

The Relationship of Pregnant Woman's Knowledge About Anemia With Compliance Consuming Iron (Fe) Tablets

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ABSTRACT

Background Anemia in pregnancy is known to be a potential hazard to both mother and baby. The prevalence of iron deficiency anemia in Indonesian pregnant women is 50.5%. In West Kalimantan from 2014 to 2016 there was an increase in anemia reaching 5.74%. Knowledge is one of the factors in the formation of health behavior. Pregnant women are given iron (fe) added tablets every day during pregnancy or at least 90 tablets.

Purpose The purpose of this study was to analyze the factors associated with the incidence of anemia in the Tanjung Hulu Public Health Center, Pontianak City in 2021.

Methods This study used a descriptive analytic research design with a cross sectional design approach with a sample of 30 respondents.

Result Based on the univariate analysis, it was found that 12 (40%) pregnant women had good knowledge and 12 (40%) pregnant women had sufficient knowledge and only 6 people (20%) had less knowledge about anemia. A total of 26 (86.7%) were obedient in consuming Fe tablets and only 4 (13.3%) pregnant women were not compliant in taking FE tablets. The results of bivariate analysis with rank spaerment correlation found that the significance value of Sig. (2-tailed) is 0.008.

Conclusion There is a relationship between the level of knowledge of pregnant women about anemia with adherence to taking FE tablets.

Keywords: Anemia, Compliance, Iron (Fe) tablets, Knowledge, Pregnant Women.

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BACKGROUND

The health problems of the Indonesian people today are the high rates of maternal and infant mortality, infectious diseases, degenerative diseases and nutritional problems. The problem of nutrition and food is a fundamental problem because it directly determines the quality of human resources and can improve health status. One of the four main nutritional problems in Indonesia that has not been resolved is anemia (Tartowo & Wasnidar, 2013). Anemia in pregnancy is known to be a potential hazard to both mother and baby. Anemia in pregnancy is defined as a condition when the mother has a hemoglobin (Hb) level of less than 11.0gr%/dL in the first and third trimesters or a hemoglobin level of less than 10.5gr%/dL in the first trimester (Pratami, 2016).

Maternal Mortality Rate (MMR) is one of the indicators used to measure maternal health status in an area. Based on the Indonesian Demographic and Health Survey (IDHS) in 2012, the MMR in Indonesia is 359 per 100,000 live births. Meanwhile, the Millennium Development Goals (MDG's) target is 102 per 100,000 live births in 2015. Bleeding occupies the highest percentage of maternal deaths (28%). In 2019, there were 117 cases of maternal death in West Kalimantan Province (Kesehatan, 2018).

Various countries, including Indonesia, reported that the prevalence of iron deficiency anemia in pregnant women remains high. This figure varies from the lowest, namely in developed countries with an average prevalence of anemia in pregnant women of 18% to developing countries with a prevalence rate of anemia in pregnant women of around 56% (Pratami, 2016). Iron deficiency since before pregnancy if not treated can cause pregnant women to suffer from anemia. It is estimated that the incidence of anemia reaches 12.8% of maternal deaths during pregnancy and childbirth in Asia.

The prevalence of iron deficiency anemia in Indonesian pregnant women is 50.5%. Based on data from the Provincial Health Office of the West Kalimantan Health Office from 2014 to 2016, the increase reached 5.74%. The data for the last 3 years there is a significant increase in anemia in pregnant women, namely in 2014 there were 104,762 mothers pregnant women, and 6,105 cases of anemia with a total proportion of 5.82%, in 2015 there were 112,925 pregnant women, and 8,701 cases of anemia in pregnant women with a total proportion of 7.70% and in 2016 there were 116,458 pregnant women, and 13,463 cases of anemia with a total proportion of as much as 11.56%. The incidence of anemia in pregnant women at the Tanjung Hulu Health Center in Pontianak City from January to November 2020 was 64 cases with HB ranging from 8gr%/dL – 11 gr%/dL in pregnant women from the first, second and third trimesters.

The cause of maternal mortality in West Kalimantan in 2019 was dominantly due to bleeding cases as many as 35 cases (29.91%), hypertension in pregnancy as many as 25 cases (21.37%), circulatory system disorders as many as 6 cases (5.13%) infection was 6 cases (5.13%), prolonged labor was 1 case (0.85%) and other causes were 44 cases (37.61%). Death due to bleeding is closely related to the nutritional condition of the mother during pregnancy. Pregnant women who suffer from anemia and chronic lack of energy are at risk for bleeding during childbirth and postpartum. So it is very important to detect risks and monitor and intervene related to cases of nutrition in pregnant women during their pregnancy (Barat, 2019).

