

Increasing Knowledge About Anemia And Compliance With Taking Blood Addition Tablets Using Health Promotion And Movement To Take Blood Addition Tablets Together Through Whatsapp Group Media At SMPN 1 Karangrejo

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Abstract

The prevalence of anemia in teenagers in East Java in 2018 was 50-60%. Anemia can be caused by various things, including iron deficiency, vitamin B12 deficiency, folic acid deficiency, infectious diseases, congenital factors and bleeding. The Indonesian government is intensifying its anemia prevention and management program in adolescent girls and women of childbearing age (WUS) by prioritizing the provision of one blood supplement tablet every week to reduce the prevalence of anemia in adolescent girls and WUS by 2025. This research aims to determine the effectiveness of health promotion and a movement to take blood supplement tablets together through WhatsApp Group media to increase knowledge about anemia and compliance with consuming blood supplement tablets among young women at SMPN 1 Karangrejo. This research is included in pre-experimental research using one group pretest and posttest by carrying out a pretest before giving treatment and then doing a posttest after giving treatment. The sample for this research was 92 young women at SMPN 1 Karangrejo. The research results obtained a p value = 0.000 (≤ 0.05), so it was concluded that there was a difference in the level of knowledge about anemia and compliance with taking blood supplement tablets between before and after being given health promotion and the movement to take blood supplement tablets together via WhatsApp Group, which means health promotion and the movement to take blood-enhancing tablets together via WhatsApp Group is effective in increasing knowledge about anemia among young women at SMPN 1 Karangrejo.

Keywords: Anemia, teenage girls, blood increasing tablets

INTRODUCTION

Increased nutrient needs due to rapid physical growth and development and changes in lifestyle and dietary habits affect nutrient intake needs. Adolescence is a vulnerable period from a nutritional perspective. Anemia is one of the nutritional and health problems in female adolescents. Anemia is a lack of red blood cell mass or hemoglobin (Hb) concentration

which results in a decrease in the blood's ability to carry oxygen (Irianti, S., & Sahiroh, 2019).

According to the World Health Organization (WHO), the prevalence of anemia in elderly women in the world ranges from 29.9% in the 15-49 years age group. In Southeast Asian countries, anemia is a major public health problem,

with a prevalence of 46.6% in elderly women (WHO, 2021). Based on data from the 2018 Basic Health Research, it is known that the national prevalence of anemia in women reached 23.7% of all women aged 15-24 years who suffer from anemia. According to some estimates, around 32% of teenagers, or around three to four out of every five teenagers, suffer from anemia (Kemenkes, 2018). Based on health profile data from East Java Province in 2018, it was found that the prevalence of anemia in the area was as follows: 50-60% in teenagers (Dinkes Jatim, 2022).

Anemia can be caused by a variety of conditions, such as inadequate intake of iron, vitamin B12, or folate, infection, or factors related to a person's family history, or even just bleeding (Kemenkes, 2015). The most common cause of anemia is a nutritional deficiency, especially iron in the diet (WHO, 2021). Due to the fact that teenage girls menstruate every month, they are more likely to suffer from anemia than teenage boys. Teenage girls who menstruate every month have higher iron requirements than teenage boys.

If a young woman has anemia, she is more likely to develop anemia during pregnancy. This can have negative effects on the development of the fetus in the womb. In addition, anemia during pregnancy can increase the risk of other significant problems, including high risk of

maternal and child death, and problems with the delivery process. For this reason, it is very important for female adolescents to maintain their health and prevent and treat anemia before or during pregnancy (Kemenkes, 2018). Inadequate intake of certain micronutrients may be a problem during adolescence in the development and maturation of reproductive organs (Indartanti & Kartini, 2014). In female adolescents, anemia in the Suebuer Women's Group can cause loss of concentration in studying which has a negative impact on their academic performance.

