

PREGNANT MOTHER'S CONSUMES FE TABLETS AND ANEMIA IN PALU CITY

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ABSTRAK

World Health Organisation (WHO) memperkirakan sekitar 10% kelahiran hidup mengalami komplikasi perdarahan pasca persalinan. Komplikasi paling sering dari perdarahan pasca persalinan adalah anemia. Tujuan penelitian ini untuk mengetahui hubungan kepatuhan ibu hamil mengkonsumsi tablet Fe dengan kejadian Anemia di Puskesmas Talise Kota Palu. Jenis penelitian rancangan cross sectional. Populasi dalam penelitian ini ibu hamil trimester I dan II sebanyak 209 orang. Jumlah sampel 34 orang. Teknik pengambilan sampel purposive sampling. Analisis secara univariat dan bivariat (uji chi square). Hasil penelitian menunjukkan kepatuhan responden sebesar 92,3% dan terdapat 7,7% anemia, sedangkan responden yang tidak patuh mengkonsumsi tablet Fe tidak anemia 37,5% dan yang tidak patuh dan mengalami anemia sebanyak 62.5%. Hasil uji chi square nilai $p=0,004$ ($<0,05$), ada pengaruh kepatuhan ibu hamil dengan kejadian anemia di Puskesmas Talise Kota Palu. Kesimpulan ada pengaruh kepatuhan ibu hamil dengan kejadian anemia di Puskesmas Talise Kota Palu, disarankan agar aktif melakukan penyuluhan tentang manfaat tablet Fe selama proses kehamilan.

Kata kunci : Kepatuhan, Anemia, Ibu Hamil

ABSTRACT

The World Health Organization (WHO) estimates that around 10% of live births experience complications from postpartum bleeding. The most frequent complication of postpartum bleeding is anemia. The purpose of this study was to determine the relationship of compliance of pregnant women consuming Fe tablets with anemia in the Talise Health Center Community in Palu City. This type of research was a cross-sectional design that involved first and second-semester pregnant women, and as many as 209 people. The number of samples was 34 people. Purposive sampling technique. Univariate and bivariate analysis (chi-square test). The results showed 92.3% of respondents' compliance and 7.7% of anemia, while non-compliant respondents took 37.5% of Fe tablets without anemia, and 62.5% of those who were not obedient and had anemia. Chi-square test results $p = 0.004$ (<0.05), there was an effect of compliance of pregnant women with anemia in Talise Health Center Community, Palu City. In conclusion, there is an influence of compliance of pregnant women with anemia at the Talise Health Center Community in Palu City. It is recommended to actively conduct counseling about the benefits of Fe tablets during the pregnancy.

Keywords: Compliance, Anemia, Pregnant Women

BACKGROUND

The World Health Organization (WHO) estimates that around 10% of live births experience complications from postpartum bleeding. The most frequent complication of postpartum bleeding is anemia. If pregnancy occurs to a mother who has suffered from anemia, postpartum hemorrhage can make anemia worse and can be fatal⁽¹⁾.

Anemia prevention program for pregnant women in Indonesia by providing Fe tablets of 90 tablets during pregnancy. Most pregnant women who refuse or do not comply with this recommendation for various reasons. Compliance with consuming Fe tablets is said to be good if pregnant women consume all Fe tablets given during pregnancy. Compliance of pregnant women consuming Fe tablets is essential in ensuring an increase in hemoglobin levels in pregnant women. Fe tablets as supplements given to pregnant women according to the rules, must be consumed every day. Inadequate knowledge, attitudes, and actions of pregnant women, the side effects of Fe tablets can trigger a person to adhere to the consumption of Fe tablets properly so that the goal of giving Fe tablets is not achieved⁽²⁾.

Anemia in pregnancy is one of the national problems because it reflects the value of society's socio-economic well-being, and its influence is enormous on human resources. Anemia in pregnant women is called "potential danger to mother and child" (potential harm to mother and child). Therefore anemia requires serious attention from all parties involved in health care⁽³⁾.

One of the factors affecting maternal compliance is health workers. Most midwives who are often associated with pregnant women can be able to help anywhere if more midwives can provide counseling, especially about the benefits of iron tablets and pregnant women's health. Dukuns can also be used and invited to increase the amount of Fe tablets consumed by pregnant women. Health workers must include families in the supervision of consuming Fe tablets to increase maternal compliance in consuming Fe tablets. Supervision of consuming Fe tablets is an activity carried out to ensure compliance with taking Fe tablets following the dosage and schedule as specified⁽⁴⁾.

