

RELATIONSHIP WITH COMPLIANCE WITH BLOOD SUPPLEMENTING TABLET CONSUMPTION WITH THE INCIDENT OF ANEMIA IN ADOLESCENT GIRLS

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ABSTRACT

Background: Iron deficiency can cause anemia. Anemia is a global public health problem that most often occurs in adolescent girls and the most common cause is iron deficiency. The effects of anemia seen in teenagers are stunted growth, the body is easily infected, decreased body fitness, decreased enthusiasm for learning, and decreased achievement. The Ministry of Health explained that young women obtain iron through animal protein such as liver, fish and meat because young women cannot access these foods so they need additional intake of the substance obtained through Fe tablets. The World Health Organization (WHO) in the world prevalence of anemia in 2015 shows that the prevalence of anemia in the world is around 40%-88%, in Southeast Asia 25%-40% of young women experience mild and severe anemia. The population of teenagers (10-19 years) in Indonesia is 26.2%, consisting of 50.9% men and 49.1% women. The aim of the research was to determine the relationship between adherence to consuming blood supplement tablets and the incidence of anemia in young women in the study program. Nutrition Science at STIKes Baiturrahim.

Method: This research is a quantitative research with a cross sectional study design. This research was conducted to see the relationship between the independent variable and the dependent variable at the same time, this research involved 67 respondents.

Result: Based on the research results, results were obtained ($p - \text{value } 0.005 < 0.05$).

Conclusion: It can be concluded that there is connection Compliance with blood supplement tablet consumption and the incidence of anemia in young women at STIKes Baiturrahim.

Keywords: Anemia, and Blood Supplementing Tablet

INTRODUCTION

Nutrition is one of the determining factors in the quality of human resources. Lack of nutritional needs, both micronutrients and macronutrients, can cause suboptimal physical growth and decreased the body endurance, resulting the highest morbidity and mortality rates. Adolescence is a period where growth occurs rapidly, so nowadays the nutritional needs increase as well. One nutrient whose needs are increasing is iron. Iron is needed in all body cells and is basic in physiological processes, such as the formation of hemoglobin (red blood cells) and enzyme

function (Fikawati S at el, 2017).

Iron deficiency can cause anemia. Anemia is defined as a decrease in the number of red blood cells in circulating blood or the amount of hemoglobin which is below the normal limit, and the normal limit varies for each age and condition (Corwin, 2009). Anemia is a health problem throughout the world. The prevalence of anemia in the world is very high, especially in developing countries, including Indonesia (WHO, 2013).

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Southeast Asia is around 25%-40% of young women had experience mild and severe the anemia. The population of the teenagers (10-19 years) in Indonesia is 26.2%, consisting of 50.9% men and 49.1% women (Ministry of Health, 2018). Nowadays anemia often occurs in adolescent girls, because currently there is an increasing in iron requirements due to growth and menstruation (Fikawati S at el, 2017).

The prevalence of anemia according to Basic Health Research (Riskesdas, 2018) states that anemia in children (5-12 years) in Indonesia is 26%, in adolescent girls (13-18 years) it is 23%. The increase in the prevalence of anemia in pregnant women is from 37.1% in 2013 to 48.9% in 2018. This cannot be separated from the role of nutritional consumption during adolescence which has an impact on nutritional status and anemia during pregnancy (Ministry of Health of the Republic of Indonesia, 2018).

The 2018 Riskesdas results show that the proportion of young women who received iron tablets was 76.2%, and 80.9% received TTD at school. From this data, only 1.4% consumed ≥ 52 iron tablets, while 98.6% consumed < 52 tablets (Ministry of Health, 2018).

Giving Fe tablets to junior and senior high school students in Jambi City is a form of preventing anemia which often occurs by looking at the students' weak condition and decreased immune system. This can be seen from the frequent fainting during ceremonies and lack of concentration when studying. Students are given counseling and providing blood-boosting supplements by the Health Service in collaboration with the Jambi City Health Center, to anticipate anemia which is often experienced by female students (Jambi Provincial Health Office, 2017).

The results of the initial survey in August 2022 at STIKes Baiturrahim through interviews with 10 young women, some young women already understand the benefits of consuming TTD but there are still

those who have not implemented it, and as many as 15.6% of young women consuming TTD have become healthy teenagers.

Based on the data above and looking at the situation and conditions that exist among students of the STIKes Baiturrahim Nutrition Study Program, the author is interested in conducting further research regarding "The Relationship between Adherence to Consuming Blood Supplement Tablets and the Incidence of Anemia in Young Women in the STIKes Baiturrahim Nutrition Department".

METHOD

This research was carried out from August 2022 to July 2023. The population in this study were young women from the STIKes Baiturrahim Nutrition Science Study Program, totaling 178 students, the sample size was 67, with the inclusion criteria being students of the Baiturrahim Nutrition Science Study Program who were active in the 2022 academic year. /2023 and exclusion criteria for students who experience illnesses related to anemia (Thalassemia, kidney failure). The sample was selected using Purposive Random Sampling technique.

RESULTS AND DISCUSSION

Respondent Characteristics

Respondent characteristics were created with the aim of seeing the general condition of the respondents studied. Respondent characteristics.

Table 1. Frequency distribution of respondents' ages at Baiturrahim Jambi College of Health Sciences

Age	Frequency (n)	Percentage (%)
18	5	7.5
19	13	19.4
20	17	25.4
21	24	35.8
22	11	11.9
Total	67	100

Based on table 1, it shows that of the 67 respondents, the most respondents were 21

years old, 24 students (35.8%) while the least respondents were 18 years old, 5 students (7.5%).

