

THE EFFECTIVENESS OF HEALTH COUNSELING BETWEEN USING VIDEO MEDIA AND BOOKLETS ON THE KNOWLEDGE OF FEMALE ADOLESCENTS ABOUT ANEMIA

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ABSTRACT

Anemia is still a health problem that occurs throughout the world and is often found in female adolescents. The incidence of anemia in female adolescents in developing countries is around 53.7%, and in Indonesia, it is 48.9%. Female adolescents who experience anemia have a negative impact on reducing immunity, concentration, academic achievement, adolescent fitness, and productivity. Although there are many government programs on preventing anemia, the incidence of anemia in adolescent girls is still quite high. The best learning media is needed to prevent anemia in adolescent girls. Objective: to determine the effectiveness of health education between video media and booklets on the knowledge of adolescent girls about anemia. Method: Quantitative methods with a quasi-experimental research design, a pretest-posttest, and a control group design are used. The population in this study was 244 female students in grade X. The sample consisted of 70 respondents, who were divided into experimental groups (video media) and control groups (booklet media), with 35 each. The instruments used were questionnaires. Results: obtained a p-value of $0.021 < 0.05$. This shows a change in female adolescents' knowledge after being given health education about anemia using booklets and videos. Conclusion: Health counseling using video and booklet media is effective in increasing the knowledge of female adolescents about anemia, but the use of video media is more effective in improving the knowledge of female adolescents than video booklet media.

Keywords: Anemia; Video; Booklet; Adolescent; Girls

BACKGROUND

Anemia is one of the health problems that occurs worldwide and is often found in young women. Anemia is a medical condition with fewer red blood cells or hemoglobin than the normal limit. Normal Hb levels in young women are 12 gr/dl. Young women are said to be anemic if their Hb levels are <12 gr/dl (Ministry of Health, 2023). According to (WHO, 2023), Globally, there are 269 million (40%) children aged 6-59 months who suffer from anemia, 32 million (37%) pregnant women suffer from anemia and 539 million (30%) women aged 15-49 years. In developing countries, it is around 53.7%. The incidence of anemia in adolescent girls in Indonesia is still quite high. According to (Risesdas, 2018) reported that the incidence of anemia in Indonesia is 48.9%. Prevalence of anemia In West Java Province in 2020, 40.6% of adolescents experienced anemia. Garut Regency is one of the cities in West Java Province. The number of female high school/equivalent grade 10 adolescents identified as anemic was 34.9%. The results of a preliminary study conducted at SMKN 9 Garut on December 13, 2023, on 10 female students showed that the results of measuring hemoglobin levels with electric Hb were 5 people (50%) experiencing mild anemia (11.0-11.9 gr%) and 5 people (50%) normal (12-14 gr%). Interview results also showed that some adolescents did not know the impact of anemia or how to treat it other than the blood-boosting tablets they received, so education through counseling was needed to increase adolescent knowledge about anemia. (Dinas Kesehatan Kabupaten Garut, 2023).

Teenage girls who experience anemia have a negative impact on decreased immunity, concentration, academic achievement, adolescent fitness, and productivity. In addition, anemia greatly affects reproductive health, especially in women. If a woman experiences anemia, it will be very dangerous when she is pregnant and gives birth because pregnancy requires more iron for the growth and development of her baby. This can cause the baby to be born with low birth weight. In addition, anemia can also cause death for both mother and baby during the delivery process. (Khobibah et al., 2021).

The Ministry of Health has created a program providing young and pregnant women with iron supplement tablets. The government program regarding providing Iron Supplement Tablets to young women has been carried out, but the

prevalence of anemia is still quite high. Many factors influence it, including young people's lack of knowledge, which causes irregularity in consuming Iron Supplement Tablets. Lack of knowledge is one of the driving factors for anemia in adolescents. (Kemenkes RI, 2016). One of the health promotion efforts to prevent anemia and change the knowledge and attitudes of adolescents is using learning media to carry out educational activities about anemia. This can increase the knowledge of adolescent girls about preventing anemia. Counseling is usually carried out using several media. The media that will be provided in this study are Video and Booklet media.

Research conducted by Tri Marta Fadhilah (2021) on the Influence of Educational Video Media on Increasing Knowledge of Anemia in Adolescent Girls. The results of statistical calculations and data on Anemia knowledge in adolescent girls showed a significant increase with a p-value <0.05 , so it was concluded that there was an increase between before and after being given education through videos on anemia knowledge in adolescent girls. Based on this background, this study aimed to determine the effectiveness of health education using video and booklet media in increasing the knowledge of female adolescents about anemia at SMKN 9 Garut.

METHOD

This type of research uses a quasi-experimental design with a pretest-posttest and a control group design to determine the effect of video media counseling on female adolescent knowledge. From the research data obtained, the test results before and after treatment will be compared to see whether there is a significant influence on the level of knowledge of consuming iron tablets before and after being given anemia counseling. The population in this study was 244 female students. The sample is part of the number and characteristics of the population. The amount is calculated based on the Slovin formula, which produces a sample of 70 female students using a simple random sampling technique. The research instrument used was a modified questionnaire from Alfazriani D (2019), and validity and reliability tests were carried out first, while for counseling activities, the instruments used were videos and booklets. The types of data used are primary and secondary data. Primary data was obtained by distributing questionnaires directly to respondents and waiting until they had completed the questionnaire. Secondary data in this study were obtained from class attendance at the school. Data processing includes editing, coding, scoring, entry, cleaning, and tabulating. Data analysis used univariate and bivariate analysis. Univariate analysis is done to see the picture based on the frequency and percentage of each variable. Bivariate analyzes the difference between the independent and dependent variables using the independent t-test.

