Age, Parity, and The Prevalence of Anemia in Third-Trimester Pregnant Women: A Correlation Study

by Perpustakaan IIK Bhakti Wiyata

Submission date: 22-Aug-2025 01:46PM (UTC+0700)
Submission ID: 2501137174
File name: HTechJ_v03n03_05_352_2_-_ANGGRAINI_DYAH_SETIYARINI.pdf (335.5K)
Word count: 6155
Character count: 31215

HTechJ Health and Technology Journal (HTechJ)

Volume 03 Number 03
June 2025
p-ISSN: 2986-5662
e-ISSN: 2985-959X

Age, Parity, and The Prevalence of Anemia in Third-Trimester Pregnant Women: A Correlation Study

Anggraini Dyah Setiyarini[1], Ayu Rosita Dewi[1]

[1] *Bachelor of Midwifery, Bhakti Wiyata Institute of Health Sciences, Kediri, Indonesia*

Correspondence should be addressed to:
Anggraini Dyah Setiyarini
Anggraini.dyah@iik.ac.id

Abstract:
Lack of iron the most prevalent type of anemia during pregnancy is and is still a global health problem. Both the mother and the unborn child are impacted by anemia. Data on pregnant women who experience anemia in Desa Semen in 2025 were 8 pregnant women. This study aimed to ascertain how age and parity relate to the prevalence of anemia in the third trimester of pregnancy in Semen Village, Semen Subdistrict, Kediri Regency. The study employed a cross-sectional methodology. There were fifteen participants in the study, which was carried out in Semen Village; Total sampling was used as the sampling method. A questionnaire on the mother's age and parity as well as the findings of laboratory tests to evaluate the anemia status were employed in the data-gathering process. Chi-square was utilized in both univariate and bivariate data analysis. The study revealed that the number of pregnant women at risk (less than 20 years and more than 35 years) was 7 (46.7%), and the number of pregnant women at risk (more than three times) was 7 (46.7%). Seven individuals (46.7%) had normal hemoglobin levels (≥11 g/dl) throughout pregnancy, while eight individuals (53.3%) had abnormal hemoglobin levels (<11 g/dl). The study of parity and age with the incidence of anemia revealed a p-value of 0.032 ($p < 0.05$) and 0.032 ($p < 0.05$), respectively. Additionally, in Semen Village, Semen Subdistrict, Kediri Regency, there is a correlation between the incidence of anemia in the third trimester of pregnancy and age, as well as between parity and anemia incidence. Researchers hope to program pregnancy at the ideal age and pay attention to the number of parities so that pregnancy is safer and healthier.

Article info:
Submitted:
17-04-2025
Revised:
11-06-2025
Accepted:
12-06-2025

Keywords:
age; anemia; parity; pregnant women

DOI: https://doi.org/10.53713/htechj.v3i3.352

INTRODUCTION

A lack of iron causes pregnancy-related anemia, which is the most prevalent type. According to the WHO, almost 2 billion people worldwide suffer from iron deficiency, and up to 50% of them are pregnant women. Iron is a very important nutrient in dealing with physiological changes in pregnancy, fetal growth and development, and preventing complications of pregnancy and childbirth. The woman may experience difficulties like anemia, preeclampsia, preterm labor, infection, postpartum hemorrhage, decreased breast milk production, and postpartum depression if her iron needs are not satisfied during pregnancy. Iron deficiency can cause the development of one of the most important organs in the fetus, namely the brain, to be suboptimal, resulting in short-term and long-term effects, such as cognitive disorders, motor skills, and social-emotional development (Wibowo, Rima, and Rabbania, 2021).

Based on data from the World Health Organization (WHO) in 2019, anemia in pregnant women in Indonesia is ≥40% and is a serious public health problem (WHO, 2019). According to data from the 2018 Basic Health Research (Riskesdas), 48.9% of pregnant Indonesian women have iron

Volume 03 Number 03
June 2025
p-ISSN: 2986-5662
e-ISSN: 2985-959X

deficiency anemia, an increase of 11.8% from the 2013 figure (Wibowo, Rima, and Rabbania, 2021). According to Prawiharjo (2012), Age and parity are two characteristics that can contribute to anemia during pregnancy. The 20–35 age range is considered a safe age for pregnancy, also referred to as healthy reproduction, because the maternal mortality rate among pregnant and postpartum women in this age range is up to five times lower than that of women under 20 or over 35 (Ririn Riyani, Siswani Marianna, and Yoanita Hijriyati, 2020). According to Wahyudin and Amirudin (2014), it is easy to suffer shocks that lead to a lack of attention to meeting nutritional demands during pregnancy because pregnancy at an age under 20 is not medically optimal, emotions are often erratic, and mentality is still immature. Ages above 35 are associated with a number of ailments that frequently strike at this age, as well as a fall in endurance. According to the study's findings, the incidence of anemia is significantly influenced by the mother's age during pregnancy (Astriana, 2017).

