



## The Prevention of Anemia on Pregnant Women through Counseling and The Administration of Fe Tablet in Jatinom, Kec. Kanigoro, Kab Blitar



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### Abstract

In Indonesia, the anemia prevention program for pregnant women is done by providing iron supplements as many as 90 tablets during pregnancy. However, many pregnant women refuse or do not comply with this recommendation for various reasons. The compliance of taking Fe tablets is less than 90% of iron tablets that should be taken. The compliance of pregnant women to take iron tablet is an important factor in ensuring an increase of hemoglobin levels of pregnant women. The right information and right method related to anemia become very important for the community and become very important in order to reduce the risk of maternal death. The purpose of this community service was to increase the knowledge of pregnant women about anemia, the impact of anemia, and the importance of fe tablets. The method was in the form of counseling and giving Fe tablets to pregnant women classes in Jatinom, Kec. Kanigoro, Kabupaten Blitar. The result showed the knowledge and compliance of pregnant women in consuming Fe tablets were 5 participants (25%) in good category, 10 participants (50%) in fair category, 5 participants (25%) in lack category. After the counseling process, there was an increase in the knowledge and compliant to take the Fe tablet. There were 15 participants (75%) in good category and 5 participants (25%) in moderate category.

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## INTRODUCTION

In Indonesia, the anemia prevention program for pregnant women is done by providing iron supplements as many as 90 tablets during pregnancy. However, many pregnant women refuse or do not comply with this recommendation for various reasons. The compliance of drinking Fe tablets is less than 90% of iron tablets that should be taken. The compliance of pregnant women to take iron tablet is an important factor in ensuring an increase of hemoglobin levels of pregnant women (Nurhaedi dkk,2013). Anemia in pregnancy is also associated with the increase of maternal morbidity. Anemia due to iron deficiency is the main cause of anemia in pregnant women compared to the deficiency of other nutrients.

During pregnancy, mothers must eat foods containing high quality nutritional value. High quality nutritional value food s does not always mean expensive food. Nutrition during pregnancy should be increased to 300 calories per day, pregnant women should consume those that contain protein, iron, and drink enough fluids (Walyani, 2015). The need for iron during pregnancy increases by 300% (1,040 mg during pregnancy) and this increase cannot be fulfilled only from the mother's food intake during pregnancy but needs to be supported by iron supplements. Iron supplementation can be given from the 12th week of pregnancy by 30-60 grams every day during pregnancy and 6 weeks after birth to prevent postpartum anemia, despite the great benefits of iron supplements, it should be noted that consuming excessive iron is not good. , Because iron tablets are proven to reduce zinc levels in serum (Sulistyawati, 2011).

According to the rules, iron tablets must be consumed every day as a supplement for pregnant women. However, due to various factors such as poor knowledge, attitudes, and actions of pregnant women, the side effects of these tablets can trigger a person to refuse complying the consumption of tablet iron properly means that the purpose of giving the tablet is not achieved (Nurhaedi et al, 2013). Poor knowledge, attitudes, and action refer to the quality of human resources. Novita (2011) stated that one of many ways to accelerate the reduction of the Maternal Mortality Rate (MMR) and the Infant Mortality Rate (IMR) was the quality of human resources capable of implementing and providing quality and professional services in accordance with applicable midwifery service standards.

The survey conducted by the researchers on February 2017 at BPM Sri Wahyuni Jatinom found that the number of pregnant women in Jatinom village was 30 people with details of 15 trimester I pregnant women, 10 trimester II pregnant women, and 5 trimester III

pregnant women. In 2016, 15% of maternal bleeding occurred from a total of 20 mothers who were then referred to the hospital. Mothers who experienced this bleeding during pregnancy were rarely doing antenatal care and rarely consuming iron / iron tablets.

## **METHOD**

This community service program was carried out through counselling with the theme “the importance of compliance in taking Fe tablets in preventing anemia of pregnant women”. The process of implementing and evaluating the results were done by counseling and used questionnaire. 20 pregnant women participated in the survey and counseling.

## **RESULT**

### **Counseling on the Importance of Fe Tablets during Pregnancy**

During pregnancy, the amount of blood pumped by the heart every minute or commonly referred to as cardiac output increases by 30-50%. This increase begins at 6 weeks of gestation and peaks at 16-28 weeks of gestation. When the type and hemoglobin level counted, it was found that there was a hematocrit which tended to decrease due to the increase of the relative volume of blood plasma. The number of erythrocytes tended to increase. To meet the O<sub>2</sub> transport needs that are needed during pregnancy. The hemoglobin concentration appeared to decrease, although it was actually greater than the hemoglobin of non-pregnant people, this condition was called physiological anemia. Physiological anemia was caused by an increase in blood plasma volume. (Sulistyawati, 2009)

Iron is a mineral that is needed by all biological systems in the body. The benefits of iron are for the synthesis of hemoglobin in the blood, producing heat for adenotriphosphate in cellular respiration. Iron stores in the body are the liver, spleen and bone marrow. The composition of iron in the body is 70% in blood hemoglobin (blood hemoglobin carries oxygen to all body tissues) and 30% in myoglobin (intramuscular oxygen stores). (Mandriwati, 2007)

Providing sufficient knowledge to pregnant women about the importance of consuming Fe tablets will motivate pregnant women to be more obedient in consuming them. Consequently, the pregnancy is expected to run well and optimally until the delivery process.

