

The Relationship between Knowledge and Compliance Consuming Iron (Fe) Tablets with Incidence of Anemia in Trimester I Pregnant Women at Bulili Public Health Center

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ABSTRACT

Anemia in pregnancy can have an adverse impact on the mother, even during pregnancy, childbirth, as well as during the puerperium and beyond. One of the government programs to overcome anemia in pregnancy in Indonesia is by providing iron tablets (Fe) which are distributed through health centers and posyandu. The effectiveness of this program is difficult to achieve because it is influenced by the low knowledge of pregnant women about the benefits of consuming iron (Fe) tablets. Good knowledge will lead to a positive attitude in consuming iron (Fe) tablets. The purpose of this study was to determine the relationship between knowledge and adherence to consuming iron (Fe) tablets with the incidence of anemia in pregnant women in the first trimester at Bulili Public Health Center. The design of this research is analytical research. The research approach used is the Cross Sectional Study approach. This study used the Lemeshow proportion estimation technique with a total sample of 96 respondents. The test used in this study is to use the Chi - Square test. The results showed that there was a significant relationship between knowledge and the incidence of anemia in pregnant women in trimester I with p value = 0.000 ($p < 0.05$) and there was no significant relationship between adherence to taking iron tablets (Fe) and the incidence of anemia in trimester pregnant women. I at Puskesmas Bulili with p value = 0.826 ($p \geq 0.05$). This study suggests that the midwives at the health center are expected to provide information or health counseling that is more directed at preventing anemia during pregnancy to pregnant women regarding the procedure for consuming iron (Fe) tablets to visitors to the Bulili Health Center, especially KIA (Maternal and Child Health).

Keywords - Knowledge, Compliance with Iron (Fe) Tablets, Anemia

INTRODUCTION

Anemia is a condition in which the body has too few red blood cells (erythrocytes), which red blood cells contain hemoglobin which functions to carry oxygen to all body tissues. Anemia in pregnant women is called the potential danger of mother and child, which is the potential for harm to mother and child. The impact of anemia on pregnancy

can be abortion, pre-maturity delivery, obstacle to fetal growth and development in the uterus, easy infection, antepartum hemorrhage, premature rupture of membranes (PROM), during labor can result in disruption of his, the first time can last a long time, and occur. neglected labor, and during the puerperium, uterine subinvolution causes postpartum hemorrhage, eases puerperal infection, and decreases the release of breast milk (1).

Anemia that occurs in pregnant women can cause health problems for both mother and baby. Anemia can increase the frequency of complications in pregnancy and childbirth. The impact of anemia on pregnant women can cause the death of the fetus in the womb at birth, premature birth, miscarriage (abortion), congenital defects and results in labor that takes a long time, causing bleeding and shock due to weak body conditions during uterine contractions (2).

Mother's knowledge about iron (Fe) tablets will lead to a positive attitude towards compliance with consuming iron (Fe) tablets. Without knowledge of iron tablets (Fe), it is difficult for the mother to instill the habit of using food sources of iron which are important for the health of pregnant women. Lack of knowledge is often seen as an important factor in iron deficiency problems. This can happen because people are less able to apply information about iron (Fe) tablets in their daily lives (3).

Based on data from Basic Health Research (Riskesdas) in 2018, the prevalence of anemia in pregnant women in Indonesia is 48.9%. Provision of iron (Fe) tablets in Indonesia in 2018 amounted to 61.9% (4). Meanwhile, the coverage of pregnant women who received iron (Fe) tablets in Central Sulawesi in 2018 was 66.58%. Although the government has implemented an anemia control program for pregnant women, namely by giving 90 iron (Fe) tablets to pregnant women during the pregnancy period with the aim of reducing the anemia rate of pregnant women, the incidence of anemia is still high (Ministry of Health, 2018) and pregnant women with anemia in the City Palu in 2018 as many as 990 pregnant women with anemia or 23.02% (5).

According to data obtained from the Health Office of Palu City, the number of pregnant women who experience anemia from 13 existing health centers, the health centers with the most incidence of anemia in pregnant women are in the Bulili Community Health Center Work Area. In 2018 the number of pregnant women who experienced anemia was 200 people or 58.7% (6). Meanwhile, the data obtained at the Bulili Health Center in 2019, the number of pregnant women from January to September was 378 or 77.9% pregnant women and 111 or 22.8% pregnant women with anemia.

METHODOLOGY

This research is an observational analytic type with a cross sectional approach, which aims to determine the relationship between knowledge and adherence to consuming iron (Fe) tablets with the incidence of anemia in the first trimester at the Bulili Community Health Center which was carried out simultaneously and at the same time. The population in this study were all pregnant women in the second trimester at Bulili Public Health Center, namely 96 pregnant women. The location of this research was carried out at the

Bulili Public Health Center. This research was conducted in June - July 2020.

RESULT

Univariate Analysis

Table 1. Frequency Distribution of Respondents based on Knowledge at Puskesmas Bulili

No.	Knowledge	Frekuensi (f)	%
1.	Low	27	28,1
2.	High	69	71,9
Total		96	100

Table 1 shows the research variables of respondents' knowledge at the Bulili Public Health Center were 69 respondents (79.1%) high, while the low respondents were 27 respondents (28.1%).