The condition of anemia greatly interferes with the health of pregnant women from the beginning of pregnancy until the puerperium. Anemia that occurs during pregnancy can cause abortion, premature delivery, inhibition of fetal growth and development in the womb, increased risk of infection, threat of cardiac decompensation if Hb < 6gr%/dL, hydatidiform mole, hyperemesis gravidarum, antepartum hemorrhage or premature rupture of membranes. Anemia also causes disturbances during labor such as hiccups, impaired bearing

strength, a prolonged first stage, a long second stage that can tire the mother, a third stage followed by retained placenta and secondary postpartum hemorrhage and uterine atony in the fourth stage. The dangers posed by anemia during the perinatal period are the risk of sub-involution resulting in postpartum hemorrhage, the risk of infection during the perinatal period, decreased production of breast milk (ASI), anemia during menopause and an increased risk of breast infection (Pratami, 2016).

Giving iron tablets (fe) as one of the important efforts and is an effective way because it can prevent and overcome anemia due to iron deficiency and or folic acid. Blood-added tablets are given to women of childbearing age and pregnant women. Pregnant women are given blood-added tablets every day during their pregnancy or at least 90 (ninety) tablets (Kemenkes, 2014).

Knowledge is one of the factors in the formation of health behavior. If pregnant women consume blood-added tablets during pregnancy for themselves and their fetuses, they will have good health behavior, so it is hoped that they can avoid various consequences or risks of pregnancy disorders due to iron deficiency contained in blood-added tablets. According to the research of Siantarini et al, it was found that there was a significant and strong relationship between the level of knowledge about anemia and the behavior of iron fulfillment of pregnant women at Puskesmas IV Denpasar Selatan. (Siantarini, Krina, Suratiah, & Rahajeng, 2018). The low compliance of pregnant women in consuming blood-added tablets is caused by low knowledge and negative attitudes of pregnant women. Mother will obey do something if the knowledge about it is good and the mother's attitude will accept and implement something if the mother considers it good and useful for herself and her family. From the results of the research on the results of the chi square statistical test obtained p value = 0.000 which means the p value is smaller than 0.05 ($0.000 < 0.005$) thus H_0 is rejected where this shows that there is a relationship between attitudes and compliance of pregnant women in consuming tablets add blood during pregnancy (Mona & Maharawati, 2021).

OBJECTIVE

The purpose of this study was to analyze the factors associated with the incidence of anemia in the Tanjung Hulu Public Health Center, Pontianak City in 2021.

METHODS

This study used a descriptive analytic research design with a cross sectional design approach. The sampling method used total sampling technique, namely the number of pregnant women who did a pregnancy check from June-August which amounted to 30 respondents. The independent variables are the age of pregnant women, gestational age, education, occupation, body mass index (BMI), obstetric status and compliance of pregnant women taking iron tablets (fe). And the dependent variable is the knowledge of pregnant women about anemia. Data were analyzed using Rank Spearment correlation.

This research was conducted in the Tanjung Hulu Health Center Work Area, Pontianak City in 2021.

RESULT**1. Univariate Analysis****1.1. Description of the Characteristics of Pregnant Women by Age**

Table 1.1 frequency distribution of respondents by age

Age (years)	Frequency	Percentage (%)
<20	1	3,3
20-35	23	76,7
>35	6	20
Total	30	100

Based on table 1.1, it is found that based on the age of the respondents, most of the respondents are aged between 20-35 years, namely 23 people (76.7%), age > 35 years as many as 6 people (20%) and only 1 person (3.3%) aged <20 years.

1.2. Description of the Characteristics of Pregnant Women by Gestational Age

Table 1.2 distribution of respondents' frequency by gestation

Gestational age	Frequency	Percentage (%)
Trisemster I	5	16,7
Trisemester II	6	20
Trisemester III	19	63,3
Total	30	100

Based on table 1.2, the results show that based on gestational age the most are in the third trimester as many as 19 people (63.3%), 6 people (20%) are in the second trimester and only 5 people (16.7%) pregnant women are in the first trimester.

1.3. Description of the Characteristics of Pregnant Women by Education

Table 1.3 distribution of respondents' frequency by education level

Education	Frequency	Percentage (%)
Primary school	5	16,7
Junior high school	12	40
Senior high school	11	36,7
Bachelor	2	6,7
Total	30	100

Based on table 1.3, it was found that 5 people (16.7%) of pregnant women had elementary school education, 12 people (40%) had junior high school education, 11 people (36.7%) had high school education and only 2 people (6.7%) had a bachelor's degree.

1.4. Description of the Characteristics of Pregnant Women by Occupation

Table 1.4 distribution of respondents' frequency by occupation

Occupation	Frequency	Percentage (%)
Work	1	3,3
Not working (Housewife)	29	96,7
Total	30	100

Based on table 1.4, it was found that only 1 person (3.3%) pregnant women had a job, the rest 29 people (96.7%) pregnant women did not work, namely as housewives.

