

Health Education About Anaemia in the RESSPRO Program (Healthy and Productive School Youth) at Himah Cipta Karsa Vocational School Garut

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ABSTRACT

Anaemia is a condition where the number of red blood cells or haemoglobin (Hb) is less than the normal value. The cause of anaemia is inadequate intake of nutrients. It can be caused by several factors: the wrong diet that interfere with iron absorption, lack of knowledge, unsupportive attitudes, maternal education, and the socioeconomic level of the family. In addition, adolescent girls often suffer anaemia because they are in a growing period that needs higher nutrients. Furthermore, they also experience menstruation every month and lack iron intake in the food consumed every day. Education aims to provide and improve students' understanding of preventing anaemia and identify the importance of early detection to avoid anaemia. The method used in this study was the lecture method, question and answer, discussion, and demonstration. The health education activities participants were 182 students. The counselling participants were enthusiastic and happy when presenting the material in progress. Conducive counselling activities because participants pay close attention to the material presented. It is evidenced by the number of participants interested in answering questions during the question-and-answer session. Participants participated in the counselling happily because the counselling was carried out with a pleasant face-to-face method. Conducive counselling activities because participants pay close attention to the material presented.

Keywords: Anaemia, Education, Healthy and Productive Adolescents

INTRODUCTION

Anaemia is a conditioned lack of red blood cells or haemoglobin (Hb) below the normal. The average normal Hb level in adolescent girls is 12 g/dl. Anaemia is a worldwide health problem, especially in developing countries. It is estimated that 30% of the world's population suffers from anaemia. Anaemia is common in adolescents and pregnant women. Until now, anaemia is still high in adolescent girls. According to the World Health Organization (2013), the general prevalence of anaemia ranges from 40-88%. The number of adolescents (10-19 years) in Indonesia is 26.2%, consisting of 50.9% boys and 49.1% girls (Choiriya, 2015).

According to the Indonesia basics health research 2013, the prevalence of anaemia in Indonesia is 21.7%, with anaemia patients aged 5-14 years is 26.4% and 18.4% being patients aged 15-24 years (Indonesian Ministry of Health, 2014). Data from the 2012 Household Health Survey states that the prevalence of anaemia in children under five is 40.5%, pregnant women are 50.5%, postpartum mothers are 45.1%, young women aged 10-18 years are 57.1%, and age 19-45 years by 39.5%. Women have the highest risk of developing anaemia, especially in adolescent girls.

The causes of anaemia include lack of iron levels in the body, vitamin B12 deficiency, folic acid deficiency, severe bleeding, leukaemia, worms, chronic diseases, etc. Nutritional problems such as iron deficiency anaemia, overweight/obesity, and nutrition deficiencies are also experienced by adolescents. Anaemia and poor nutritional status on adolescent girls can increase the negative impact when they become pregnant, leading to low-weight babies' birth, morbidity, and even death for mothers and babies (Adiyani, 2020).

According to Nurbaiti (2019), other factors that can cause anaemia are inadequate nutritional intake: the habit of consuming foods that can interfere with iron absorption, such as tea or coffee at the same time as eating, and lack of knowledge about anaemia, unsupportive attitudes, maternal education, and the socioeconomic level of the family. Adolescent girls often suffer from

anaemia because adolescence is a growing period that needs higher nutrients. In addition, they also experience menstruation every month and a lack of iron intake every day.

Other impacts of anaemia in adolescent girls include lowering the body's resistance so that they are susceptible to many diseases, reducing activities, and learning achievement. In addition, their fitness also decreases, thereby inhibiting their sports performance and productivity. In addition, adolescence is a period of extremely rapid growth. Consequently, iron deficiency can lead to not achieving optimal height.