According to data from a survey carried out in Semen Village, Semen District, Kediri Regency, there were 15 pregnant patients in January 2025, and 8 of them had anemia. Finding out how age and parity relate to the prevalence of anemia in pregnant women in Trimester III in Desa Semen Kecamatan Semen Kabupaten Kediri is the goal of this study.

METHOD

The three variables are gathered simultaneously as part of a cross-sectional analytical survey research strategy. The study's population consisted of 15 pregnant women in Trimester III living in Desa Semen, Kecamatan Semen, Kabupaten Kediri. The research period was January 2025.

The sample in the study was 15 pregnant women in Trimester III in Semen Village, Semen District, Kediri Regency. The research period was January 2025. Total sampling was the method used for sampling.

Pregnant women's age and parity questionnaires, as well as the findings of laboratory tests for anemia, served as the study's tools. Statistical tests utilizing univariate and bivariate analysis with chi-square were used to process the data. The Health Research Ethics Committee of Institut Ilmu Kesehatan Bhakti Wiyata Kediri has granted ethical approval for this study (No. 10/FKes/TK/II/2024).

RESULT

Table 1. Respondent Distribution by Pregnant Women's Age in Trimester III

Age	Frequency	Percentage
At risk (Under 20 and over 35 years old)	7	46.7
Not at risk (20–35 years old)	8	53.3
Total	15	100

According to the above data, eight (53.3%) of the 15 responders are those who are not at risk, and seven (46.7%) are individuals who are. According to these findings, 53.3% of respondents in Desa Semen Kecamatan Semen Kabupaten Kediri are non-risk individuals (20–30 years old).

HTechJ Health and Technology Journal (HTechJ)
Volume 03 Number 03
June 2025
p-ISSN: 2986-5662
e-ISSN: 2985-959X

Table 2. Frequency Distribution Based on Parity of Pregnant Women in Trimester III

Paritas	Frequency	Percentage
At risk (> 3 times)	7	46.7
Not at risk (≤ 3 times)	8	53.3
Total	15	100

The data indicates that, of the 15 respondents, 8 (53.3%) had non-risk parity and 7 (46.7%) had parity at risk. According to these findings, 53.3% of respondents in Semen Village, Semen District, Kediri Regency, had non-risk parity (≤ three times).

Table 3. Frequency Distribution Using Trimester III Pregnancy Women's Anemia Incidence

Anemia Occurrence	Frequency	Percentage
Anemia (Hb < 11 g/dl)	8	53.3
Indicates non-anemia (Hb ≥ 11 g/dl)	7	46.7
Total	15	100

According to the mentioned data, eight (53.3%) of the 15 respondents had anemia, while seven (46.7%) did not. According to these findings, up to 53.3% of respondents in Desa Semen Kecamatan Semen Kabupaten Kediri suffered from anemia.

Table 4. Association between Pregnant Women's Age and Pregnancy Anemia in Trimester III

Age	Anemia Occurrence				Total		p-value
	Anemia		Indicates non-anemia				
	f	%	f	%	f	%	
At Risk (Under 20 and over 35 years old)	6	40	1	6.7	7	46.7	0.032
Not in danger (20–35 years old)	2	13.3	6	40	8	53.3	
Total	8	53.3	7	46.7	15	100	

From Table 4, the variable of pregnant women's age shows that respondents with age at risk with anemia incidents are 40% and age not at risk with anemia incidents as much as 13.3%, while respondents with age at risk with no anemia incidents are as much as 6.7% and age not at risk with no anemia incidents as much as 40%.

With a p-value of 0.032 ($p < 0.05$), Table 4 demonstrates that the statistical test employing the non-parametric Chi-square test produced significant results. It may indicate that there is a correlation between pregnant women's age and the prevalence of anaemia in this population.

HTechJ Health and Technology Journal (HTechJ)
Volume 03 Number 03
June 2025
p-ISSN: 2986-5662
e-ISSN: 2985-959X

Table 5. The association between pregnant women's parity and the prevalence of anaemia in the third trimester

Age	Anemia Occurrence				Total		p-value
	Anemia		Indicates non-anemia				
	f	%	f	%	f	%	
At risk (> 3 times)	6	40	1	6.7	7	46.7	0.032
Not at risk (≤ 3 times)	2	13.3	6	40	8	53.3	
Total	8	53.3	7	46.7	15	100	

The variables of pregnant mother age in Table 5 indicate that respondents with parity are at risk for 40% of anaemia incidents and 13.3% of anaemia incidents, while respondents with parity are at risk for 6.7% of non-anaemia incidents and 40% of non-anaemia incidents.

