

# Socialisation of Stunting Prevention with Anemia Determinant Education In Adolescents at SMA Negeri Bunga Bangsa, Lamie Village Nagan Raya Regency in 2024

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## Abstract

Anemia is a condition of the body where hemoglobin (Hb) levels in the blood are lower than normal. Adolescent girls are more prone to anemia than boys, due to the fact that they are entering puberty and their rapid growth requires more iron. In addition, adolescent girls often go on excessive diets to lose weight due to lack of knowledge, which reduces the intake of protein and animals needed for the formation of blood hemoglobin. The prevalence of anemia in Indonesia is 21.7%. The proportion of anemia in women (23.9%) is higher than that of men (18.4%). The purpose of this health counseling is to increase the knowledge and understanding of adolescents related to stunting and anemia. This type of research is qualitative research with lecture, discussion, question and answer methods, and pre-post test questionnaires related to stunting and anemia. Data from the pre-posttest results were tested using Excel and SPSS using the t-test. Research Results: increased knowledge of adolescents after socialization with an average post-test stunting value of 74 and anemia post-test average value of 81. With a p-value of 0.001 which means it has an influence before and after socialization. Conclusion: increasing knowledge and awareness about health in order to be able to prevent anemia in adolescents who are at risk of stunting in babies born in the future.

**Keywords:** Adolescent Girls; Anemia; Stunting

## Introduction

Indonesia is a developing country that has complex problems, especially in nutrition. Nutrition problems in Indonesia are different from developed countries, namely Indonesia has double nutrition, which means that one side of the area is undernourished and on the other side there is more nutrition (Arifin, 2022). Stunting is still a serious problem in the world because it is associated with the risk of illness and even death. Various efforts have been made by the government to overcome malnutrition at all levels of society in order to reduce the number of stunting sufferers. The problem of stunting is not only caused by economic factors, but also by behavioral factors and habits that also have a major influence on nutrition and stunting problems (Adila et al., 2023).

Globally there are 148.1 million children under the age of 5 who are stunted, 45 million underweight children, and 37 million overweight children. Indonesia's stunting prevalence ranks 27th highest out of 154 countries that have stunting data, making Indonesia 5th among countries in Asia (UNICEF & WHO, 2023).

Based on data from the Ministry of Health of the Republic of Indonesia in 2020, Aceh is one of the provinces that has the highest prevalence of stunting (Al-Rahmad et al., 2013). Aceh province is in fifth place with a stunting prevalence of 34.18% (Samiaty et al., 2022) which is above the national prevalence rate (Arini et al., 2020). Nagan Raya district is one of the districts in Aceh province (Yarmaliza et al., 2023). In 2022, Nagan Raya ranked 14th out of 23 districts with a prevalence of 28.8% (Annur 2022). Stunting has been identified as an important public health priority and there is an ambitious target to reduce the prevalence of stunting between 2010 and 2025 by 40% (Prendergast & Humphrey, 2014).

One of the problems that lead to stunting is (iron) anemia in adolescents and pregnant women. Based on 2018 Riskesdas data, 1 in 3 adolescents suffer from anemia with a prevalence of 32% (Rasdianah et al., 2023). Anemia is a condition where the hemoglobin (Hb) level in the blood is lower than the normal value. Hemoglobin is an iron-containing metalloprotein in red blood cells that functions to transport oxygen from the lungs to the rest of the body (Fitriany & Saputri, 2018). Anemia often affects adolescent girls due to stress, menstruation, or late eating.

The rate of anemia in adolescent girls is still high, according to the World Health Organization (WHO), the prevalence of anemia in the world ranges from 40-80% (Kaimudin NI et al., 2017). According to WHO, the prevalence of anemia in women in Indonesia is around 23.9%, which is divided from the prevalence of anemia in women aged 5-14 years by 26.4% and aged 15-25 years by 18.45% (Ariani et al., 2016).

To prevent stunting, it is necessary to increase knowledge about anemia and stunting. Prevention can be done through education about anemia in the context of preventing stunting early on. Providing socialization and education about stunting and anemia is one of the efforts made to prevent and overcome nutritional anemia in adolescents by providing knowledge of symptoms, causes, prevention and control. So that it can break the chain of (Yuliani et al., 2024).

Adolescent girls are future mothers who will give birth to the nation's generation. Therefore, seeing this problem and the importance of this for adolescents in the Lamie Village area, PBL II (Field Learning Practice) Students of Teuku Umar University Public Health then conducted non-physical interventions as an effort to increase the understanding and knowledge of adolescent girls about anemia. The physical intervention program implemented is in the form of health counseling on "Prevention of Stunting by Educating Anemia Determinants in Adolescent Girls at SMA Negeri Bunga Bangsa Lamie Village" with socialization and education methods.

## Methods

This type of research is a quantitative research with lectures, discussions, questions and answers, and pre-post-test questionnaires related to stunting and anemia. The place of implementation of counseling activities was carried out at Bunga Bangsa State Senior High School, Nagan Raya Regency. The implementation time was carried out on January 20, 2024. The target audience is all students who attend SMA Negeri Bunga

Bangsa, Nagan Raya Regency with a representative of 20 people.