Garut is a Sundanese ethnicity. Therefore, most of the students are from the Sundanese ethnic group. Hikmah Cipta Karsa Vocational High School is one of the schools in Garut Regency with 234 students ages 15-19 years, with more than half of them being young women. Furthermore, there are many facilities to support learning activities at Hikmah Cipta Karsa Vocational High School. In addition to classrooms, there are also libraries, biology, chemistry, physics, and computer laboratories. It shows that there are many activities at SMK Hikmah Cipta Karsa Garut. Hikmah Cipta Karsa Vocational High School has many school activities, such as extracurricular and organizational activities such as the Class Consultative Assembly, Intra-School Student Organizations, Youth Scientific Groups, and Achievement Sports. All of those activities take strong and fresh stamina from the students.

Hikmah Cipta Karsa Vocational High School has implemented a program of giving Fe tablets to overcome anaemia among female students. Nevertheless, the program was not doing well because most students did not routinely take Fe tablets given by guidance and counselling teachers for various reasons. Several students said that consuming the Fe tablets was a waste of time and wasted. Some stated that their parents forbade them to take the Fe tablets because they believed in several myths related to the Fe tablets. They thought consuming Fe tablets is the same as eating expelled menstrual blood that causing menstrual blood will increase and several other reasons.

These myths are misleading, which eventually harms the students in their teenage phase. This fact is evidence of the failure of the Fe tablet administration program, which is feared to harm the health status of the students. The program's ineffectiveness has been proven by the number of students who came to the School's Health Clinic on their period. They experience cramps and even symptoms of anaemia such as dizziness, nausea, weakness, feeling weak, cold hands and feet. Some junior of red cross' members who helped the students said that the girls also looked pale. After being examined in the school laboratory by officers, the student who experienced symptoms of anaemia had a haemoglobin level below 11 g/dL. If this condition continues, the student's achievement will decrease, and school activities will be disrupted. Meanwhile, if there are more victims, there will be a decrease in school achievement. Based on this, education is critical to increasing knowledge related to student attitudes and handling of anaemia.

The number of audiences from the results of the study needs assessment was 182 people consisting of students from all classes. Based on the assessment of learning needs, it can be concluded that there are several different learning needs for some students. Perceived needs are needed because some know the impact of preventing anaemia incorrectly. Moreover, the unperceived need is needed because some students do not practice the prevention of anaemia properly, which is harmful to health. Misperceived need because some students know the risks of not taking proper prevention of anaemia risk, which is a threat to health, even though there are still habits that are not following the requirements.

