
Training To Improve The Skills Of Youth Posyandu Cadres In Preventing Anemia And Stunting With Balanced Nutrition In The Tunjuk Village, Tabanan District

Ida Ayu Eka Padmiari¹⁾, Pande Putu Sri Sugiani^{2)*}
^{1,2)} Prodi Gizi dan Dietetika, Poltekkes Kemenkes Denpasar

*Corresponding Author
Email: padmiarieka@gmail.com

Abstract

In adolescent girls, the need for iron increases because they experience regular menstruation/menstruation which releases a certain amount of iron every month. The increase in the need for total blood volume is often not followed by adequate iron consumption, especially when entering adolescence, 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 Nutritional Status Survey (SSGI), the prevalence of Stunting in Toddlers in Tabanan Regency is still above the prevalence of Stunting in Bali Province (8.0%) while Tabanan Regency is 8.2%. With the nutritional counseling that has been carried out, it has not been enough to increase knowledge and especially the attitudes of adolescents towards the risk factors for stunting, therefore the community service will conduct a Skills Improvement Training for Adolescent Posyandu Cadres in preventing Anemia and Stunting with Balanced Nutrition in Tunjuk Village, Tabanan District. The prioritized solution is to carry out Skills Improvement Training for Adolescent Posyandu Cadres in preventing Anemia and Stunting with Balanced Nutrition in Tunjuk Village, Tabanan District by providing training. The method used to achieve the objectives of this community service is to carry out training which is carried out for 2 days on 50 adolescent Posyandu Cadres. This community service activity was carried out in Tunjuk Village, Tabanan District, Tabanan Regency from July to October 2024. There was a significant increase in the knowledge, attitudes and skills of adolescent posyandu cadres in preventing anemia and Stunting with Balanced Nutrition.

Keywords: Adolescent Posyandu Cadres ;Stunting; Anemia

INTRODUCTION

Anemia is a condition in which the number of red blood cells or the amount of hemoglobin is below the standard reference 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 around 50% of all cases of anemia. The condition of anemia caused by a lack of iron intake is often known as iron deficiency anemia. Anemia can occur at all stages of the life cycle. One group that is at high risk for anemia is the adolescent group (aged 10-19 years). Adolescence is a period of accelerated growth and development which causes an increased need for iron in the body. In adolescent girls, iron is also needed to replace iron during menstruation. In addition, early marriage and adolescent pregnancy are other factors that increase the risk of anemia, especially in adolescent girls (Pasricha SR, 2021) Based on Basic Health Research data in 2007, 2013 and 2018, there is a trend of increasing prevalence of anemia in adolescents. In 2018, there were 32% of adolescents in Indonesia who had anemia. This means that there are approximately 7.5 million Indonesian adolescents who are at risk of experiencing obstacles in growth and development, cognitive abilities and are susceptible to infectious diseases (Ministry of Health, 2018). Based on data from the 2022 Indonesian Nutritional Status Survey (SSGI), the prevalence of Stunting in Toddlers in Tabanan Regency is still above the prevalence of Stunting in Bali Province (8.0%), while Tabanan Regency is 8.2%. Research on vocational high school students in Tabanan Regency found that 54.2% had low energy consumption,

32.5% had low protein consumption, 88.0% had very low iron consumption, 96.4% had very low folic acid consumption and 78.3% had very low vitamin B12 consumption.

. With the nutritional counseling that has been carried out, it has not been enough to increase knowledge and especially the attitudes of adolescents towards the risk factors for stunting, therefore the community service will conduct training for Adolescent Posyandu Cadres on Balanced Nutrition to Prevent Anemia and Stunting in Tunjuk Village, Tabanan District. The general objective is to improve the knowledge and skills of Adolescent Posyandu Cadres regarding Balanced Nutrition to prevent Anemia and Stunting in Tunjuk Village, Tabanan District.

RESEARCH METHODS

The method used to achieve the objectives of this community service is through training carried out for 2 days for 50 adolescent posyandu cadres. The target is 50 adolescent posyandu cadres in Tunjuk Village, Tabanan, used as targets with the following provisions:

1. Present during the training.
2. Residing in Tunjuk Village, Tabanan Regency
3. Not suffering from illness when the community service program is implemented

Preparation of Anemia and Stunting Prevention Module with Balanced Nutrition. This module is interesting, practical, and easy to learn by Posyandu cadres in Tunjuk Tabanan Village. The provision of these tools and materials is to support community service activities so that they can provide more meaning for partners. The tools needed are a stove, pan, scales, and microtoice. The materials used are food ingredients for the skill of processing balanced nutritional food.

