
Assistance in Preparing Anti-Anemia Food Menus to Prevent Stunting for Young Women and Posyandu Cadres in Tunjuk Village, Tabanan Regency Year 2023

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Abstract

Anemia is a health problem throughout the world, especially in developing countries, where an estimated 30% of the world's population suffers from anemia. Anemia in adolescent girls is still quite high. Anemia is a nutritional problem that often occurs in teenagers, especially young women. Anemia is a continuation of the impact of deficiencies in macronutrients (carbohydrates, proteins, fats) and micronutrients (vitamins, minerals). In adolescent girls, the need for iron increases because they experience regular menstruation which releases a certain amount of iron every month. This increase in the need for total blood volume is often not accompanied by adequate iron consumption, especially when teenage girls tend to want to have a slimmer body, so they often make various efforts, including going on a strict diet. Based on data from the 2022 Indonesian Nutrition Status Survey (SSGI), the prevalence of stunting among children under five in Tabanan Regency is still above the prevalence of stunting in Bali Province (8.0%) while in Tabanan Regency it is 8.2%. Research on female vocational school students in Tabanan Regency found that 54.2% had low levels of energy consumption, 32.5% had low levels of protein consumption, 88.0% had very low levels of iron consumption, 96.4% had very low levels of folic acid consumption, less and 78.3% have a very low level of vitamin B12 consumption and the level of knowledge about Anemia and CED, most of the Young Women have little knowledge about Anemia and CED, namely 84% less, 14% enough and 2% good. This lack of knowledge will affect the attitude of young women towards anemia and CED so that when they are pregnant they tend to experience anemia and CED and will give birth to stunted babies. The nutrition education that has been carried out is not enough to increase knowledge and especially attitudes of teenagers towards the risk factors for stunting, therefore the service will carry out training in preparing anti-anemia food menus for young women and Posyandu cadres in Tunjuk Village, Tabanan District. The priority solution is to improve the skills of young women and posyandu cadres to create anti-anemia food menus to prevent stunting by providing training. The method used to achieve this community service objective was to carry out training for 2 days for 50 young women and Posyandu cadres. This community service activity was carried out in Tunjuk Village, Tabanan District, Tabanan Regency in July 2023.

Keywords: Anemia, Anti-Anemia Menu, Stunting, Young Women

INTRODUCTION

Anemia is a condition in which the number of red blood cells or the amount of hemoglobin is below the reference standard value (Georgieff MK. 2020). Hemoglobin is a protein compound that plays an important role in carrying oxygen throughout the body. One of the most common causes of anemia is iron deficiency, which is estimated to account for about 50% of all anemia cases. The condition of anemia caused by a lack of iron intake is often known as iron nutritional anemia. Anemia can occur at all phases of the life cycle. One of the groups

at high risk of experiencing anemia is teenagers (aged 10-19 years). Adolescence is a period of accelerated growth and development which causes an increase in the need for iron in the body. In teenage girls, iron is also needed to replace iron during menstruation. Apart from that, early marriage and teenage pregnancy are other factors that increase the risk of anemia, especially in young women (Pasricha SR, 2014)

Anemia in adolescents has a negative impact on growth, development, cognitive abilities and learning concentration, as well as increasing susceptibility to infectious diseases. 6 Meanwhile, anemia in adolescent girls who experience pregnancy is associated with an increased risk of premature birth, babies with low birth weight, maternal death. and newborn babies.

Based on Basic Health Research data for 2007, 2013 and 2018, there is a trend of increasing prevalence of anemia in adolescents. In 2018, 32% of teenagers in Indonesia experienced anemia. This means that there are approximately 7.5 million Indonesian teenagers who are at risk of experiencing obstacles in their growth and development, cognitive abilities and are vulnerable to infectious diseases (Ministry of Health, 2018).

