



The Use of Animated Videos in Preventing Anemia in Adolescent Girls

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ARTICLE INFO

Article history

Received : 9-6-2025

Revised : 7-7-2025

Accepted : 9-7-2025

Keywords

Teenage girls;
anemia;animated; video

ABSTRACT

Anemia is a serious public health problem and has an impact on the life cycle of adolescents, especially adolescent girls. Adolescent girls who suffer from anemia have limitations in the growth process, learning capacity, ability to focus on daily activities, are susceptible to infection, have a tendency to drop out of school, physical fitness levels, and work productivity. The risk of anemia in adolescent girls tends to increase with age and coincides with the teenage years when the growth process occurs most rapidly. The ages between 12 and 15 years, when nutritional needs are very high, are known to have a very high risk of suffering from anemia. One of the educational media that can be easily understood by adolescents is animated videos. The purpose of this community service is to increase knowledge about preventing anemia in adolescents. The activities carried out are in the form of education, using educational videos to prevent anemia in adolescents. The method used is socialization and health education to adolescent girls through videos and explanations of the consumption of iron tablets distributed to all adolescent girls. The location of the activity was carried out at SDN 001 Nongsa. The stages of the activity include the stages of preparation, implementation and reporting. Data from the results of community service activities showed an increase in the capacity of adolescent girls, showing a change of 22 points in the pre-post test education, HB level examination from 30 people. The examined adolescent girls who experienced anemia were 16 people (53%) and 14 people did not experience anemia. All adolescents showed high enthusiasm for this activity and hoped that anemia and nutritional status education activities could be carried out sustainably to improve the fitness and health of adolescent girls.



A. INTRODUCTION

Anemia is a condition in which the hemoglobin (Hb) level in the blood is lower than normal. Anemia occurs when the body lacks red blood cells so that the body does not get enough oxygen. The normal hemoglobin (Hb) level for adolescent girls is 12 g/dl (Atik, Susilowati and Kristinawati, 2022). According to (Janah and Ningsih, 2021) anemia in adolescents can have an impact on decreasing work productivity or academic ability at school due to the lack of enthusiasm for learning and concentration. Anemia can also interfere with growth where height and weight become imperfect. In addition, the immune system will decrease so that it is susceptible to disease. Anemia can also cause decreased energy production and accumulation of lactate in the muscles. Based on this, a response is needed from adolescent girls to the problems that will arise due to anemia, which of course requires sufficient knowledge about this and a positive attitude in dealing with these problems.



Anemia in adolescents has a negative impact on growth, development, cognitive ability and learning concentration, and increases susceptibility to infectious diseases. Because anemia has a direct impact on cognitive ability and learning concentration, it will certainly also affect adolescent learning achievement. This is proven through the results of research conducted (Nurul Arifin, Handayani and Handayani, 2024), there is a significant relationship between anemia and adolescent learning achievement. Anemia also increases the vulnerability of adolescent girls in adulthood to give birth to a generation with nutritional problems (stunting). Adolescent girls are prospective mothers for the nation's successors so their health is important to pay attention to, including iron deficiency anemia. Preventing anemia in adolescence not only has benefits for the health and cognitive abilities of adolescents, but is also beneficial for future generations (Permatasari and Suciati, 2022).

Anemia in adolescents needs to be a concern, because basically the impact is often invisible or cannot be felt directly. But anemia in adolescents cannot be underestimated. Because at this time it is a demographic era where the productive age is greater than the non-productive age. Of course, if adolescents as the next generation experience anemia, the impact will be extraordinary. From these adolescent girls, the next generation will be produced, which is expected to be a healthy, intelligent and productive generation. This anemia will have a big influence when these adolescent girls later become mothers and give birth to children. This is also reinforced by the fact that anemia has been shown to cause a decrease in the work productivity of Indonesian women by 20 percent or around 6.5 hours per week. This condition can certainly be a major obstacle to the development of quality resources in Indonesia. That is why anemia in adolescents is a concern for all of us (Yunita *et al.*, 2020). The consequences of menstruation that occurs every month, adolescent girls will experience iron loss up to twice the amount excreted by adolescent boys. Therefore, the iron needs of adolescent girls are three times greater than that of adolescent boys to restore their body condition to its original state to replace the blood that comes out during menstruation. So it is important for adolescent girls to have good knowledge about anemia, especially how to prevent and treat anemia (Julianawati *et al.*, 2023).

The lack of knowledge of adolescents about anemia can be caused by the lack of information about anemia in adolescents (Amaliya, Husaini and Mirsiyanto, 2022). In conveying information to adolescents, interesting techniques are needed so that adolescents can receive the information well. Various methods and tools have been developed by the world of education in conveying messages that aim to improve knowledge, attitudes and skills (Setyaningrum, Wulandari and Purwanza, 2023). The media are in the form of leaflets, pocket books and videos (Nisman *et al.*, 2024) According to (Nisman *et al.*, 2024) in her research, audio-visual media in the form of videos can be used as a counseling medium that has many advantages. These advantages can be more easily accepted because they are directly related to the senses of sight and hearing. The appearance of the video that is seen and heard can make the audience remember 50% of the program broadcasts from the video (Dewi Septi Medinawati, 2022). Animation media has a very high influence on the success of the learning process. Because the delivery of the material is more interesting and can stimulate the brains of teenagers to understand the material given quickly (Bangun, P. A. 2021).

