The Overcoming Stunting in Adolescents at Risk of Anemia in the Kapas District, Sukowati Village, Bojonegoro

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Abstract

Stunting is a serious problem, namely the failure to grow a child or toddler due to chronic malnutrition due to infectious disease disorders, if allowed to greatly affect intelligence. In 2021 the Bojonegoro government prioritizes the handling of stunting, there must be joint work. Data from the 30% National survey are both important issues to deal with together. Prevention of stunting starts in the womb. Habits of teenagers, most importantly iron affects adolescence, don't forget 4 Healthy 5 Perfect or fill my plate activities. The health of a young woman as a prospective mother and at the same time as the nation's successor needs to be a major concern. Adolescents are humans in the transition stage to adulthood with rapid growth associated with iron fulfillment. Insufficient iron intake can cause anemia. The national incidence of anemia at the age of 1 year, 5-11 years, and 15-24 years were 21.7%, 26.4%, and 18.4%, respectively. Factors causing stunting include nutritional intake and parenting patterns for toddlers from caregivers who must be given good and sufficient knowledge. Smoking is also one of the causes of stunting, because it affects the economic pattern of a family. Factors that influence anemia in adolescent girls are lack of consumption of foods containing iron, menstruation, consumption of blood-added tablets, and consumption of tea or coffee after eating. Giving blood supplement tablet therapy is one of the important efforts to prevent and overcome anemia due to iron deficiency. The purpose of this service is to overcome the problem of anemia in adolescent girls based on the results of a qualitative research analysis of the factors causing the problem of low consumption of Fe tablets. This activity has been carried out in Sukowati village, Kapas sub-district, Bojonegoro district with the target of junior high, high school, and vocational school students in Sukowati village as anemia prevention ambassadors. Community empowerment strategies have been carried out in the form of socialization, FGD for PKK mothers and the formation of anemia prevention communities, until finally achieving: 1) raising public awareness, in this case schools and students of SMP, SMA, SMK in Sukowati Village about the importance of preventing anemia, 2) then motivate and enable the community with prevention education and training processes Keywords: Community Service, Stunting, Anemia, teenage girl.

INTRODUCTION

Adolescence is a transitional stage from childhood to adulthood, characterized by rapid physical growth, thus requiring adequate nutritional intake including iron. Insufficient iron intake can lead to anemia in adolescents.1 Anemia is defined as a decrease in blood hemoglobin (Hb) levels below normal values for age and sex. Common Hb values are <13.5 g/dL in adult males and <11.5 g/dL in adult females.2 Anemia is more common in females and adolescent girls than males due to high iron requirements for growth and increased blood loss from menstruation. The national incidence of anemia in those aged \geq 1 year, 5-11 years, and 15-24 years was 21.7%, 26.4%, and 18.4%, respectively. The incidence of anemia in adolescent girls in developing countries is 53.7% of all adolescent girls due to stress, menstruation (Giyanti, 2016).

In her research, Giyanti mentioned the factors that affect anemia in adolescent girls are the lack of consumption of foods containing iron, menstruation, consumption of drugs including blood supplement tablets (TTD), and consumption of tea after meals which can interfere with iron absorption. The provision of TTD is one of the important and effective efforts to prevent and overcome anemia due to iron deficiency.3 One of the Government's spearheads in running

health programs is the Puskesmas, including anemia prevention programs for adolescent girls. The anemia prevention program for adolescent girls is in the form of Fe consumption or blood supplement tablets in Kapas Sub-district, Sukowati Village. Based on previous qualitative research, a causal factor analysis of the problem of anemia in adolescent girls has been carried out and it has been concluded that there are 3 important problems that cause it, and several alternative solutions are given that can be used as a reference to overcome the problem, namely: 1) Low consumption of Fe tablets in adolescent girls, 2) High anemia in adolescent girls, 3) Prevention of anemia in adolescent girls has not involved active community participation, 4) Prevention of malnutrition in adolescent girls. Nutritional problems in adolescents occur both in the form of overnutrition and undernutrition.

The occurrence of anemia is one of the causes as well as a consequence of undernutrition in adolescents. When traced upstream, one of the causes of anemia and chronic energy deficiency is the consumption pattern of iron food sources. Consumption patterns including nutritional knowledge of adolescents based on balanced nutrition guidelines need to be studied further, especially knowledge about iron. The results of Fauzi's research (2012) state that nutritional knowledge in adolescents, especially about iron, is still very low. The general guidelines for balanced nutrition that have been launched by the government for a long time can be a reference for healthy nutritional knowledge. Healthy adolescents are human resource assets for the survival of the nation's successors. Various findings and factors that cause anemia in adolescent girls, then how to prevent and overcome it and which elements in the community can play a role will be discussed in this article. This paper is an analysis of the results of a literature review, the data and information are sourced from secondary data in the form of research journals, printed books of government regulations, and other supporting literature.

