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COMMUNITY SERVICE | REPORT

Socialization of Anemia and Stunting Prevention For Adolescent Girls in Pegat Bukur Village, Berau District, Indonesia

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Abstract: The Community Service Program in order to carry out the Tri Dharma of Higher Education aims to encourage active involvement of students in the community and provide them with work experience in community development efforts. One of the implementation of KKN Batch 50 Year 2024 was carried out in Pegat Bukur Village, which is one of the villages in Sambaliung District, Berau Regency. One of the problems in Pegat Bukur Village is a health problem that is focused on handling stunting. One of the activities is the implementation of Socialization on the prevention of Anemia and Stunting along with making Infographics. Young women as future mothers need to prepare themselves to give birth to a quality generation. The need for nutritional knowledge about stunting and its prevention in adolescents is one way to reduce stunting rates in the future. The purpose of this activity is to increase the understanding of adolescent girls regarding anemia and stunting. The benefits of this activity are to carry out early prevention of the potential for anemia and stunting, by equipping adolescent girls as prospective mothers who are expected to give birth to healthy children and avoid stunting. The Anemia and Stunting Socialization also included the provision of blood supplement tablets to students of SMP Negeri 5 Kampung Pegat Bukur. This activity is a work program that can be attempted as a form of stunting prevention from as early as possible. From the results of data processing from pretest and posttest scores, it can be concluded that the socialization carried out is proven to increase the understanding of adolescent girls related to anemia and stunting. It is hoped that the service team can work with third parties who have legality in handling stunting so that the program implemented can have a deeper effect on the community.

Keywords: Anemia Prevention, Stunting, Health Socialization.

JEL Code: I15, I18, O15, Q56

1. INTRODUCTION

Stunting is still a major concern in Indonesia. This condition describes a chronic problem in nutritional status during child development. Stunting indicates the failure of children, especially infants and toddlers, to achieve optimal height growth due to chronic malnutrition. One of the risk factors is maternal undernutrition before pregnancy. Stunting can start with adolescent girls who face health and nutrition problems that impact the next generation (Rasyid et al., 2023). Stunting can occur in children whose mothers are malnourished during adolescence (Chrismilasari et al., 2023). Globally, around 149.2 million children under five are stunted. Indonesia also has the highest prevalence of stunting among lower-middle-income countries. Based on the 2023 Indonesian Health Survey, the prevalence of stunting decreased from 21.6% to 21.5%, but this figure still did not reach the reduction target set by the Ministry of Health (MOH, 2023). Anemia is a condition when blood hemoglobin concentration is lower than normal (insufficient than 12 mg/dl) due to deficiency of one or more nutrients. Decreased work productivity, stunted growth, the body is easily infected, reduced body fitness, reduced learning spirit and achievement are the effects of anemia on adolescent girls (Suryani and Nugroho 2023). Based



on Riskesdas data in 2018, the prevalence of anemia in Indonesia reached 23.7%. From the age group 5-14 years, 26.8% and 32.0% were in the age group 15-24 years (Kemenkes RI 2018).

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Adolescent girls as future mothers need to prepare themselves to give birth to a quality generation. The need for nutritional knowledge about stunting and its prevention in adolescents is one way to reduce stunting rates in the future (Asatuti et al. 2021). The adolescent girl group is an age category that requires more nutrients than other age groups. Sexual maturation in adolescents is a factor that causes adolescent girls to fulfill a lot of nutrients, besides that adolescent girls also need more iron than adolescent boys because additional iron is needed to help fulfill the iron that is shed during menstruation (Pramana, Merida, and Guna Bangsa Yogyakarta 2024). Anemia has a significant impact on adolescent girls because it can lead to decreased achievement arising from a decrease in enthusiasm for learning. Reduced iron (Fe) can trigger symptoms such as pallor, lethargy, loss of appetite and slow growth or known as stunting (Wulandari et al. 2023).

