Abdimas Umtas: Jurnal Pengabdian Kepada Masyarakat
LPPM-Universitas Muhammadiyah Tasikmalaya
Volume: 6 Nomor: 1
E-ISSN: 2614 - 8544

Health Promotion; Smart Without Anemia In Students Smait Almumtaz, Pontianak City

Indri Erwhani[a)], Wuriani, Hartono, Cau Kim Jiu, Tutur Kardiatun, Indah Yuni

ITEKES Muhammadiyah Kalimantan Barat, Kubu Raya, Indonesia
[a)]Corresponding Author: indri@stikmuhptk.ac.id

Abstract

Anemia is one of the nutritional problems that are often faced by adolescents, one of which is caused by iron deficiency. Anemia in adolescents adversely affects the decline in immunity, concentration, learning achievement, fitness, and productivity. The cause of anemia in adolescents is caused by rarely eating breakfast or frequently consuming foods or drinks that can inhibit the absorption of nutrients by the body, such as caffeine, tannins, oxalates, and phytates, which are found in soybean, tea, and coffee products. Adolescent health counseling on iron supplementation and the selection of foods and beverages that prevent anemia Examination of hemoglobin levels aims to determine the incidence of anemia in adolescents. This activity is aimed at SMAIT Almumtaz Pontianak class XI students. This community service resulted in a change in the knowledge of students XI SMAIT Almumtaz based on the results of the pretest. 75.8% of students had sufficient knowledge and 24.2% had good knowledge after health education about anemia; the post-test results showed that 84.8% had good knowledge and 15.2% had sufficient knowledge, meaning that there was a change in the knowledge and understanding of students at XI SMAIT Almumtaz. An overview of female students' Hb levels was obtained with Hb levels greater than 12 (86.2%) and 13.8% Hb levels less than 12 male students, and 100% of male students had Hb levels greater than 14.
Keywords: Anemia, Hb, Adolescents.

INTRODUCTION

Anemia that occurs in adolescents has a negative impact on immunity, concentration, learning achievement, adolescent fitness, and productivity. The incidence of anemia is higher in young women compared to young men. This is because young women lose iron (*Fe*) during menstruation, so they need more iron (*Fe*) intake. The behavior of young women who consume more plant foods means that iron intake is not sufficient for daily iron needs (Triwinarni, Hartini, & Susilo, 2017). The habit of eating breakfast has a significant relationship with the incidence of anemia (Tandirerung, Mayulu, & Shirly E. S. Kawengin, 2013). The type of food or drink consumed by a person can affect the incidence of anemia. substances that can inhibit the absorption of iron or inhibitors such as caffeine, tannins, oxalates, and phytates, which are present in soy bean, tea, and coffee products. Coffee and tea containing tannins and oxalates are food ingredients that are often consumed by the community.

Budiarti, Sri, and Ni Putu (2020) identified several factors that contribute to the prevalence of anemia in adolescents, including a lack of knowledge about anemia and nutritional intake, which influences food selection, the habit of drinking tea and coffee by adolescents, which causes inhibition of the process of iron absorption in the body, and the intake of several nutrients such as carbohydrates, proteins, and vitamins t. Efforts to increase adolescent knowledge about the importance of nutrition, especially iron, and the selection of the right type of food or drink can help prevent anemia. In addition, the examination of hemoglobin levels in the blood is useful for determining the incidence of anemia in adolescents so that appropriate steps can be taken to overcome it.

In the preliminary study conducted at SMAIT Al-Mumtaz Pontianak, there were several female students who often fell asleep in class; five students complained of weakness, lethargy, and a lack of enthusiasm for following the learning process at school. Three of the students at the interview were menstruating. These five female students did not understand what was causing the condition they were experiencing. Based on the description above, the formulation of the problem is: "How to increase the knowledge of SMAIT Al-Mumtaz Pontianak students about anemia in order to

improve healthy behavior to prevent anemia?" The goal of this service activity is to improve students' knowledge and healthy behaviors in terms of eating nutritious foods to avoid anemia and knowing their hemoglobin levels at SMAIT Al-Mumtaz Pontianak.