Table 5 shows that a significant result with a p-value of 0.032 ($p < 0.05$) was achieved by statistical analysis using the non-parametric Chi Square approach. This suggests a connection between the prevalence of anaemia in pregnant women and their parity.

DISCUSSION

According to the study's findings, there were seven pregnant women (46.7%) in Trimester III in Semen Village, Semen District, Kediri Regency, who were non-dangerous (aged 20–35), and eight pregnant women (53.3%) who were risky (aged <20 and >35). When evaluated chronologically, age is the amount of time that a person has existed and can be measured; normal people have the same level of anatomical and physiological development. Age can also refer to how long a person has lived or existed (from birth or being held) (Noli et al., 2021).

According to Prawirohardjo (2016), women under the age of 20 and over the age of 35 are at risk for pregnancy, childbirth, and postpartum complications, whereas mothers between the ages of 20 and 35 are safe to become pregnant, give birth, and have a postpartum. According to Maryunani (2016), because the reproductive organs are not yet developed enough for pregnancy, pregnant women under the age of 20 may be harmful to both the mother's health and the growth and development of the fetus. Pregnancy complications are more common in adolescent pregnancies (under 20 years old) than in the healthy reproductive age range of 20 to 35 years. Combining this circumstance with psychological, social, and financial stress will make it even more challenging and increase the likelihood of miscarriage (Rosita & Afrianti, 2021).

The health of the mother and fetus may be at risk if the mother's reproductive organs are immature before the age of 20 and after the age of 35 (Pitriani et al., 2023). Government laws dictate the optimal age for a mother to become pregnant. According to Article 7 of Law of the Republic of Indonesia Number 16 of 2019, marriage is only allowed if both the man and the woman are at least 19 years old. Pregnancy at ages under 20 carries a number of concerns, including the potential for elevated blood pressure and impaired fetal growth. The woman might not be mentally prepared. This makes her less conscious of checking on herself and her pregnancy, as opposed to women between the ages of 20 and 35, who are thought to be the best for getting pregnant and giving birth. Women's physical health is at its best in this age group. The uterus can offer the best circumstances or protection during pregnancy. In general, they are also psychologically prepared, which influences their behavior of carefully preserving and caring for their pregnancy (O, 2022).

Volume 03 Number 03
June 2025
p-ISSN: 2986-5662
e-ISSN: 2985-959X

A person's age will greatly affect the reproductive system because their reproductive organs have begun to decrease their ability and elasticity in accepting pregnancy. For young mothers, there must be a regulation of the mother's age to get pregnant so that the mother's reproduction is prepared in advance (delaying pregnancy), so that it is expected to result in a normal pregnancy, childbirth, and postpartum (Marinda et al., 2020).

Based on the results of the study, researchers argue that a good reproductive age is at the age of 20-35 years, where the age is a good period for pregnancy, childbirth, and breastfeeding. The reproductive development of pregnant women under the age of 20 years is still not optimal; the soul is still unstable, so that pregnancy often causes complications. At a young age, there is a competitive problem between the mother and her fetus, where, in addition to the need for iron by the fetus, the mother also still needs nutrition to grow towards the maturity of her body. Pregnant women in Desa Semen, Kecamatan Semen, Kabupaten Kediri had a parity of eight (53.3%) with non-risk parity (1-3 children) and seven (46.7%) with risky parity (≥4 children), according to the study's findings.

The number of live births or pregnancies that produce a fetus that can survive outside the uterus (28 weeks) is known as parity. Nullipara, primipara, multipara, and grandemultipara are the several types of parity (Atina R S, 2020). It is safest to use parity 2-3. The higher the parity, the greater the risk to the mother and fetus. This is because parity 1 (one) and high parity (more than 3) have a higher danger rate (Prawirohardjo, 2016). The safest parity in terms of maternal mortality is parity 2–3.

Due to the possibility of endometrial diseases, mothers with a high parity of greater than three have a high maternal rate. Repeated pregnancies are the cause of endometrial diseases. Because the uterus is receiving the results of conception for the first time and the uterine muscles' flexibility is still restricted for fetal growth, the first parity is at danger. First-time mothers are encouraged to check their pregnancy with health professionals because they are new to the experience; however, mothers who have given birth to multiple children believe they are experienced and are not as eager to check their pregnancy. However, in practice, there is a greater chance of maternal death for those with high parity. Although family planning can accurately predict the risk of high parity, the majority of high-parity pregnancies are not planned or prepared for (Hipson et al., 2023).

