

## ANALYSIS THE CAUSES OF ANEMIA IN PREGNANT WOMEN

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### ABSTRAK : ANALISIS FAKTOR PENYEBAB ANEMIA PADA IBU HAMIL

#### ABSTRAK

Latar Belakang : kematian Ibu di Indonesia saat ini masih cukup tinggi berada pada angka 305 per 100.000 kelahiran hidup dan belum mencapai target MDGs ditahun 2015 yaitu 102 per 100.000 kelahiran hidup, sedangkan target SDGs AKI adalah 70 per 100.000 kelahiran hidup pada tahun 2030. Di Jawa Barat pada tahun 2019 jumlah kematian ibu adalah 684 kasus, perdarahan merupakan penyebab utama kematian ibu tersebut. Anemia pada ibu hamil merupakan salah satu penyebab terjadinya kasus perdarahan dan prevalensinya masih tinggi mencapai 48.9 persen di Indonesia, 63.246 kasus di Jawa Barat, 578 kasus di Kota Banjar dan 86 kasus di wilayah kerja puskesmas Langensari 2. Terdapat beberapa faktor yang dapat menyebabkan kejadian anemia pada ibu hamil diantaranya Pendidikan, pekerjaan, status sosial ekonomi dan status KEK.

Tujuan : menganalisis faktor penyebab anemia pada ibu hamil di wilayah kerja puskesmas langensari 2 Kota Banjar.

Metode : jenis penelitian yang digunakan adalah penelitian korelasional dengan menggunakan rancangan Kasus Kontrol. Analisis penelitian terdiri dari univariate untuk mengidentifikasi variabel bebas dan Analisa bivariate menggunakan *Chi-square* dan uji *Fisher Exact Test* untuk menguji adakah hubungan antara variabel bebas dengan variabel terikat. Jumlah subjek penelitian sebanyak 116 orang dengan rincian kelompok kasus 58 responden dan kelompok kontrol sebanyak 58 responden. Teknik sampling yang digunakan adalah *random sampling* dengan kriteria inklusi responden yang datanya lengkap tersedia di laporan puskesmas. Cara pengambilan data menggunakan data sekunder dan Instrumen penelitian yang digunakan adalah lembar ceklis.

Hasil : analisis univariat didapatkan sebagian besar ibu hamil pada kelompok kasus memiliki pendidikan menengah sebanyak 35 (60,3%) dan sebagian kecil 4 (6,9%) dengan pendidikan tinggi. Jumlah ibu hamil yang memiliki pekerjaan pada kelompok kasus sebanyak 9 (15,5%) dan jumlah yang sama yaitu sebanyak 9 (15,5%) untuk ibu hamil pada kelompok kontrol. Ibu hamil yang tidak bekerja pada kelompok kasus sebanyak 49 (84,5%), begitupun pada ibu hamil pada kelompok kontrol sebanyak 49 (84,5%). Responden yang memiliki status ekonomi non gakin lebih banyak mengalami anemia yaitu 56 orang atau 96,6 % dan pada kelompok kontrol juga lebih banyak pada kelompok non gakin yaitu 54 orang atau 93,1 %. Responden yang memiliki status Tidak KEK lebih banyak mengalami anemia yaitu 53 orang atau 91,4 % dan pada kelompok kontrol juga lebih banyak pada kelompok tidak KEK yaitu 51 orang atau 87,9 %. Hasil analisis bivariat menunjukkan tidak terdapat hubungan faktor pendidikan nilai *p-value* 0,325 lebih besar dari  $\alpha$  0,05, tidak terdapat hubungan yang bermakna antara pekerjaan dengan *p-value* 1,000 lebih besar dari  $\alpha$  0,05 status sosial ekonomi dengan *p-value* 0,679 lebih besar dari  $\alpha$  0,05, dan status KEK nilai *p-value* 0,542 lebih besar dari  $\alpha$  0,05 dengan kejadian anemia pada ibu hamil.

Kesimpulan : tidak terdapat hubungan yang bermakna antara faktor Pendidikan, pekerjaan, status sosial ekonomi dan status KEK dengan kejadian anemia pada ibu hamil di wilayah kerja puskesmas Langensari 2 Kota Banjar.

Saran : Diharapkan pada petugas Kesehatan yang terkait dengan pelayanan kepada ibu hamil untuk dapat memberikan edukasi mengenai pentingnya konsumsi tablet tambah darah dan bagaimana cara konsumsinya sehingga kejadian anemia pada ibu hamil dapat dicegah.