METHOD

The method of implementing this activity begins with conducting a survey among the target group and interviewing five students from SMAIT Al-Mumtaz Pontianak. Ask for permission and discuss with the principal the types of activities that will be carried out. To overcome the problems that exist, researchers and partners agreed on the form of activities, namely education with the theme "SMART (Healthy, Advanced, Active, Responsive, and Resilient) Without Anemia and Checking Hemoglobin Levels in SMAIT Almumtaz Pontianak Students." Based on the target selection results, 33 students from class XII were obtained. Students are given a pre-test to determine their understanding of anemia before having their hemoglobin levels checked. Furthermore, education and discussion about anemia were carried out. Discussions with students are conducted to provide opportunities for students to ask questions about the material presented and health problems that may occur as a result of anemia. In the next stage, students are given a questionnaire to measure their understanding after getting the information. The data obtained are analyzed using descriptive methods.

RESULTS and DISCUSSION

The participants who attended the educational activity "SMART (Healthy, Advanced, Active, Responsive, and Resilient) Without Anemia" and checked hemoglobin levels in SMAIT Almumtaz Pontianak students totaled 33 students, consisting of 29 students and 4 students. The activity went well and enthusiastically. In addition to PowerPoint, participants were also handed leaflets.

The results after the education showed an increase in student knowledge, as described in table 1.

Table 1. The results after the education

Variable	Value	
	Pre-test (%)	**Post-test (%)**
Sufficient Level	75,8	15,2
Good Level	24,2	84,8

The table above explains that there was an increase from before being given education about anemia, which was 60.6%. These results also showed that the student response was very good, in addition to the enthusiasm of respondents when receiving education and discussions. Respondents can also review the material provided and answer questions during the discussion.

Hemoglobin level examination carried out before education is given obtained results as illustrated in table 2.

Table 2. Hemoglobin level examination carried out before education

Respondents	Hb level ≥ 12	Hb level ≤ 12
Male Students	4	0
Female Students	25	4
Total	**29**	**3**

CONCLUSIONS AND RECOMMENDATIONS

There is an increase in the knowledge of SMAIT Al-Mumtaz Pontianak students about the importance of nutrition, especially iron, and the selection of the right type of food or drink so that it can help prevent anemia.

ACKNOWLEDGMENTS

We express our gratitude to Allah Subhanahu Wata'ala because of the facilities provided This community service can run smoothly. This community service can be carried out properly with the support of (1) Grant Internal Program ITEKES Muhammadiyah West Borneo Batch I, 2021, (2) Head of ITEKES Muhammadiyah West Borneo, (3) Head of P3MI ITEKES Muhammadiyah West Borneo, (4) Head and teachers of SMAIT Al-Mumtaz Pontianak, (5) Student of the ITEKES Muhammadiyah West Borneo; Nursing Study Program. May Allah Subhannahu Wata'ala reward you with kindness. Amen.

REFERENCES

Budiarti, Sri, Ni Putu Gita. (2020). Studi Fenomenologi Penyebab Anemia Pada Remaja Di Surabaya. Jurnal Kesehatan Mesencephalon, Vol.6 No.2, Oktober 2020, hlm. 137-141.

Citrakesumasari. (2012). Anemia Gizi, Masalah dan Pencegahannya. Cet. 1. Yogyakarta: Kalika.

Fikawati, Veratamala. (2017). Gizi Anak dan Remaja (Ed. 1). Depok: PT Rajagrafindo Persada.

Ira Nurmala. (2018). Promosi Kesehatan. Surabaya: Airlangga University Press.

Niman S. (2017). Promosi dan Pendidikan Kesehatan. Jakarta: Trans Info Media.

Notoatmodjo. (2014). *Science of Health Behaviour.* Jakarta: Rineka Cipta.

Royani, I., Irwan, A. A., & Arifin, A. (2016). Pengaruh Mengkonsumsi Teh Setelah Makan Terhadap Kejadian Anemia Defisiensi Besi Pada Remaja Putri.Hamalik. (2003). Proses Belajar Mengajar*.* Jakarta: Bumi Aksara.

Tandirerung, E. U., Mayulu, N., & Shirly E. S. Kawengin. (2013). Hubungan Kebiasaan Makan Pagi Dengan Kejadian Anemia Pada Murid SD Negeri 3 Manado. Jurnal E-Biomedik (EBM), 1(1), 53–58.

Tarwanto. (2010). Kebutuhan Dasar Manusia Dan Proses Keperawatan . Jakarta: Salemba Medika.

Triwinarni, C., Hartini, N. S., & Susilo, J. (2017). Hubungan Status Gizi dengan Kejadian Anemia Gizi Besi (AGB) pada Siswi SMA di Kecamatan Pakem. Jurnal Nutrisia, 19(1), 61–67.

APPENDIX


Figure 1. Hemoglobin measurement for students


Figure 2. Pre-test and post-test after health counseling