In primigravida mothers, pregnancy is the first time for them, so indirectly they pay more attention to their pregnancy; they think that pregnancy check-ups are something new. However, in multigravida mothers, they already have experience checking their pregnancy and a history of giving birth; they think they have experience, so they are less motivated to do the next pregnancy check-up. Compared to non-pregnant conditions, mothers with high parity are typically more vulnerable to bleeding and maternal nutritional depletion; the risk of bleeding before, during, and after delivery increases with each pregnancy. Increased parity makes bleeding more likely. A high level of sharing of available food and other family resources, on the other hand, can interfere with pregnant women's food intake because a woman with high parity has many children (Wahyuni, 2023).

According to the study's findings, the safest parity in terms of maternal mortality is parity 2 to 3. Mothers with a high parity of more than 3 have a high maternal rate because repeated pregnancies can result in endometrial disorders, and giving birth too frequently increases the risk of bleeding during delivery. Based on the results of the study, it was observed that in Desa Semen, Kecamatan Semen, Kabupaten Kediri, the most pregnant women had normal Hb levels (≥11 gr/dl), as many as 7 people (46.7%), whereas abnormal Hb levels (<11 gr/dl) were 8 people (53.3%).

When a pregnant woman has anemia, her hemoglobin concentration or red blood cell size and number fall below the usual range of 11 g/dL, which might impair the blood's ability to carry oxygen throughout the body (Asiyah et al., 2022). A drop in hemoglobin levels below the usual range that

Volume 03 Number 03
June 2025
p-ISSN: 2986-5662
e-ISSN: 2985-959X

prevents it from carrying enough oxygen to peripheral tissues is known as anemia (Putri & Hastina, 2020).

Anemia during pregnancy occurs when the mother's hemoglobin (Hb) level is under eleven g/dl in the first and third trimesters and less than 10.5 g/dl in the second (Helmita, 2022). Gustanela & Pratomo (2022) describe the symptoms of anemia in pregnant women, which include lethargy, weakness, fatigue, and limpness, or 5L. In addition, the face, especially the eyelids, tongue, and lips, looks pale, the eyes are dizzy, and pregnant women are said to be anemic if the blood Hb level is <11 gr/dl. Pregnant women who suffer from anemia may experience miscarriage, early labor, uterine inertia, prolonged labor, uterine atony, hemorrhage, and shock, all of which can be fatal if treatment is delayed. Pregnancy-related anemia is typically impacted by gestational age, the pregnant woman's health, and pregnancy physiology. Due to the phenomenon of plasma volume expansion, which peaks at 24 weeks of gestation and continues to climb until 37 weeks, pregnant women are more vulnerable to deficiencies. This phenomenon is closely linked to a relative decrease in hemoglobin concentration as well as fetal growth that needs iron and folate (Wahyuni, 2023).

The fetus needs between 100 and 100 200 mg of iron, and about 190 mg is lost after birth. The body needs about 800–1000 mg of iron during pregnancy to meet demands, such as an increase in red blood cells that require 300–400 mg of iron and peak during 32–34 weeks of pregnancy. Pregnancy-related iron insufficiency is likely to occur if the mother's prenatal iron stores are diminished (Prawirohardjo, 2016). Deficiencies in iron and folic acid are the most frequent reasons. Iron deficiency anemia accounts for approximately 95% of pregnancy-related anemia cases. The usual causes include past pregnancies, insufficient food intake (particularly in teenage girls), or recurring normal iron loss in menstrual blood (which approaches a specific quantity and often occurs every month), which inhibits iron storage (Mardiah et al., 2021).

The study's findings support the notion that anemia is one of the risk factors that can exacerbate a mother's condition due to pregnancy complications, which include anemia, infection, hypertension, gestational diabetes, preeclampsia, premature labor, miscarriage, and hyperemesis. Pregnant women who suffer from anemia experience symptoms during pregnancy, labor, the postpartum period, and the time after giving birth. Chronic energy deficiency, iron pill intake patterns, infectious diseases, education, socioeconomic status, income, knowledge, ANC visits, health history, and family support are some of the factors that affect the occurrence of anemia.

Counselling to the community, especially pregnant women, is still crucial and necessary to increase mothers' knowledge about anemia in pregnancy in order to prevent unwanted things due to the impact of anemia that can occur in pregnant women themselves and even in the fetus, as many pregnant women in this study still experience anemia. To combat anemia in pregnant women, the government is creating a program. In Indonesia, every expectant mother receives free iron tablets when she is checked out at a health facility. Additionally, health professionals regularly educate expectant mothers on the value of iron tablets in preventing and treating anemia.

The Association Between Pregnancy-Related Anemia Incidence and Age

The results of the chi-square statistical test for the variable of the age of pregnant women with the incidence of anemia showed a p-value of 0.032 ($p < 0.05$), indicating a correlation between the age of pregnant women and the incidence of anemia in Desa Semen, Kecamatan Semen, Kabupaten Kediri in 2025.