Kata kunci : Anemia, Pendidikan, Pekerjaan, Sosio Ekonomi, KEK

#### ABSTRACT

Background :. At 305 deaths per 100,000 live births, Indonesia's maternal mortality rate is still relatively high compared to the 102 deaths per 100,000 live births target set by the MDGs for 2015 and the 70 deaths per 100,000 live births target set by the SDGs for 2030. 2030 in West Java In 2019, there were 684 incidents of

maternal fatalities, with hemorrhage being the primary factor. One of the reasons of bleeding in pregnant women is anemia, which has a high frequency of 48.9% in Indonesia, 63,246 cases in West Java, 578 cases in Banjar City, and 86 cases in the Langensari Health Center 2's work area. Anemia can be brought on by a number of circumstances. in expectant mothers.

**Objective :** In the working space of the Langensari 2 Public Health Center, Banjar City, the causes of anemia in pregnant women were examined.

**Methods:.** Correlational research with a case-control design is the method of choice. The study analysis used univariate to pinpoint the independent variable and bivariate analysis with Chi-square and Fisher's Exact Test to determine whether the independent variable and dependent variable were related. There were 116 research subjects in all, with 58 respondents in the case group and 58 respondents in the control group. Random sampling is the sample method that was employed, and the inclusion criteria were respondents whose full data were accessible in the puskesmas report. Secondary data are employed in the data collection process, and a checklist is the research tool.

**Results:** According to a univariate analysis, 4 (6.9%) and 35 (60.3%) of the case group's pregnant women respectively had higher education. Nine (15.5%) of the pregnant women in the case group were working, while nine (15.5%) of the pregnant women in the control group were. 49 (84.5%) of the pregnant women in the case group and 49 (84.55%) of the pregnant women in the control group did not work. A greater percentage of respondents—56, or 96.6%—have non-gain economic status, while a greater percentage of respondents in the control group—54, or 93.1%—have non-gain economic status. 53 respondents, or 91.4%, of those without chronic low energy status in the sample had more anemia and 51 persons or 87.9% more in the non-chronic low energy group in the control group.

According to the results of the bivariate analysis, there was no correlation between factors relating to education (p-value 0.325 greater than 0.05), occupation (p-value 1,000 greater than 0.05), socioeconomic status (p-value 0.679 more than 0.05), or KEK status (p-value 0.542 greater than 0.05) and the prevalence of anemia in pregnant women.

**Conclusion:** In the working area of Langensari 2 Public Health Center, Banjar City, there is no correlation between education, occupation, socioeconomic position, or KEK status and the prevalence of anemia in pregnant women.

**Suggestion:** In order to reduce the occurrence of anemia in pregnant women, it is anticipated that health professionals who work with them will be able to educate patients about the value of taking blood-added supplements and how to do so.

**Keywords:** anemia, education, occupation, socio economic, chronic low energy (KEK).

## **INTRODUCTION**

The Maternal Mortality Rate (MMR), which does not account for the length of pregnancy, is the number of women who pass away from a cause of death connected to disorders of pregnancy, childbirth, and in the puerperium (42 days after giving birth). According to the 2015 Inter-Census Population Survey (SUPAS), Indonesia's Maternal Mortality Rate (MMR) was 305 per 100,000 live births, which is still significantly higher than the Ministry of Health's estimate of the MDGs 5 target of 102 per 100,000 live births in 2015. The MMR objective is 70 per 100,000 live births in the Sustainable Development Goals (SDGs), which must be achieved by 2030. In 2019, hemorrhage (1,280 instances) and hypertension were the leading causes of maternal death. infection occurred in 1,066 instances of pregnancy (207 cases). Maternal deaths were 684 in West Java in 2019, with details including 226 cases of

hemorrhage, 218 cases of pregnancy-related hypertension, 23 cases of infection, 65 cases of circulatory system disorders, 12 cases of metabolic disorders, and 140 cases from other causes.(Badan Pusat Statistik, 2019; Kemenkes RI, 2020; Susiana, 2019)

