

Providing Educational Videos to Improve Knowledge and Attitudes Towards Anemia Prevention For Teenage Females at SMPN 4 madiun City

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ABSTRACT

Based on the survey data on the prevalence of anemia in Indonesia by the Regional Health Research (Riskesdas) in 2018, it can be seen that children aged 15-24 years suffer from anemia by 32%. Adolescent girls are more susceptible to anemia due to the influence of a diet that does not meet balanced nutrition and the menstrual process every month. In Madiun City, based on anemia screening in grades 7 and 10 in the first quarter of 2024, the prevalence of anemia among adolescent girls was 39.67%. This shows that not all adolescent girls are aware of the dangers of anemia and efforts to prevent it. Therefore, a communication strategy is needed to prevent anemia in adolescent girls through health promotion media. This study aims to determine the effect of video media in increasing knowledge and attitudes towards preventing anemia among adolescent girls in SMPN 4 Madiun City. The design of this research is a pre-experimental one group pre-test and post-test design. The sample in this study were 7th and 8th grade students of SMPN 4 Madiun City, a total of 279 people using cluster random sampling. Data analysis in this study used the Wilcoxon test. The results of the study average score of knowledge about anemia prevention in adolescent girls with video media showed pretest (49.91), posttest (76.55) while the average score of attitude of adolescent girls showed pretest (70.75), posttest (79.59). The results of data analysis with the Wilcoxon test obtained the results of statistical tests of knowledge before and after intervention with a significance value of $0.000 < 0.05$ and the results of statistical tests of attitudes before and after intervention showed a significance value of $0.000 < 0.05$ which means that the p value of $0.000 < 0.05$ which means H_0 is rejected, namely there are differences in knowledge and attitudes towards anemia prevention before and after providing anemia education video for adolescent girls at SMPN 4 Madiun City. Health promotion through video media is one of the communication strategies that can improve knowledge and attitudes about anemia prevention in adolescent girls. This research is expected to be developed until the intervention of the behavior of adolescent girls toward anemia prevention.

Keywords : Adolescent Girls, Anemia, Educational Video, Health Promotion

INTRODUCTION

School-age children are the next generation of the nation where the progress of a nation is determined by quality and competitive human resources. Adolescent health and nutrition are important aspects in the lives of adolescents that form the basis of the life cycle. According to the Ministry of Health of the Republic of Indonesia, adolescents are the age group from 10 years to before the age of 18. Based on data from the 2018 Riskesdas, one of the nutritional problems of adolescents in Indonesia is that adolescents experience iron deficiency anemia. As many as 32% of children aged 15-24 years experience anemia or one in three Indonesian children experience anemia. According to WHO, anemia is a body condition where the hemoglobin (Hb) level in the blood is lower than normal. Adolescent girls are more susceptible to anemia due to lack of intake of iron and protein in daily food, during growth so they need more nutrients, often go on the wrong diet to lose weight and experience menstruation which causes a lot of blood loss. Anemic adolescent girls can have an impact on decreasing academic

achievement because they have difficulty concentrating, have difficulty memorizing, get sleepy easily and get sick easily. In addition, anemic adolescent girls can be at risk of becoming pregnant women with anemia which can cause giving birth to babies at risk of stunting, disease infections, developmental and growth disorders and maternal and infant mortality. Therefore, the use of educational videos as a strategy to improve the knowledge and attitudes of female adolescents related to anemia prevention at SMPN 4 Kota Madiun. Audiovisual media such as videos are expected to increase public understanding of health issues. Educational videos can attract more attention from adolescents and make it easier for them to understand the information presented.

METHODS

In this study, the researcher used an experimental quantitative design with a one group pre-test and post-test design. The author chose this research design to determine the differences in knowledge and attitudes towards preventing anemia for adolescent girls at SMPN 4 Madiun City before and after the intervention. The respondents in this study were 279 respondents. The instrument used was a questionnaire sheet to analyze the differences in providing anemia education videos on knowledge and attitudes about the importance of taking iron tablets for adolescent girls at SMPN 4 Madiun City using validity tests and reliability tests. The validity test was carried out at SMPN 9 Madiun City on Thursday, February 1, 2024, on 30 respondents. The results of the validity test using SPSS showed that 15 knowledge questions and 15 attitude statements were valid more than 0.361. After all statements were valid, the analysis was continued with a reliability test. The Cronbach Alpha value shows $\alpha > r$ product moment table (0.361). This means that the questionnaire is reliable. Then in this study after the data was tabulated, then processed which included the research problem, continued with testing the research problem using the "Wilcoxon Test" where the calculation process was assisted using Statistic Product and Solution Service (SPSS) version 26 to test the differences in providing educational videos on knowledge and attitudes towards preventing anemia in adolescent girls at SMPN 4 Kota Madiun.