Young or under-20-year-old pregnant women require adequate nutrition, according to Purwaningtyas (2017). A pregnant woman must share nutrition with the fetus she is carrying in addition to growth and development. Because their organs decrease, pregnant women over 35 also

Volume 03 Number 03
June 2025
p-ISSN: 2986-5662
e-ISSN: 2985-959X

require a lot of energy to support both the fetus they are carrying and the ongoing pregnancy (Vira, Mutoharoh, and Indarjo, 2024).

The findings of this investigation align with those of Nu'aini et al.'s (2024) study. Nearly all respondents (45.7%) in the Beringin Raya Health Centre's Bengkulu City work area suffered from anemia during pregnancy, according to the findings of the univariate analysis of 35 respondents. Of the 35 respondents, the majority (71.4%) were in the age range of 20 to 35 and worked at the Beringin Raya Health Centre in Bengkulu City. Bivariate analysis showed a relationship between age and the prevalence of pregnant anemia in the Bengkulu City work area of the Beringin Raya Health Centre, with a p-value of 0.022 (NUR'AINI, 2024).

"The incidence of iron deficiency anemia in pregnant women in the Lasi Health Centre Work Area, West Sumatra, is related to income level factors, iron supplementation, consumption of heme-source foods, consumption of non-heme foods, consumption of iron absorption enhancers, consumption of iron absorption inhibitor foods, and dietary restrictions due to culture," according to the findings of the study by Amalia et al. (2022). According to Astutik & Ertiana (2018), a woman's reproductive organs are correlated with her age. Anemia can result from pregnancy between the ages of 20 and 35 since pregnancy at that age is associated with weakened immunity and a number of illnesses that are common in that age group, which can raise the risk of anemia. One of the most frequent risk factors for anemia in expectant mothers is age. It is not biologically ideal to become pregnant at a young age; emotions are often erratic and mentally immature, making it simple to suffer shocks that lead to neglecting to meet nutritional needs throughout pregnancy (Amalia et all, 2022).

Pregnancy at an older age, on the other hand, is linked to illnesses that frequently strike at this age as well as a drop in immunity. Consequently, it can lead to developmental abnormalities caused by inadequate nutrition to support one's own demands and the growth of the baby, resulting in low birth weight and early birth, as well as issues during labor (difficulty in birthing, improper fetal position). Those under 20 are seen as very young, those over 35 are deemed too old, and those between 20 and 35 are deemed safe for pregnancy because they are both psychologically and physically prepared for parenthood. Pregnant women over 35 have started the early phases of the degenerative phase, which results in suboptimal bodily function and a number of health issues (Wahyuni, 2023).

Anemia is a risk factor for pregnancies in women under 20 and those over 35. Because malnutrition is common at this age, pregnant women under 20 are at risk for anemia. Teenagers' desire for the perfect figure leads them to follow a rigid diet without considering nutritional balance, which puts them in a poor nutritional position when they become pregnant. When the need for iron rises, as it does in women of reproductive age, iron insufficiency results. The amount of iron that is needed daily increases with age. Extreme maternal age (too young or too elderly) is linked to low hemoglobin concentrations (Wahyuni, 2023).

In the meantime, the immune system and organ function have declined in people over 35, making them more vulnerable to illness (Sukmawati et al., 2021). The 20–35 age range is regarded as a healthy reproductive age for pregnant women. Because the mother can still monitor her diet and take iron supplements more frequently, anaemia is less likely to occur at that age. Since that is a healthy reproductive age and the uterus is developed and prepared for pregnancy, there is most likely no high danger at that age (Arifah et al., 2024).

The correlation between parity and the prevalence of anemia in expectant mothers.

A p-value of 0.032 ($p < 0.05$) was found in the chi-square statistical test results pertaining to pregnant women's parity and the prevalence of anemia. This suggests a connection between the

Volume 03 Number 03
June 2025
p-ISSN: 2986-5662
e-ISSN: 2985-959X

prevalence of anemia in pregnant women in Desa Semen, Kecamatan Semen, Kabupaten Kediri in 2025 and the parity of those women.

The number of live births a woman has or the number of pregnancies that produce a fetus that can survive outside the womb (28 weeks) is known as parity, according to Atina (2020). Nullipara, primipara, multipara, and grandemultipara are the several types of parity (Yuvita, 2024). The occurrence of anemia is significantly influenced by parity. Wahyuni et al. (2023) explain that the safest parity in terms of maternal mortality and the health of the mother and child is parity 1 to 3. The high number of parities can impact the mother's health, making her vulnerable to anemia, which is why parity 4 has a significant risk of anemia. While Keluarga Berencana (KB) can lower or prevent the risk of high parity, improved obstetric care can manage the risk of parity 1. According to Priyanti et al. (2020), a mother who frequently gives birth runs the danger of developing anemia in her subsequent pregnancy if she ignores her nutritional demands. This is because throughout pregnancy, nutrients are split between the mother and the foetus (Damanik, 2025).