The primary factor in maternal mortality is hemorrhage. Hemorrhagic shock, anemia, and Sheehan's syndrome are potential effects of postpartum hemorrhage. Due to the volume of blood that leaks out during bleeding, the mother will endure shock and a loss of consciousness. As a result, the body's blood circulation is hampered, which can induce severe hypovolemia. A risk factor for postpartum hemorrhage is anemia. This is brought on by a drop in hemoglobin, a substance found in red blood cells, in the blood. Low hemoglobin levels result in a reduction in the amount of oxygen in the body, which makes it difficult for it to supply all of the body's tissues with

the oxygen they require. Researchers don't particularly analyze bleeding because this study will look at the factors that lead to anemia in pregnant women, which is one of the risk factors for postpartum hemorrhage. (Salsabila Filza, 2020)

A disorder known as anemia occurs when the amount of hemoglobin (Hb) in red blood cells is lower than it should be. If a pregnant woman's Hb level is below 11 g/dl, she is considered anemic. Due to its role in the development of new cells and tissues, including the fetus's brain tissue, pregnant women require more iron. Miscarriage (abortion), premature birth, prolonged labor due to uterine inertia, bleeding postpartum due to lack of uterine muscle contractions (uterine atony), shock, infection both during childbirth and postpartum, and severe anemia (4 g%) can cause cardiac decompensation are complications that can result from anemia. Anemia-related hypoxia can result in shock and maternal death in childbirth. In this study, the identification of pregnant women with anemia and non-anemia by looking at the secondary data available in the Langensari 2 Health Center data report, Banjar City, but not investigating the impact caused by the incidence of anemia in pregnant women. (Kementerian Kesehatan Republik Indonesia, 2020; Priyanti et al., 2020; Supriyatiningsih, 2016)

Pregnant women's education is one of many variables that can impact the prevalence of anemia during pregnancy. Numerous observations have demonstrated that malnutrition, which is frequently observed in rural regions with malnutrition or malnutrition, is the primary cause of the majority of the anemia that the population experiences. Chronic energy shortage is another factor that affects the prevalence of anemia in pregnancy (KEK). It might be anticipated that SEZ-affected pregnant women have a chance of developing anemia. According to Istiarti, a person's conduct in the healthcare industry is determined by their socioeconomic background. As such, socioeconomic considerations are also one of the factors that affect the occurrence of anemia in pregnancy. In this study, the identification of respondents, specifically pregnant women, regarding education factors—basic, middle, and high education—as well as chronic energy deficiency factors—KEK and not KEK—and socioeconomic factors—poor families (Gakin) and Non-poor families (Non Gakin)—was done in order to analyze the relationship between these factors and the incidence of anemia in pregnant women. The research of Fatonah Hidayatika, in contrast, discusses simply the theory of the origins of anemia from socioeconomic, KEK,

and educational aspects. (Fatonah Hidayatika, I Made Alit Gunawan, 2019)

The sort of job the mother does is another aspect of the incidence of anemia in pregnant women; according to Rumarjianti's research, there is a substantial correlation between the type of work and the prevalence of anemia in pregnant women. The purpose of this study was to categorize pregnant women respondents into working and unemployed groups, and then to analyze the relationship between work and the prevalence of anemia in pregnant women. This study differs from Rumarjianti's research in terms of sampling, sample size, types of data used, and data analysis. The variable under study in this research, namely work, is the variable in the equation. According to Afriyanti's research, the likelihood of anemia in pregnant women was also influenced by the mother's employment. Pregnant women's employment will have an impact on their pregnancy and delivery since anemia in pregnant women is more likely to occur with heavier workloads. The factors analyzed, specifically education, occupation, and socioeconomics, are comparable to this research; however, there are differences in the way the variables were grouped, sample sizes, and instruments utilized. (Afriyanti DS, 2020; Rumarjianti SI, 2017)

Pregnant women with anemia may experience effects or complications that affect the mother and the fetus during pregnancy, labor, and the postpartum period. Anemia during pregnancy can result in abortion due to the mother's metabolism being upset by a lack of hemoglobin to bind oxygen. Anemia can lead to labor problems including a protracted first stage. Women who are pregnant and have anemia are more likely to have uterine muscle tiredness, which disturbs the baby. Postpartum hemorrhage has an additional effect on labor because anemia during pregnancy results in less oxygen being bound in the blood, which lowers the quantity of oxygen in the uterus and makes it difficult for the uterine muscles to contract properly, leading to postpartum hemorrhage. are infants with low birth weights (LBW). This study did not look at the consequences or complications of the incidence of anemia in pregnant women; instead, it only looked at the identification of pregnant women respondents who were anemic and not anemic and analyzed the causal factors, namely education, occupation, socioeconomic status, and chronic energy deficiency (KEK). In contrast, Ayu's research explained the consequences of the incidence of anemia in pregnant women. (Ayu I, 2019)

