



# Education on Compliance with Drinking Blood Adding Tablets (Fe) as An Effort to Prevent Anemia in Adolescent Girls Of SMP I & SMA I in Syamtalira Bayu District

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**Abstract:** The prevalence of anemia is quite high, so teenagers should pay more attention to their own health. Indonesia in 2019 showed that Aceh City was among the four provinces that had not met the target for providing TTD, amounting to 20.29%, while Indonesia nationally had a strategic plan target of 30%. The number of young women who do not consume or drink blood supplement tablets is unknown. There needs to be a more in-depth study of teenagers who consume Fe tablets. This is the first step to prevent anemia in young women. 307 young female students at SMA N I and SMP N I Syamtalira Bayu District were recorded, with the answer being that they never consumed TTD every week, but when they felt their bodies were weak, tired and felt dizzy. Purpose of Service; early detection of anemia by using a basic compliance questionnaire and providing education to young women from SMA N I and SMP N I in Syamtalira Bayu District. Devotion Method; This activity was carried out on female students at SMA N I and SMP N I in Syamtalira Bayu District, detecting them early using a basic compliance questionnaire and providing education to young women. Participants in this activity were 307 young women from SMP N I v Classes VII, VIII, IX and SMA Classes X, XI, XII aged 13-18 years. The implementation of this activity includes several stages, namely socialization (introduction), filling out a questionnaire and then providing education about the importance of taking Fe tablets during adolescence and how to take them.

**Keywords:** Adolescent girls; Compliance; Fe Tablets

## Introduction

Adolescence is a period when a person experiences rapid physical and psychological growth and development (Winkjosostro, 2010). Adolescent girls are a group that is prone to experiencing lifestyle changes, especially in eating habits (Nanik K, 2011). This is closely related to the disease that is often experienced by young women, namely anemia. Anemia is a type of disease where the sufferer experiences a lack of hemoglobin levels in the blood. Most of those who experience anemia are women, especially teenagers. Because young women often do not consume food with sufficient nutritional content and experience menstruation every month. The nutritional intake that must be consumed is food that contains iron as needed (Tyas P, 2018).

Anemia is a condition where the number of red blood cells/hemoglobin (Hb) levels in the blood is lower than normal values according to age and gender characteristics (Muhayati & Ratnawati, 2019). Anemia is a type of disease that mostly occurs in teenage girls, especially for those who do not consume enough nutritious food, and every month they experience menstruation, so it is important to consume foods that contain iron as needed every month (Tyas P, 2018). The prevalence of anemia in the world is 1.62 billion people, with pre-school age groups reaching 47.4%, schools 25.4%, women of childbearing age 41.8%. According to Riskesdas data for 2018, the prevalence of anemia is around 32% in the group of teenagers aged 15-24 years. The prevalence of anemia in female adolescents is higher, namely 27.2%, compared to 20.3% for males (Riskesdas, 2016). The prevalence of anemia is quite

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high, so teenagers should pay more attention to their own health (Riskesdas 2018). The Indonesian government has launched a program to reduce the incidence of major anemia in adolescents. The program that has been implemented is sufficient to provide a solution for preventing anemia. However, this did not go well because many groups who were vulnerable to disease did not comply with the program. The program in question is the administration of Fe tablets or blood supplement tablets where the aim is to increase hemoglobin levels in the blood. The target of this program is all vulnerable age groups who are at risk of experiencing anemia, especially adolescent girls and pregnant women. Blood supplement tablets contain 60 mg of elemental iron and 0.400 mg of folic acid (WHO, 2005).

The iron needed by the body is very useful and has several functions, including forming blood, it is also needed by various enzymes and as a tool to carry or transport electro (cytochromes). Apart from that, iron is also useful for activating oxygen so that if iron levels decrease there is nothing to bind hemoglobin in the blood. As a result, Hb levels in the blood decrease and anemia occurs. Iron can be obtained from food and taking blood supplement tablets or Fe as a way to prevent and control the increasing incidence of anemia. The rules for taking Fe tablets given to young women are 1 tablet every 1 week and 1 tablet every day for 10 days during menstruation (Ministry of Health, 2016). The number of young women who do not consume or drink blood supplement tablets is unknown. There needs to be a more in-depth study of teenagers who consume Fe tablets. This is the first step to prevent anemia in young women. There were 307 young female students from SMA N I and SMP N I Syamtalira Bayu District, the results of which were that they never consumed TTD every week, and every day when they were menstruating. but 3 of them consumed TTD when they felt weak, tired and dizzy.