Irianto (2014) asserts that recurrent pregnancies within a short period of time are the cause of anaemia in pregnant women, in order to eventually exhaust the mother's unrecovered iron reserves for the upcoming foetus's demands. Pregnant women will lose more iron the more often they become pregnant and give birth, which will result in anaemia (Pratiwi, 2022).

While mothers with parity greater than three are more likely to experience anemia, mothers with parity are not at risk because they typically lack pregnancy experience and knowledge, which causes them to prioritize their feelings and results in less-than-ideal iron intake during pregnancy. In addition to problems, this can be brought on by mums who frequently give birth with close intervals, which can deplete the body's iron stores (Damanik, 2025).

While family planning (KB) programmes can lower or prevent the risk of high parity, improved obstetric services can overcome the danger of parity less than 1. Unplanned pregnancies at high parity do occur (Arifah et al., 2024).

Parity of more than or equal to four children can increase the likelihood of pregnancy and delivery complications, including an increased risk of fetal death in the womb and potentially fatal bleeding before and after childbirth. This is because women who give birth frequently may vascularize the uterine wall and damage blood vessels from previous childbirth, resulting in insufficient blood flow to the placenta, which can ultimately reduce its function and affect the circulation of nutrients to the fetus. An extensive bleeding history may lead to anemia in later pregnancies (Afni et al., 2023).

If the parity is high, namely more than or equal to 4, and the mother lacks nutrients, especially Fe, it will cause the mother to experience anemia, which will have an impact on bleeding during childbirth. Because nutrients are generated for both the mother and the fetus during pregnancy, a woman who wishes to become pregnant again must consider her nutritional needs. Anemia is more likely to occur when parity is more than or equal to 4. This is due to the fact that too many pregnancies can deplete the mother's nutritional stores, and the more frequently a woman gives birth, the higher the chance of blood loss and the greater the effect on lowering hemoglobin levels. To reduce the risk, a safe interval of one to three times the number of births (parity) should be maintained (Simbolon, Jumiyati, and Rahmadi, 2018)

This is consistent with the explanation provided by Wahyuni et al. in 2023, which claims that the most trustworthy markers of maternal health, as well as the health of the mother and fetus, are paritas 1 through 3. Due to the high number of partitas that may impact a person's health and increase their susceptibility to anemia, Paritas 4 has a significant chance of acquiring anemia. The danger for the second paritas can be compared to or discussed with the Keluarga Berencana (KB), but the risk for the first paritas can be compared to the more advantageous obstetric care.

Volume 03 Number 03
June 2025
p-ISSN: 2986-5662
e-ISSN: 2985-959X

This study is consistent with a 2024 study by Damanik et al. at the Lontar Health Centre in Kotabaru Regency titled The Relationship between Parity and the Incidence of anemia in Pregnant Women in the Third Trimester. The chi-square statistical test was used to obtain statistical tests with a cross-sectional study approach. According to the data, up to 57.9% of mothers had high-risk parity (≥3), and 63.2% of pregnant women had anemia with Hb values <11 g/dL. In the meantime, a strong correlation between parity and anemia incidence was found by the chi-square statistical test analysis (p = 0.000), with mothers with high parity having a greater prevalence of anemia (95.5%) than mothers with low parity (10.5%). Nevertheless, the chi-square statistical test analysis revealed a significant association between parity and anemia incidence (p = 0.000), with mothers with high parity having a higher frequency of anemia (95.5%) compared to mothers with low parity (10.5%).

More iron is required during pregnancy in order to generate red blood cells in the fetus and to boost the mother's red blood cell count. Each pregnancy will deplete the body's iron stores, leading to anemia in the subsequent pregnancy if the supply of iron reserves is low. A woman will lose more iron and become more anemic the more times she becomes pregnant and gives birth (Tampubolon et al., 2021). In the third trimester of pregnancy, high parity is a significant risk factor for anemia, the study found. Therefore, this study recommends increasing health education and substance interventions to prevent anemia in children (Damanik, 2025).

CONCLUSION

The study's findings and discussion led to the conclusion that there were seven pregnant women (46.7%) who were in danger (between 20 and 35 years); similarly, there were seven pregnant women (46.7%) who were at risk (more than three times). Seven individuals (46.7%) had normal hemoglobin levels (≥11 g/dl) throughout pregnancy, while eight individuals (53.3%) had abnormal hemoglobin levels (<11 g/dl). There is a correlation between age and the prevalence of anemia in pregnant women in Desa Semen, Kecamatan Semen, Kabupaten Kediri (p-value of 0.032 > 0.05). For pregnant women in Trimester III in Desa Semen Kecamatan Semen Kabupaten Kediri, there is a strong association (p = 0.032 > 0.05) between parity and the incidence of anemia. It is expected that a greater sample size and a more extensive study region will be used in future research.