Factors that cause anemia in adolescent girls include unhealthy food consumption patterns, as well as detection and treatment of anemia that is not optimal. One way to break the intergenerational cycle of malnutrition is to provide iron supplements or blood supplement tablets (TTD) to adolescent girls who have a greater chance of iron deficiency (Wulandari et al. 2023). The provision of Blood Addition Tablets (TTD) in adolescent girls is 1 tablet / week and 1 tablet / day for 10 days during menstruation. Giving blood supplement tablets to adolescent girls is considered effective in reducing and preventing anemia (Rahmanindar et al. 2022).

The purpose of this activity is to increase the understanding of adolescent girls regarding anemia and stunting. The benefit of this activity is to carry out early prevention of the potential for anemia and stunting, by equipping adolescent girls as prospective mothers who are expected to give birth to healthy children and avoid stunting. The output of this activity is in the form of infographics and articles.

2. RESEARCH METHOD

The implementation of the Real Work Lecture (KKN) of Mulawarman University was carried out by conducting activities on Wednesday, July 17, 2024 at Classroom IX of SMP Negeri 5 Kampung Pegat Bukur, Sambaliung District, Berau Regency, East Kalimantan Province. The object or target of this activity is Class VIII & IX students of SMP Negeri 5 Kampung Pegat Bukur. The number of participants involved was 37 participants who were students of SMP Negeri 5 Kampung Pegat Bukur, Sambaliung District, Berau Regency, East Kalimantan Province.

The implementation was carried out when problems were found during a discussion forum between residents, RT heads, community leaders, village midwives, BPK, PKK cadres, village staff, and KKN groups. The head of the PKK said that the health problem in this village is focused on handling stunting where it is mentioned that stunting in Pegat Bukur is still classified as moderate but needs to be monitored intensely so that there is no increase. From the results of the discussion, the KKN team tried to design a work program related to the problem presented. After a group brainstorming process, the KKN team decided to make anemia & stunting socialization coupled with the provision of blood supplement tablets targeting adolescent girls in Pegat Bukur Village. This was driven by the fact that stunting prevention should start as early as possible, starting from adolescents who are already experiencing menstruation, so the KKN team's target was young women rather than pregnant women. The implementation of this work program begins with preparing materials and blood supplement tablets. Then the series of events was carried out with an opening delivered through remarks from the principal, remarks from the head of the KKN team group and continued with pretest filling, delivery of anemia material and blood supplement tablets by Rindi Ardilla from the Faculty of Pharmacy and

stunting material by Annisa Aulia Rahayu from the Faculty of Public Health. Furthermore, there was a discussion session with students, filling out post tests and finally closing.

The implementation of this work program is very well received by the SMP Negeri 5 Kampung Pegat Bukur which also supports the work program of the posyandu, namely the distribution of blood supplement tablets every week for adolescent girls who have experienced menstruation. This implementation uses pretest and posttest to measure the level of knowledge of female students before and after giving material. The results of the pretest and posttest of this work program will be the output of the work program in the form of infographics and articles that will be submitted to journals. The analysis carried out for the pretest and posttest results is the Wilcoxon test where this test is used to compare two related paired samples. The wilcoxon test is used for interval or ratio data and data that is not normally distributed. The analysis was carried out using Rstudio software. From the analysis, it will be known the comparison of the level of knowledge before being given socialization material and after being given the material

3. RESULTS AND DISCUSSION

3.1. Respondent Characteristics

Table 1. Age Distribution of Respondents in Class VIII and IX of SMP Negeri 5 Pegat Bukur Year 2024

Variables	Age Distribution of Respondents				
	N	Min	Max	Mean	SD
Age	37	13	15	13.72973	0.6077577

Based on the descriptive table above, it can be seen that there are 37 students in classes VIII and XI of SMP Negeri 5 Pegat Bukur with the youngest age of 13 years and the oldest is 15 years, so that the average age of respondents who filled out the pretest and posttest of Anemia and Stunting Socialization was 13.73 years with a standard deviation of 0.61.