Univariate Analysis

Description of Compliance with Blood Supplement Tablet Consumption at STIKes Baiturrahim

An overview of compliance with the consumption of blood supplement tablets at STIKes Baiturrahim can be seen in the following table:

Table 2. Description of Compliance with Blood Supplement Tablet Consumption at STIKes Baiturrahim

Compliance	n	%
Obedient	32	47.8
Non-obedient	35	52.2
Total	67	100.0

Based on the research results in table 2, it is known that as many as 35 (52.2%) young women of STIKes Baiturrahim were not obedient in implementing consumption of blood supplement tablets and as many as 32 people (47.8%) of young women at STIKes Baiturrahim adhered to consuming blood supplement tablets.

The results of this study are in line with the research results of Lestari et al (2015) showing that there were only 8 respondents (12.5%) out of 68 samples who consumed Fe tablets during menstruation, which means that more young women were disobedient in consuming blood supplement tablets. Yuniarti, et al (2015) The number of young women who do not comply with the consumption of Fe tablets is due to many factors, such as laziness and the side effects that are often felt after taking Fe tablets. Based on research (Budiarni and Subagio, 2012), it is known that 51.8% of subjects experienced the side effect of nausea which resulted in non-compliance. Other causes of non-compliance are constipation and changes in stool color to black. Another reason revealed by 48.2% of subjects was that Fe tablets had an unpleasant taste and fishy smell, apart from that the subjects also felt

bored, forgot and were lazy about consuming Fe tablets.

Based on the research results, it is known that the low level of compliance with consuming blood tablets is because many students do not like consuming blood supplement tablets because they taste bad and smell bad.

Description of the incidence of anemia in adolescent girls at STIKes Baiturrahim

An overview of the incidence of anemia in young women at adolescent girls at STIKes Baiturrahim can be seen in the following table:

Table 3. Description of the incidence of anemia in adolescent girls at STIKes Baiturrahim

Category of Anemia Occurrence	n	%
Not Anemic	42	62.7
Anemia	25	37.3
Total	67	100.0

Based on the research results in table 4, it is known that as many as 42 (62.7%) young women did not experience anemia and as many as 25 (37.3%) young women experienced anemia.

This research is in line with Basith. A, et al (2017), where 50 respondents had their hemoglobin levels checked, it was found that more than half (54%) of the respondents had anemia.

According to the Ministry of Health of the Republic of Indonesia (2018) anemia is a medical condition where the hemoglobin level in the blood is lower than normal. Hemoglobin itself is a component in red blood cells whose function is to bind oxygen and deliver it to all body tissue cells. Without adequate oxygen supply, many tissues and organs throughout the body can be disrupted. According to Arisman (2010), the main causes that can cause anemia in women are blood loss during menstruation and a lack of nutrients in blood formation, for example iron, protein, folic acid and B12. Because when women are menstruating, iron is

released, making young women more susceptible to anemia.

Bivariate Analysis

Relationship between Adherence to Consuming Blood Supplement Tablets and the Occurrence of Anemia

The relationship between compliance with the consumption of blood supplement tablets and the incidence of anemia in young women in the Baiturrahim STIKes Nutrition Science Study Program can be seen in the following table:

Based on the research results in table 6, the results obtained (p – value $0.005 < 0.05$). So it can be concluded that There is connection Compliance with blood supplement tablet consumption and the incidence of anemia in young women at STIKes Baiturrahim. This research is in line with Savitri, et al (2021) where the research results show a significant relationship between compliance with the consumption of blood supplement tablets and the incidence of anemia in young women in Indonesia.

Table 4. Relationship between Compliance with Taking Blood Supplement Tablets and the Incidence of Anemia in Adolescent Girls at STIKes Baiturrahim

Compliance with Fe Tablet Consumption	Occurrence of Anemia				Total		p value
	Not Anemic		Anemia				
	F	%	F	%	F	%	
Obedient	26	81.2	6	18.8	32	100	0.005
Not obey	16	45.7	19	54.3	35	100	
Total	42	62.7	25	37.3	67	100	

This means that the more obedient you are in consuming TTD, the more young women's Hb levels will increase. Based on the results of the analysis carried out, the incidence of anemia in young women is influenced by compliance with TTD consumption.

Kamidah (2015) stated that there are several factors that influence compliance, including knowledge, level of education and motivation. Meanwhile, according to Priyoto (2014) factors that influence patient

awareness in undergoing treatment include knowledge, education and motivation.

Based on the results of the questionnaire analysis, it was found that there are still many young women who are disobedient in consuming blood supplement tablets, especially during menstruation.

Researchers assume that young women are disobedient at STIKes Baiturrahim caused by a lack of motivation and information. Therefore, researchers suggest that the health service needs to provide information and motivational support in order to increase the compliance of young women in consuming blood supplement tablets.

Research Limitations

Data was obtained using a goggle form on respondents so that the quality of the data really depends on the cooperation and perception and honesty of respondents in answering the questions given. The questions in the questionnaire are answered with multiple choices. Researchers use informed consent as approval to become a respondent.

CONCLUSION

Based on the research results, results were obtained (p – value $0.005 < 0.05$). So it can be concluded that There is The Relationship between Knowledge and the Occurrence of Anemia. Based on the research results, results were obtained (p – value $0.005 < 0.05$). So it can be concluded that There is connection Compliance with blood supplement tablet consumption and the incidence of anemia in young women at STIKes Baiturrahim.

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