ACKNOWLEDGEMENT

We are grateful to Institut Ilmu Kesehatan Bhakti Wiyata Kediri for facilitating the relationship between the researcher and all of the subjects, including the master's students, who are involved in this study but whom the researcher is unable to refer to individually.

REFERENCES

Amalia, K., Eliska, & Nurhayati. (2022). Faktor-Faktor yang Berkaitan dengan Kejadian Anemia Defisiensi Besi pada Ibu Hamil di Wilayah Kerja Puskesmas Lasi. *Prosiding Nasional FORIKES 2022: Pembangunan Kesehatan Multidisiplin,* 58–65

Arifah, D. A., & Mudlikah, S. (2024). Paritas Dan Usia Ibu Dengan Anemia Kehamilan Di Puskesmas Nelayan Kabupaten Gresik. *Jurnal Kebidanan, 15*(01), 45-55

Asiyah, Y. N., Windayanti, H., Arsfandi, A., Permata, I., & Aisyah, S. (2022). Studi Literatur Penyebab Anemia pada Ibu Hamil Trimester III. *Prosiding Seminar Nasional dan Call for Paper Kebidanan Universitas Ngudi Waluyo, 1*(2), 686–695.

Astriana, W. (2017). Kejadian Anemia pada Ibu Hamil Ditinjau dari Paritas dan Usia. *Jurnal Aisyah : Jurnal Ilmu Kesehatan*, *2*(2), 123–130. https://doi.org/10.30604/jika.v2i2.57

Atina, R. S. (2020). Analisis Kejadian Preeklampsia Berat pada Ibu Hamil di RS Muhammadiyah Palembang [Skripsi, STIKES Husada Borneo]. http://rama.binahusada.ac.id:81/id/eprint/205/

Damanik, R. B. (2025). hubungan paritas dengan kejadian anemia pada ibu hamil trimester III di puskesmas sidotopo wetan surabaya. *JURNAL PENELITIAN MULTIDISIPLIN BANGSA*, *1*(1), 1575–1580.

Fristika, Y. O. (2021). Hubungan Lama Ketuban Pecah Dini, Umur ibu, Paritas dan Jenis Persalinan terhadap Nilai APGAR. *Jurnal Kebidanan : Jurnal Medical Science Ilmu Kesehatan Akademi Kebidanan Budi Mulia Palembang*, *11*(1), 99–110.

Gustanela, O., & Pratomo, H. (2022). Faktor Sosial Budaya yang Berhubungan dengan Anemia pada Ibu Hamil (A Systematic Review). *MPPKI (Media Publikasi Promosi Kesehatan Indonesia)*, *5*(1), 25–32.

Helmita, S., Yarmaliza, & Zakiyuddin. (2022). Faktor-Faktor Yang Mempengaruhi Kejadian Anemia Pada Ibu Hamil Di Wilayah Kerja Puskesmas Samadua Kecamatan Samadua Kabupaten Aceh Selatan. *Jurnal Jurmakemas, 2*(1), 178–202.

Hipson, M., Handayani, S., Arisandy, W., & Okzarani, B. D. (2023). Faktor-Faktor Yang Berhubungan Dengan Kejadian Berat Badan Lahir Rendah (BBLR). *Babul Ilmi_Jurnal Ilmiah Multi Science Kesehatan, 15*(2), 206–215.

Mardiah, Damanik, L., Sembiring, A., Ginting, S., Imarina, & Rumodang. (2021). Hubungan Karakteristik Ibu Dengan Kejadian Anemia Pada Ibu Hamil Di Wilayah Kerja Puskesmas Sei Bejangkar Kabupaten Batubara Tahun 2020. *Exellent Midwifery Journal, 4*(2), 107.

Maryunani, A. (2016). *Asuhan Kegawatdaruratan dalam Kebidanan* (2nd ed.). CV. Trans Info Media.

Noli, F. J., Sumampouw, O. J., & Ratag, B. T. (2021). Usia, Masa Kerja dan Keluhan Nyeri Punggung Bawah Pada Buruh Pabrik Tahu. *Indonesian Journal of Public Health and Community Medicine, 2*(1), 15–21. https://doi.org/10.35801/ijphcm.2.1.2021.33578

NUR'AINI, D. (2024). HUBUNGAN USIA DAN PARITAS DENGAN KEJADIAN ANEMIA PADA KEHAMILAN DI PUSKESMAS BERINGIN RAYA KOTA BENGKULU. *Journal of Midwifery*, *12*(2), 268–273.