The level of knowledge of young women about Anemia and KEK before and after receiving counseling was before receiving counseling, most of the young women had "low" knowledge about Anemia and KEK, namely 84%, "sufficient" 14% and "good" 2% while after receiving counseling there was a change where it was less than 16%, enough 30% and good 54%. Research results (Padiari, 2019) Measurement of anemia in young women in the Gianyar sub-district found that of the 50 targets examined, 14 targets (28%) were anemic and 36 targets (72%) were not anemic. The results of the study (Padiari, 2020) concerning the Effects of Nutrition Intervention with the SHIP Approach on the knowledge and attitudes of young women regarding Anemia and Stunting in the Gianyar sub-district found that only 45.2% had good knowledge of the Anemia menu. This lack of knowledge will affect the attitude of young women towards anemia and CED so that when they are pregnant they tend to experience anemia and CED and will give birth to stunted babies. The nutritional counseling has not sufficiently increased the knowledge and especially the attitudes of adolescents regarding the risk factors for stunting, therefore the volunteers conducted training on preparing anti-anemia food menus for young women in the Gianyar sub-district.

RESEARCH METHODS

The method used to achieve the goal of community service is to carry out training held 4 times for 50 young women. The target is 50 young women used as targets with the following conditions:

1. Be present at the training.
2. Permitted by his parents to be a target
3. Do not suffer from illness when community service activities are carried out.

RESULTS AND DISCUSSION

This community service activity will be carried out in Tunjuk Village, Tabanan from June to August 2023.

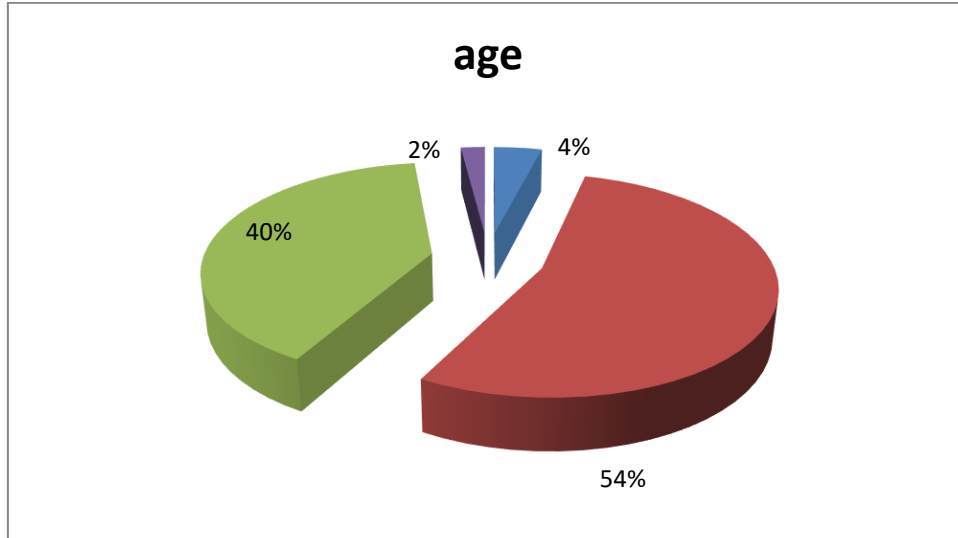


Figure 1
Age Distribution of Young Women

The target of participating in this community service was 50 young women, most of whom (73.3%) did not experience Chronic Energy Deficiency (KEK) and 26.67% experienced KEK.

