**FACTORS RELATED TO THE INCIDENT OF ANEMIA IN THE THIRD TRIMESTER OF PREGNANT WOMEN AT SIMPANG KIRI HEALTH**

**CENTER SUBULUSSALAM CITY IN 2023**

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**ABSTRACT**

*Anemia is known by lay people as anemia. Anemia is a disease where the hemoglobin (Hb) level in the blood is less than normal. Pregnancy anemia, namely pregnant women with Hb levels <11 gr% in the first and third trimesters or Hb <10 gr% in the second trimester. The World Health Organization (WHO) in 2017 reported that the global prevalence of anemia in pregnant women throughout the world was 41.8%. It is known that the prevalence of anemia in pregnant women in Asia is 48.2% based on the results of basic health research. The incidence of anemia in Indonesia is still high, there are 37.1% of pregnant women who are anemic. The aim of this study was to determine the factors associated with the incidence of anemia in pregnant women at the Simpang Kiri Community Health Center, Subulussalam City in 2023.*

This research uses a qualitative research type with an analytical survey research design and a cross-sectional approach. The population in this study was 30 pregnant women and the sample taken in this study used the total population. Data analysis was carried out using the Chi-square statistical test.

The results of this study show that there is a relationship between knowledge and anemia with statistical test results obtained (p-value 0.002), there is a relationship between regular consumption of Fe tablets and anemia (p-value 0.024), there is a relationship between family income and anemia (p-value 0.343).

Keywords : Knowledge, Regularity of Taking Fe Tablets, Family Income, Anemia

**INTRODUCTION**

Anemia in pregnancy is still a chronic problem in Indonesia, as evidenced by the prevalence in pregnant women reaching 63.5%. In 2021, the prevalence of anemia will not show a significant decrease. Anemia in pregnancy can also have negative effects, especially during pregnancy, childbirth and postpartum. Anemia can occur if red blood cells do not contain enough iron-rich protein hemoglobin which gives blood its red color. Severe or persistent anemia can damage the heart, brain and other organs in the body and can cause death. Based on data from the World Health Organization (WHO) in 2019, it was reported that globally the prevalence of anemia in pregnant women throughout the world was 41.8%. It is known that the prevalence of anemia in pregnant women in Asia is 48.2% based on the results of basic health research. The incidence of anemia in Indonesia is still high, there are 37.1% of pregnant women who are anemic. This research aims to determine the factors associated with the incidence of anemia in third trimester pregnant women at the Mantrijeron Yogyakarta Community Health Center. The results of statistical test analysis show that age p-value = 0.002, education level p-value = 0.004, pregnancy interval p-value =

0.001, and antenatal care visits p-value = 0.000 which have a relationship with the incidence of anemia. RI Health Profile 2024, there was a decline in MMR during the 1991-2015 period, there was a decline in MMR in Indonesia from 390 to 305 in 2015. Based on the results of the inter-census population survey (SUPAS). Bleeding occupies the highest percentage of causes of maternal death at 28%, anemia and chronic energy deficiency (CED) in pregnant women are the main causes of bleeding and infection which are the main factors in maternal death. The proportion is between less than 10% to almost 60%. Even if a woman survives after experiencing postpartum hemorrhage, she will suffer from severe blood deficiency (severe anemia) and will experience long-term health problems. According to the Aceh Health Service in 2019, coverage of giving Fe3 tablets to pregnant women in Aceh in 2016, giving Fe3 tablets to pregnant women in Aceh in the last five years, where in 2016 the percentage of coverage of pregnant women who received Fe3 tablets was 72% decreased from 2015 it was 77%. Results of research conducted by Yanti regarding the factors causing anemia in primigravida mothers in the Pringsewu Lampung Community Health Center working area. The results of this study show that there is a relationship between education and the incidence of pregnancy anemia, the value obtained (p= 0.03), there is a relationship between

economic status and the incidence of pregnancy anemia, the value obtained (p= 0.000) and there is a relationship between adherence to consuming Fe tablets and the incidence of pregnancy anemia. value obtained (p= 0.000). Data from the Simpang Kiri Community Health Center included 30 mothers who were pregnant from July to September 2023 in the third trimester. Based on a preliminary preliminary survey conducted by interviewing 10 pregnant women at the Community Health Center in July 2023, there were 5 pregnant women who did not know the benefits of Fe tablets and what types of food they should consume during their pregnancy to prevent anemia, 2 pregnant women said that socioeconomic which is inadequate so that purchasing power is not sufficient for their daily needs, 3 pregnant women admitted that they often forget to take iron Fe tablets. Based on the description above, the author is interested in conducting research with the title "Factors Associated with the Incident of Anemia in Pregnant Women at the Simpang Kiri Community Health Center, Subulussalam City in 2023".