Aditianty's research (2015), the effect of assisting pregnant women with anemia in Cibatok Village, Cigumpulang District, Bogor City, showed that there was an effect of assistance with anemia with a value of $p = 0.003$ ($p < 0.05$) with an OR value of 7.308. That is, pregnant women who do not have assistance have 7.308 times the possibility of anemia compared to those who have assistance⁽⁵⁾.

The results of Riskesdas (2013) showed that consuming Fe tablets during pregnancy in Indonesia was 89.1%. Pregnant women who consumed Fe tablets 90 days during pregnancy were 33.3%. Pregnant women who consumed Fe tablets for less than 90 days were 34.4%, and 21.4% did not consume Fe tablets for 90 days⁽⁶⁾.

Data from the Central Sulawesi Provincial Health Office in 2015, the number of pregnant women was 69,619 people, with the number of pregnant women receiving Fe 1 tablets totaling 47,930 (68.85%). Pregnant women who get Fe 3 amounted to 44,254 (63.57%). Pregnant women who have anemia (8-11 mg/dl) of 2,621 and anemia (< 8 mg/dl) of 217. In 2016 the number of pregnant women was 69,549 people, with the number of pregnant women getting Fe 1 totaling 57,297 (82.38%). Pregnant women who get Fe 3 amounted to 50,167 (72.13%). Pregnant women who have anemia (8-11 mg / dl) of 9,260 and anemia (< 8 mg / dl) of 1,514 cases. In 2017 the number of pregnant women was 69,417 people with the number of pregnant women getting Fe 1 totaling 49,813 (71.76%) and pregnant women receiving Fe 3 totaling 42,223 (60.83). Pregnant women who have anemia (8-11 mg/dl) of 7.663 and anemia (< 8 mg/dl) of 1.074 cases. Compared to 2016 and 2017, the coverage of Fe 1 and Fe 3 tablets has decreased⁽⁷⁾.

Palu City Health Department data in 2015, the target number of pregnant women is 7,398, with Fe coverage of 7,580 people (102.46%) and Fe 3 of 7,150 (96.6%). In 2016 the target number of pregnant women was 7,569, with coverage of Fe 1 7,796 (103.00%) and Fe 3 as much (97.5%). While the number of pregnant women in 2015 with mild anemia was 538 cases (14.20%), those with moderate anemia were 348 cases (9.18%), and those with severe anemia were 2 cases (0.05%). While the number of pregnant women in 2016 who experienced mild anemia was 798 cases (20.52%), those with moderate anemia were 651 cases

(16.74%), and those with severe anemia were 5 cases (0.13%). The highest prevalence is in the work area of Talise Health Center Community, and the lowest is in the Talise Health Center Community⁽⁸⁾.

Overcoming the problem of anemia in pregnant women Central Sulawesi Provincial Health Office has a blood-supplemented tablet supplementation program that can be obtained at the local health center. Blood supplemented tablets can prevent iron anemia and folic acid anemia. In some pregnant women, the iron contained in pregnancy vitamins can cause constipation or diarrhea⁽⁸⁾.

Talise Health Center Community Community data in 2015 and 2016 the prevalence of Fe tablet coverage has increased from the coverage of Fe tablets in pregnant women has reached the target of 759 (102.7%) with 744 pregnant women, which means that iron tablet coverage is in proper category. However, the high incidence of anemia in the Talise Health Center Community with mild anemia is 189 cases (38.5%), moderate anemia 302 cases (61.5%), severe anemia is absent⁽⁹⁾.

Results of interviews with five pregnant women on 12 December 2017, three people said that they could not done consuming all the Fe tablets given by the Health Center Community because they were afraid their children would smell fishy when they were born. Two other people said that they could not take Fe tablets because of frequent nausea. The results of interviews with three companions, two people said that pregnant women are afraid to consume all Fe tablets given by the health center because they are afraid of their children when born obese. One other person said that they did not need Fe tablets because they had consumed fish, meat, and eggs every day.

This study aimed to determine the relationship of compliance of pregnant women consuming Fe tablets with anemia in the Talise Health Center Community in Palu City.

METHOD

This type of research was analytical research with a cross-sectional design. A research conducted to find the relationship of compliance of pregnant women consuming Fe tablets against the incidence of Fe anemia in the Talise Health Center Community in Palu City. It was held at the Talise Health Center

Community from 20 May - 10 June 2018. The population was 209 people. The sample size used the Slovin formula of 34 people.

The independent variable is the compliance of pregnant women consuming Fe tablets. The dependent variable is the incidence of anemia. Primary data is data obtained directly from the research site through direct observation of pregnant women. This study's secondary data were data obtained from the Central Sulawesi Provincial Health Office, Palu City Health Office, and Singgani Health Center, Palu City.