Prevalence of anemia among pregnant women in Indonesia increased from 37.1 percent in 2013 to 48.9 percent in 2018 according to Riskesdas data. In 2020, there were 63,246 instances of anemia in pregnant women in 27 districts and cities throughout West Java. According to data on anemia in pregnant women in Banjar City in 2020, there were 578 instances. One of the areas in the Banjar City Health Office with 86 instances of anemia in 2021 is Langensari 2 Public Health Center. (Dinkes Jabar, 2021; Puskesmas Langensari 2, 2021; Riskesdas, 2018)

The novelty in this study that distinguishes it from other research is that in this study it tries to conduct research related to the incidence of anemia in pregnant women, by looking at aspects of education, work, socio-economic and chronic energy deficiency (KEK) with some differences including in the grouping of variables, techniques sampling, number of samples, type of research, data analysis, and instruments used.

## RESEARCH METHODS

This study has a case-control design and is a correlational or associational study. All pregnant women registered in the Langensari 2 puskesmas cohort in 2021, including 86 pregnant women with anemia and 223 pregnant women without anemia, comprised the population of this study. In this study, the case group sample consisted of 58 pregnant women who were anemic, while the control group sample consisted of 58 pregnant women who were not anemic, or 58:1. Banjar City's Langensari 2 Public Health Center's operational. (Notoatmodjo, 2018; Sugiono, 2017)

The independent variable and the dependent variable are the two variables employed in this investigation. Education, occupation, socioeconomic position, and SEZ status all functioned as independent factors in this study. The prevalence of anemia in pregnant women is the study's dependent variable. Secondary data are the type of information used in this study. At the Langensari 2 Public Health Center in Banjar City, a cohort of pregnant women with and without anemia provided secondary data for this study. A checklist sheet was the research tool employed in this study. Editing, coding, data entering, data cleaning, and data tabulating were the methods used to process the data for this study. (Notoatmojo, 2018; Sugiono, 2017)

Both univariate and bivariate data analysis techniques were used in this study. Chi-square and Fisher's Exact Test were the statistical tests employed. 95% ( $\alpha=0.05$ ) confidence level is utilized.

There is a substantial (significant) association between the two variables under study if the p-value is less than ( $p < 0.05$ ). The p-value indicates whether there is a significant association between the various variables under study if it is larger than ( $p > 0.05$ ). The use of multiple logistic regression analysis allowed for the simultaneous knowledge of the relationship between the independent and dependent variables as well as the determination of which factor was the most important.. (Notoatmodjo, 2018).

## RESEARCH RESULTS

### Univariate Analysis

**Table 1**  
**Distribution of Pregnant Women's Education Frequency**

Education	F	%
Basic	44	37,9
Middle	62	53,4
Higher	10	8,6

Most of the 62 (53.4%) pregnant women with secondary education and a small percentage of 10 (8.6%) pregnant women have high education

**Table 2**  
**Distribution of occupation Frequency**

Occupation	F	%
Work	18	15,5
Doesn't work	98	84,5

Most pregnant women do not work 98 (84.5%) and a small proportion of pregnant women work 18 (15.5%)

**Tabel 3**  
**Distribution of Socio-Economic Status Frequency**

Sosio economic	F	%
Poor economic status	6	5,2
Non Poor economic status	110	94,8

**Table 4**  
**Distribution of Chronic Low Energy Status Frequency**

Chronic Low Energy Status	F	%
Yes	12	10,3
No	104	89,7

110 pregnant women (94.8%) have the highest socioeconomic position of non-poor households, and the remaining pregnant women have the lowest socioeconomic status of poor families. 6 (5.2%)

Pregnant women with 12 non chronic low energy status made up the remaining 104 (89.7%), who had the highest non-chronic low energy status proportion.