METHODS

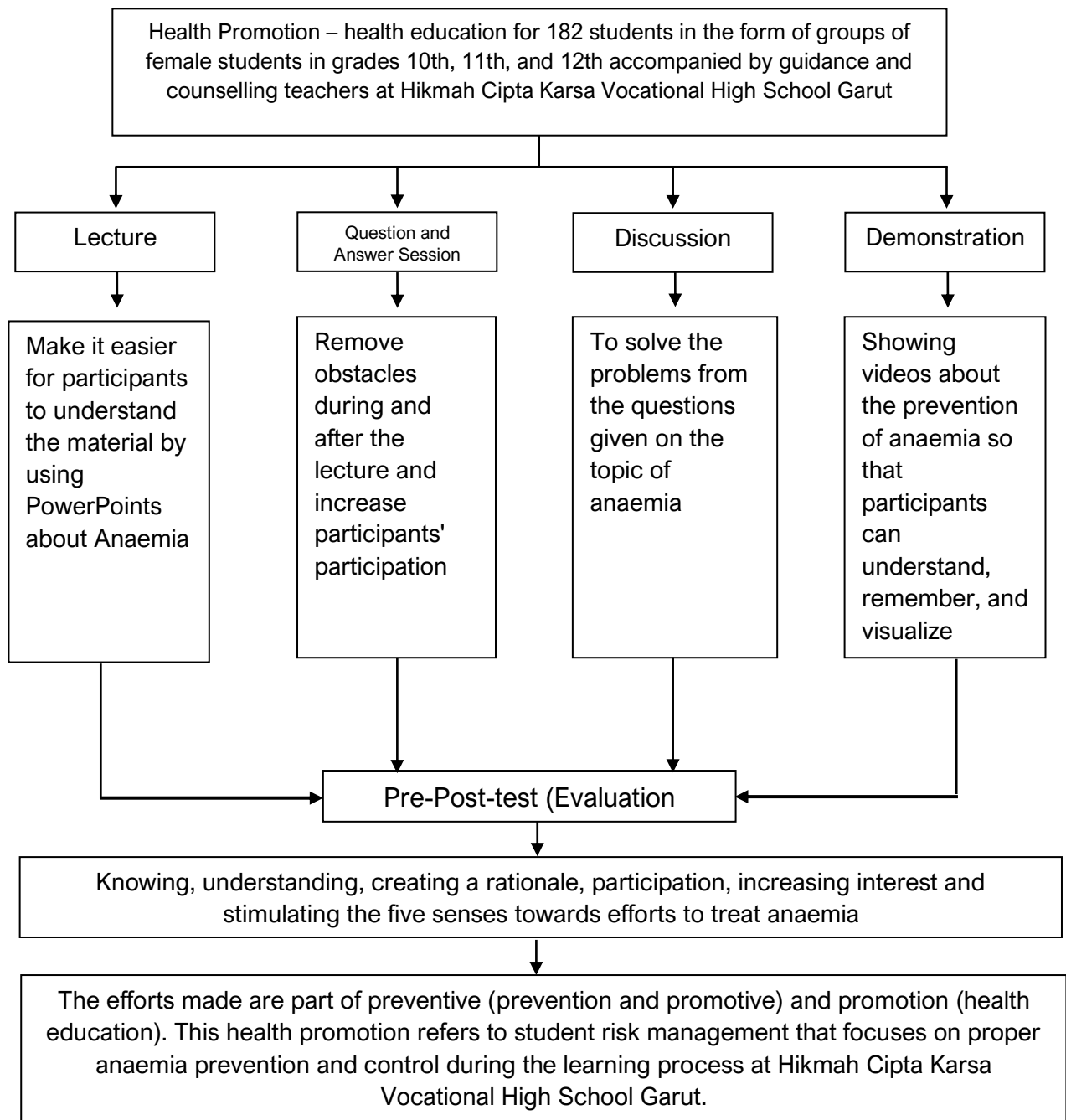


Figure 1. Method of Service Implementation

RESULTS

The results of the assessment are divided into several dimensions. The physical aspect consists of the composition of age and genetic elements. Participants ages 15-19 years and generally women. Furthermore, the genetic aspect shows there were no students with genetic disorders or diseases. Besides, physiological dimensions are assessed students' common health problems. Many students who experience cramps, and even experience symptoms of anaemia such as dizziness, nausea, weakness, feeling weak, and cold hands and feet during their periods are taken to the School's Health Clinic. Several officers who helped the student said that their faces looked pale. After being examined in the school laboratory, the student who experienced symptoms of anaemia had a haemoglobin level below 11 g/dL.

The school's physical dimensions consist of the location and the hazard. Hikmah Cipta Karsa Vocational School is in Garut Regency, close to the bus terminal and the major market. In

addition, the playing area is relatively safe inside the school, and there are many plants as greenery in the schoolyard area. Moreover, the school environment is quite hot with proper lighting and ventilation. However, the dangers to electricity are not assessed.

The health system dimension shows that some communities support the Fe tablet program. Many parents forbade the consumption of the Fe tablet because they believed in several myths, such as eating the Fe tablet the same as eating the expelled menstrual blood that causes the increase of menstrual blood and several other reasons. Moreover, there is a variation of educational backgrounds among parents.

Dimensions of the Health System in schools, the failure of the Fe tablet program at Himah Cipta Karsa Garut Vocational School is feared to harm the health status of students.

Health education activities were held face-to-face on December 18, 2021. The participants were divided into four groups with different speakers. The X class group with Iwan Salahuddin, the XI class with Indra Maulana; class XII-A with Theresia Eriyani, and class XII-B with Sandra Pebrianti. This activity began with an opening by the MC and was followed by a welcoming greeting.