## Method

Stages of the activity method for implementing the Education on Compliance with Taking Blood Addition Tablets at Rematri SMAN I and SMPN I, from community service activities there are 5 steps taken to carry out community service activities which can be described as follows:

### 1. *Problem analysis.*

There are 2 elementary schools SMA N 1 and SMP N I in Syamtalira Bayu District, North Aceh Regency. The program for providing TTD for young women in Aceh has been implemented since 2016 until now in 2023. The coverage of providing TTD is still very low, namely the target in the province of 30% is the target of

the national strategic plan. Various efforts have been made to ensure that the percentage of TTD provided to young women exceeds the national target. The large number of adolescent girls who do not consume blood supplement tablets 7 because they do not know how and the benefits of consuming TTD, requires a more in-depth study of consuming blood supplement tablets in adolescent girls as the first step in preventing anemia in adolescent girls. Young women at school as the next generation must pay attention to the growth and development of future mothers.

### 2. *Problem solution design*

The community service team plans to provide education on adherence to taking blood supplement tablets for young women at SMP N 1 and SMA N 1 Syamtalira Bayu District. Part of the design includes provisions for educational activities, participants, venues and other needs.

### 3. *Survey of availability of facilities and infrastructure.*

Availability of facilities and infrastructure by conducting a field survey of the availability of existing facilities and facilities that do not yet exist. If some of the existing facilities and infrastructure will be used for community service activities, and then part of the list of facilities and infrastructure that do not yet exist will be procured by the community service team.

### 4. *Conducting education.*

Activities were carried out for 3 days (conducting educational outreach on adherence to taking blood supplement tablets to young women; distributing questionnaires, followed by education for young women from SMA N 1 and SMP N 1 in Syamtalira Bayu District and the community service team.

### 5. *Making report documents and activity outputs.*

The final step, making final activity report documents from preparation until the activity is declared complete. As well as making output from this activity.

## Result and Discussion

This community service activity was carried out for all 307 young female students from SMA N I and SMP N I in Syamtalira Bayu District. The activities carried out at SMA N I amounted to 155 people and SMP N I amounted to 152 people. This activity is carried out starting from preparing proposals, completing supporting material documents, processing licensing documents for community service activities, coordinating meetings, and preparing educational media. This activity is gradual, starting with educational

outreach to participants, filling out questionnaires, continuing with education using stickers.

1. Pre-Preparation

The program for providing TTD to adolescent girls in Aceh has been implemented from 2016 until now in 2023. The coverage of providing Blood Additive Tablets is still very low, with the provincial target being less than 30% which is the target of the national strategic plan. Indonesia's health profile data (2019), shows that Aceh City is one of the four provinces that has not met the target for providing Blood Additive Tablets, namely 20.29%. This is closely related to a disease that is often experienced by young women, namely anemia. Anemia is a type of disease where sufferers experience a lack of hemoglobin levels in the blood, and most of them are women, especially teenagers. Young women often do not consume food with sufficient nutritional content and every month they menstruate, the nutritional intake that must be consumed is food that contains iron as needed (Tyas P, 2018).



Figure 1. Signing of Supporting Documents

2. Preparation

The community service team takes care of permits for the Aceh Ministry of Health Polytechnic and parties at SMP N I and SMA N I Syamtalira Bayu District. This effort ensures that the activities carried out have legal documents that help protect them if something unexpected happens to the community service team. Another preparation made was the creation of educational media to make it easier and help participants achieve the goals of the activities carried out.



Figure 2. Educational Media

3. Implementation

This community service activity was carried out among 307 young female participants/girls from SMA N I and SMP N I, Syamtalira Bayu District. The activities carried out over the past 3 days included 155 participants/young women at SMA N I, and 152 participants at SMP N I. Some descriptions of the activities carried out in this activity begin with socializing or introducing yourself to the participants, and then filling out a questionnaire and the final activity is providing education about the importance of consuming Blood Additive (Fe) Tablets regularly during adolescence using stickers. The socialization activity stage is to make participants/young women feel comfortable and believe that this activity will be beneficial for them. The basic questionnaire filled out by participants is about the number of Fe tablets consumed in a week and how to take blood supplement tablets. The characteristics of the participants in this activity are the participant's name, age, school origin.