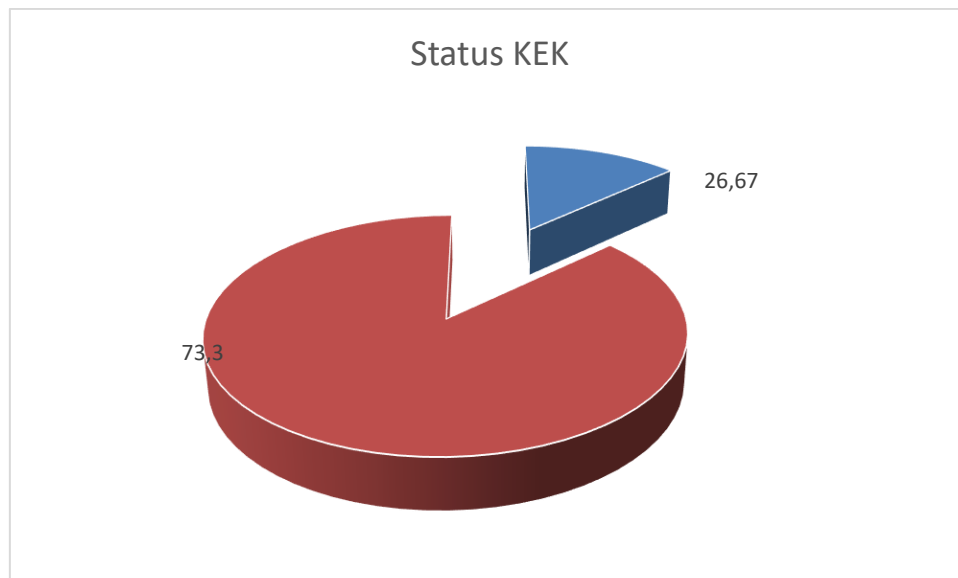


Figure 2
Distribution of Young Women's Chronic Energy Deficiency (KEK)

Before the training was carried out, all the targets participating in this community service, totaling 50 young women, had their hemoglobin levels checked and the results were 33,3% had anemia and 66,7% did not have anemia. The lowest Hb level was 9 gr/dl and the highest was

15.0 gr/dl with an average of 11.81 gr/dl with an SD of 1.611. To be more clear can be seen in the image below.

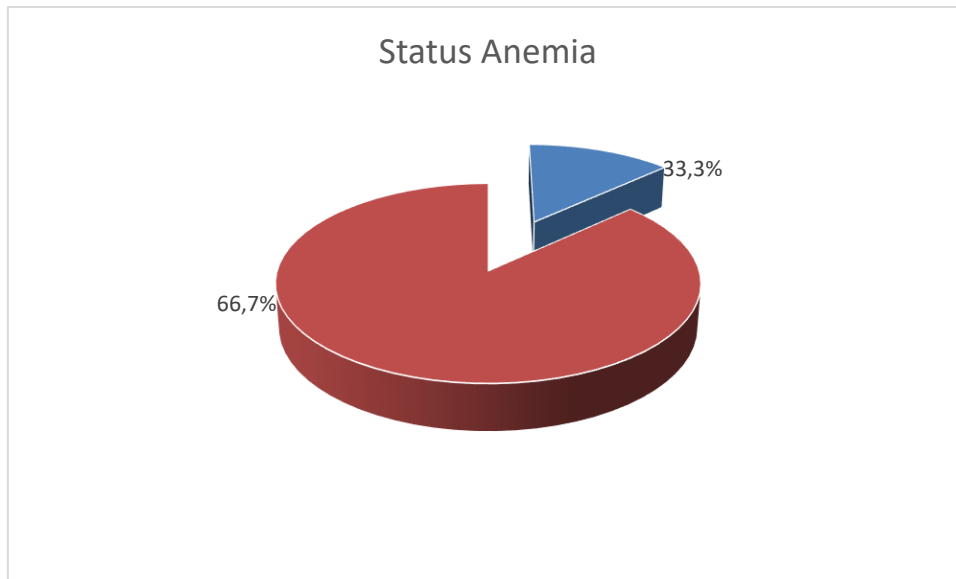


Figure 3
Distribution of Hb Levels in Young Women

Before the training was carried out, all the targets participating in this community service were 50 young women who were given a pre-test with an average score of 74.20, the lowest score was 60, the highest was 90 and the standard deviation was 8.473. To make it clearer, you can see it in the image below.