B. METHODS

The method of implementing community service on the Use of Animated Videos in Preventing Anemia in Adolescent Girls at SDN OO1 Nongsa consists of the following stages:

1. Preparation Stage

At this stage, the team together with students conducts a briefing on preparation for activities in the form of communication and consolidation for the division of tasks and roles in implementing activities. The tasks and roles carried out to carry out the stages of preparation activities through communication and coordination.

1) Collection of materials

Collection of materials is carried out at this stage by involving the entire team to collect several references to materials that are relevant to the educational topics to be provided.

2) Compilation of Videos

Videos as media are the result of research as extension materials

2. Implementation Stage

This activity is carried out through several steps, namely:

1) Communication and coordination

Communication and coordination are important so that activity planning can be carried out accordingly. In this step, coordination communication is carried out to the Principal of SDN 001 Nongsa. In addition, coordination is also carried out to prepare the number and mobilize adolescent girls as targets according to the criteria set at the initial socialization and consolidation stage.

2) Educational Activities

Education to Prevent Anemia in Young Women through Video is carried out to target subjects according to the role and duties of the team through the following stages:

- a. The group of young women as education subjects are in a closed room that is adequate to receive the material
- b. The education stages include: presentation of material by the team using lecture and question and answer methods with power point media and the Prevent Anemia in Young Women video.
- c. Educational activities take 90-120 minutes
- d. Distribution of Blood Supplement Tablets



Figure 1. Animation Video Delivery



Figure 2. Administration of Iron Supplement Tablets



Figure 3. Group Photo with Young Women

3) Evaluation of Administrative Completion.

This activity is carried out as an initial step in conducting an initial analysis as a needs assessment carried out with the school as a program step. In addition, contact with the target female adolescents to determine the need for material as a medium that will be presented when education is given. In this activity, adolescents are given an instrument in the form of a questionnaire containing several questions related to knowledge insight.

The evaluation activity for the implementation of education is carried out in the following ways:

- a. Measuring knowledge through pre-tests and post-tests using instruments that have been prepared
- b. Evaluating the overall process through the distribution of participant and partner satisfaction questionnaires after the education activity is carried out.

4) Making implementation documents

Documentation of the implementation of activities is made as evidence of the outputs achieved and materials that will be included in the preparation of reports and publications.

3. Reporting Stage

Is the final stage after the activity is completed through the preparation of an activity report containing complete activity implementation information according to the required layout



C. RESULTS AND DISCUSSION

Community service activities that have been carried out for adolescent girls measure the nutritional status of adolescents and the level of knowledge of adolescents. The nutritional status of adolescents is mostly normal. The results of measuring nutritional status can be seen in table 1.

Table 1. Nutritional Status of Adolescents

Characteristic	Frequency	(%)
Less	10	33,3
Normal	13	43,3
Exess	7	23, 4
Total	30	100

Table 1. Shows that the nutritional status of adolescents in the category of less is 10 people (33%). Most adolescents have normal nutritional status as seen from the measurement of height based on weight as many as 13 people (43.3%), and adolescents with the category of excess nutritional status are 7 people (23.4%).

Table 2. Increase in Knowledge of Adolescent Girls

Level Knowledge	Before (Pre-test)	After (Post-test)
	Average value	
	72	90

Table 2. Shows that the average pretest value is at 72 while for the Posttest there is an average value of 90 there is an increase of 22 points. Increasing adolescent knowledge is influenced by knowledge and education. Therefore, education needs to be provided routinely so that adolescents know the importance of nutritional status and stunting prevention to prepare for health from an early age. And create a quality generation (Huriah, T. & Sintaningrum, A. D, 2021)

D. CONCLUSION

Providing education to adolescents in an effort to prevent anemia can increase adolescents' understanding of anemia. This can be seen from the increase in adolescent knowledge about anemia with an average value before being 72 and after being 90, an increase of 22 points. This is expected to be one of the efforts to reduce the incidence of anemia. Adolescent girls as future mothers are expected to have knowledge about stunting and its prevention efforts. Adolescents who receive education in this community service activity can become anemia prevention agents who can provide knowledge to their friends.

E. ACKNOWLEDGEMENTS

Many thanks to the teachers of SDN 001 Nongsa School and students who have participated in this activity. Thanks also to the Sambau Health Center who helped in supporting the implementation of community service properly.



F. AUTHOR CONTRIBUTIONS

Community service supervisor: Tinta Julianawati.,S.Tr.Keb.Bdn.,M.Kes with members Lusi Yana, Dinda Aprilia Putri who are in charge of preparing materials for the implementation of community service.

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