### Bivariate Analysis

**Table 5**  
**The Association Between Educational Background and Prevalence of Anemia in Pregnant Women**

Education	Anemia				Expected Count Less Than 5	P-value
	Yes		No			
	n	%	N	%		
Basic	19	32,8	25	43,1	0,0%	0,325
Middle	35	60,3	27	46,6		
Higher	4	6.9	6	10.3		

Up to 35 (60.3%) respondents in the case group of anemic pregnant women had at least a secondary education, and just four (6.9%) of the anemic pregnant women had a higher education. The findings of the chi-square test, where the p-

value was 0.325 and was higher than  $\alpha$  0,05, demonstrated that there was no correlation between educational variables and the prevalence of anemia in pregnant women in the work area of the Langensari 2 Public Health Center, Banjar City.

**Table 6**  
**The association between workplace variables and the prevalence of anemia in pregnant women**

Occupation	Anemia				Expected Count Less Than 5	P- value
	Yes		No			
	N	%	N	%		
Work	9	15,5	9	15,5	0,0%	1,000
Doesn't work	49	84.5	49	84.5		

Nine (15.5%) of the pregnant women in the case group were working, while nine (15.5%) of the pregnant women in the control group were. In the case group, there were 49 (84.5%) pregnant women who did not work, compared to 49 (84.5%) pregnant women in the control group. The results of

the chi-square test, where a p-value of 1,000 was greater than  $\alpha$  0,05. revealed that there was no correlation between work and the prevalence of anemia in pregnant women in the work area of the Langensari 2 Public Health Center, Banjar City.

**Table 7**  
**The association between socio economic status and the prevalence of anemia in pregnant women**

Sosio economic status	Anemia				Expected Count Less Than 5	P-value
	Yes		No			
	N	%	N	%		
Poor family	2	3,4	4	6,9	50,0%	0,679
Non poor family	56	96,6	54	93,1		

In the case group, the majority of pregnant women with non-poor socio-economic status were 56 (96.6%) and the rest were 2 (3.4%). In the control group, most of the pregnant women with non-poor socioeconomic status were 54 (93.1%) and a small portion of the socio-economic status of poor families was 4 (6.9%). The results of the

Fisher Exact Test test obtained a p-value of 0.679 greater than  $\alpha$  0,05 and it can be concluded that there is no socio-economic relationship with the incidence of anemia in pregnant women in the working area of Langensari 2 Public Health Center, Banjar City.

Table 8  
The association between chronic low energy status and the prevalence of anemia in pregnant women

Chronic low energy status	Anemia				Expected Count Less Than 5	P-value
	Yes		No			
	N	%	n	%		
Yes	5	8,6	7	12,1	0,0%	0,542
No	53	91,4	51	87,9		

53 (91.4%) of the pregnant women in the case group who had no chronic low energy status and 5 (8.6%) of those in the control group also had chronic low energy status. The majority of pregnant women without chronic low energy status were 51 (87,9%), and only a tiny number had chronic low energy status up to 7 (12,1%). The findings of the chi-square test, where the p-value of 0.542 was greater than  $\alpha$  0,05, demonstrated that there was no correlation between chronic lack of energy (KEK) and the prevalence of anemia in pregnant women in the working area of the Langensari 2 Public Health Center, Banjar City.

## DISCUSSION

With a p-value of 0.325 larger than  $\alpha$  0,05, the findings indicated that there was no significant correlation between educational characteristics and the prevalence of anemia in pregnant women. The amount of schooling a person receives affects their capacity for thought. In comparison to people with lesser education levels, those with greater education will be able to make more logical decisions and will generally be more receptive to accepting changes or new ideas. A person's perspective on the world will be more expansive the more education they have, resulting in more realistic and logical conclusions. According to several studies, rural communities with malnutrition, close proximity to pregnancy and childbirth, and pregnant women with malnutrition are where the majority of the community's anemia cases are discovered.(Padmi, 2018)

According to Herlinadiyaningsih's research, which found no connection between maternal education and the prevalence of anemia in pregnant women, the findings of this study are consistent with that finding. Education involves a process of forming a person's thinking as well as the development of knowledge, understanding, and competence. The mindset that is developed is better the more educated a person is. According to research by Nurun, Yani, and Harna, there is no connection between maternal education and the prevalence of anemia in pregnant women. Numerous findings indicate that malnutrition, which

is closely tied to low maternal education, is the primary cause of the anemia that the community experiences.(Harna et al., 2020; Herlinadiyaningsih, 2017; Nikmah Nurun, 2016; Yulianti Y, 2019)

A number of factors, including numerous ideas that explain why education is one of the causes, contribute to the prevalence of anemia. The researcher makes the assumption that this is because the majority of respondents in the case group, namely pregnant women who experience anemia, have secondary education, which is equivalent to high school education. This is one of the potential causes of the lack of a relationship between educational factors. In addition to other factors that are more predominate, such as behavioral determinants of iron consumption, the existence of iron deficiency, folic acid, and other factors, mothers with anemia also contribute to the incidence of anemia in pregnant women.