3.2. The Effect of Socialization of Stunting and Anemia on the Knowledge of Class VIII and IX Students at SMP Negeri 5 Pegat Bukur Year 2024

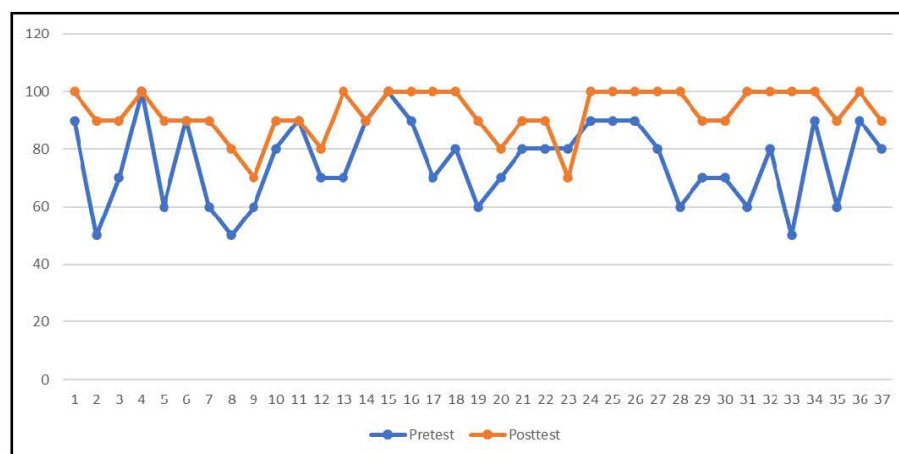


Figure 1. Graph Comparison of Pretest and Posttest Values

Based on Figure 1, it can be seen that the posttest scores of respondents taken after the Anemia and Stunting Socialization tend to increase from the pretest scores before socialization. However, to ascertain whether the Anemia and Stunting Socialization has an influence on increasing the knowledge of Class VIII and IX students of SMP Negeri 5 Pegat Bukur, the analysis is continued as follows.

Table 2. Shapiro-wilk normality test

Uji Shapiro-wilk normality	
P-value	0,001963

Based on Table 2. Above, it can be seen that the data does not come from a normal distribution, so the analysis can proceed using the Wilcoxon test for two paired samples.

Table 3. Wilcoxon Test

Wilcoxon Signed Rank test	
P-value	$1,192 \times 10^{-6}$

Based on Table 3 above, it can be seen that the value of the Wilcoxon Signed Rank test results shows 1.192×10^{-6} , which is less than $\alpha = 0.05$. This shows that by using the Wilcoxon test, it can be proven that the Anemia and Stunting Socialization is able to increase the knowledge of Pegat Bukur VIII and IX class students regarding Anemia and Stunting.

3.3. Socialization of Stunting and Anemia Prevention Activities on the Knowledge of Class VIII and IX Students at SMP Negeri 5 Pegat Bukur in 2024

The purpose of this work program is to provide counseling and understanding to adolescent girls as future mothers regarding stunting prevention. Adolescent behavior in preventing anemia also needs to be done by adding knowledge related to anemia and its impact on adolescents, especially related to the risk of stunting. In an effort to overcome this problem, an intervention was carried out in the form of socialization activities. This socialization aims to increase the understanding of adolescent girls about the dangers of anemia and stunting, the importance of balanced nutrition, as well as the factors that cause and impact, the fulfillment of balanced nutrition for the prevention of anemia and the use of blood supplement tablets as an effort to prevent stunting to adolescent girls of secondary school students. In addition to counseling, discussion and question and answer sessions were also held to enable young women to understand the education provided.



Figure 3. Socialization on the Prevention of Stunting and Anemia

4. CONCLUSION

Pegat Bukur Village is one of the villages in Sambaliung Sub-district, Berau Regency. After discussions with residents and village officials, including the head of the PKK. One of the problems in Pegat Bukur Village is a health problem that is focused on handling stunting. Socialization of Anemia and Stunting as well as the provision of blood supplement tablets to SMP Negeri 5 Kampung Pegat

Bukur is a work program that can be attempted as a form of stunting prevention from as early as possible because this activity is useful for early prevention of the potential for anemia and stunting by equipping adolescent girls as prospective mothers who are expected to give birth to healthy children and avoid stunting. From the results of data processing from pretest and posttest scores, it can be concluded that the socialization carried out is proven to increase the understanding of adolescent girls related to anemia and stunting. As for recommendations that can be made for further community service, it may be possible to work with third parties who have legality in handling stunting so that the program implemented can have a deeper effect on the community.

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