1.5. Characteristics of pregnant women based on Body Mass Index (BMI)**Table 1.5 distribution of respondents' frequency based on BMI**

BMI	Frequency	Percentage (%)
Normal weight	13	43,3
Overweight	11	36,7
Obesity	6	20
Total	30	100

Based on table 1.5, the results of the BMI of pregnant women are 13 people (43.3%) normal, as many as 11 people (36.7%) pregnant women with excess weight and only 6 people (20%) pregnant women are obese.

1.6. Description of the Characteristics of Pregnant Women by Parity**Table 1.5 distribution of respondents' frequency by parity**

Parity	Frequency	Percentage (%)
Under 5	28	93,3
Above 5	2	6,7
Total	30	100

Based on table 1.6, it was found that 28 people (93.3%) mothers had children less than 5 and only 2 (6.7%) mothers had children more than 5.

1.7. Characteristics of pregnant women based on knowledge about anemia**Table 1.7 distribution of respondents' frequency by level of knowledge about anemia**

Knowledge	Frequency	Percentage (%)
Good	12	40
Sufficient	12	40
Less	6	20
Total	30	100

Based on table 1.7, it is found that 12 people (40%) pregnant women have good knowledge and 12 people (40%) pregnant women have sufficient knowledge and only 6 people (20%) mothers have less knowledge about anemia in pregnancy.

1.8. Characteristics of Pregnant Women Based on Compliance with taking iron tablets (fe)**Table 1.8 frequency distribution of respondents based on adherence to consuming iron tablets (fe)**

Obedience	Frequency	Percentage (%)
Obedient	26	86,7
Not obey	4	13,3
Total	30	100

Based on table 1.8, it was found that as many as 26 people (86.7%) were obedient in consuming iron tablets (fe) and only 4 people (13.3%) were pregnant women who were not compliant in consuming iron tablets (fe).

2. Bivariate analysis

Table 1.9 Relationship of Knowledge of Pregnant Women about Anemia with Compliance with taking Iron Tablets (fe)

Knowledge	Obedience				Total		Sig
	Obedient		Not obey		n	%	
	n	%	n	%			
Good	12	40	0	0	12	40	0,008
Sufficient	11	36,7	1	3,3	12	40	
Less	3	10	3	10	6	20	
Amount	26	86,7	4	13,3	30	100	

Based on Table 1.9, it was found that the significance value of Sig. (2-tailed) is 0.008, because the value of sig < 0.05 then Ha is accepted and Ho is rejected so that it can be concluded that there is a relationship between the level of knowledge of pregnant women about anemia with adherence to consuming iron (fe) tablets.

DISCUSSION

In this study there is a significant relationship between the level of knowledge of pregnant women about anemia on compliance in consuming iron tablets (fe) that is the significance value of Sig. (2-tailed) is 0.008, the value of sig < 0.05. This is in accordance with the results of research by Erwin, et al about the relationship between knowledge and attitudes of pregnant women with adherence in consuming iron tablets. The conclusions obtained from this study are knowledge and attitudes are factors related to the compliance of pregnant women in consuming iron tablets (Erwin, Machmud, & Utama, 2017).

According to research, the non-adherence of pregnant women in consuming iron tablets as recommended by health workers is an impact of their ignorance about the importance of adequate iron intake during pregnancy. Knowledge possessed by pregnant women will affect their behavior. Pregnant women with good nutritional knowledge will try to provide adequate nutrition for themselves and their fetuses. Knowledge of pregnant women about iron will have an impact on attitudes towards food by applying the information obtained in providing foods containing iron sources to meet needs during pregnancy kehamilan (Rahmawati & Subagio, 2012).

Knowledge is one's ability about something. The lowest but most basic ability in the cognitive area. The ability to know is the ability to recognize or recall an object, idea, procedure, principle or theory that has been discovered by experience without manipulating it. Knowledge or cognitive is a very important domain in shaping one's actions. From experience and research it is evident that behavior based on knowledge will be more lasting than behavior that is not based on knowledge. Knowledge is one of the important factors to form a complete attitude. The better one's knowledge, the better the attitude that will be formed to create a good action as well. Pregnant women with good knowledge about the importance of iron and the consequences if iron deficiency in pregnancy will tend to form positive attitude towards compliance resulting in obedient actions in consuming iron tablets (Lestari, 2014).

The results showed that the knowledge of pregnant women about anemia on average was good so that the level of maternal compliance in consuming iron tablets (fe) became better so that it could prevent the occurrence of anemia in pregnant women.

CONCLUSION

Based on research data on the relationship between knowledge of pregnant women and adherence to consuming iron tablets (fe) shows that the significance value of Sig. (2-tailed) is 0.008, because the value of sig < 0.05 means that there is a significant relationship between knowledge of pregnant women about anemia and maternal compliance in consuming iron tablets (fe) in the Tanjung Hulu Public Health Center, Pontianak City in 2021

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