RESULTS AND DISCUSSION

Results

1. Description of Activity Location

Tunjuk Village is one of the areas of Tabanan District, with the distance between the District City and Tunjuk Village approximately 8 km with a travel time of 10 minutes from the District City. Tunjuk Village is one of the villages included in the Tabanan District, Tabanan Regency. The Tunjuk Village Office is located at Jl. Wisnu Marga, Tunjuk, Kec. Tabanan, Tabanan Regency, Bali 82181. Tunjuk Village has the following boundaries: to the north it borders Tajen Village, to the west it borders Sesandan Village, to the east it borders Marga Dauh Puri Village and to the south it borders Buahon Village and Denbantas Village. In terms of the condition of its people, Tunjuk Village is quite busy with a population of 4,878 people as of October 2019. The area of Tunjuk Village is 4.74 km², population density is 892 people/km² and the number of families is 1543. To optimize services to the community, the Tunjuk Village area is divided into 7 Banjar Dinas. The population of Tunjuk Village is 4695 people. 2304 men, 2391 women with the majority of the community as farmers. With the potential in the agricultural sector that has supported the lives of the community in general and programs related to agriculture that have been developed have received a lot of attention besides other potentials that still need to support the existing village potential.

2. Target characteristics

The targets who participated in this community service were 50 adolescent posyandu cadres aged 17 years (22.0%) and 16 years (12%), the rest were 15 years old, 18.0% were 14 years old (24.0%), 13 years old, 18% and 12 years old, 6%

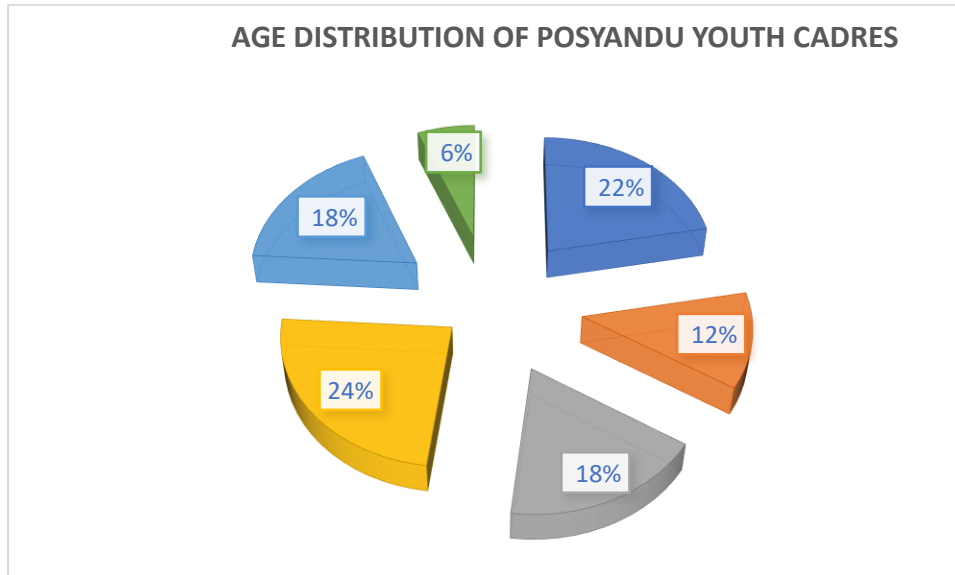


Figure 1
Age Distribution of Adolescent Posyandu Cadres

3. Implementation of Training

The training was attended by 50 young women representing 7 hamlets in Tunjuk Village. The training was opened by the Head of Tunjuk Village and the Head of Tabanan II Health Center represented by the Head of TU of the Health Center and accompanied by 3 Health Center staff, namely 1 village midwife who covers the Tunjuk Village area, one officer in charge of the youth program and one officer representing the nutrition program. The event went smoothly according to the predetermined schedule.

In the implementation of this PKM, what is measured as the level of success of the training is the increase in knowledge, attitudes and skills

a. Knowledge

Measurement of the target's knowledge level was carried out before the training with a questionnaire containing questions about adolescent nutrition, anemia and stunting. The measurement results can be seen in Figure 2.

