

THE EFFECT OF HEALTH EDUCATION MEDIA WITH THE CONTENTS OF MY PLATE TO IMPROVE KNOWLEDGE AND BEHAVIOR IN PREVENTING ANEMIA IN GRADE VIII ADOLESCENT FEMALES OF SMPN 20 KOTA JAMBI IN 2024

Winda Triana^{1,2*}, Dewi Sartika^{1,2}, Pahrur Razi^{1,2}

¹Department of Health Promotion, Politeknik Kesehatan Kementerian Kesehatan Jambi, Jambi, Indonesia

²PUI-PK Politeknik Kesehatan Kementerian Kesehatan Jambi, Jambi, Indonesia

*Corresponding author: windatriana60@gmail.com

ABSTRACT

Background: Anemia is a state of lack of red blood cells, Generally as a result of iron deficiency from food consumption or excess blood loss and unable to be replaced through food consumption, Anemia is a public health condition that occurs a lot in adolescent girls, one of the causes is because adolescent girls experience a menstrual cycle every month.

Method: The benefits of research are expected to be information and knowledge about health. The design of this study is with One Group Experiment. The method of data collection was obtained from questionnaires before and after research was carried out with the media of my plate about the prevention of anemia. Data analysis using wilcoxon.

Result: The results showed that the knowledge and behavior of the respondents increased after being given education using media of my plate, with a significance value of $p = 0.000$ ($p < 0.05$).

Conclusion: When given education, there was a significant and meaningful influence where there was an increase in knowledge and behavior in adolescent girls in grade VIII of SMPN 20 Jambi City.

Keywords: My Plate Media, Increasing Knowledge, Anemia Prevention Behavior

INTRODUCTION

Anemia is one of the main nutritional problems in Indonesia with a high prevalence, especially in adolescent girls. According to the World Health Organization, anemia is one of the biggest health problems in the modern century, with high-risk groups including women of childbearing age, pregnant women, school-age children, and adolescents. Adolescent girls during puberty are susceptible to anemia due to irregular eating patterns and drinking habits that inhibit iron absorption (Kemenkes, 2018).

Based on data from the 2013 Riskesdas, the prevalence of anemia in adolescent girls

was 22.7%, increasing to 32% in the 2018 Riskesdas, with the proportion of anemia in the 15-24 age group. (Ministry of Health, 2018). One of the programs of the Ministry of Health to overcome anemia in adolescent girls is to run a program to provide iron tablets to adolescent girls with a target of 52% in 2021. (Rencana Aksi Kegiatan Direktorat Gizi Masyarakat Tahun 2020-2025, 2020).

According to WHO, anemia is a condition in which the body has abnormal hemoglobin levels. Hemoglobin (Hb) is needed to transport oxygen, if the concentration is less than normal, the capacity of the blood to transport oxygen also decreases, causing fatigue, weakness, lethargy, dizziness and shortness of breath.

The need for hemoglobin depends on age, gender, altitude, smoking habits, and pregnancy. Anemia can also be caused by nutritional deficiencies such as Fe, vitamin B9, vitamin B12 and vitamin A.

Iron deficiency anemia is a condition when the body suffers from a lack of iron (Fe) intake which functions as the core of the hemoglobin molecule as the first source of red blood cells. If there is a lack of iron, it will cause a decrease in the size of hemoglobin, low hemoglobin levels, and reduce the concentration of red blood cells. This anemia occurs when there is a lack of iron and the size of red blood cells is smaller (microcytosis), this causes decreased activity (Citrakesumasari, 2012).

Adolescents must be trained to be able to improve their healthy lives, adolescence is a transition period to adulthood so that physical, emotional and mental growth is very fast (Proverawati, 2017).

According to WHO, anemia is a condition in which the body has abnormal hemoglobin levels. Hemoglobin (Hb) is needed to transport oxygen, if the concentration is less than normal, the capacity of the blood to transport oxygen also decreases, causing fatigue, weakness, lethargy, dizziness and shortness of breath. The need for hemoglobin depends on age, gender, altitude, smoking habits, and pregnancy. Anemia can also be caused by The incidence of anemia in the world is estimated to reach 1.32 billion people or 25% and in fertile women 30.4% suffer from anemia, the incidence in the African continent is 44.4%, the Asian continent is 25% to 33% and the smallest in the North American continent is 7.6%, thus anemia is one of the health problems in various countries in the world, especially developing countries such as Indonesia. Anemia mostly occurs in adolescent girls and pregnant women, with a prevalence that increases every year (WHO 2015 in (Kasumawati et al., 2020).

Based on Basic Health Research data from 2007-2018, there is an increase in the number of adolescents experiencing anemia. In 2007, the number of adolescents experiencing anemia was 6.90%, increasing in 2013 to 18.40%, and finally increasing sharply in 2018 to 22.7%. This means that 22.7% of women of childbearing age in Indonesia experience anemia and are at risk of experiencing obstacles in their growth and development, cognitive abilities and are susceptible to other infectious diseases. Meanwhile, in Jambi Province, 23.9% of adolescent girls experienced anemia in 2018 (Humas Setda Kota Jambi, 2021).

