risk of anemia increases after pregnancy, the third reason is due to damage to the blood vessels and uterine wall which usually affects the circulation of nutrients to the fetus due to pregnancy (Palifiana et al., 2021). The risk of anemia can also occur if the mother does not pay attention to nutritional needs so that Fe stores are low (Paramashanti, 2021). In line with research (Jasmi, 2016), that during pregnancy nutrients will be distributed to the mother and to the fetus she contains.

According to research (D. M. Sari et al., 2022) the distribution of the frequency of anemia among pregnant women at the Seputih Many Health Centers was 20.1% and there was a relationship between maternal age and the incidence of anemia (p value

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0.012). Likewise research (Zulaikah, 2022) found that there is a relationship between parity and anemia at the Temayang Health Center. In line with research (Belinda, 2021), there is a relationship between age and parity with the incidence of anemia in pregnant women.

Preliminary studies conducted by researchers at PMB.Wirahayu Panjang the incidence of anemia in pregnant women is still a health problem with the number of cases in January 2023 amounting to 11 out of 27 pregnant women. Of the 11 pregnant women who experienced anemia had high parity and age at risk. Based on this, researchers are interested in conducting research related to age and parity in cases of anemia in third trimester pregnant women.

#### **RESEARCH METHODS**

This type of research is descriptive research with a cross sectional approach. The sampling technique used is total sampling. This research was conducted from July to December 2022 at PMB Wirahayu. The data obtained is secondary data obtained from the medical records of ANC examination in pregnant women. The population in this study were all pregnant women at PMB Wirahayu from January to December 2022, the sampling technique in this study was total sampling where the entire population was used as a research sample with a total 221 pregnant women. The variables in this study were age and parity with the incidence of anemia in third trimester pregnant women. The data analysis used is univariate and bivariate analysis.

RESULT
Univariat

Variable	Frequency	%	
Anemic			
Anemic	48	21,7	
Not anemic	173	78,3	
Parity			
Multipara	169	76,5	
Primipara	52	23,5	
Age			
<20 >35	40	18,1	
20-35	181	81,9	

Table 1.

Based on table 1, 21.7% of mothers who experience anemia, with the highest parity are multiparas, namely 76.5% and in the majority age of 20-35 years, namely 81.9%.

#### Bivariat

Based on table 2, there is a relationship between parity and the occurrence of anemia with a p value of 0.000 and there is also a relationship between age and the occurrence of anemia with a p value of 0.000.

Variable	KB					
	Anemic		Non Anemic		Amount	P value
	N	%	Ν	%	-	
Parity						
Primipara	26	50	26	50	52	0,000
Multipara	22	13	147	87	169	
Age						
<20 >35	37	92,5	3	7,5	40	0,000
20-35	11	6	170	94	181	

 Tabel 2.

 Anemia relationship table with parity and age

#### DISCUSSION

In table one, the number of pregnant women who are anemic is 21.7%, while the highest number of pregnancies is multivariate, 76.5% and gestational age <20 and >35, there are 18.1%. Anemia in pregnancy is characterized by hemoglobin levels below 11gr/dl and is usually caused by a lack of iron in the blood. In addition, anemia also occurs if a mother does not pay attention to the intake consumed in pregnancy, so that if the mother has anemia, there are many risks that will be faced by both mothers. during pregnancy and during childbirth, it has a huge impact on increasing morbidity and mortality rates such as bleeding during childbirth, post-delivery infections, babies born not full term, birth weight less than 2500 gr (Lisna, 2021). Anemia is still often experienced by pregnant women as in research (Majidah, 2018) that 48.6% of mothers experience anemia, also (Hara, J.F., Wibowo, A., Oktamiati, 2020) as much as 66.2% of pregnant women still experience anemia. Also in research conducted by (Rahmaniah, 2019) that the incidence of anemia is still quite high in pregnant women, namely 87.5%. Likewise research conducted by (Irwanti et al., 2019) more than 50% of pregnant women experienced anemia. namely 63.64%, similar to research (Yunita, 2019) 71.1% of pregnant women experienced anemia. Prevention of anemia can be done by administering 90 iron tablets as well as a balanced nutritional intake during pregnancy. In the third trimester of pregnancy, the need for iron in pregnant women is 4.1 mg higher than before pregnancy, namely 5.6 mg per day, (Majidah, 2018) so that if pregnant women do not regularly consume blood-boosting tablets as well as unbalanced nutritional intake, the risk of experiencing anemia during pregnancy will be even greater. Health workers must really optimize the administration of Fe tablets to pregnant women during ANC visits, ensuring that the mother actually consumes 90 iron tablets during pregnancy.

