

## Socialization of Youth Nutrition Information in Prevention of Anemia

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### ABSTRACT

The behavior of human consumption of food is determined by human life behaviour in the adolescent period. This makes adolescents the target of nutritional intervention with the aim of improving health status. Changes in psychology, physiology, social change, knowledge and misnutrition behavior in adolescents will lead to nutritional problems. One of the causes of anemia is a lack of nutritional foods such as animal proteins, green vegetables and other foods that are a source of iron. A good diet and a balanced diet will affect the nutritional requirements of the body so that the occurrence of anemia can be overcome. The aim of this community service is to raise awareness of nutrition and balanced nutrition issues in early adolescent groups. It can be measured by the results of the questionnaire given at the end of the activity. The participants who participated in this counseling were 7th grade Junior High School students at SMPN 28 Jakarta with a total of 61 students. The study was successful because the results showed an increase in the knowledge of the participants.

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### INTRODUCTION

Indonesian people, especially adolescents, suffer mostly from anemia due to a lack of food sources that are rich in iron, which is found in foods that are easily absorbed by the body. Anemia among teenage girls is higher than in teenage boys, approximately 12% of teenage men and 23% of adolescent girls suffering from anemia in Indonesia, due to iron deficiency in the body. According to the WHO, adolescents are the population with the age range between 10-19 years. Anemia that occurs in adolescents has a negative impact on reduced immunity, concentration in learning, physical fitness and also productivity.

The adolescent phase is a vulnerable phase to health risks because in the adolescence phase there is a rapid development of the body that requires adequate nutritional resources. However, such adequate nutritional needs are often ignored by adolescents so there will appear some health problems that will arise such as the occurrence of anemia in adolescent age. Anemia is defined as a lack of levels of hemoglobin concentration in the erythrocytes so that it is insufficient for physiological needs in the body.

One of the main signs of anemia is pale, usually due to a lack of blood volume, decreased hemoglobin, and vasoconstriction in the blood vessels to maximize oxygen delivery. Tachycardia and heart noise are also symptoms of anemia that reflect increased heart workload and falls. Other symptoms of anemia also include weakness, tiredness, fainting, dizziness, and blind eyes. In severe anemia, lethargy, confusion, and complications such as heart failure, arrhythmia, myocardial infarction, and angina can develop. This anemia

can be classified according to many things such as etiopathogenesis, morphology and etiology, cell size, and causes such as blood loss. Anemia is measured by looking at a person's haemoglobin, which is where a person who has a hemoglobin value below normal, then the person can be said to have anemia. According to the WHO, the normal hemoglobin level for women over the age of 15 is  $>12,0\text{g/dl}$  ( $>7.5\text{mmol}$ ).

Anemia is influenced by several factors including insufficient iron intake, low iron absorption, increased needs, blood shortage, poor diet, socio-economic status, infectious diseases, low knowledge of iron. There are two ways to prevent anemia: pharmacologically and non-pharmacologically. The pharmacological way is to take FE once a week at a dose of 60 mg, while the nonpharmacological method is to eat foods that contain iron.

The millennial generation is a generation born in the 80s and 90s and upwards that is identical to a brave, innovative, creative, and modern character. (Prasetyanti, 2017:45). At this time, many millennials are entering adulthood. Early adulthood is a transition from adolescence to adulthood that begins at the age of 18-25 years called adulthood and ends at 35-40 years. Early adults are characterized by the presence of experimentation and exploration. For many people, this is a transition from high school to college that involves moving towards larger and impersonal structures, interaction with friends from more diverse geographical and ethnic backgrounds, and increased focus on achievement. At this time there is also the peak of physical performance that begins to be experienced by someone (Santrock, 2012).

The nutrition problem in Indonesia is now entering the problem of double nutrition. (Double Burden Nutrition). The undernutrition problem is still not fully resolved, while more nutrition is also a problem. Underweight, overweight and obesity are among the ten risks in terms of the global disease burden. (World Health Organization, 2008). The WHO 2015 showed that the world's adult population is overweight, with 38% of men and 40% of women.

According to Dinkes West Java (2016) the nutritional status of adults ( $>18$  years of age) can be seen in the adult population over 18 years is 11% skinny, 62.1% normal, 11.7% overweight, and 15.2% obese. The city of Bogor is among the third highest prevalence of nutritional status problems at 20.1%. Nutritional needs in adulthood vary according to the age group. The main objective of nutritional health in adulthood is to improve overall health, prevent disease, and slow down the aging process. (Almatsier, 2011).

One of the factors directly influencing nutritional status is the intake. The body needs intake to produce energy to be active. The required intake consists of macro and micro nutrients. Macro nutrients consist of carbohydrates, proteins, and fats, and micronutrients are composed of vitamins and minerals. Energy is one of the important factors to consider in determining nutritional needs in a day. Energy is obtained from carbohydrates, fats, and proteins. (Hardinsyah, 2017). To meet the need for such nutrients, it is necessary to apply balanced nutrition in everyday life.

## METHOD

The community service takes place in three stages, namely the initial assessment to find out the level of knowledge and problems existing with brainstorming, continued with the health disclosure "Prevention of Anemia in Adolescents" interactive with PowerPoint. The activity ended with a question-and-answer and post-test evaluation using the g-form.