RESULTS

A. Respondent Characteristics

Table 1. Respondent Characteristics Based on Age

		Frequency	Percent	Cumulative Percent
Valid	13 years old	130	46.6	46.6
	14 years	128	45.9	92.5
	15 years	21	7.5	100.0
	Total	279	100.0	

Source: Data Analysis Results

B. Variable Characteristics

Table 2 Average Knowledge about Anemia Prevention in Adolescents Before and After Being Given Educational Video

	Descriptive Statistics			
	N	Minimum	Maximum	Mean
Pretest Knowledge	279	6.67	80.00	49,9163
Posttest Knowledge	279	20.00	100.00	76,5587
Valid N (listwise)	279			

Source: Data Analysis Results

Table 3 Average Attitudes about Anemia Prevention in Adolescents Before and After Being Given Educational Video

	Descriptive Statistics			
	N	Minimum	Maximum	Mean
Pretest Attitude	279	26.67	95.00	70,7583
Posttest Attitude	279	26.67	100.00	79,5996
Valid N (listwise)	279			

Source: Data Analysis Results

DISCUSSION

A. Respondent Characteristics

The respondents in this study were 279 female students in grades 7 and 8. The characteristics of the respondents based on age can be seen in table 1. Based on table 1, the results show that of the 279 respondents, the average age was 13 years with a percentage of 46.6% (130 female students), the age of 14 years was 45.9% (128 female students) while the age of 15 years was 7.5% (21 female students).

B. Variable Characteristics

This univariant analysis was conducted to determine the average knowledge and attitude of anemia prevention before and after being given health promotion with video media in female adolescents at SMPN 4 Madiun City. Table 2 shows the results of the analysis of the average knowledge score of respondents before being given educational videos of 49.91 and the average knowledge score of respondents after being given educational videos was 76.55, which means that there was an increase in knowledge scores after being given educational videos. One of the factors that influences the level of knowledge according to Mubarak, et al. (2017) is information. The easier access to information, the faster a person can gain new knowledge. Another factor is age, as a person gets older, there are changes in physical aspects that can affect thought patterns. Researchers argue that it is true that knowledge is influenced by age. In this study, the age of respondents was 46.6% aged 13 years who were categorized as adolescents so that the level of maturity and thinking ability can still be influenced by others and have not been able to determine the desired life goals such as the principles of healthy living for themselves. Meanwhile, the attitude in table 3 shows the average attitude score before treatment was 70.75 and after treatment it increased to 79.59. According to Azwar (2013), a person's attitude can be influenced by culture. Culture or habits that have been instilled can influence a person's attitude towards various problems. Wijaningsih in Atika (2022) showed that the cause of anemia in adolescents is due to lack of knowledge about anemia and attitudes that do not support it. It can be assumed that with clear and complete health information, a person will tend to follow actions according to the information provided if the respondent has good knowledge and can determine a good attitude. Social support from the surrounding environment can also influence attitudes, where the presence of trusted and important people around them can influence a person to tend to follow this behavior so that the family and school environment play an important role in student behavior.

C. Statistical Test

After conducting a normality test of knowledge and attitudes about anemia prevention before and after being given an educational video, the results obtained sig. <0.005, this indicates that the data is not normally distributed. Furthermore, an analysis will be carried out using the Wilcoxon test to determine the differences in knowledge and attitudes about anemia prevention before and after being given treatment. Based on the results of the knowledge and attitude data test using the Wilcoxon test, the p Value = 0.000 <0.05 was obtained, so H_0 was

rejected using a 95% confidence level, meaning there were differences in knowledge and attitudes towards anemia prevention before and after being given an anemia educational video for teenage girls at SMPN 4 Kota Madiun. Video media is a type of promotional media in its delivery, it includes all five senses because it can be seen and heard which is assisted by electronic devices. So that this media is more interesting, easier to understand, its presentation can be controlled and repeated and its reach is greater. This is supported by the Regulation of the Minister of Health No. 74 of 2015 concerning Efforts to Improve Health and Disease Prevention, which states that health promotion is a way to empower communities so that they are able to maintain and improve their health through activities that inform, influence and support changes in behavior and the environment. Audio visual as one of the health promotion media has great potential in influencing the attitudes of young women. The better the health promotion media, the more it will attract the public's interest in seeing and applying it to everyday life.

CONCLUSION

Based on the statistical test of knowledge and attitudes before and after the provision of anemia education videos, the p value was $0.000 < 0.05$, meaning that H_0 was rejected. This can be interpreted as meaning that there is an effect of providing educational videos in increasing knowledge and attitudes towards preventing anemia for adolescent girls at SMPN 4 Madiun City.

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