## Relationship between anemia and parity

In table two it is known that the number of primiparas who experience anemia is 50% and multipara pregnancies is 13% and there is a correlation between the incidence of anemia and the number of pregnancies or parity with a p value of 0.000. Parity can increase the risk of anemia in pregnancy also in research (Ririn Rivani et al., 2020) with a p value of 0.003, (S. A. Sari et al., 2021) there is also a fairly strong correlation with a p value of 0.037, (Hartika & Fitri, 2023) also produced a strong correlation between parity and the incidence of anemia. (Pratiwi & Maisaroh, 2022) There is also a parity correlation with anemia with a p value of 0.049. Women with multiparity pregnancies have reserves of iron in their blood, which can experience a deficiency, especially if the pregnancies are repeated close enough so that the body has not fully recovered (Lisna, 2021). Also, nutritional reserves are not fully able to meet the needs of the new fetus in the womb, (Sulistyoningtyas & Khusnul Dwihestie, 2022). Mothers who are pregnant too often can increase nutrient deficiencies in their bodies, especially if the mother is lazy to consume iron-containing intake. Especially in rural communities or those who adhere to the belief that many children have a lot of fortune with an unstable economy, so eating iron-containing foods such as red meat, red fruits, green vegetables is not given too much attention, because they are more concerned with the needs of other children. . Or mothers who are still breastfeeding and getting pregnant again increase the risk of anemia. Mothers who have just given birth are expected to lose as

much as 250 grams of iron (Ririn Riyani et al., 2020). Blood vessels and uterine wall can be damaged when pregnancies occur repeatedly so that the supply of nutrients to the fetus is reduced (Hidavati & Andvarini, 2018), mothers with repeated pregnancies can increase the volume of plasma in their blood thereby increasing the risk of complications such as anemia so that at the time of delivery it increases the risk of bleeding (Ekasari et al., 2022), repeated pregnancies also affect the reduced amount of iron in the mother's body so that it has the effect of decreasing hemoglobin levels in the blood (Adawivah & Wijayanti, 2021). The need for iron is greatest when pregnancy enters the final trimester, a mother who is anemic, the fetus will take up iron stores in the mother's body (Padmi, 2018). Of course the risk of bleeding complications during delivery, especially in the IV stage or after the placenta is born, will be higher. A pregnant woman with high parity must be more disciplined in consuming Fe tablets, and pay more attention to food intake for iron content, trying to consume animal protein more dominantly because the iron absorption is easier.

# Relationship between anemia and age

The results in table two show that the age of the mother <20 and> 35 has anemia as much as 92.5% with a p value of 0.000 meaning that there is a strong correlation between age and the occurrence of anemia in pregnant women. The same results were also shown in research (S. A. Sari et al., 2021) that there was a correlation between age and the incidence of anemia, also (Davidson et al., 2022) had the same result that there was a link between the incidence of anemia and the age of the mother during pregnancy with the value p 0.032, as well as in research (Lamasari & Tahun, 2024) that age in the mother can increase the risk of anemia with a p value of 0.002. Pregnancy at an age that is not fully mature, i.e. less than 20 years, can affect emotions during pregnancy. Mothers with unstable emotions can affect their daily lifestyle, including a lifestyle with food choices that tend to have unbalanced nutritional value, prioritizing pleasure, in food rather than nutritional content, especially foods that contain iron, affect the mindset in curiosity to meet intake with balanced nutritional value. also at that age the function of the reproductive organs is not vet perfect so that the organs are not fully ready to accept pregnancy. Meanwhile, during pregnancy, many organs of the body undergo changes. Meanwhile, age over 35 years also increases the risk of anemia in pregnancy, because the body's function has decreased so that it is easy to suffer from anemia, the body has decreased in producing hemoglobin in

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the blood, consequently increasing the risk of anemia (D. M. Sari et al., 2022). So that a safe pregnancy is in the age range of 20-35 years, at that age the reproductive organs are ready to accept pregnancy, with more stable emotions so that the mother can have a stronger urge to improve her daily pattern or lifestyle, especially in choosing a food menu which contains balanced nutritional value especially food with sufficient iron content for the fetus, so that the growth and development of the fetus is not hampered.

## CONCLUSION

Based on the results of the study, it was concluded that most of the pregnant women at PMB Wirahayu Panjang at the age variable were not at risk (20-35 years). The majority of the parity distribution of pregnant women is in the multigravida category.

There is a relationship between age and the occurrence of anemia with a p value of 0.000 and there is also a relationship between parity and the occurrence of anemia with a p value of 0.000 at PMB Wirahayu Panjang.

## SUGGESTION

As medical staff, in reducing the incidence of anemia, they can seek counseling in classes for pregnant women about the benefits of iron that needs to be consumed during pregnancy, as well as about the effects of iron deficiency during pregnancy, so that it is hoped that mothers can regularly consume Fe tablets and try to consume foods that contain iron. iron.

There is a relationship between Anemia and parity so that when a mother makes a third trimester ANC visit, the midwife or health worker must provide counseling to the mother regarding postpartum family planning to prepare the mother to participate in the family planning program so that mothers with grandemultipara can prevent unwanted pregnancies.

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