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Literature Review The Effect Of Blood Supplements Tablet On Adolescent Girls In Anemia

Alya Nafis[1], Indah Laily Hilmi[2]
[1,2]Faculty of Health Science Singaperbangsa Karawang University, Indonesia

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ABSTRACT

According to data from Riset Kesehatan Dasar (Riskesdas) in 2018, the prevalence of anemia in Indonesia was 48.9%, with the highest prevalence of anemia at the age of 15-24 years and the least at the age of 45-54 years. Factors for the occurrence of iron nutritional anemia in adolescent girls include lack of education about iron nutritional anemia, unsupportive environmental factors, lack of attention to daily nutritional intake, and lack of implementation of preventive measures from the government by consuming blood-added tablets. This study uses the review article method with research data sources based on journal publications on the internet. Based on the results of the review article conducted, it can be concluded that the effect of giving blood-added tablets can increase hemoglobin (Hb) levels so as to avoid the incidence of anemia (Hb <12 mg/dL) and reduce the prevalence of anemia in Indonesia..

Email :
1910631210024@student.unsika.ac.id
indah.laily@fkes.unsika.ac.id

1. INTRODUCTION

According to the Indonesian Ministry of Health (2011) and WHO (2013), adolescents are 10-19 years old. Based on BPS data in February 2022, adolescents aged 15-19 years in Indonesia is 22,176,543 residents. Adolescence is a period of transition with a person's psychological and physical changes, these changes can cause health problems, one of the changes is menstruation in adolescent girls.

Menstruation is bleeding from the uterus due to the process of releasing the endometrium a lot and occurs once a month, usually losing ± 1.3 mg of iron substance per day. Normal menstruation has a cycle ranging from 12-35 days. In addition, the menstrual cycle can also be 28 days with a menstrual period of 3-5 days or 7-8 days, but only 10-15% have this cycle. Menstruation can cause hemoglobin (Hb) levels to decrease due to the loss of some blood. The impact of this can cause symptoms of anemia. Anemia is a lack of hemoglobin (Hb) in the blood from the normal limit of 12 mg/dL. Hemoglobin is iron substance contained in protein complexes and functions to distribute oxygen throughout the body, so that if the hemoglobin level in the blood is <12 mg/dL, it results in decreased physical conditions such as weakened immune system, weakness, fatigue, and lethargy.

According to Basic Health Research (Riskesdas) data in 2018, the prevalence of anemia in Indonesia was 48.9% with the highest prevalence of anemia at the age of 15-24 years and the least at the age of 45-54 years. These data indicate that cases of anemia in Indonesia are still high so that it becomes a priority for improvement and improvement of nutrition. Adolescent girls should take early countermeasures as prospective mothers before it is too late by having iron substance reserves. The risk of anemia in pregnant women is very high, it can cause low birth weight of the baby so that the quality of life isn't optimal, the frequency of

complications during pregnancy and childbirth, disorders during the puerperium, and disorders of the fetus such as abortion (miscarriage), dysmaturity or macrosomia, default defects. and perinatal mortality.

Blood Supplement Tablets can increase hemoglobin (Hb) levels and become iron substance reserves so as to prevent anemia. Pharmacoepidemiological studies can measure the use of drugs with drug effects on Blood Supplement Tablets consumed by adolescent girls. Iron is one of the important substances in the process of forming blood cells. Since 1997, the Indonesian government has made preventive efforts to reduce maternal mortality and minimize the risk of bleeding due to anemia in Indonesia by distributing Blood Supplement Tablets to adolescent girls to improve health and nutritional status, increase hemoglobin (Hb) levels, fulfill iron in the body, and lowers the risk when pregnant later.

2. METHODS

The method used in this study is the review article method and the source of the data is obtained from the research literature through journal publications which include the effect of consuming blood supplement tablets in adolescent girls. In this study, the selected journal or research is set a limit, namely between 2017-2022 (the last five years). The inclusion criteria were adolescent girls aged 17-26 years who had anemia (Hb <12 mg/dL), which were studied were the effects and factors related to the administration of blood-supplementing tablets, while the exclusion criteria were anemia in pregnant women.

Table 1. Journal Extract Effect of Blood Supplement Tablet on Adolescent Girls in Anemia

No.	Writer	Title	Goals	Methods	Result
1.	Amir, *et al* (2019)	Factors Associated with Consumption of Blood Supplementary Tablets (TTD) in Young Women in Indonesia: Literature Review	To see what are the factors associated with the consumption of blood-added tablets (TTD) in adolescent girls in Indonesia	Literatur e Review	The existence of related factors, like teacher support, attitudes, culture, family support, *perceived therat*, *perceived benefit*, *perceived barrier*, *self efficacy*
2.	Zaddana, *et al* (2019)	The Effect of Nutrition Education and Giving Blood Supplementary Tablets (TTD) on the Increase in Hemoglobin Levels of Adolescent Girls	To analyze the effect of education about anemia and the administration of iron supplementation on Hb levels in adoescent girls	*True Experim ental Study*	Increased knowledge of the community (respondents) by providing nutrition education and increasing Hb levels by giving TTD supplements
3.	Nasruddi n, *et al* (2021)	The Incidence of Anemia in	To find out the increase in the	Literatur e Review	The increase in cases of anemia in adolescents is