The first session, started with the submission of material by Mrs. Tuti with the title of Balanced Nutrition for Adolescents, then continued with the second session on the theme of Anemia Prevention Implementation by Mrs. Justina. During the event, there was the involvement of two students of the nursing undergraduate program that explored the activities with ice breaking and also games, so that the total of 61 participants did not get bored. The third session, which was the final session, was completed by two nursing students who asked the participants to fill out the post test using g\_form. The session ended with a variety of games and games related to adolescent health and prevention of anemia in adolescents.

## RESULTS

The community service was held on Monday, December 11, 2023 at SMPN 28 Jakarta. The selection was made for the students of classes VII C and VII D, which totalled 61 students. The event began with the guidance of their class teacher and continued with the opening and brainstorming initiated by Albertha, a 5 semester STIK Sint Carolus student as well as the introduction of all the members of the group and the profile of St. Carolus STIK. At the start of the activity, all participants were asked to complete a pre-test related to their knowledge of adolescent anemia. Participants filled through their cell phones. To make the atmosphere stiff and melt, the event host makes a scream for the participants so that everyone is willing and active to participate. The first subjects on balanced nutrition for adolescents presented by the mother of Tuti Asrianti continued with answers to questions that were answered very well by the students. Before entering the second

material, a ice breaking was held by Yoanita, a fifth-semester STIK Sint Carolus student, so the atmosphere of deliberations is not boring.



**Figure 1. First Session Activity**

After the first session, the event continued with the second session of the presentation of material on anemia prevention implementation submitted by Mrs. Justina Purwarini. The end of the session was also continued with questions and answers that were well answered by the students. During the questioning session, many questions were asked ranging from good food for breakfast, how to prevent anemia from happening to them, a delicious but delicious breakfast, and how if school boys were undernourished what to do. The event ended with quizzes and games related to adolescent anemia. The schoolchildren responded to this game very well. Whoever wins the game gets a prize from the committee.

Before the event closes the students were asked to fill in a questionnaire on the barcode that was broadcast and back participants filled through their mobile phones.

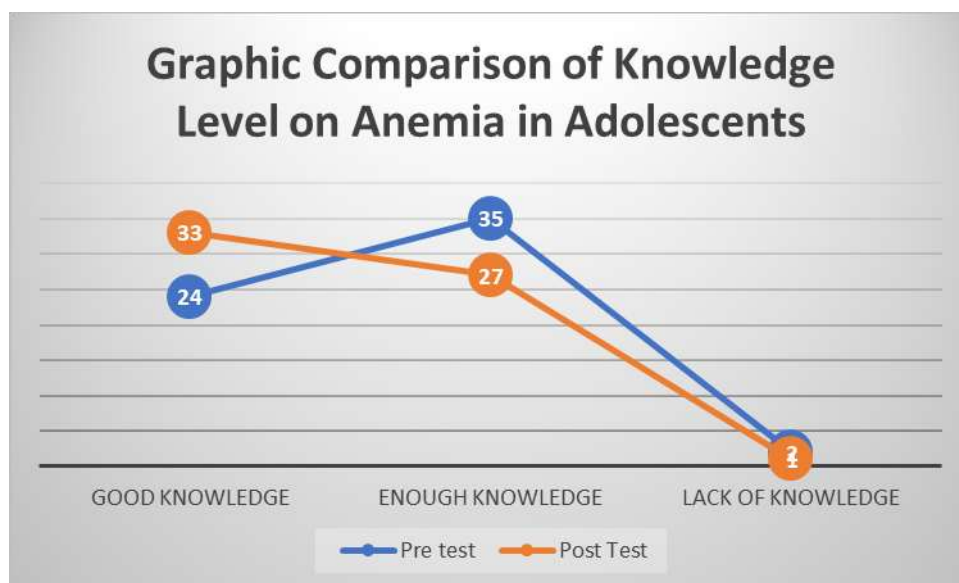


**Figure 2. Second session activity**



**Figure 3. Last session activity**

The effectiveness of these testing activities can be seen from the pre and post test results produced and depicted as follows:



**Table 1. Pre and Post Comparison Chart Respondent Knowledge Level of Anemia in Adolescents**

The above graph shows that of the 61 students who followed a study on Prevention of Anemia in Adolescents, pre-test data were obtained that the majority of participants had a sufficient level of knowledge (n=35). After examination, the post-test results showed that the majority of participants had a good level of knowledge (n=33) and there was an increase of 14.8%. It can be seen an increase in the level of knowledge of students/students related to anemia in adolescents. This increase is due to the methods of discernment used, namely education using easy-to-perceive language and the real examples they are used to encounter. Senior involvement, whose age is not too far from them, is also increasingly motivating to engage in activities. According to the research carried out by Arifah, et al. (2022) that diagnosis methods can enhance adolescent anemia-related knowledge.

### CONCLUSION

Based on the results of the questionnaire on anemia in adolescents, it can be concluded that there was an improvement in the knowledge of the students by using the method of dissemination. Health promotion can provide information that can raise health awareness among adolescents to a higher level and help prevent the occurrence of anemia. Health promotion in essence is an action or attempt to communicate health messages to a community, group or individual in the hope that they can acquire better health knowledge through such messages.

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