Data analysis was performed with the frequency distribution formulation, the significance of the relationship between the independent variables with the dependent variable using the Pearson chi-square test that can be calculated by computer, with a confidence level of 95% and an error rate of 0.05%.

RESULT

Talise Health Center Community Community is located in the Mantikulore District area with an area of 83.43 Km² and administratively consists of 3 villages, 29 RW, and 102 RT. The work area of the Talise Health Center Community covers three villages, namely Talise Village, Tondo Village, and Layana Village. Talise Health Center Community is a primary health center with 3 sub-health centers (Pustu) and 14 Integrated-health centers (Posyandu), 2 village maternity posts, 3 village health posts (Poskesdes) and 5 integrated elderly development posts (Posbindu).

Based on Palu City BPS data in 2014, the total population in the work area of the Talise Community Health Center was 30,287 people spread across three urban villages, including Talise Village, with a total of 17,237 people, Tondo Village around 10,569 people and Layana Indah Village around 2,481 people.

Table 1. Characteristics of Respondents by Age, Education & Occupation

Characteristics	n	%
Age		
18-25 year	5	14,7
26-35 year	29	85,3
Education		
Primary school	4	11,8
Junior high school	5	14,7
Senior High School	21	16,8
Collage	4	11,8
Occupation		
Housewife	1	2,9
Government employees	5	14,7
Farmer	5	14,7
Self-employed	23	67,6
Total	34	100

Source: Primary Data, 2018

Respondents aged 26-35 years were 29 people (85.3%), respondents aged 18-25 years were 4 people (14.7%). Most occupations were self-employed 23 people (67.6%), at least one housewife (2.9%). Most education was High

Table 3. The Influence of Pregnancy Compliance with Anemia in Talise Health Center Community, Palu City

Compliance	Anemia				Total		p. value
	No		Yes		n	%	
	n	%	n	%			
Yes	24	92,3	2	7,7	26	100	0,004
No	3	37,5	5	62,5	8	100	
Total	27	79,4	7	20,6	34	100	

Source: Primary Data, 2018

Table 3 shows that out of 26 obedient pregnant women, 24 (92.3%) were not anemic, and 2 (7.7%) were anemic. Of the 8 non-compliant respondents, there were 3 (37.5%) pregnant women who were not anemic and 5 (62.5%) pregnant women who were anemic. The chi-square test results p-value = 0.004 (<0.05), meaning that there is an influence of compliance of pregnant women with anemia in Talise Health Center Community, Palu City.

DISCUSSION

Based on the results of the chi-square test showed the influence of compliance of pregnant women with the occurrence of anemia in Talise Health Center Community, Palu City.

According to the researchers' assumptions, respondents who were obedient to consuming Fe tablets could not be separated from educated respondents. From 34 respondents, those with

school with 21 people (61.8%), colleges, and elementary schools were 4 people (11.8%).

Table 2. Distribution of Compliance of Pregnant Women Taking Fe Tablets at Talise Health Center Community, Palu City

Variabel	n	%
Compliance		
Yes	26	76,5
No	8	23,5
Anemia		
Yes	7	20,6
No	27	79,4
Total	34	100

Source: Primary Data, 2018

Table 2 shows that most respondents complied with consuming Fe tablets, 26 respondents (63.7%), while 8 (23.5%) respondents did not comply with consuming Fe tablets. As for pregnant women who are not anemic as much as 79.4%.

secondary education and above were 26 people (76.47%). Highly educated people will take the best course of action for their health. Education takes a person to make rational decisions, including in obedience to pregnant women in consuming Fe tablets.

Higher education will be able to make more rational decisions, generally open to accepting changes or new things compared to individuals with lower education. The higher a person's education, the easier it is to receive information, so the more knowledge he has. Education means the guidance given by a person towards the development of others towards certain ideals that determine humans to act and fill life to achieve safety and happiness⁽¹⁰⁾.

Besides, respondents who adhere to consume Fe tablets are respondents aged 26-35 years. At that age, a person has entered into self maturity. Of 34 respondents 29 people (85.3%)

aged 26-35 years. At this age, including late adulthood. Increasing a person's age can affect the experience. The sufficient age, the level of maturity, and the strength of a person are more trusted than someone who has not reached adulthood⁽¹¹⁾.