The activity started with the MC asking participants' initial knowledge about anaemia. Furthermore, the MC asked the participants if they have ever experienced health problems due to anaemia, especially risks in learning, and impacts that arise if they do not take the preventive measures. Participants were quite familiar with the dangers of not taking anaemia prevention properly. Hence, participants still did not understand what impacts would arise on students with anaemia. Then participants were given a pre-test to find out their initial knowledge.

The activity continued with a lecture using PowerPoint and a video about anaemia. It helps participants remain interested in participating in the event. The presentation begins with the core material while displaying the PowerPoint. The presentation session went smoothly. In addition, the participants seemed to be focused and listening to the speaker.

After the lecture, the video begins to be shown. After that, the question-and-answer session was started. The questions were read by the presenters and the participants were enthusiastic to answer the questions. A total of five questions were answered correctly by several students.

Evaluation of counselling regarding anaemia and its prevention risk was carried out directly with approximately 182 participants. The counselling participants looked enthusiastic. Participants participated in the counselling happily because the counselling was carried out in a fun way. The counselling activity was conducive because the participants paid attention to the material presented well. It is evidenced participants were interested in answering questions during the question-and-answer session.

The counselling was done directly so that the participants are easier to understand. It is indicated the effectiveness of the teachings' media. The good response of the participants was seen enthusiastically from the beginning to the end of the activity.

This activity is carried out through direct counselling, namely through face-to-face lectures. The efforts made are part of preventive (preventive) and health education (promotive) efforts to prevent health problems, especially anaemia.

DISCUSSION

The activity was done through direct counselling, namely face-to-face lectures. It is part of preventive and promotive efforts to prevent health problems, in this context, anaemia.

Counselling is carried out directly so that the participants are easier to understand. The participants' response was seen with enthusiasm from the beginning to the end of the activity. It proves the effectiveness of the function of the teaching media used to support the explanation of the material.

The Health Belief Model (HBM) is the most used theory in health education and promotion. The concept that underlies the HBM is that health behaviour is determined by personal beliefs or perceptions about the disease and the strategies to reduce the disease' occurrence. Individual perception is influenced by various factors that influence intrapersonal health behaviour. Based on the HBM, the behaviour will change if individuals are given an

understanding of the benefits. Firstly, we need to determine the cause of the unfavourable behaviour. And then given counselling and detailed information about the benefits of improving their behaviour. This effort is carried out in health education about anaemia at Hikmah Cipta Karsa Vocational High School.

The transtheoretical model stated that behaviour change is defined as a developmental process over time and through several stages. In this health education process, teachers can find out what stage their participants are in. During the process of health education, most of the participants were in the contemplation stage. They were in the stage of being more concerned with the positive and negative impacts of the planned behaviour change but still felt hesitant to do it. Therefore, it could make individuals delay the changes.

The Theory of Reasoned Action is most successful when applied to behaviour under the control of the individual concerned. If the behaviour is not completely under the control or will of the individual. They may not display the behaviour, in this case changing the habit prevention of anaemia. During the health education process, teachers try to make individuals motivated and independently change their behaviour.

CONCLUSIONS AND RECOMMENDATIONS

The study results found that the learning needs of workers at Cipta Karsa Vocational High Schools Garut include perceived needs, unperceived needs, and misperceived needs. In implementing counselling, the students seemed enthusiastic. In addition, the counselling activity was conducive because the participants listened to the material presented carefully.

The program's sustainability plans in the future are: To provide an understanding of the importance of preventing the risk of anaemia at work; Interactive activities through social media regarding the problems faced intensively for students to build strong, clean, and healthy living habits in carrying out their studies; Involving local stakeholders and school owners in efforts to prevent unhealthy habitual behaviour, both at home and in the school environment.

Propose the Cipta Karsa Vocational High School Garut as a model school in the implementation of the RESSPRO program (Healthy and Productive School Youth), especially in the prevention of anaemia in female students.

