



ANEMIA AND COMPLIANCE TO IRON SUPPLEMENTATION IN PREGNANT WOMEN

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ABSTRACT

Background: The type of anemia that often occurs in pregnancy is caused by a deficiency of iron (Fe) which can be called iron nutritional anemia. The incidence of anemia in pregnant women at PMB Diya Amanatur Rohmah is still relatively high, namely around 60%. Compliance is obedience to fulfill the recommendations of health workers without coercion. The low compliance with iron supplementation is supported by the percentage of compliance carried out by previous researchers. Of the 43 respondents who complied with consuming Fe tablets, there were 69.8% of respondents.

Objective: This study aims to determine the relationship between adherence to consuming Fe tablets and the incidence of anemia in third trimester pregnant women. This research uses quantitative research methods.

Method: This cross-sectional study involved pregnant women receiving care at BPM Diya Amanatur Rohmah, Kesamben, Jombang. A total of 34 respondents were selected through purposive sampling between January 8 and 30, 2023. Data collection was conducted using a compliance questionnaire, and analysis was performed using the chi-square test.

Results: The results of the study used the chi-square test and obtained p-value = 0.000. Because the p-value < α (0.05), there is a relationship between adherence to consuming Fe tablets and the incidence of anemia in third trimester pregnant women

Conclusion: Health workers can provide education about anemia by giving a health education about the benefits of Fe tablets and the importance of being obedient to consuming Fe

Keywords: *Anemia, Compliance, Third Trimester, Pregnancy*

INTRODUCTION

Anemia that occurs in pregnant women is a condition where red blood cells or hemoglobin levels decrease so that the oxygen levels needed by the pregnant mother's organs and the fetus are reduced. What pregnant women must pay attention to is balanced nutrition and frequent check-ups with medical personnel ⁽¹⁾. In Indonesia, anemia is usually caused by a lack of iron, and the term is often known as

iron deficiency anemia. Iron deficiency anemia is a problem that appears during pregnancy. Pregnant women will experience anemia when the mother's hemoglobin level falls below 11g/dl during the third trimester. ⁽²⁾

Hb or what is usually called hemoglobin can be defined as a collection of components that form red blood cells which are formed by the bone marrow to function as a means of transporting O₂

from the lungs throughout the body, and also functions to carry CO₂ from the body to the lungs. Protein, iron salts, and dyes are components that makeup hemoglobin. (3)

In East Java Province in 2014, the number of pregnant women who experienced anemia was 37.02% of the number of pregnancies, this data was obtained from the health service. The average prevalence of anemia in East Java Province is 5.8%. The average prevalence of anemia in East Java Province is still below the national target, namely 28%. (4)

The type of anemia that often occurs in pregnancy is anemia due to iron deficiency (Fe) which can be called iron nutritional anemia (AGB). Cases of anemia during pregnancy which usually occur due to iron deficiency can be caused by poor food patterns and nutrition, not all People can consume animal side dishes in every meal. The type of food consumed by the mother influences the absorption of iron in the body. knowledge and education possessed by a pregnant mother. (5)

Anemia in pregnancy cannot be denied due to physiological changes that occur during pregnancy, the age of the fetus, and the previous condition of the pregnant woman. During pregnancy, the body will experience significant changes, such as the amount of blood levels in the body increasing by around 20 - 30%. So this results in increased iron requirements.(6) During pregnancy, the mother's body will make more blood to share with the fetus, therefore the body needs up to 30% more blood than before pregnancy. (7)

METHODS

In this research, researchers use quantitative research methods with the type of correlation research, which is a method for testing certain theories by examining the relationship between two variables. This research uses a cross-sectional approach. The population in the study was 58 pregnant women at PMB Diya

Amanatur Rohmah Kesamben Jombang from 8 to 30 January 2023. The sampling technique used in this research was purposive sampling. The samples used in this study were all 34 third-trimester pregnant women who underwent pregnancy checks at PMB Diya Amanatur Rohmah Kesamben Jombang. The data collected was by analyzing or monitoring the blood supplement tablet column in the KIA book and questionnaire. Test the analysis using chi-square

RESULT

Table 1. Frequency Distribution of Characteristics of Pregnant Women

Characteristics	Frequency	Percentage %
Age		
< 20 Th	2	5.9
20 - 35 Th	23	67.6
> 35 Th	9	26.5
Total	34	100
Education		
Elementary school		
School/junior high school	5	14.7
Senior High School	24	70.6
College	5	14.7
Total	34	100
Occupation		
Housewife	22	64.7
Private	7	20.6
Civil servant	3	8.8
Farmer	2	5.9
Total	34	100
Gravida		
Primigravida	11	32.4
Multigravida	22	64.7
Grandemultigravida	1	2.9
Total	34	100

Based on Table 1 above, most pregnant women are aged 20-35. The respondent's highest educational interval was at the junior high school level. The highest percentage of respondents' jobs were housewives. The average gravida level of respondents is multigravida.