Pratiwi, L. (2022). *Anemia Pada Ibu Hamil*. CV. Jejak Anggota.

Priyanti, S., Irawati, D., & Syalfina, A. D. (2020). *Anemia dalam Kehamilan.* STIKes Majapahit Mojokerto.

Putri, Y. R., & Hastina, E. (2020). *Asuhan Keperawatan Maternitas pada Kasus Komplikasi Kehamilan, Persalinan dan Nifas.* Pena Persada.

Ririn Riyani, Siswani Marianna, & Yoanita Hijriyati. (2020). Hubungan Antara Usia Dan Paritas Dengan Kejadian Anemia Pada Ibu Hamil. *Binawan Student Journal*, *2*(1), 178–184. https://doi.org/10.54771/bsj.v2i1.105

Rosita, S., & Afrianti, T. (2021). Hubungan Faktor Ibu Dengan Kejadian Bblr Pada Balita Di Puskesmas Indrajaya Kabupaten Aceh Jaya. *Serambi Akademica Jurnal Pendidikan, Sains, dan Humaniora, 9*(3), 518–525.

Simbolon, D., Jumiyati, & Rahmadi, A. (2018). *Modul Edukasi Gizi Pencegahan dan Penanggulangan Kurang Energi Kronik (KEK) dan Anemia Pada Ibu Hamil.* Deepublish.

Sukmawati, S., Widiasih, R., Mamuroh, L., & Nurhakim, F. (2021). Anemia Kehamilan Dan Faktor Yang Mempengaruhi: Studi Korelasi. *Jurnal Kesehatan Bakti Tunas Husada Jurnal Ilmu-ilmu Keperawatan, Analis Kesehatan dan Farmasi, 21*(1), 43–53. https://doi.org/10.36465/jkbth.v21i1.679

Tampubolon, R., Lasamahu, J. F., & Panuntun, B. (2021). Identifikasi Faktor-Faktor Kejadian Anemia pada Ibu Hamil di Kecamatan Amahai Kabupaten Maluku Tengah. *Jurnal Sains dan Kesehatan, 3*(4), 489–505. https://doi.org/10.25026/jsk.v3i4.432

Volume 03 Number 03
June 2025
p-ISSN: 2986-5662
e-ISSN: 2985-959X

Vira, A., Mutoharoh, N., & Indarjo, S. (2024). Faktor Risiko Kejadian Anemia pada Ibu Hamil. *HIGEIA JOURNAL OF PUBLIC HEALTH RESEARCH AND DEVELOPMENT*, *8*(1), 22–30. http://journal.unnes.ac.id/sju/index.php/higeiahttps://doi.org/10.15294/higeia/v8i1/65548

Wahyuni, D., Rohmatin, H., & Farianingsih. (2023). Hubungan Antara Usia Ibu dan Paritas dengan Kejadian Anemia pada Ibu Hamil di Wilayah Kerja Puskesmas Jatiroto Kabupaten Lumajang. *Jurnal Ilmiah Ilmu Kebidanan & Kandungan, 15*(2), 64–74.

Wibowo, N., Rima, I., & Rabbania, H. (2021). *Anemia Defisiensi Besi Pada Kehamilan* (1st ed.). https://www.pogi.or.id/wp-content/uploads/download-manager-files/Anemia Defisiensi Besi Pada Kehamilan.pdf

World Health Organization. (2019). Prevalence of anaemia in pregnant women (aged 15-49) (%). The Globa Health Observatory. https://www.who.int/data/gho/data/indicato rs/indicator-details/GHO/prevalence-ofanaemia-in-pregnant-women-(-)

Yuvita, L. (2024). Hubungan Umur Dan Paritas Dengan Kejadian Anemia Pada Ibu Hamil Di Upt Puskesmas Tembilahan Hulu. *Jurnal Keperawatan Jiwa (JKJ): Persatuan Perawat Nasional Indonesia*, *12*(4), 869–882.

Age, Parity, and The Prevalence of Anemia in Third-Trimester Pregnant Women: A Correlation Study

ORIGINALITY REPORT

16%	11%	14%	%
SIMILARITY INDEX	INTERNET SOURCES	PUBLICATIONS	STUDENT PAPERS

MATCHED SOURCE

3	e-journal.unair.ac.id Internet Source	1%

1%

★ e-journal.unair.ac.id

Internet Source

Exclude quotes	On	Exclude matches	Off
Exclude bibliography	On		

Age, Parity, and The Prevalence of Anemia in Third-Trimester Pregnant Women: A Correlation Study

GRADEMARK REPORT

FINAL GRADE

/100

GENERAL COMMENTS

PAGE 1

PAGE 2

PAGE 3

PAGE 4

PAGE 5

PAGE 6

PAGE 7

PAGE 8

PAGE 9

PAGE 10

PAGE 11