METHOD

This community service is carried out with several different methods, namely 1) "Socialization and Focus Group Discussion of the Chairperson of the Sukowati Village PKK and adolescent girls of SMP, SMA, SMK Sukowati Village and 2) "Training on stunding prevention in adolescents at risk of anemia in junior high school, high school and vocational school students in Sukowati Village" and 3) forming. "Community of Prevention Ambassadors of stunting prevention at risk of anemia in Sukowati Village" whose members are participants in the Anemia Prevention Ambassador training.

1) "Socialization and Focus Group Discussion of PKK Chairperson and PKK members of Sukowati Village and Junior High School, High School and Vocational School Adolescent Girls" Socialization and FGD were conducted on Sunday, October 23, 2022, at 08.00-12.00 WIB at Sukowati Village Hall, Kapas District, Bojonegoro Regency.

The activities carried out aim to socialize the anemia prevention program in adolescent girls by providing information to PKK mothers and adolescent girls as anemia prevention cadres at home and the environment around the house and identifying obstacles to its implementation. With the existence of cadre activities to PKK mothers, they will focus on anemia prevention by providing information on nutritious foods and those that are high in Fe. This activity also motivates young women on the consumption of nutritious and high-Fe foods and the rules for using Fe supplements in young women. The head of Sukowati village also attended the FGD event to fully support the activities of his people. The method of community service activities can be seen in the flow chart (figure 1).

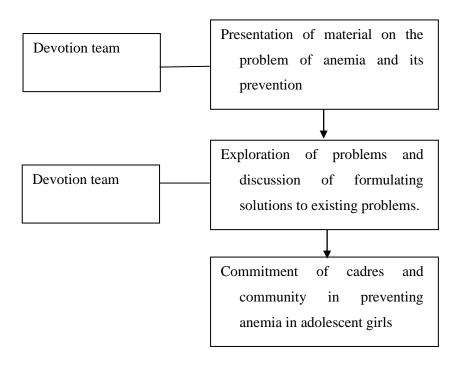


Figure 1. The method of community service activities





girls in SSukowati Village with PKK Mothers

"Training of anemia prevention ambassadors for junior high school, high school and vocational school students in Sukowati Village

This activity was held on Sunday, October 23, 2022 at 08:00 to 12:00 WIB at the Sukowati Village Hall, Kapas District, Bojonegoro Regency.

The above activity aims to provide knowledge and skills as an anemia prevention ambassador for junior high school, high school and vocational school students in Sukowati Village. The training method is given in the form of screening educational videos on anemia prevention, active learning through chain message games, and sentence stacking games, as well as the most call game. At the end of each game session, participants were asked to summarize the messages and lessons they could take from each game. In between game sessions, ice-breaking was interspersed with activity yells aimed at increasing the enthusiasm and motivation of participants. In addition to games, this activity was carried out by practicing identifying the characteristics of anemia, with pictures, and demonstrating nutrition education using food models. A total of 25 adolescent girls from all junior high schools, high schools, and vocational schools in Sukowati Village participated in this training. Before and after the training, participants took a pretest-posttest to see the success of the activity.



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Figure 3. Anemia Ambassador Training for Junior High School, High School, Vocational School Students in Sukowati Village

Establish a "community of anemia prevention ambassadors in Sukowati Village" whose members are participants in the Anemia Prevention Ambassador training.

The method of this activity is to create a community to communicate and coordinate among anemia prevention ambassadors, in carrying out their activities in their respective schools. The purpose of this group is as a means of maintaining and maintaining and increasing motivation to socialize the prevention of anemia in adolescent girls at school. Anemia Youth Ambassadors can know the symptoms of existing anemia symptoms, such as weakness, lethargy, pallor and other symptoms that can hinder activities during the learning process in concentration. Reminding the importance of taking Fe supplements during menstruation and prevention of anemia.

RESULTS AND DISCUSSION

This service activity has been carried out in accordance with the proposed schedule and method. Based on the evaluation of the activity, all activities can be carried out well, the objectives of the activity are successfully achieved. The following are the results of activities that have been carried out, can be seen in table 1.