Blood-boosting tablets (TTD) are nutritional supplements to increase blood in the form of tablets/caplets/capsules that can be obtained from the Program or independently. TTD The program is provided by the Government and distributed to target groups through government health service facilities in 2023 (SKI, 2023)

Anemia is often experienced by adolescents due to rapid growth and physical activity. The causative factors include lack of iron and nutrients, as well as errors in consuming iron. Symptoms include loss of appetite, pale face, and reduced focus. Anemia can reduce focus, fitness, and optimal growth in adolescents (Nasruddin et al., 2021)

Adolescence is defined as a period of transition development from childhood to adulthood, which includes biological, cognitive and social changes that take place from the age of 10 to 19 years. The level of achievement of a teenager's biological potential is the result of the interaction between genetic and environmental factors, where during the development towards adulthood, growth and development are continuous (Aesyah, 2019). Several health problems experienced and threatening the future of Indonesian teenagers. The four health problems that are considered most often experienced by Indonesian teenagers include iron deficiency (anemia), short stature

(stunting), chronic lack of energy (thin), and obesity (Kementerian Kesehatan RI, 2020).

One of the efforts to improve the knowledge and behavior of school children is by providing counseling on the prevention of anemia which can be done with the help of media because the messages given can generate interest and make it easier to understand the provision of information (Uce, 2019).

One of the educational media that is easily accepted by school children is by using the “Fill My Plate” media. My plate media can provide information by activating children's eyes and concentration during teaching and learning time. This ability is also considered more interesting and better because it contains two elements, namely eyes and concentration of mind (Uce, 2018).

Jambi City has 73 Junior High Schools (SMP) one of which is SMP N 20 Jambi City in 2024. During the initial survey on Wednesday, January 31, 2024, I directly interviewed the UKS teacher that there were many cases of teenagers who often fainted and had stomach aches during study hours because they did not have breakfast before they were going to study and some fainted because of anemia.

METHOD

This study uses a type of Quasi Experiment Design, namely a quasi-experimental design with a one-group research with a pre-test and post-test experiment. The population of this study was 61 female adolescents in class VIII of SMPN 20 Kota Jambi. The sampling method was Simple Random Sampling. The research instrument was a pre-test and post-test questionnaire. The method of collecting data was obtained from questionnaires before and after the research was conducted with the media isi piringku about prevention using Wilcoxon.

RESULTS AND DISCUSSION

Distribution of the average value of knowledge of anemia prevention pre-test and post-test using the media of “My plate”

Table 1. Distribution of Mean Pre-Test and Post-Test Anemia Prevention Knowledge

Variabel	n		Mean	SD	Min-Max
Anemia Knowledge	61	Pre-Test	6.09	4.40	6-10
		Post-Test	9.97	3.49	8-10

Source : Primary Data (2024)

Based on table 1, it shows that the total value (pre-test) obtained a minimum knowledge score of 6 and a maximum knowledge score of 10, with a mean value of (6.09) while the knowledge results (post-test) obtained a minimum knowledge score of 8 and a maximum knowledge score of 10, with a mean value of (9.97).

This means that systematically there is an increase in knowledge of anemia prevention after being given education before using the My Plate media for class VIII students of SMPN 20 Jambi City.

Distribution of the average value of behavior of anemia prevention pre-test and post-test using the media of “My plate”

Table 2 . Distribution of Mean Pre-Test and Post-Test Anemia Prevention Behavior

Variabel	n		Mean	SD	Min-Max
Anemia Prevention Behavior	61	Pre-Test	37.73	4.40	27-49
		Post-Test	45.14	3.49	30-50

Source : Primary Data (2024)

Based on table 2, it shows that the total value (pre-test) with a minimum behavioral score of 27 and a maximum behavioral score of 49, with a mean value (37.73). while the behavioral results (post-test) with a minimum behavioral score of 30 and a maximum behavioral score of 50, with a mean value (45.14).

This means that it indicates that there is anemia prevention after being given education in a systematic manner before

increasing behavior and using the mediation of my plate in class VIII students of SMPN 20 Jambi City.

The influence of education using the media of "My plate" on the level of breakfast Knowledge

Table 3. Wilcoxon Test Results Variable Anemia Prevention Knowledge

Variable	treatment	Increasing knowledge	of n	p-value
Breakfast Knowledge	Media of My Plate	Pretest Posttest	3.88 61	0.000

Based on table 3 shows p-value = 0.000 ($p < 0.05$), which means there is a significant influence of counseling using the "Fill my plate" media on the level of knowledge of class VIII students of SMPN 20 Jambi City with an average increase of 3.88.

The influence of education using the media of "My plate" on the level of breakfast Behavior

Table 4. Wilcoxon Test Results Variable Anemia Prevention Behavior

Variable	treatment	Increasing knowledge	of n	p-value
Breakfast Behavior	Media of My Plate	Pretest Posttest	7.41 61	0.000

Based on the table 4 p-value=0.000 ($p < 0.05$), which means that there is a significant influence of counseling using the media fuzzle of my plate on the level of behavior of class VIII female students of SMP 20 Kota Jambi with an average increase of 7.41.

CONCLUSION

This study shows that the media counseling of isi piringku fuzzle has a positive effect on the knowledge and behavior of preventing anemia in grade VIII female students of SMPN 20 Jambi City. The average value of knowledge and behavior increased significantly after counseling. Teachers and students at SMPN 20 Jambi City were very

enthusiastic in receiving the results of this study.

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CONFLICT OF INTEREST

All of the authors declared no conflict of interest regarding funding, including names in published articles, and the data collection process.

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