### **The Knowledge of Pregnant Women about Iron Needs during Pregnancy**

The questionnaire given to the sample showed that 18 pregnant women (90%) answered that Fe tablets should be consumed every day, 2 pregnant women (10%) answered that they forgot. Iron is a mineral that is needed by all biological systems in the body. The benefits of iron are for the synthesis of hemoglobin in the blood, producing heat for adenotriphosphate in cellular respiration. Iron stores in the body are the liver, spleen and bone marrow. The composition of iron in the body is 70% in blood hemoglobin (blood hemoglobin carries oxygen to all body tissues) and 30% in myoglobin (intramuscular oxygen stores) (Mandriwati, 2007).

The need of iron during pregnancy increases by 300% (1,040 mg during pregnancy) and this increase cannot be fulfilled only from the mother's food intake during pregnancy, but needs to be supported by iron supplements. Iron supplementation can be given from the 12th week of pregnancy for 30-60 grams every day during pregnancy and six weeks after birth to prevent postpartum anemia (Sulistyawati, 2009).

Pregnant women should be given iron tablets in order to ensure adequate iron needs for the fetus, especially for the brain and blood development. In the first trimester of pregnancy, the need of iron is only in small number since the menstruation does not occur and fetal growth is still slow. Stepping on the second to third trimester, the volume of blood of a woman's body will increase by 35%, and this is equivalent to 450 mg of iron to produce red blood cells. Red blood cells must carry more oxygen to the fetus. Meanwhile, during childbirth, pregnant women need about 40 mg of iron per day or twice the need for non-pregnant conditions (Syafudin et al, 2011).

### **The Knowledge of Pregnant Women about how to Consume Fe tablets**

The result of the questionnaire filled out by pregnant women showed that 10 pregnant women (50%) took Fe tablets with mineral water, 5 pregnant women (25%) took Fe tablets with tea, 5 pregnant women (25%) took Fe tablets with orange juice water. The way of taking iron tablets really helps the absorption of iron itself. To make the Fe tablets work effectively, it is better to take it together with vitamin C / juice / citrus fruit or take it together with meat or fish to stimulate stomach acid (Mandriwati, 2007).

Monitoring the consumption of iron supplements should also be followed by monitoring the correct way of drinking, because this greatly affects the effectiveness of iron absorption. Vitamin C and animal protein are elements that are very helpful in the absorption

of iron, while coffee, tea, calcium salts, magnesium and phytate (contained in nuts) will inhibit iron absorption. However, it does not mean that food substances that inhibit iron absorption are not beneficial to the body. These substances are still consumed but should not be taken together with iron tablets. Give an interval of approximately two hours from giving iron. (Sulistyawati, 2009)

Sulistyawati (2009) also stated that monitoring the consumption of iron supplements should also be followed by monitoring the correct way of taking it, because this could greatly affect the effectiveness of the iron absorption itself. Vitamin C and animal protein were elements that were very helpful in the absorption of iron, while coffee, tea, calcium salts, magnesium and phytate (contained in nuts) would inhibit iron absorption. However, it did not mean that food substances that inhibit iron absorption were not beneficial to the body. These substances should still be consumed but should not be taken together with iron tablets. It should be given an interval of approximately two hours from giving iron.

The knowledge of pregnant women about the effect of Fe tablets showed that the whole of 20 pregnant women (100%) answered correctly, namely nausea and vomiting, the color of the stools was a bit black and constipation often occurs. Because of this several kinds of effects, pregnant women were often lazy to take it daily.

From the results of the written questionnaire it was also seen that 10 pregnant women (50%) drank regularly every day, 10 pregnant women (50%) did not drink regularly every day. So it is true that routine outreach activities in the class of pregnant women need to be improved, so that problems that may not often be found during ANC will be exposed during class activities for pregnant women. The results of the questionnaire also showed that 10 pregnant women (50%) took Fe tablets regularly daily, 10 pregnant women (50%) did not take it regularly daily. Therefore routine counseling activities in the class of pregnant women needed to be improved which consequently could revealed all of the problems that may still exist during the antenatal care in the pregnant women class activities.

### **The Knowledge of Pregnant Women about the Impact of Fe Tablet Deficiency**

The questionnaire also illustrated that 18 pregnant women (80%) were correct in answering the impact of not consuming Fe tablets and 2 pregnant women (20%) were incorrect in answering the impact of not consuming Fe tablets. Iron deficiency in pregnant women caused anemia. Iron could be obtained from the intake of iron-rich foods. In pregnant conditions, women who were actively working need more iron since it was released along with calories, every time the body doing activity. The function of iron preparation in the body

of pregnant women was for the needs of body activities every day, stability of hemoglobin levels in the blood which resulted in the optimal flow of oxygen to the fetus, prevent fatigue during childbirth and avoid excessive bleeding. (Mandriwati, 2007)

## **CONCLUSION**

Based on the results of the structure evaluation, process evaluation and evaluation of counseling, it could be concluded that the activities of giving Fe tablets and counseling to pregnant women about Fe obtained good results and good response.

## **SUGGESTION**

From the results obtained, the problem of the non-compliance of pregnant women to consume Fe tablets due to the side effects, it is expected that health workers (especially regional midwives) will continue to provide information about the benefits and effects of consuming Fe tablets, both during pregnancy class and during antenatal care.

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