According to the study's findings, the majority of pregnant women in both the case group and the control group were either housewives or did not work. The statistical analysis revealed no statistically significant association between work and the prevalence of anemia in pregnant women in the work area of the Langensari 2 Public Health Center, Banjar City, where the chi-square test's p-value of 1,000 was higher than  $\alpha$  0,05. Anemia is a risk factor for pregnant women who stay at home after giving birth. The majority of housewives rely only on their husband's income to meet their financial obligations. Due to their inability to schedule ANC appointments earlier and their reduced dietary intake, pregnant women who do not work are substantially more likely to experience anemia. According to Yuni Subhi Isnaini and Herlinadiyaningsih's research, there is no conclusive link between a mother's employment and the prevalence of anemia in pregnant women. The study's findings are consistent with their findings. The findings of this study contradict sulung research, which claims that there is a significant correlation between the nature of a mother's employment and the prevalence of anemia in pregnant women; pregnant women who work as housewives are more likely to experience anemia

than pregnant women who hold formal employment.(Herlinadiyaningsih, 2017; Isnaini YS, Yuliaprida R, 2021; Padmi, 2018; Sulung et al., 2022)

The researcher's hypotheses state that the work of pregnant women in the anemia group is more in the group not working or as housewives, which can mean that pregnant women do more homework than activities in the group, based on the findings of research conducted in the Langensari 2 Public Health Center, Banjar City. It's extremely likely for pregnant women to have more duties at home than they would if they were working outside the home, especially if they had more than one child. A pregnant woman must be mindful of her health while participating in activities because if she engages in too intense activity while pregnant, she runs the risk of experiencing pregnancy-related problems, such as anemia.

According to the study's findings, respondents with non-Gakin economic position (case group) had higher anemia than those with poor economic status. It may be stated that there is no correlation between socioeconomic class and the prevalence of anemia in pregnant women in the working area of Langensari 2 Public Health Center, Banjar City, based on the Fisher Exact Test test results, which got a p-value of 0.679, greater than  $\alpha$  0,05. In terms of the socioeconomic side, the majority of emerging nations continue to struggle with poverty and low living standards. Because the family's ability to purchase food is based on its income, family socioeconomic circumstances have an impact on the prevalence of iron deficiency anemia. The ability of the family to meet their nutritional demands increases with money. This demonstrates how the prevalence of poverty affects pregnant women's anemia. (Darmawati, Laila K, Kamil H, 2018).

The findings of this study support the findings of Nurun and Darmawati, who found no association between socioeconomic class and the prevalence of anemia in pregnant women. Because there is insufficient availability at the family level, where inadequate dietary intake plays a significant role in the development of anemia during pregnancy, the mother has less money to spend on food that is better in quality and quantity. This ability is inversely correlated with family income.(Darmawati, Laila K, Kamil H, 2018; Nikmah Nurun, 2016)

According to the researcher's assumption, there is no significant correlation between socioeconomic status and the prevalence of anemia in pregnant women in the research carried out in

the work area of the Langensari 2 Public Health Center, Banjar City. This is because, according to the study's findings, pregnant women who experience anemia are more likely to come from non-poor families, whose ability to provide for the nutritional needs of pregnant women means that if the pregnant woman experiences anemia, the family will be able to do so. This need more explanation.

According to the study's findings, responders or pregnant women without KEK (case group) reported higher anemia than those with KEK. The findings of the chi-square test, where the p-value of 0.542 is greater than  $\alpha$  0,05, suggest that there is no correlation between chronic energy deficiency (KEK) and the prevalence of anemia in pregnant women in the work area of the Langensari 2 Public Health Center, Banjar City. When a person has chronic energy deficiency, it means that they are not consuming enough energy sources that are rich in macronutrients. Where practically all materials are exchanged very actively, especially in the third trimester, pregnant women's needs will be more than usual. Consuming less calories will result in malnutrition, or so-called KEK, because an increase in food consumption is required, particularly the consumption of dietary sources of energy to meet the demands of the mother and fetus.(Carolyn BT, Siauta JA, 2021)