**METHOD**

This type of research is analytical survey research, which is research that tries to explore how and why health phenomena

occur. This research uses a cross sectional design, which is a type of research that seeks to study the dynamics of the relationship or correlation between risk factors and their effect factors. The population in this study was all third

trimester pregnant women at Simpang Kiri Community Health Center, totaling 30

pregnant women who experienced anemia from July to September at Simpang Kiri Community Health Center. The sample in this study used a total sampling technique, taking all third trimester pregnant women who experienced anemia, namely 30 people. The instrument for conducting research uses a questionnaire. Data analysis was carried out univariate and bivariate. Univariate analysis with frequency distribution, bivariate using Chi Square.

**RESULT AND DISCUSSION**

**TABLE 1. Characteristics of Respondents for Pregnant Women at Simpang Kiri Barat Community Health Center, Subulussalam City, 2023**

|  |  |  |  |
| --- | --- | --- | --- |
| **No** | **Characteristics** | **Amount** | |
| **F** | **%** |
| **1** | **Age** |  |  |
|  | 21-30 | 13 | 43,3 |
|  | 31-40 | 17 | 56,7 |
|  | **Total** | **30** | **100** |
| **2** | **Education** |  |  |
|  | Base (SD,SMP) | 17 | 56,7 |
|  | Intermediate (SMA) | 11 | 19,3 |
|  | Collage | 2 | 25,0 |
|  | **Total** | **30** | **100** |
| **3** | **ANC Check-Up** |  |  |
|  | < 4x During Pregnancy | 19 | 81,7 |
|  | >4x During Pregnancy | 11 | 19,3 |
|  | **Total** | **30** | **100** |

Based on table 1, the frequency distribution of respondents' characteristics in this study includes age, education, occupation, and pregnancy checks. The results of the research carried out showed that of the 30 respondents studied, 18 respondents aged 21-30 (%), 5 respondents aged 31-40 (%), 17 respondents (56.7%) from elementary/middle school education, 11 respondents from high school ( 19.3%), working 2 respondents (6.7%), not working 28 respondents (93.3%), prenatal checkup <4x during pregnancy 19 respondents (81.7%), prenatal checkup >4x during pregnancy 11 respondents (19.3%).

Bivariate Analysis

Table 1. Cross Tabulation Of The Relationship Between Knowledge And The Incidence Of Anemia In Third Trimester Pregnant Women At Simpang Kiri Community Health Center Subulussalam City 2023

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Anemia** | | | | | | | | |  |
| **Knowladge** | **Heavy** |  | **Currenty** |  | **Mild** |  | **Amount** |  | **P-Value** |
| **f** | **%** | **f** | **%** | **F** | **%** | **f** | **%** |  |
| Good | 0 | 0 | 0 | 0 | 4 | 13,3 | 4 | 13,3 |  |
| Enough | 0 | 0 | 1 | 3,3 | 8 | 26,7 | 9 | 30,0 | 0,002 |
| Not Enough | 2 | 6,7 | 12 | 40,0 | 3 | 10,0 | 17 | 56,7 |  |
| **Total** | **2** | **6,7** | **13** | **43,3** | **15** | **50,0** | **30** | **100** |  |

Based on table 1, the results of cross tabulation can be seen that 17 respondents (56.7%) had little knowledge with severe anemia, 2 respondents (6.7%), 12 respondents (40.0%) with moderate anemia, 3 respondents (10% ) with mild anemia. Of the 9 respondents (30.0%) with moderate knowledge, 1 respondent (3.3%) had moderate anemia, 8 respondents (26.7%) had mild anemia. Meanwhile, 4 respondents (13.3%) had good knowledge with mild anemia, 4 respondents (13.3%). The results of the Chi-square statistical test between the knowledge variable and anemia in pregnant women show a p value of 0.002, where the p value <α = 0.05 means that the knowledge factor influences anemia in pregnant women.