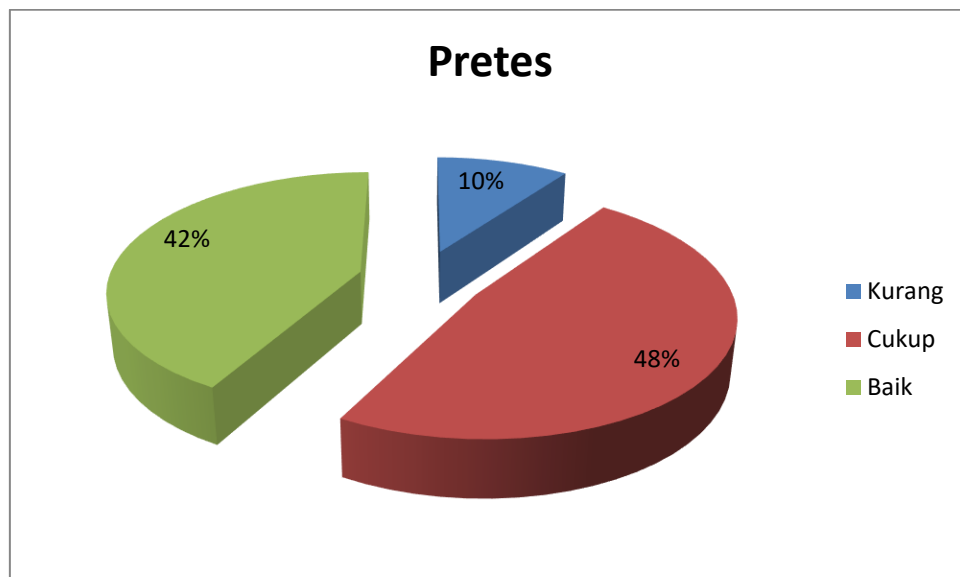


Figure 4
Distribution of Young Women's Pretest

After the training was carried out, all the targets participating in the community service were given a post-test with an average score of 89.90, the lowest score was 70, the highest was 100 and the standard deviation was 8.421. To be more clear can be seen in the image below.

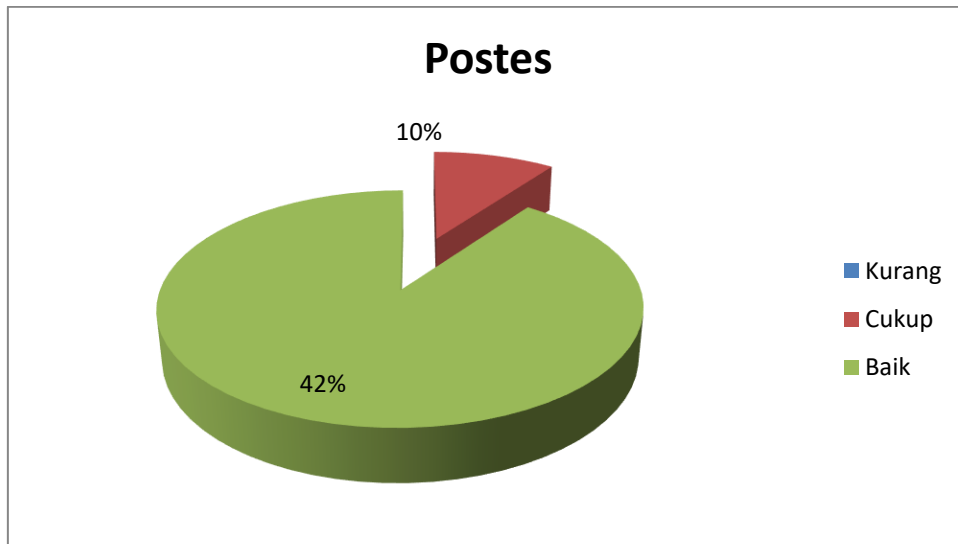


Figure 5
Distribution of Posttest Young Women

Differences in Knowledge Levels before and after Training in Adolescent Girls

The results of statistical tests using the paired t test showed a significant difference between before and after the training ($p=0.000$).