The findings of this study support Sri's research, which found no connection between KEK status and the prevalence of anemia among pregnant women. This is possible because there are numerous other factors that act as triggers for anemia. Iron, vitamin C, and foods containing iron absorption inhibitors all affect how much iron is absorbed. Foods containing iron absorption inhibitors can hinder the body's ability to absorb iron, but vitamin C can aid in iron absorption. Therefore, pregnant women—whether they live in a state with KEK or not—must continue be careful about their vitamin C consumption and limit foods that interfere with their bodies' ability to absorb iron. (Hayati et al., 2020)

Since most of the respondents with anemia do not have KEK status and therefore have good nutritional status, the researcher's hypothesis is that there is no significant correlation between KEK status and the incidence of anemia in pregnant women in this study. However, other factors may be more strongly associated with the incidence of anemia in pregnant women in the Langensari 2 Health Center's working area.

## CONCLUSION

In the working area of Langensari 2 Public Health Center, Banjar City, there is no correlation between characteristics related to education, occupation, socioeconomic status, and chronic low energy status and the prevalence of anemia in pregnant women.

## SUGGESTION

In order to reduce the occurrence of anemia in pregnant women, it is anticipated that health professionals who work with them will be able to educate patients about the value of taking blood-added supplements and how to do so.

## REFERENCES

- Afriyanti DS. (2020). Faktor Risiko Yang Berhubungan Dengan Kejadian Anemia Pada Ibu Hamil Di Kota Bukittinggi. *Menara Ilmu*, XIV No.01.
- Ayu I, W. P. (2019). *Hubungan Status Kekurangan Energi Kronis Dengan Kejadian Anemia Pada Ibu Hamil Di Puskesmas I Denpasar Selatan*. 2010, 9–25.
- Badan Pusat Statistik. (2019). *Profil Statistik Kesehatan*.
- Badan Pusat Statistik Kota Banjar. (2020). Upah Minimum Kota Tahun 2021.
- Carolyn BT, Siauta JA, N. (2021). Analisis Faktor Yang Berhubungan Dengan Kekurangan Energi Kronik Pada Ibu Hamil. *Jurnal Kebidanan, Akbid Dharma Husada Kediri*.
- Darmawati, Laila K, Kamil H, T. T. (2018). Hubungan Status Sosial Ekonomi Dengan Kejadian Anemia Defisiensi Zat Besi Pada Ibu Hamil. *Idea Journal, Unsyiah*.
- Dewi, M. S. (2021). Gambaran Pengetahuan Mengenai Kepatuhan Konsumsi Tablet Fe dan Kejadian Anemia pada Ibu Hamil Trimester III di Puskesmas Umbulharjo I Kota Yogyakarta Tahun 2021. *Jurnal Kesehatan*, 1(69), 5–24.
- Dinkes Jabar. (2021). Jumlah Ibu Hamil yang Mengidap Anemia Berdasarkan Kabupaten Kota di Jawa Barat. *Open Data Jabar*, 2021. <https://opendata.jabarprov.go.id/id/visualisasi/bencana-alam-di-jawa-barat>
- Dinkes Jabar. (2020). Jumlah Ibu Hamil yang Mengidap Anemia Berdasarkan Kabupaten Kota di Jawa Barat.
- Farhan, K., & Dhanny, D. R. (2021). Anemia Ibu Hamil dan Efeknya pada Bayi. *Muhammadiyah Journal of Midwifery*, 2(1), 27. <https://doi.org/10.24853/myjm.2.1.27-33>
- Fatonah Hidayatika, I Made Alit Gunawan, S. (2019). Kajian Asupan Zat Besi, Vitamin C Dan Status Anemia Pada Ibu Hamil Di Kabupaten Bantul. *Poltekes Yogyakarta*, 3.
- Harna, Muliani, E. Y., Sa'pang, M., Dewanti, L. P., & Irawan, A. M. A. (2020). Prevalensi Dan Determinan Kejadian Anemia Ibu Hamil. *JIK (Jurnal Ilmu Kesehatan)*, 4(2), 78–83.
- Hayati, S., Al Fatih, H., & Cahyati, N. (2020). Hubungan Kekurangan Energi Kronik (KEK) dengan kejadian anemia pada ibu hamil di Puskesmas Margahayu Raya Kota Bandung. *Jurnal Keperawatan BSI*, 8(2), 205–214. <http://ejurnal.ars.ac.id/index.php/keperawatan/index>
- Herlinadiyaningsih. (2017). Faktor-Faktor Yang Berhubungan Dengan Status Gizi (Hemaglobin) Pada Ibu Hamil Trimester III Di Puskesmas Bukit Hindu. *Jurnal Kebidanan Indonesia*.
- Indrawati, S. (2015). Status Sosial Ekonomi Dan Intensitas Komunikasi Keluarga Pada Ibu Rumah Tangga Di Panggung Kidul Semarang Utara. *Jurnal Psikologi Undip*, 14(1), 52–57.
- Isnaini, Y. S., Yuliaprida, R., & Pihahay, P. J. (2021). Hubungan Usia, Paritas Dan Pekerjaan Terhadap Kejadian Anemia Pada Ibu Hamil. *Nursing Arts*, 15(2).
- Kemendes RI. (2020). *AKI Di Indonesia* (Vol. 15, Issue 2).
- Kementerian Kesehatan Republik Indonesia. (2020). *Pedoman Pemberian Tablet Tambah Darah (TTD) Bagi Ibu Hamil*. 24.
- Mirwanti, A., Sari, K., Yanti, L. D., Sari, K., Juliandari, K. A., H, O. Y., Risna, N., Putri, A., Silvia, A., & Kharisma, E. (2021). Pencegahan dan Penanganan Anemia pada Ibu Hamil. *Call for Paper Seminar Nasional Kebidanan*, 164–170.
- Nikmah Nurun. (2016). Faktor-Faktor Yang Mempengaruhi Kejadian Anemia Pada Ibu Hamil Di Desa Konang Kecamatan Konang Kabupaten Bangkalan. *Prosiding Call For Paper Universitas Wiraraja*, 151–159.
- Notoatmodjo. (2018). *Metode Penelitian Kesehatan*. Jakarta. Rineka Cipta
- Padmi, D. (2018). Faktor-Faktor Yang Mempengaruhi Kejadian Anemia Pada Ibu Hamil Di Puskesmas Tegalrejo Tahun 2017. *Poltekes Kemenkes Yogyakarta*.
- Priyanti, S., Irawati, D., & Syalfina, A. D. W. I. (2020). *Anemia Dalam Kehamilan*. (Cetakan I). STIKes Majapahit Mojokerto.