The age characteristics in this activity are more in the 16-18 year age range as much as 50.48% and 49.52% in the 13-15 year age range, indicating that the number of young women in SMA N I Syamtalira Bayu District is greater (50.48%) namely 155 people while the number of young women in SMP N I was 49.52%, namely 152 people

The educational characteristics of young women are more likely to have a high school education, namely 50.48%, while 49.52% of teenagers have a junior high school education.

Table 1. Results of Compliance with Taking Fe Tablets among Young Women in SMA N I and SMP N I Syamtalira Bayu District

Item	f	%
Number of Fe Tablets	179	58.31
Consume Fe Tablets once a week	29	9.45
Consume Fe Tablets with water	169	55.05
Consume blood enhancing tablets with other foods (bananas)	10	3.26

If you look at the table above, it shows that 58.31% of young women in SMA N I and SMP N I Syamtalira Bayu District consume Fe tablets, while 9.45% of teenagers who regularly consume them once a week are 9.45%. 55.05% of teenagers consumed Fe tablets with water and 3.26% used other foods such as bananas. This community service activity includes 3 stages, including conducting outreach, filling out questionnaires and providing education using stickers. The first stage of this activity is conducting socialization. The organizer introduces himself first and explains the purpose of holding the community service activity. It is important



to do this at this stage so that it is easier for all participants to participate in this community service activity from start to finish. Apart from that, the presence of socialization can make participants comfortable and believe that this activity will be useful for them. Next, participants fill out an attendance list sheet containing the participant's name, age and school origin. Based on the results of the analysis, there were 307 participants in this activity, most of whom had an age range of 16-18 years and had a high school education.



**Figure 3.** Educational outreach on adherence to taking Fe tablets

The second stage of this activity was to fill out a questionnaire about the number of Fe tablets consumed in a week and how to take blood supplement tablets. Table 4 shows that 179 participants consumed Fe tablets out of 307 young women or 58.31%. This shows that most of the female teenagers from SMA N I and SMP N I Syamtalira Bayu District do not consume Fe tablets. It is possible that this is because they do not understand the importance of Fe tablets for the body. There were 29 participants who regularly consumed Fe tablets once a week or 9.45%. If you look at the results of the analysis in table 4, it shows that of the 179 people who consumed Fe tablets, 169 people or 55.05% of the participants drank water and 10 people or 3.26% used bananas. This proves that young women in SMA N I and SMP N I Syamtalira Bayu District are still some of the average who do not consume Fe tablets. Even though it is known that it is very important for young women to consume blood supplement tablets to prevent anemia. Teenage girls menstruate every month, so there will be quite a bit of blood loss. Therefore, teenagers will easily experience blood loss every month. This is one of the triggers for young women to experience anemia. From the questionnaire data, most of them do not understand the drinking rules for those who consume it. So there is a need for education about how to take Fe tablets in order to get good and desired results, namely preventing anemia. However, for teenagers who drink Fe, most drink it once a week. This also shows that young women are obedient in consuming Fe.



**Figure 4.** Filling out the questionnaire

The final stage is providing education with stickers about the procedures or rules for drinking Fe. From the data obtained, it is clear that many teenage girls do not consume Fe, so they need to be educated about the importance of Fe in teenagers. Education is provided about the meaning, benefits or goals, rules for drinking and the consequences of not drinking Fe. Participants who took part in this activity were very enthusiastic when given education. This is proven by the many questions they ask. With this activity, it is easier for them to understand the importance of consuming Fe so that they can prevent anemia



**Figure 5.** Providing education using sticker media

## Conclusion

Community service activities have been carried out for young female participants at SMP N I and SMA N I Syamtalira Bayu District in collaboration with the community service team from the Aceh Ministry of Health Polytechnic. The final results were that there were young women who showed that the majority did not consume Fe tablets, namely the average female student participants at SMP N I and SMA N I, Syamtalira Bayu District. Young women in SMP N I and SMA N I have less knowledge about the importance of consuming Fe tablets and how to take them, as evidenced by the small number who consume Fe tablets still using bananas when drinking them. Community service activities have been carried out for young female participants at SMP N I and SMA N I Syamtalira Bayu

District in collaboration with the community service team from the Aceh Ministry of Health Polytechnic. The final results were that there were young women who showed that the majority did not consume Fe tablets, namely the average female student participants at SMP N I and SMA N I, Syamtalira Bayu District. Young women in SMP N I and SMA N I have less knowledge about the importance of consuming Fe tablets and how to take them, as evidenced by the small number who consume Fe tablets still using bananas when drinking them.

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