REFERENCES

- Adawiyani, R. (2014). Pengaruh pemberian booklet anemia terhadap pengetahuan, kepatuhan minum tablet tambah darah dan kadar hemoglobin ibu hamil. *CALYPTRA*, 2(2), 1-20.
- Adiyani, K., Heriyani, F., & Rosida, L. (2020). Hubungan Status Gizi dengan Kejadian Anemia pada Remaja Putri di SMA PGRI 4 Banjarmasin. *Homeostasis*, 1(1), 1-7.
- Choiriyah, E. W. (2015). Hubungan Tingkat Asupan Protein, Zat Besi Dan Vitamin C Dengan Kejadian Anemia Pada Remaja Putri Kelas X Dan XI SMA Negeri 1 Polokarto Kabupaten Sukoharjo (Doctoral dissertation, Universitas Muhammadiyah Surakarta).
- Fatih, F. D., & Primadani, T. (2021). Efektivitas Pendidikan Dengan Media Boklet, Leaflet Dan Poster Terhadap Pengetahuan Tentang Anemia Pada Remaja Putri. 438–446.
- Fitria, A., Aisyah, S., & Tarigan, J. S. (2021). Upaya Pencegahan Anemia Pada Remaja Putri Melalui Konsumsi Tablet Tambah Darah. *RAMBIDEUN: Jurnal Pengabdian Kepada Masyarakat*, 4(2), 91-99.
- Kesumasari, Citra. 2012. *Anemia Gizi Masalah dan Pencegahannya*. Yogyakarta: Kalika 2012
- Muwakhidah, M., Fatih, F. D., & Primadani, T. (2021). Efektivitas Pendidikan Dengan Media Boklet, Leaflet Dan Poster Terhadap Pengetahuan Tentang Anemia Pada Remaja Putri. *Proceeding of The URECOL*, 438-446.
- Nisa, I. K., Rosmana, D., & Aminah, M. (2020). FAKTOR-FAKTOR YANG BERHUBUNGAN DENGAN KEPATUHAN KONSUMSI TABLET TAMBAH DARAH (TTD) PADA REMAJA PUTRI DI MADRASAH ALIYAH NEGERI KOTA CIMAHI (Doctoral dissertation, Politeknik Kesehatan Kemenkes Bandung).

- Nurbaiti, N. (2019). Faktor-Faktor yang Berhubungan dengan Pencegahan Anemia pada Remaja Putri di SMA Negeri 4 Kota Jambi Tahun 2018. *Jurnal Ilmiah Universitas Batanghari Jambi*, 19(1), 84-88.
- Permenkes, R. I. (2014). Standar tablet tambah darah bagi wanita usia subur dan ibu hamil. Jakarta: Permenkes RI.
- Riesmiyatiningdyah, R., Putra, K. W. R., & Sulistyowati, A. (2021). The Effect of Health Education on Adolescent Knowledge about Anemia. *Nurse and Health: Jurnal Keperawatan*, 10(1), 59-64.
- Riyanti, R., & Legawati, L. (2018). Pendampingan Konselor Sebaya dalam Pencegahan Anemia Remaja Putri. *PengabdianMu: Jurnal Ilmiah Pengabdian Kepada Masyarakat*, 3(1), 62-68.
- Poltekkes Kemenkes Yogyakarta [poltekkesjogja.ac.id](http://eprints.poltekkesjogja.ac.id) [Online] [Cited: Oktober 3 ,2018] <http://eprints.poltekkesjogja.ac.id/545/4/3.%20Chapter2.pdf.pdf>
- Saridewi, W., & Ekawati, K. (2019). Hubungan Pengetahuan dengan Kepatuhan dalam Mengonsumsi Tablet Tambah Darah di SMAN 1 Ngamprah. vol, 1, 87-92..
- Sugihantono, Agung. 2016. Program Pencegahan dan Penanggulangan Anemia pada Remaja Putri dan Wanita Usia Subur. Jakarta: Direktur Jenderal Kesehatan Masyarakat

ATTACHMENT

Figure 1. Online Documentation of Health Education Activities 1





Figure 2. Online Documentation of Health Education Activities 2