TABLE 2. Cross Tabulation Of The Relationship Between Regular Consumption Of Fe Tablets And The Incidence Of Anemia In Pregnant Women At Simpang Kiri Community Health Center Subulussalam City 2023

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Keteraturan Mengkonsumsi Tablet Fe** | **Anemia** | |  |  |  |  |  |  |  |
| **Berat** |  | **Sedang** | | **Ringan** | | **Jumlah** | | **P-value** |
| **f** | **%** | **F** | **%** | **f** | **%** | **f** | **%** |  |
| Tidak teratur | 2 | 6,7 | 13 | 43.3 | 9 | 30,0 | 24 | 80,0 | 0,024 |
| Teratur | 0 | 0 | 0 | 0 | 6 | 20,0 | 6 | 20,0 |
| **Total** | **2** | **6,7** | **13** | **43,3** | **15** | **50,0** | **30** | **100** |  |

Based on table 2, the results of the cross tabulation can be seen that of the 24 respondents (80.0%) who had severe anemia did not regularly consume Fe 2 tablets, 13 respondents (43.3%) who had moderate anemia did not regularly consume Fe tablets, while 9 respondents (30.0%) who have mild anemia do not regularly consume Fe tablets. And 6 respondents (20.0%) had mild anemia and regularly consumed Fe tablets. The results of the Chi-square statistical test between the variable regularity of Fe tablet consumption and anemia in pregnant women show a p value of 0.024.

**Table 3. Cross Tabulation Of The Relationship Between Family Income And The Incidence Of Anemia In Third Trimester Pregnant Women At Simpang Kiri Community Health Center, Subulussalam City in 2023**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Family Income** | **Anemia** | | | | | | | | |
| **Heavy** |  | **Currently** | | **Mild** | | **Amount** | | **P-value** |
| **f** | **%** | **f** | **%** | **F** | **%** | **F** | **%** |
| Low | 2 | 6,7 | 13 | 43,3 | 13 | 43,3 | 28 | 93,3 | 0,343 |
| High | 0 | 0 | 0 | 0 | 2 | 6,7 | 2 | 6,7 |
| **Total** | **2** | **6,7** | **13** | **43,3** | **15** | **50,0** | **30** | **100** |  |

Based on table 3, the results of the cross tabulation can be seen that of the 28 respondents (93.3%) who had severe anemia with low family income, 2 respondents (6.7%), who had moderate anemia with low family income, 13 respondents (43.3%). %), who had mild anemia with low family income 13 respondents (43.3%). And of the 2 respondents (6.7%) who had mild anemia with high family income, 2 respondents (6.7%). The results of the Chi-square statistical test between the family income variable and anemia in pregnant women show a p value of 0.343, where the p value <α = 0.05 means that the family income factor influences anemia in pregnant women.

DISCUSSION

The Relationship Between Knowledge And The Incidence Of Anemia In Pregnant Women In The Third Trimester At Simpang Kiri Community Health Center, Subulussalam City In 2023

It is known that the Chi-square test with the result obtained is 0.002 which is smaller than 0.05, so it can be concluded that there is a significant relationship between knowledge and the incidence of anemia in pregnant women in the third trimester at the Simpang Kiri Community Health Center, Subulussalam City in 2023. This is also In line with Risqi Dewi's research, more than half of the 74 respondents (61.7%) have insufficient knowledge, and it can also be seen from the results of the respondents' answers that many do not understand the impact of anemia, how to deal with anemia, and the meaning of anemia. Apart from that, there is a lack of access to information obtained by pregnant women about anemia among mothers with less knowledge. According to researchers' assumptions, knowledge is closely related to the incidence of anemia in third trimester pregnant women. Because the lack of knowledge of pregnant women in the third trimester has a negative influence on health behavior, especially when a woman is pregnant, the results of the study show that of the 17 respondents with less knowledge, 2 respondents had severe anemia, 12 respondents had moderate anemia, 3 respondents had mild anemia. Of the 9 respondents with sufficient knowledge, 1 respondent had moderate anemia,

8 respondents had mild anemia. Meanwhile, of the 4 respondents with good knowledge, 4 respondents had mild anemia. According to researchers' assumptions, knowledge is closely related to the incidence of anemia in third trimester pregnant women. Because the lack of knowledge of pregnant women in the third trimester has a negative influence on health behavior, especially when a woman is pregnant, the results of the study show that of the 17 respondents with less knowledge, 2 respondents had severe anemia, 12 respondents had moderate anemia, 3 respondents had mild anemia. Of the 9 respondents with sufficient knowledge, 1 respondent had moderate anemia, 8 respondents had mild anemia. Meanwhile, of the 4 respondents with good knowledge, 4 respondents had mild anemia.