Based on the interview approach used to determine the preliminary research conducted on December 10, 2023, on 92 respondents with an age range of 12-13 years, data on the distribution of BLOOD BOOSTER TABLETS was obtained in October 2023. There were 23 (27.4%) female teenagers who were obedient to drinking BLOOD BOOSTER TABLETS, while 69 other female teenagers (72.6%) were not obedient to drinking BLOOD BOOSTER TABLETS for various reasons, namely forgetfulness, laziness, discomfort with the fishy smell and taste of BLOOD BOOSTER TABLETS, and lack of knowledge of female teenagers about the benefits of BLOOD BOOSTER TABLETS.

In the millennial era, one of the most popular media is smartphones or what is

popularly called smartphones which are currently the main communication tool. According to the Ministry of Communication and Information in 2019, social media users in Indonesia reached 150 million, of which 83% were WhatsApp users. Research conducted by Sanjaya 2017 on the use of WhatsApp Messenger as a communication medium for teenagers concluded that WhatsApp is a simpler and more efficient medium for teenagers to exchange information (Santoso, & Hanifah, 2021).

It is hoped that efforts to promote health and the movement to drink BLOOD BOOSTER TABLETS together through WhatsApp media can increase students' knowledge and understanding in consuming BLOOD BOOSTER TABLETS.

RESEARCH METHOD

This type of research is an experimental study using one group pretest and posttest by conducting a pretest before giving treatment and then conducting a posttest after giving treatment. The sample of this study was 92 female adolescent respondents. The sampling technique used total population sampling where the population size of less than 100 was all used as a research sample. This research was conducted at SMPN 1 Karangreejo Mageetan from February to May 2024. The data research instrument used primary data

taken directly from female respondents in grade VII of SMPN 1 Karangreejo Mageetan through the creation of a Whatsapp Maseengeer Group to determine the increase in knowledge and compliance with taking iron supplement tablets obtained from the assessment using a checklist or questionnaire. Data analysis uses the Paired Samples T-Test statistical test method if the results show that the data is normally distributed and the Wilcoxon test if the data is not normally distributed.

RESEARCH RESULT AND DISCUSSION

RESULT

The frequency distribution of respondent characteristics based on age can be seen in table 1.

Table 1. Frequency Distribution of Respondent Characteristics Based on Age

No	Responden Characteristics	Frequency (f)	%
1	Age		
	12 years	34	36,9
	13 years	54	58,7
	14 years	3	3,3
	15 years	1	1,1
	Total	92	100

Source: Primary Data 2024

Based on table 1, it was found that the majority (58.7%) of female teenagers were 13 years old.

The frequency distribution of respondents' knowledge before and after being given health promotion education and the movement to drink Blood Booster

Tablets together through the WhatsApp Group in 2024 can be seen in Table 2.

Table 2. Frequency Distribution of Respondents' Knowledge Before and After Being Given health promotion education and the movement to drink Blood Booster Tablets together through the WhatsApp Group in 2024

Variable Knowledge	Mean	SD	N
Before	67.50	6,05	92
Aafter	85,27	7,92	92

Source: Primary Data 2024

Based on table 2, the average knowledge score before being given health promotion about anemia through WhatsApp Group for young women is 67.50 with a standard deviation of 6.05. After being given health promotion about anemia through WhatsApp Group for young women, it is 85.27 with a standard deviation of 7.92 from 92 respondents. This means that there is an increase in the average knowledge score of 17.77.

Compliance in taking iron tablets before and after being given health promotion and a movement to take iron tablets together via WhatsApp Group.

Table 3. The level of compliance with taking iron tablets before and after being given health promotion and a movement to take iron tablets together through WhatsApp Group in 2024

Variable Compliance	Mean	SD	N
Before	5,6	1,22	92
Aafter	7	3,04	92

Source: Primary Data 2024

Based on table 3, the average compliance score before being given health promotion and the movement to drink iron tablets together through WhatsApp Group is 1.83 with a standard deviation of 1.22. After being given health promotion about anemia and the movement to drink iron tablets together through WhatsApp Group, it is 5.67 with a standard deviation of 3.44 from 92 respondents. This means that there is an increase in the average compliance score of 3.84.