. The method used to realize the objectives of the Field Learning Practice (PBL) is the socialization and education method in the form of counseling. Counseling is carried out through several stages, namely the preparation stage which is carried out by making counseling materials using several tools, namely laptops, infocuses and screens. Then the implementation stage is to provide material to all students of Bunga Bangsa State High School using lecture, discussion and question and answer methods. Data were obtained from pre and post-tests. Data analysis was carried out on the results of the pre-test and post test to determine changes in students' knowledge of stunting and anemia.

The success indicator of this counseling is that this activity is successfully carried out properly, starting from the socialization permit at school, pre-post-test, delivery of material that is received happily by all parties concerned and ends with a group photo. So that the respondents' knowledge about anemia increased after anemia counseling was conducted at SMA Negeri Bunga Bangsa, Nagan Raya Regency.

The evaluation method used in this counseling is using a pre-post-test questionnaire distributed to respondents before and after counseling to see the success of the program. Data from the pre-post test results were tested using Excel and SPSS using the t-test.

## Results

Based on Table 1. Stating that the increase in respondents' knowledge related to stunting, namely with an average value of 74, a standard deviation value (std. deviation) of 17.29 with a p-value value of 0.001, means that it has an influence before and after the socialization.

**Table 1.** Effect of Socialization on Adolescents' Knowledge Regarding Stunting at Bunga Bangsa State Highschool

<b>Variable</b>	<b>Mean</b>	<b>Sd</b>	<b>p.value</b>
Before	47	25,36	0,001
After	74	17,29	

Based on Table 2. Stating that the increase in respondents' knowledge related to anemia, namely with an average value of 81, a standard deviation value (std. deviation) of 16.5 with a P-value value of 0.001 means that it has an influence before and after the socialization.

**Table 2.** The Effect of Providing Socialization on Adolescents' Knowledge Regarding Anemia at Bunga Bangsa State High School

<b>Variable</b>	<b>Mean</b>	<b>Sd</b>	<b>p.value</b>
Before	47	25,36	0,001
After	74	17,29	

## Discussion

This stunting and anemia counseling activity was carried out at SMA Negeri Bunga Bangsa which is located in Lamie Village, Darul Makmur District, Nagan Raya Regency. This counseling was attended by all students of SMA Negeri Bunga. Exposure of health counseling material for SMA Negeri Bunga students as an effort to prevent anemia in adolescents who can be at risk of future stunting if not prevented early. The

presentation of anemia health counseling material for adolescents was delivered directly by PBL II students in Lamie Village. The material presented contained the meaning of stunting and anemia, causes, symptoms, and how to prevent stunting and anemia in adolescents.

All students followed the series of activities well and were enthusiastic about the presentation and also asked questions related to things they did not understand. The main factor in the emergence of anemia in adolescents is the lack of knowledge of adolescents about anemia related prevention. Prevention of anemia can be done by eating healthy, balanced nutritional foods. Adolescents who eat bad food will result in anemia. Because anemia is caused by a lack of nutrients such as iron, vitamin B12, and folic acid (Mursiti, 2016). In addition to eating healthy foods, Fe tablets are also one of the nutritional improvements to prevent anemia in adolescent girls if taken in accordance with the rules of use. The rules for using Fe Tablets include taking one Blood Addition Tablet (TTD) once a week or as needed and it is recommended to take one Tablet during menstruation (Mursiti, 2016).

Based on the pre-test results, before being given counseling, the average score of adolescent knowledge related to stunting was 47% and anemia was 47%. This shows that in general, adolescents at SMA Negeri Bunga Bangsa still do not understand the causative factors, prevention, and future impacts of anemia and stunting. However, after attending counseling there was an increase in the average score of adolescents' knowledge about stunting to 74% and anemia to 81%. Therefore, it is known that the cause of the lack of knowledge of adolescents about stunting and anemia by adolescents is due to the lack of getting health information about stunting and anemia in the community environment.

Low knowledge of adolescents as prospective parents is a determinant of stunting in children. Prospective parents must have knowledge related to stunting as healthy living behavior in an effort to prevent stunting, namely avoiding early pregnancy and fulfilling nutrients in the body, one of which is iron (Rasyid et al., 2023).

The high problem of anemia in adolescent girls needs to be prevented by conducting counseling on anemia, in order to increase the knowledge and understanding of adolescent girls about the dangers of anemia which affects the quality of the nation's future generations and to prevent stunting (Safitri & Andika, 2023). Anemia in adolescents has a long impact on themselves and for the children who are born later. The state of anemia that continues into adulthood and when the woman is pregnant, can cause risks to her baby such as premature birth, and low birth weight (LBW), to stunting (Rahmanidar et al., 2022). Therefore, the purpose of this health counseling is to increase the knowledge and understanding of adolescents about stunting and anemia. Good knowledge about anemia will certainly lead adolescents to strive for optimal prevention of anemia from an early age so as not to experience stunting in future children.

## **Conclusion**

The counseling provided can increase knowledge and is expected to increase awareness about health

in order to prevent the onset of anemia in adolescents who are at risk of stunting in babies born in the future. This activity is fully supported by the Lamie Village school.

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