Regarding the frequency distribution of pregnant women's knowledge, it can be seen that more respondents have less knowledge due to the education of pregnant women, the majority of whom have less knowledge, and the lack of information obtained by pregnant women about anemia. Most respondents did not know the benefits of consuming Fe tablets and some respondents did not know the importance of consuming Fe tablets in pregnancy and respondents did not regularly consume Fe tablets because they felt they had nothing to do with pregnancy. Mothers who are well informed also suffer from anemia because they know about the benefits of Fe tablets but because of their work, they forget to take Fe tablets at least once a day and

mothers are reluctant to repeat them if they have missed one day.

**Correlation between the regularity of consuming Fe tablets and the incidence of anemia in pregnant women in the third trimester at Simpang Kiri Community Health Center, Subulussalam City in 2023**

It is known that the Chi-square test obtained a result of 0.024, which is smaller than 0.05, so it can be concluded that there is a significant relationship between the regular consumption of Fe tablets and the incidence of anemia in pregnant women in the third trimester at the Simpang Kiri Community Health Center, Subulussalam City in 2023. This is in line with research conducted by Yanti regarding factors causing anemia in primigravida mothers in the working area of ​​the Pringsewu Health Center, Lampung. The results of this study indicate that there is a relationship between compliance with the consumption of Fe tablets and the incidence of pregnancy anemia obtained by a value of (p= 0.000). According to researchers' assumptions, regular consumption of Fe tablets is related to the incidence of anemia in third trimester pregnant women. Due to irregular consumption of Fe tablets by pregnant women, malnutrition can occur in pregnant women which has a significant impact on the growth process of the fetus and the child being born. The results showed that of the 24 respondents who had severe anemia who did not regularly consume Fe tablets, 13 respondents who had moderate anemia did not regularly consume Fe tablets, while 9 respondents who had mild anemia did not

regularly consume Fe tablets. And 6 respondents had mild anemia by regularly consuming Fe tablets. Pregnant women who consume Fe tablets during pregnancy do not necessarily not suffer from anemia, because iron is not only obtained from Fe tablets but must consume foods that contain lots of iron. After carrying out statistical tests, a significant relationship was obtained between the regularity of consuming Fe tablets and the occurrence of anemia in pregnancy in research conducted by the author at the Simpang Kiri Health Center Subulussalam City in 2023.

**The Relationship between Family Income and the Incidence of Anemia in Pregnant Women in the Third Trimester at the Simpang Kiri Community Health Center Subulussalam City in 2023**

It is known that the Chi-square test obtained a result of 0.343, which is smaller than 0.05, so it can be concluded that there is a significant relationship between family income and the incidence of anemia in pregnant women in the third trimester at the Simpang Kiri Community Health Center,Subulussalam City in 2023. This is in line with research conducted by Yanti regarding factors causing anemia in primigravida mothers in the working area of ​​the Pringsewu Health Center, Lampung. The results of this study indicate that there is a relationship between economic status and the incidence of anemia in pregnancy. The value obtained is (p= 0.000).

According to researchers' assumptions, family income is related to the incidence of

anemia in pregnant women in the third trimester. Because anemia often occurs in pregnant women with an incidence of approximately 20-60%, this incidence varies depending on the low family income which results in iron deficiency anemia. The results of the study showed that of the 28 respondents who had severe anemia with low family income, 2 respondents had moderate anemia with low family income, 13 respondents had mild anemia and low family income. And of the 2 respondents who had mild anemia with high family income, 2 respondents. After carrying out statistical tests, a significant relationship was obtained between regular consumption of Fe tablets and the occurrence of anemia in pregnancy in research conducted by the author at the Simpang Kiri Community Health Center Subulussalam City in 2023. Pregnant women with low family income can influence eating patterns. Most of the expenditure is aimed at meeting food needs, oriented towards carbohydrate food types. This is because foods that contain lots of carbohydrates are cheaper than foods that are sources of iron, so iron needs will be difficult to fulfill, and this can have an impact on iron deficiency anemia.

**CONCLUSION**

1. There is a significant relationship between knowledge and anemia in pregnant women

2. There is a significant relationship between regular consumption of Fe tablets and anemia in pregnant women.

3. There is a significant relationship between family income and anemia in pregnant women.

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