RESULT AND DISCUSSION

Based on the research results, the following data was obtained:

Table 1. Average Knowledge of Adolescents Before and After Being Given Counseling with Videos

Results	Video Group					
	N	Min	Max	Mean	SD	Mean Difference
Pre-Test	35	11	17	13.91	1,634	3.18
Post-Test	35	14	20	17.09	1,442	

Based on the table above, out of 35 respondents in the video group, before being given counseling, the lowest knowledge score was 11, the highest score was 17, and the average score was 13.91, with a standard deviation of 1.634. After being given health counseling with video media, the lowest knowledge score was 14, the highest score was 20, and the average score was 17.09 with a standard deviation of 1.442, so there was a difference in the average score between before and after counseling of 3.18.

Table 2. Average Knowledge of Adolescents Before and After Being Given Counseling Using Booklet Media

Results	Booklet Group					
	N	Min	Max	Mean	SD	Mean Difference
Pre-Test	35	11	17	13.86	1,630	2.4
Post-Test	35	13	19	16.26	1,502	

Table 2 shows that from 35 booklet group respondents before counseling, the lowest knowledge score was 11, the highest score was 17, and the average score was 13.86, with a standard deviation of 1.630. After being given health counseling with booklet media, the lowest knowledge score was 13, the highest score was 19, and the average score was 16.26 with a standard deviation of 1.502, so there was a difference in the average score between before and after counseling of 2.4.

Based on statistical tests using the Paired T-Test, the following results were obtained:

Table 3. Effectiveness of Health Counseling Using Video Media to Increase Knowledge of Adolescent Girls About Anemia

Group	N	Video Group		p-value
		Mean	Std. Dev	
Pre-test	35	13.91	1,634	0,000
Posttest	35	17.09	1,442	

Based on Table 3. the obtained p-value of 0.000 <0.05 with an average pre-test value of 13.91 with a standard deviation of 1.634 and an average posttest value of 17.09 with a standard deviation of 1.442, so it can be concluded that there is a difference in the knowledge of adolescent girls after being given health education using video media. This means that video media effectively increases female adolescent knowledge about anemia.

Table 4. Effectiveness of Health Counseling Using Booklet Media to Increase Knowledge of Female Adolescents About Anemia

Group	N	Video Group		p-value
		Mean	Std. Dev	
Pre-test	35	13.86	1,630	0,000
Posttest	35	16.26	1,502	

Based on Table 4, the p-value is 0.000 <0.05, with an average value in the pre-test of 13.86 with a standard deviation of 1.630 and an average value in the posttest of 16.26 with a standard deviation of 1.502. There is a difference in female adolescent knowledge after receiving health education using booklet media. So, it can be concluded that booklet media effectively increases young women's knowledge about anemia.

Based on statistical tests using the Independent Sample Test, the following was obtained:

Table 5. Differences in the Effectiveness of Health Counseling between Video and Booklet Media on Increasing Knowledge of Female Adolescents about Anemia

Group	Post-Test		p-value	N
	Mean	Std. Dev		
Video	17.09	1,442	0.021	35
Booklet	16.26	1,502		

The results of the Independent Sample Test obtained a p-value of 0.021 <0.05. This shows a change in female

adolescents' knowledge after being given health education about anemia. The knowledge of young women who were given education with video media was higher, with an average value of 17.09, compared to young women who were given education with booklet media, with an average value of 16.26.

The results of the study showed that the use of video media and booklets both increased knowledge, meaning that the use of these media was equally effective in improving the knowledge of female adolescents about anemia. Still, the use of video media was considered more effective than booklet media, as seen from the average value of the increase in knowledge. Video media can describe a process accurately and be viewed repeatedly, and videos also encourage and increase students' motivation to keep watching. Through videos, adolescents can listen to information and see film images to help explain the information conveyed. Interactive videos are a new experience for adolescents, so the information presented is easy to understand and lingers longer in memory, so their knowledge increases. (Arsyad, 2015)

This is in line with the research results by (Auliah., 2021) that there is a difference in knowledge scores after being given health promotion about blood-boosting tablets with booklet media. In addition, research (Salsabila et al., 2018) shows that counseling has proven effective in increasing respondents' knowledge. Health education can be carried out using various methods and media/tools. One form of message delivery in communication and providing health education is counseling. Health education using the lecture method using print media is more effective in increasing the knowledge of adolescent girls than the lecture method without media (Amelia, 2023).

This study has its own novelty where the researcher himself compiled the material and made the video media and booklet according to the theory of anemia, which contains the definition, causes of anemia, signs of anemia, impacts of anemia, prevention of anemia, blood-boosting tablets and a healthy lifestyle. The material is arranged into interesting material and is easy to memorize through video media and booklets. The final result of the output of this study is the HKI video of adolescent girls free from anemia and a booklet on preventing anemia. This study has limitations, namely the long time it took to design videos and booklets so that the results obtained were interesting and understandable by teenagers. In addition, teenage girls' enthusiasm is very good, as seen from their responses to questions about teenage anemia at the end of the question-and-answer session.

CONCLUSION AND SUGGESTION

Based on the research results, it was found that videos and booklets are effective Health Education media for improving the knowledge of adolescent girls about anemia. So, they can be used as effective learning media for improving adolescent knowledge. The results of this study are expected to benefit the community, especially young women, by increasing knowledge and improving compliance in consuming iron tablets because it will affect the future of young women as prospective mothers. It can be a reference for counseling young women with information media such as videos and booklets by health centers or other health workers.

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