In evaluating the success of youth training for high school students in Sukowati village, an oral pretest posttest with 10 questions about anemia risk factors, prevention, protein and iron source foods needed for anemia prevention was conducted. It was found that the participants' knowledge increased by 19%, this has been proven to be meaningful by T Test, p value = 0.001. In addition, this activity also succeeded in improving communication skills with peers, which was identified through roleplay between participants. Increased motivation and awareness to socialize and prevent anemia in female students in their respective schools, as evidenced by active communication in the Whatsapp social media community group. It is hoped that this activity can continue with the method of a). assistance and coordination periodically every 3 (three) months between schools and PKK mothers regarding the prevention of anemia in adolescent girls in Sukowati village, b). Chairperson and Ibu Pkk become evaluators, coordinators of monitoring adolescent girls in using sufficient Fe tablets, consumption of nutritious food in terms of also preventing stunting in adolescent girls of junior high school, high school, vocational school students in Sukowati village, c). The anemia prevention community in adolescent girls actively socializes about anemia prevention, especially with the consumption of Fe tablets once a week, as evidenced by the monitoring card, d). Periodic monitoring of Fe tablet consumption by the Puskesmas to each school that has given commitment, and reported annually as an achievement of the Puskesmas.

Table 1. Results of the FGD Socialization with the Chairperson of the PKK and the PKK board as
well as the Sukowati Village Young Women

No	Implementation	Result
	Constraints	
1.	Not all schools know and understand the importance of anemia prevention programs	Meningkatkan peran paguyuban orang tua murid dalam optimalisasi pengadaan TDD

2	Increased targeting of anemia program in senior high schools	Optimizing coordination of anemia prevention in middle and high schools so that anemia cases in adolescent girls can decrease.
3	The assumption or term in the mention of TDD is for pregnant women, so that young women do not want to drink	Taking blood enhancement tablets simultaneously at several schools or in the community

CONCLUSIONS AND SUGGESTIONS

The community service activities carried out by the pharmacy team from UNUGIRI Bojonegoro in the Sukowati Bojonegoro village community were basically very well received by the community. Various activities carried out were enthusiastically followed by the surrounding community. This shows the desire of the local community to learn and utilize things that are not new but neglected by them. The community service activity "Community empowerment for the prevention of anemia in adolescent girls in Sukowati Village has been carried out in several forms of activity methods in order to achieve its objectives, namely Socialization and FGDs on community components and especially adolescent girls.

REFERENCES

- Fahrudin, Adi. 2012. Pemberdayaan partisipasi dan penguatan kapasitas masyarakat. Bandung: Humaniora
- Hoffbrand AV & Moss PAH. 2013. Kapita Selekta Hematologi. Dalam: Sandra F, Editor. Jakarta: EGC.
- Hikmat, Harry. 2006. Strategi Pemberdayaan Masyarakat. Bandung:Humaniora.
- Jaelani M, Simanjuntak BY, Yuliantini E. Faktor Risiko yang Berhubungan dengan Kejadian Anemia pada Remaja Putri. J Kesehat. 2017;8(3):358.
- Kementerian Kesehatan RI. 2013. Riset Kesehatan Dasar (RISKESDAS) Tahun 2013. Jakarta : Badan bangan Kesehatan Kementerian Kesehatan Republik Indonesia.
- Kementerian Kesehatan RI. 2014. Peraturan Menteri Kesehatan Republik Indonesia Nomor 88 Tahun 2014.
- Tentang Standar Tablet Tambah Darah Bagi Wanita Usia Subur dan Ibu Hamil.Jakarta : Kementerian Kesehatan Republik Indonesia.
- Kementerian Kesehatan RI. 2015. Rencana Strategis Kementerian Kesehatan Tahun 2015-2019: Keputusan Menteri Kesehatan Republik Indonesia Nomor HK. 02.02/Menkes/52/2015
- Satyagraha K, Putera K, Noor MS, Heriyani F. Hubungan Pola Makan dengan Kejadian Anemia di SMP Negeri 18 Banjarmasin 2019 / 2020. J homeostatis. 2020;3(2):217–22.
- World Health Organization. (2006). Adolcent Nutrition-A Review of The Stituation Selected South-East Asian Countries. Available at:

http://www.who.int/nutrition/publications/schoolagechildren/SEA_NUT_163/en/.

World Health Organization and others. (2001). Iron deficiency anaemia assessment, prevention, and control: A guide for programme manager. WHO.

Zeleke, M. B, Shaka M.F, Anbesse, A.T and Tesfaye,H.T (2020). Anemia and Its Determinants among Male and Female Adolescents in Southern Ethiopia: A Comparative Cross-Sectional Study, *Hindawi*