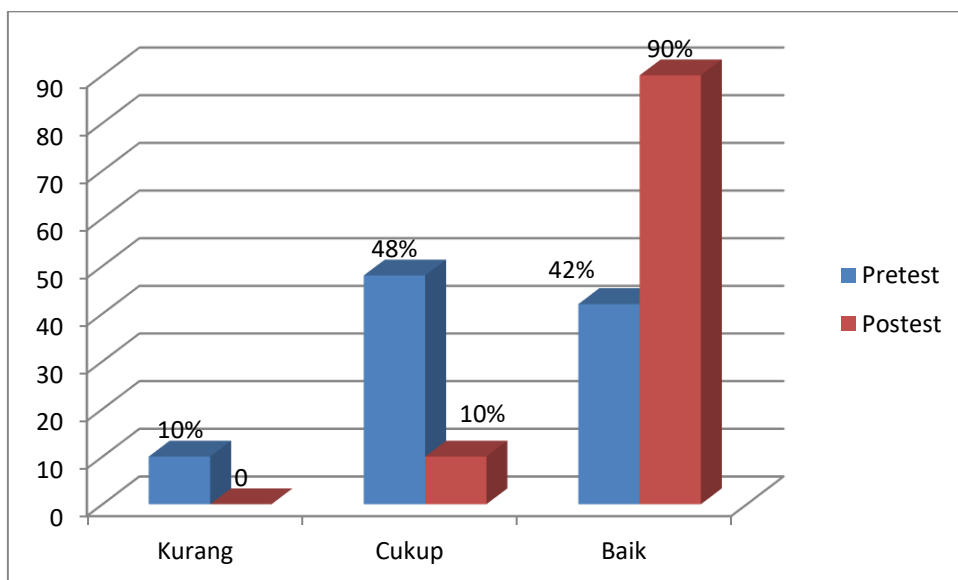


Figure 6
Pretest-Posttest Differences for Young Women

Differences in Skills before and after Training for young women

The pretest results for young women's skills in preparing an anti-anemic food menu averaged 72.46 with the lowest score being 43.3 and the highest being 90.0 with an SD of 9.2292. The posttest results of young women's skills in preparing an anti-anemic food menu averaged 78.2 with the lowest score being 63.3 and the highest being 98.3 with an SD of 8.8899

The results of statistical tests using the paired t test showed a significant difference between before and after the training ($p=0.000$).