The results of the Wilcoxon test showed that the p value = 0.000 (≤ 0.05) so it was concluded that there was a difference in the level of knowledge about anemia between before and after being given health promotion and the movement to drink iron tablets together through WhatsApp Group, which means that health promotion and the movement to drink iron tablets together through WhatsApp Group were effective in increasing knowledge about anemia in adolescent girls at SMPN 1 Karangrejo. While the results of the p value of the level of compliance in consuming iron tablets were p = 0.000 (≤ 0.05) so it was concluded that there was a difference in the level of compliance in consuming iron tablets before and after being given health promotion and the movement to drink iron tablets together through WhatsApp Group, which means that health promotion and the movement to drink iron tablets together

through WhatsApp Group were effective in increasing compliance in consuming iron tablets in adolescent girls at SMPN 1 Karangrejo.

DISCUSSION

Respondent Characteristics

The results of the study conducted on 92 respondents showed that most of the respondents were 13 years old (58.7%). According to WHO, teenagers are teenagers in the age range of 10-19 years, according to the National Family Planning Agency (BKKBN), the age range of teenagers is 10-24 years and not yet married. The adolescent phase is early adolescence with an age between 13-17 years and late adolescence between 17-18 years. On average, the research subjects were dominated by female teenagers aged 13 years.

Adolescent age is seen as a period of transition or transition because growth, development and changes occur biologically and psychologically. Due to the fact that female teenagers experience menstruation every month, they are more likely to suffer from anemia than male teenagers (Kemenkes, 2020). Female teenagers who experience menstruation every month have a higher iron requirement than male teenagers.

If a female teenager already suffers from anemia, there is a high probability that

she will also develop anemia during pregnancy. This matter can have a negative impact on the development of the fetus in the womb. In addition, anemia during pregnancy can increase the risk of other significant problems, including high risk of maternal and child death, as well as problems during the delivery process. Therefore, it is very important for young women to maintain their health and prevent and treat anemia before or during pregnancy (Kemenkes, 2018).

Knowledge of Anemia in Adolescent Girls of SMPN 1 Karangrejo

The results of the analysis showed that the knowledge score after being given health promotion about anemia and the movement to drink iron tablets together through the WhatsApp Group for young girls was higher than before being given health promotion about anemia and the movement to drink iron tablets together through the WhatsApp Group for young girls of SMPN 1 Karangrejo. Health promotion and the movement to drink iron tablets together through the WhatsApp Group are effective in increasing the knowledge of young girls about anemia, where students become aware and understand so that they have awareness, willingness and ability to prevent anemia early on. In this study, most of the respondents were 13 years old who were categorized as early adolescents. The

developmental stage at this age is having increased thinking skills, being interested in things that are not yet known, having a certain desire to try everything that has never been done, developing communication, so that students have no difficulties and are able to accept well in learning knowledge about anemia. The knowledge of teenage girls at SMPN 1 Karangreejo is already good, most of them already know about understanding, problems, symptoms of anemia, the benefits of consuming blood-enhancing tablets, the number of TTDs that should be consumed every month, the most important thing is that health experts are actively promoting it regarding the importance of consuming blood supplement tablets, especially if health officials distribute blood supplement tablets in schools they will be able to carry out educational outreach regarding information about blood supplement tablets.

Knowledge can be obtained from various ways. In line with Notoatmodjo at 2014 which states that knowledge can be obtained from other people, in relation to this are teachers, family, friends and health workers. Knowledge is often obtained from one's own experience or experience obtained from other people, good knowledge will encourage someone to display attitudes and actions that are in accordance with the knowledge that has

been obtained. Arikunto at 2010 said that knowledge acquisition can be done through interviews or questionnaires that ask about the contents of the material to be obtained from research subjects or respondents in the knowledge to be obtained and adjusted to their level. (31) Anjarwati research at 2020 found that female adolescents' knowledge about how to drink TTD is related to their level of compliance in consuming iron supplements.