- Puskesmas Langensari 2. (2021). *Data Ibu Hamil Anemia Dan Tidak Anemia*.
- Riskesdas. (2018). *Hasil Utama Riskesdas Badan Penelitian Dan Pengembangan Kesehatan, Kementerian Kesehatan* (Vol. 15, Issue 2).
- Rumarjianti Sl. (2017). *Hubungan Antara Jenis Pekerjaan Dengan Anemia Pada Ibu Hamil Pekerja Pabrik Rokok Di Puskesmas Rejosari Kabupaten Kudus Jawa Tengah*. Repositori Universitas Airlangga.
- Salsabila Filza. (2020). *Hubungan Anemia Pada Kehamilan Dengan Kejadian Perdarahan Postpartum Di Rsia Sitti Khadijah I Muhammadiyah Makassar Tahun 2018*. Repositori Unhas, November.
- Sugiyono. (2017). *Metode Penelitian Kuantitatif, Kualitatif, dan R&D*. Bandung. Alfabeta CV.
- Sulung, N., Najmah, Flora, R., Nurlaili, & Slamet, S. (2022). Faktor-Faktor Yang Berhubungan Dengan Kejadian Anemia Pada Ibu Hamil. *Journal of Telenursing (JOTING)*, 4(Juni).
- Supriyatuningsih. (2016). *Anemia Dalam Kehamilan Dengan Kejadian Hiperemesis Gravidarum*. LP3M Universitas Muhammadiyah Yogyakarta (Vol. 1999, Issue December). Leutikabooks.
- Susiana, S. (2019). *Angka Kematian Ibu : Faktor Penyebab Dan Upaya Penanganannya*. Pusat Penelitian Badan Keahlian DPR RI, XI(No.24/II/Puslit).
- Yulianti Y. (2019). *Faktor-Faktor Yang Berhubungan Dengan Kejadian Anemia Pada Ibu Hamil Di Wilayah Kerja Puskesmas Karanganyar Kota Tasikmalaya*. Universitas Siliwangi Tasikmalaya.