Table 2. Frequency distribution of respondents from anemia examination results at PMB Diya Amanatur Rohmah Kesamben Jombang on January 8th – January 30th 2023

No	Compliance with taking Fe Tablets	Anemia levels							
		No anemia		Mild		Moderate		Total	
		F	%	F	%	F	%	F	%
1	Obedient	13	38,2	8	23,6	0	0	21	61,8
2	Not Obey	4	11,8	3	8,8	6	17,6	13	38,2
	Total	17	50,0	11	32,4	6	17,6	34	100

Based on Table 2, The results of the cross-tabulation between compliance with consuming Fe tablets and the incidence of anemia show that almost half of the respondents who adhere to consuming Fe tablets do not experience anemia, namely 13 respondents (38.2%) However, there are still those who do not comply with consuming Fe tablets and, as many as suffer from moderate anemia 6 respondents (17.6%)

DISCUSSION

The results of the cross-tabulation between compliance with consuming Fe tablets and the incidence of anemia show that almost half of the respondents who adhere to consuming Fe tablets do not experience anemia, namely 13 respondents (38.2%) However, there are still those who do not comply with consuming Fe tablets and, as many as suffer from moderate anemia 6 respondents (17.6%)

According to the research results of Rizka Agnes Kusumasari 2021, it was stated that out of 43 respondents, 28 people (65.1%) who were not compliant in consuming Fe tablets were at risk of anemia, 3 people (7%) were not compliant in consuming Fe but were not at risk of anemia. Meanwhile, there were 3 people (7%) who adhered to taking Fe tablets but were at risk of anemia, and 9 people (20%) who complied with taking Fe tablets but were not at risk of anemia. ⁽⁸⁾

In this case, the research results are similar with Rizka Agnes' research that

pregnant women who do not comply with taking Fe tablets are not at risk of developing anemia. And those who comply with taking Fe tablets are not at risk of developing anemia. This anemia can occur due to other factors such as insufficient nutritional requirements in pregnant women.

Anemia in pregnancy is a condition where a pregnant woman has a hemoglobin level below 11gr/dl. In a normal pregnancy, hemoglobin is very important, because if the HB level is low it will result in risks to the mother and fetus such as IUF, IUFG, abortion, prematurity, LBW, postpartum bleeding, and uterine atony. However, this is often underestimated by pregnant women. The type of anemia that often occurs in pregnant women is anemia due to iron deficiency or iron nutritional anemia. This can be prevented in several ways, one of which is consuming animal side dishes and consuming enough Fe tablets. Education and knowledge of pregnant women can be a factor in preventing anemia in pregnant women. ⁽⁹⁾

Pregnant women's compliance in consuming iron tablets is the pregnant woman's compliance with health workers' recommendations to consume iron tablets. Compliance with consuming iron tablets is measured by the accuracy of the number of tablets consumed. Providing Fe tablets is an important effort to prevent anemia, especially iron deficiency anemia. Anemia can be prevented by consuming blood supplement tablets (TTD) regularly. Blood

supplement tablets contain 60 mg of elemental iron and 400 mcg of folic acid which is very important in the process of forming red blood cells. Blood-boosting tablets for pregnant women are indicated to meet the needs of pregnant women and prevent anemia. The government recommends that pregnant women consume a minimum of 90 blood-boosting tablets during pregnancy. ⁽¹⁰⁾

CONCLUSION

There is a relationship between the compliance of pregnant women in consuming Fe tablets and the incidence of anemia at PMB Diya Amanatur Rohma Kesamben Jombang with the results of the Spearman's Rho test results showing $p\text{-value} = 0.000$ or $< \alpha (0.05)$ so that H_1 is accepted and H_0

Anemia in pregnancy cannot be denied due to physiological changes that occur during pregnancy, the age of the fetus, and the previous condition of the pregnant woman. During pregnancy, the body will experience significant changes, such as blood levels increasing by around 20 - 30%. So this results in increased iron requirements. During pregnancy, the mother's body will make more blood to share with the fetus, therefore the body requires up to 30% more blood than before pregnancy. ⁽¹¹⁾

Anemia not only affects the mother, babies born to mothers who suffer from iron deficiency or anemia are likely to have little or no iron reserves in their bodies even though they do not suffer from anemia. In this case, it can cause problems during adolescence and later adulthood. ⁽¹¹⁾

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In this case, researchers suggest that pregnant women are expected to comply with recommendations from health workers to consume Fe tablets regularly to prevent anemia during pregnancy. It is hoped that pregnant women will pay more attention to their health and that of their fetuses by routinely carrying out pregnancy checks so that their hemoglobin levels can be monitored.

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