Compliance in taking iron supplement tablets by female adolescents at SMPN 1 Karangrejo

The results of the analysis showed that the compliance score after being given health promotion and the movement to drink iron supplement tablets together through the WhatsApp Group was higher than before being given health promotion and the movement to drink iron supplement tablets together through the WhatsApp Group. Health promotion and the movement to drink iron supplement tablets together through the WhatsApp Group were effective in increasing the compliance of female adolescents in drinking iron supplement tablets. This increase in compliance was partly influenced by the interest of female students, where female students were motivated to drink iron supplement tablets regularly to prevent anemia. Obedience is acting in accordance with direct orders or regulations

(Notoatmodjo, 2014). People are more likely to obey ethical rules when they have confidence that they will be treated fairly, have confidence in the leader's intentions, and consider themselves members of the organization (Hermaini & Munthhe, 2016). According to the Indonesian Ministry of Health (2016), one of the measurements of the effectiveness of anemia prevention and treatment programs in adolescent girls and women of childbearing age is the compliance of iron pill consumption by the target population of adolescent girls and women of childbearing age (Kemenkes, 2016). The efficacy of iron supplementation (Fe) is reduced when patients do not comply with the recommended dose and prescribe blood-enhancing tablets according to the requirements (Yuniarti & Tunggal, 2015). There is a possibility that young women's non-compliance with taking blood-increasing tablets is caused by emotions of boredom or laziness, as well as the unpleasant taste and smell of the blood-increasing tablets (Aditianti, 2015). The use of TTD is associated with a number of effects Unpleasant side effects, including nausea and vomiting, discomfort or burning in the area, and black beer fees (Kemenkes, 2016).

The effectiveness of health promotion and the movement to drink iron tablets together through WhatsApp Group on knowledge about anemia and compliance

with iron tablets in female adolescents at SMPN 1 Karangrejo

The results of the research analysis showed that health promotion and the movement to drink iron tablets together through WhatsApp Group were effective in increasing knowledge about anemia and compliance with iron tablets in female adolescents at SMPN 1 Karangrejo.

The use of WhatsApp Group as a communication medium for adolescents can be concluded that WhatsApp is a simpler and more efficient medium for exchanging information for adolescents. The use of WhatsApp currently makes it easier to provide education and notifications considering that most adolescents are never separated from their smartphones. Apart from that, teenagers can also engage in education via WhatsApp at any time and at any time, and can learn more comfortably even by relaxing using a smartphone. Through the WhatsApp media, it is easy for health students, young people and teenagers themselves to spread health promotions and the blood-boosting tablet movement together with other schools and the community.

WhatsApp is a smartphone-based messaging application that allows us to exchange messages in the form of text, voice or video without SMS costs, because WhatsApp uses the same internet data package as email, web browsing, and others

so that most Indonesian people are very dependent on this application. Based on research Wibisono (2017) it can be concluded that providing intervention through WhatsApp is able to increase knowledge and is effective in providing education in research. Health promotion media or teaching aids can be interpreted as health promotion tools that can be seen, heard, touched, felt or smelled to facilitate communication and dissemination of information. Health promotion media are all ways or efforts to present messages or information that will be conveyed by communicators through communication media, whether through print media, electronics (television, computers, radio, etc.) or outdoor media, so that the knowledge of the target group can increase, which in the end is expected to also change their behavior in a positive way towards their health (Azrimaidaliza, 2021).

CONCLUSION

Based on the research objectives and research results regarding increasing knowledge about anemia and the use of health promotions and the movement of blood supplements through WhatsApp groups among young students at SMPN 1 Karangreejo, it was concluded that there was an increase in awareness scores about anemia a promotion has been given Health and movement of blood-boosting tablets

together through WhatsApp Groups among young women at SMPN 1 Karangreejo in 2024. 1 Karangreejo year 2024. Promotion of health and movement of the blood-added tablets drink together through WhatsApp Group effectively to increase awareness about anemia and health of the blood-added tablets drink among young students of SMPN 1 Karangreejo.

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