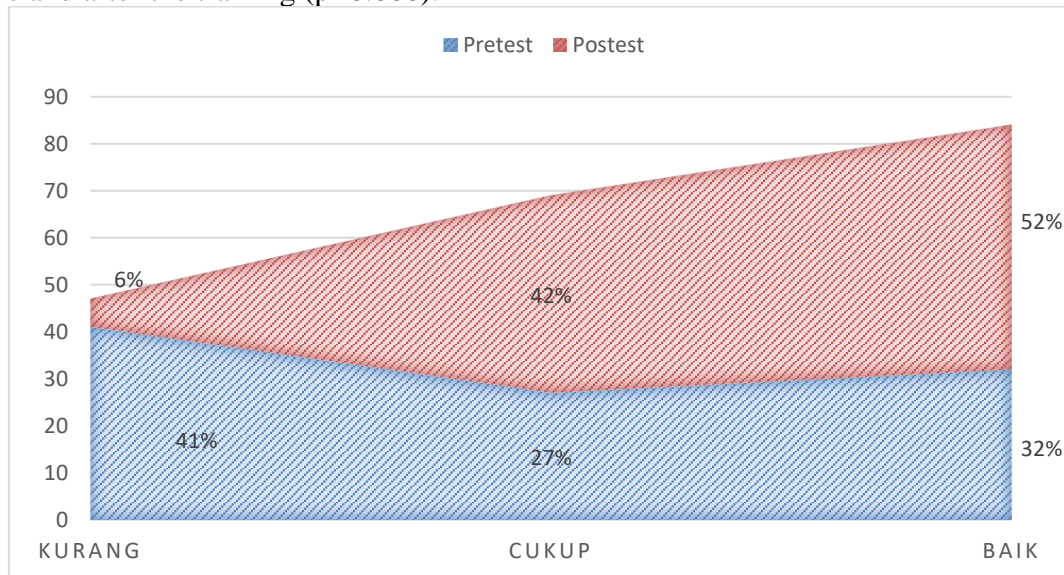


Figure 7
Young Women Pretest-Posttest Differences

Discussion

Anemia is defined as a low level of hemoglobin (Hb) in the blood according to the recommended limit, the recommended limit is >12 gr (WHO, 2007). Nutritional anemia is a lack of iron in the body, is the highest nutritional problem in Indonesia, apart from that it affects the formation of hemoglobin, namely iron, protein, vitamin C, pyridoxine, vitamin E (Almatsier, 2009). Iron deficiency anemia is anemia that occurs due to a lack of iron in the blood, meaning that the concentration of hemoglobin in the blood is reduced due to disruption of the formation of red blood cells due to a lack of iron levels in the blood. The more severe the iron deficiency that occurs, the more severe the anemia will be (Gibney, 2008).

The impact of anemia can cause reduced concentration power in daily activities. This is caused by the amount of hemoglobin in red blood cells being below normal levels. This hemoglobin functions to transport oxygen from the lungs to the body's tissues and also the brain. Oxygen is needed by the brain, this oxygen is used to facilitate the brain's performance in controlling body functions. If the oxygen intake needed by the brain cannot be met due to the inability of red blood cells to transport the amount of oxygen, this will cause concentration power to decrease. If a person's concentration power decreases, this can cause several undesirable things, such as losing focus when driving. Another impact is that it can pose a risk of babies being born with low body weight because the blood cells contained in the human body generally amount to 4.5 liters to 5.5 liters in adults. In infants, this amount will be less, but sufficient amounts are still needed for the development of the newborn's organs. If the mother has experienced anemia in the womb, the red blood cells in the body of the developing fetus will

also decrease so that after birth the baby's weight will be at normal weight due to the lack of blood in the body.

This knowledge is not yet known to many teenagers in Indonesia, including in Tunjuk Village, Tabanan, Bali Province, so skills training for making anti-anemia food menus is being carried out. The menu is the arrangement of food eaten by someone for one meal or for every day. The word "menu" usually means "dish". A balanced menu is a menu consisting of a variety of foods in appropriate quantities and proportions, so as to meet a person's nutritional needs for the maintenance and repair of body cells and life processes as well as growth and development. A balanced menu is the consumption of food to fulfill the body's need for nutrients. Nutritional deficiencies in one food by providing a balanced menu can be fulfilled by other foods. For this reason, providing a balanced menu with a variety of foods is needed to meet nutritional adequacy.

This Community Service is very effective in increasing the knowledge and skills of young women in Tunjuk Village, Tabanan, Bali Province in preparing anti-anemic food menus. This can be seen in the results of the analysis, there was a significant increase in the knowledge of young women preparing an anti-anemic food menu with an initial average value of 74.20 and an average value after training of 89.90 and there was a significant increase in the skills of young women preparing anti-anemia food menu with an average of 78.2 with the lowest value 63.3 and the highest 98.3

CONCLUSION

In accordance with the purpose of this Community Service, the conclusions obtained are: There was a significant increase in young women's knowledge of preparing anti-anemic food menus with an initial average score of 74.20 and an average score after training of 89.90 There was a significant increase in the skills of young women in preparing anti-anemic food menus with an average of 78.2 with the lowest score being 63.3 and the highest being 98

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