According to the researchers' assumptions, respondents who did not obey to consume Fe tablets were respondents who assumed that Fe tablets meant drugs. At the same time, their pregnancy was not felt as a sickness that needed to be treated for pregnant women. This thinking is still influenced by old patterns, especially from the generation above. In the past, people were pregnant without any additional drugs. Their children are healthy and can give birth smoothly. There is also an assumption that if they consume too many Fe tablets (medicine), they are worried that their pregnancy will be significant. This condition will be considered difficult for childbirth. The medicine for pregnant women is worried that it will fertilize the womb, so often, pregnancy with a significant baby condition is considered as a result of consuming too much medicine.

Pregnant women with anemia can be caused by iron input to pregnant women from food that was not balanced with the needs of the mother's body because the diet of pregnant women was the same as when they were not pregnant. The knowledge of nutrition needed during pregnancy was not proper. Mothers consumed less food containing a lot of iron, such as dark green vegetables (spinach, kale, cassava leaves, katuk leaves), meat, and eggs, while their needs of iron increases. During this time, the fetus is storing iron reserves for itself as a supply of the moon first after birth. Besides, pregnant women also consumed many Fe tablets, which were not taken regularly every day.

Anemia in pregnancy was anemia due to iron deficiency (Fe). The lack of iron can cause a deficiency in the body through food, due to impaired absorption, disruption of use, or too much iron coming out of the body, for example, bleeding. The need for iron will increase in pregnancy, especially in the second trimester. This need is due to the increased need for the fetus contained by the mother⁽¹²⁾.

Anemia in pregnancy can be bad for the mother and fetus. Dangers during pregnancy are abortion, labor prematurity, fetal growth, and

development obstacles in the uterus, natural to occur with the threat of cord decompensation (6 gr% Hb), hydatidiform mole, hyperemesis gravidarum, antepartum hemorrhage and premature rupture of membranes⁽³⁾.

The need for iron during pregnancy increases. Some literature says the need for iron has doubled from the need before pregnancy. It happens because, during pregnancy, blood volume increases by 50%, so more iron is needed to form hemoglobin. Besides, the rapid growth of the fetus and placenta also requires much iron. In a nonpregnant state, iron needs can usually be met from a healthy and balanced diet. However, in a pregnancy stage, iron supply from food is still inadequate, so the supplement is needed in the form of iron tablets⁽¹³⁾.

The magnitude of the incidence of anemia in pregnant women is because, in the first trimester of pregnancy, Fe tablets are needed a little because there is no menstruation, and fetal growth is still slow. Stepping on the second to the third trimester, the volume of blood in a woman's body will increase to 35%, and this is equivalent to 450 mg of Fe tablets to produce red blood cells. Red blood cells must carry more oxygen to the fetus. Meanwhile, during childbirth, they need additional iron 300-350 mg due to blood loss. Until delivery, pregnant women need Fe tablets of around 40 mg per day or double the need for nonpregnant conditions⁽¹⁴⁾.

Fe intake in pregnant women will be more effective in reducing the incidence of anemia, which must be balanced with the compliance of pregnant women in consuming Fe tablets. Because without the compliance of pregnant women in consuming Fe tablets, then the program of giving Fe tablets will be in vain. It is evident from this study that anemia rates are still high not only in respondents with small amounts of Fe tablets but also in pregnant women with adequate Fe tablets (60-90 Fe tablets). Moreover, in the analysis of the data, it was found that pregnant women who only consumed less Fe tablets or 60-90 tablets during pregnancy could cause anemia 0.92 times more anemia than those who consumed Fe tablets more than 90 tablets. This might be due to the lack of explanation on how to consume Fe tablets properly and the influence of the importance of Fe tablets in pregnant women. Data from 2013 showed health problems in

Central Sulawesi, such as the risk of chronic energy shortages in pregnant women at 32.6%, which is above the national average 24.2%⁽¹⁵⁾.

The mother herself strongly influences compliance of pregnant women consuming iron tablets in realizing the importance of iron tablets for herself and her baby, especially for her health to be always in top condition, so she will consume Fe tablets as recommended⁽¹⁶⁾.

This study is in line with Ratnasari's research (2017), which states that there is a relationship between adherence to the anemia incidence in pregnant women in the Sanden Health Center with a p-value of $0.002 < 0.005$ ⁽⁴⁾. Likewise, a previous study by Maisya (2012) showed that there was a relationship between adherence to the incidence of anemia in pregnant women at the Nagallo Health Center, Nagallo District, Padang City with a p-value of $0.003 < 0.005$ ⁽¹⁷⁾.

CONCLUSIONS AND SUGGESTIONS

There is a relationship between adherence to pregnant women consuming Fe tablets with anemia in Talise Health Center Community, Palu City. It suggests that Talise Health Center Community in Palu actively conducts counseling about the benefits of Fe tablets during the pregnancy.

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