Table 2. Frequency Distribution of Respondents Based on compliance with consuming iron (Fe) tablets at Bulili Community Health Center

No.	Adherence to Consuming Iron Tablets (Fe)	Frekuensi (f)	%
1.	Not Routine	30	31,3
2.	Routine	66	68,8
Total		96	100

Table 2 shows 30 respondents (31.3%) who did not regularly consume iron tablets (Fe) in Puskesmas Bulili, while 66 respondents (68.8%) were routine respondents.

Table 3. Frequency Distribution of Respondents Based on the Incidence of Anemia in Trimester I Pregnant Women at Bulili Public Health Center

No.	Incidence of Anemia	Frekuensi (f)	%
1.	Anemia	45	46,9
2.	Not anemia	51	53,1
Total		96	100

Table 3 shows the research variables for the incidence of anemia at the Bulili Health Center as many as 45 respondents (46.9%) and respondents who were not anemia as many as 51 respondents (53.1%).

Bivariate Analysis

Table 4. Relationship between Knowledge and Incidence of Anemia in Trimester I Pregnant Women at Bulili Public Health Center

Incidence of Anemia in Trimester I
Pregnant Women

Knowledge	Anemia		Not Anemia		Total		P Value
	N	%	N	%	n	%	
Low	22	81,5	5	18,5	27	100	0,000
High	23	33,3	46	66,7	69	100	
Total	45	46,9	53,1	53,1	96	100	

Table 4 shows the analysis of the relationship between knowledge and anemia in pregnant women as many as 27 respondents who had low knowledge, 22 of them showed anemia (81.5%), and 5 of them were not anemia (18.5%), while from 69 respondents who have high knowledge, 23 of them showed anemia and 46 of them did not show anemia (66.7%).

Table 5. Relationship of Adherence to Taking Iron (Fe) Tablets with Incidence of Anemia in Trimester I Pregnant Women at Bulili Public Health Center

Relationship of Adherence to Taking Iron (Fe)	Incidence of Anemia				Total		P Value
	Anemia		Not Anemia		n	%	
	n	%	n	%			
Not Routine	15	50,0	15	50,0	30	100	0,826
Routine	30	45,5	36	54,5	66	100	
Total	45	46,9	51	53,1	96	100	

Table 5 shows the analysis of the relationship between adherence in consuming iron (Fe) tablets with the incidence of anemia in pregnant women, 30 respondents showed adherence to consuming iron (Fe) tablets irregularly, 15 of them showed anemia (50.0%), and 15 of them. not anemia (50.0%), while of the 66 respondents who showed compliance with regular consumption of iron (Fe) tablets, 30 of them showed anemia and 36 of them did not show anemia (54.5%).

DISCUSSION

Workload is born based on the planning and preparation of employee work targets (SKP Based on table 4, the results of the chi-square test with p value = 0.000 ($p < 0.05$), then there is a significant relationship between knowledge and the incidence of anemia in pregnant women, this indicates that respondents who have knowledge of iron tablets (Fe) will affect their behavior in consuming iron tablets (Fe), someone's knowledge is obtained from various experiences or activities such as following health education.

The results of this study are in line with research conducted by Muzayana et al. (2016) which states that there is a significant relationship between knowledge and the incidence of anemia in the Godean I Community Health Center, with p value = 0.038 ($p < 0.05$) (7).

Based on the attachment table 5, the results of the chi-square test with p value = no significant relationship between adherence to consuming iron (Fe) tablets and the incidence of anemia in pregnant women in the first trimester at Bulili Public Health Center with p value = 0.826 ($p \geq 0.05$)

The results of this study are not in accordance with the research conducted by Setiowati and Sarwoko (2017) which shows that there is a relationship between the compliance of pregnant women taking iron tablets (Fe) and the incidence of anemia in the first trimester with a value of $p = 0.005$, ($p < 0.05$). In this study, the relationship between adherence to consuming iron (Fe) tablets with the incidence of anemia, this is because pregnant women only consume iron (Fe) tablets but rarely pay attention to a diet that is good for fetal growth (8).

Iron (Fe) tablets are not drugs that are indicated to treat diseases, but as supplements that are needed by pregnant women to meet the need for iron during pregnancy, possible side effects and efforts to overcome them. Therefore iron tablets (Fe) must be taken appropriately and regularly, there is no need to worry or fear the effects. How to drink, it's best to drink it with plain water, don't drink it with milk, coffee or tea, and it's best to drink it at night. In addition, information on the storage of iron (Fe) tablets also needs to be conveyed properly, because iron (Fe) tablets can experience oxidation if stored in an open place, exposed to humid air, if this happens then the iron (Fe) tablet will no longer be effective, For pregnant women to treat iron deficiency anemia, the dose of supplemental dose of iron supplement in the form of elemental iron is 100-200 mg, twice a day. While the dose given for the prevention of iron deficiency anemia in pregnant women is 60 mg, once a day (9).

CONCLUSIONS

From the results of this study, it can be concluded that, there is a significant relationship between knowledge and the incidence of anemia in pregnant women in the first trimester at Bulili Public Health Center with P value = 0.000 ($P < 0.05$). There was no significant relationship between adherence to consuming iron (Fe) tablets with the incidence of anemia in pregnant women in the first trimester at Bulili Public Health Center with P value = 0.826 ($P \geq 0.05$).

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