		Adolescents in Indonesia	incidence of anemia in adolescents		caused by a lack of education about balanced nutrition
4.	Tonasih, *et al* (2019)	The Effectiveness of Giving Blood-Supplement Tablets to Adolescents on Increasing Hemoglobin (Hb) at STIKES Muhammadiyah Cirebon	This study aims to determine the effect of giving blood-supplement tablets to adolescents on the increase in hemoglobin (Hb) in the Cirebon Muhammadiyah stickes in 2019	*Quasi eksperimen*	Increased levels of hemoglobin (Hb) after consumption of blood-supplement tablets
5.	Rosidah, *et al* (2017)	The Effect of Giving Blood Supplements to Hemoglobin Levels in Menstruating Women	The purpose of this study was to determine the effect of supplementation with blood-enhancing substances on hemoglobin levels in menstruating women	Experiment	Increased levels of hemoglobin (Hb) after administration of blood-boosting supplements
6.	Contesa, *et al* (2022)	Relation of Knowledge, Menstruation Length and Nutritional Status with Anemia Incidence in Regular Midwifery Students at Kader Bangsa University Palembang in 2022	This study aims to determine the relationship between knowledge, duration of menstruation and nutritional status simultaneously with the incidence of anemia in regular midwifery students at Kader Bangsa University Palembang in 2022.	*Cross sectional*	There is a relationship between knowledge, duration of menstruation and nutritional status with the incidence of anemia

7.	Izzani, (2018)	Relation between knowledge level and Fe Tablet Consumption Behavior during Menstruation in UNAIR Surabaya UKM students	To find out the relation between knowledge and adolescent attitudes about consuming Fe tablets during menstruation in UKM UNAIR Surabaya students	Cross sectional	There is no significant relation between knowledge and behavior of consuming Fe tablets during menstruation
8.	Purpasari, *et al* (2022)	Analysis of Blood Supplementation Tablets and Consumption Patterns of Iron Source Foods on Hb Levels of Young Women with Iron Nutrient Anemia in Private Senior High School YPWI Muslimat Jambi City	The purpose of this study was to determine the effect of giving Blood Add Tablets with consumption patterns of iron sources on Hb . levels	Quasiexperiment	There is an effect of energy levels, protein levels and there is no effect of fat, Fe and hemoglobin levels before and after the intervention on adolescent girls at YPWI Muslimat Private High School Jambi City in 2016

4. RESULTS AND DISCUSSION

There are many influences or effects of giving blood supplement tablets (TTD) to adolescent girls, one of which is avoiding anemia (Hb <12 mg/dL) due to increased hemoglobin levels so that cases of anemia in Indonesia can be reduced. Anemia can be caused by several factors, lack of education about iron nutritional anemia, unsupportive environmental factors, lack of attention to daily nutritional intake, and lack of implementation of preventive measures from the government by consuming blood supplement tablets.

Based on research conducted by Amir et al (2019) with the literature review method, there are factors that can encourage the consumption of blood-added tablets as a preventive effort, namely environmental support (teachers (p=0.000 OR=4.7), attitudes (p=0.031 OR= 2.192), culture (p=0.012 OR=2.517), family (p=0.29)), benefits (p=0.01), threats (p=0.02) and barriers (p=0.02) and self efficacy (p = 0.00) that will be felt when consuming it. Factors of knowledge, purchasing power, availability, parental support, parental income, perception of vulnerability, seriousness/severity are not related to the encouragement of adolescents to consume the blood supplement tablet. The same thing was also stated in a study conducted by Izzani (2018) with an analytical method with a cross sectional approach, which means that knowledge is not a factor in encouraging the consumption of blood-added tablets (p=1 <=0.05).

While the research conducted by Contesa, et al (2022) using an analytical survey method with a cross sectional approach, one of the factors that can encourage anemia (p value = 0.000 OR: 0.0024), menstrual duration (p value = 0.02 OR: 24,000) and nutritional status (p value = 0.011 OR = 15,000) are also factors driving the occurrence of anemia in adolescents. This is in line with research conducted by Zaddana et al (2019) with the True Experimental Study method, knowledge can increase after providing nutrition education.

Based on the research of Tonasih, et al (2019) using a quasi-experimental method, the Hb levels were checked for adolescents at STIKES Muhammadiyah Cirebon before consuming blood-supplementing tablets with an average Hb level of 12.7 g/dL and after giving blood-supplement tablets, adolescents' Hb levels increased with an average Hb level of 12.9 g/dL with p value = 0.022 so that there was an increase in hemoglobin (Hb) after administration of blood-added tablets. This was also stated by Rosidah et al (2017) using an experimental method by giving blood-added tablets to menstruating women who have anemia and then checking their Hb levels. The results of the analysis of increased Hb levels, before being given a blood-boosting tablet, the average Hb level was 11.3045 g/dL and after being given a blood-enhancing tablet, the average Hb level was 13.4245 g/dL, so there is an effect of increasing the administration of added tablets blood to hemoglobin (Hb) levels.

Research conducted by Purpasari, et al (2022) used the Quasiexperiment method by intervening before and after giving blood-supplement tablets and paying attention to the consumption pattern of iron-rich foods for adolescent girls with iron deficiency anemia in SMA Muslimat Jambi, resulting in the effect of energy levels and levels of iron in the blood proteins.

Research conducted by Nasruddin, et al (2021) using the literature review method states that the incidence of anemia in Indonesia is increasing due to a lack of education about balanced nutritional intake for the community.

4. CONCLUSION

There are many effects of giving blood supplement tablets to adolescent girls with iron deficiency anemia. The effect of giving blood supplement tablets can significantly increase hemoglobin (Hb) levels so as to avoid iron nutritional anemia. Early management as prospective mothers is also carried out with the aim of preventing the incidence of anemia in pregnant women which can cause babies to be born with low body weight so that their quality of life is less than optimal, avoid various diseases and other.

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