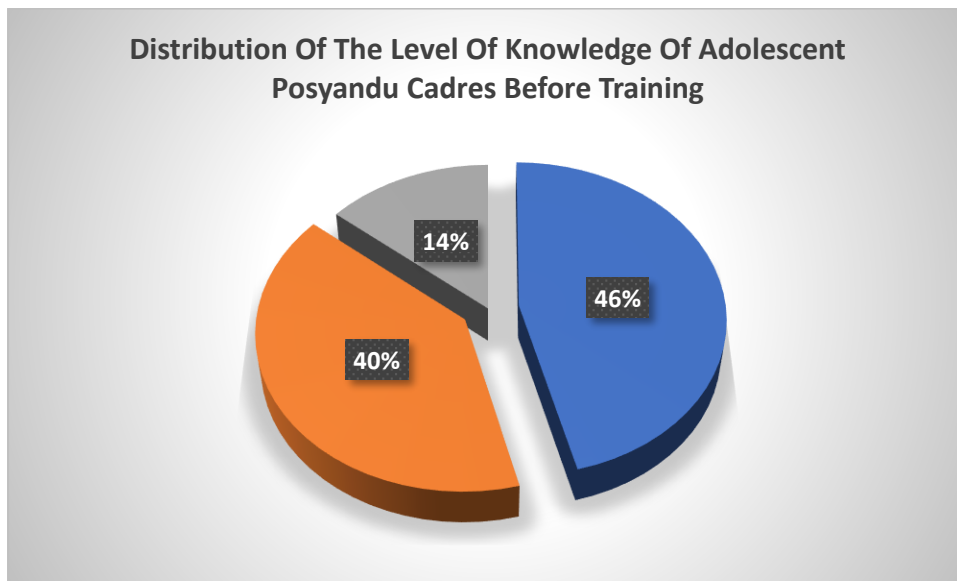


Figure 2.
Distribution of Target Knowledge Levels Before Training

After the training, the target's knowledge level was measured using the same instrument as before the training. The measurement results can be seen in Figure 3.

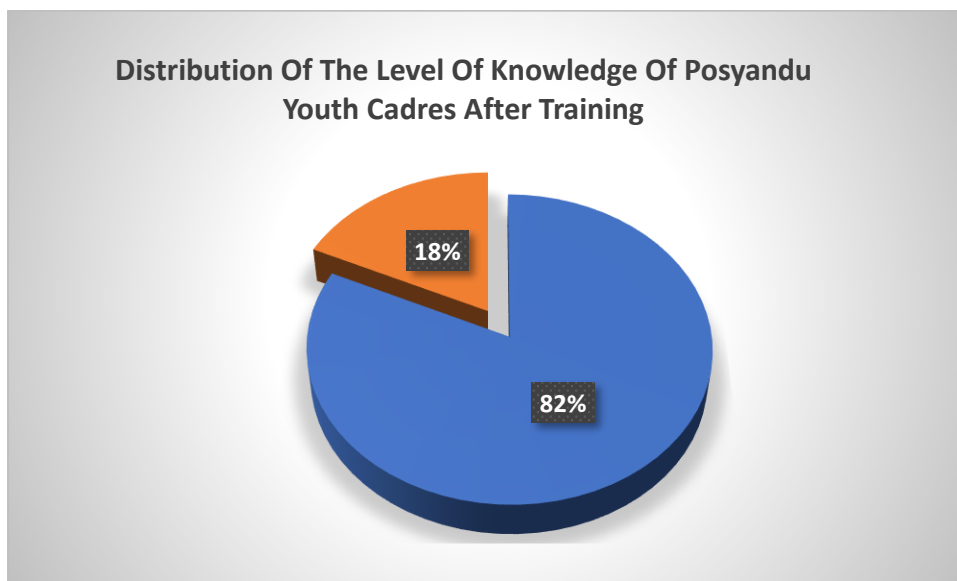


Figure 3.
Distribution of Target Knowledge Levels After Training

b. Attitude

Measurement of the target's attitude, namely female adolescents, was carried out before the training with an attitude questionnaire containing statements on Adolescent Nutrition, Anemia and Stunting. The measurement results can be seen in table 1

Table 1.
Distribution of Attitudes of Female Adolescent Posyandu Cadres Before Training

Category	n	%
Good	14	28
Enough	26	52
Less	10	20
Total	50	100

After the training, the target's attitude was measured with the same instrument as before the training. The measurement results can be seen in table 2

Table 2.
Distribution of Attitudes of Female Adolescent Posyandu Cadres After Training

Category	n	%
Good	29	58
Enough	19	38
Less	2	4
Total	50	100

c. Skills

In addition to Knowledge and Attitude, the success of the training is also measured based on the increase in skills in preventing anemia and stunting, namely the skills of giving Iron Tablets (TTD), preparing a balanced nutritional menu for adolescents and processing a balanced nutritional menu for adolescents to prevent anemia and stunting. Before the training, the skills of adolescent girls as the target of this PKM were measured with the results as in Figure 3

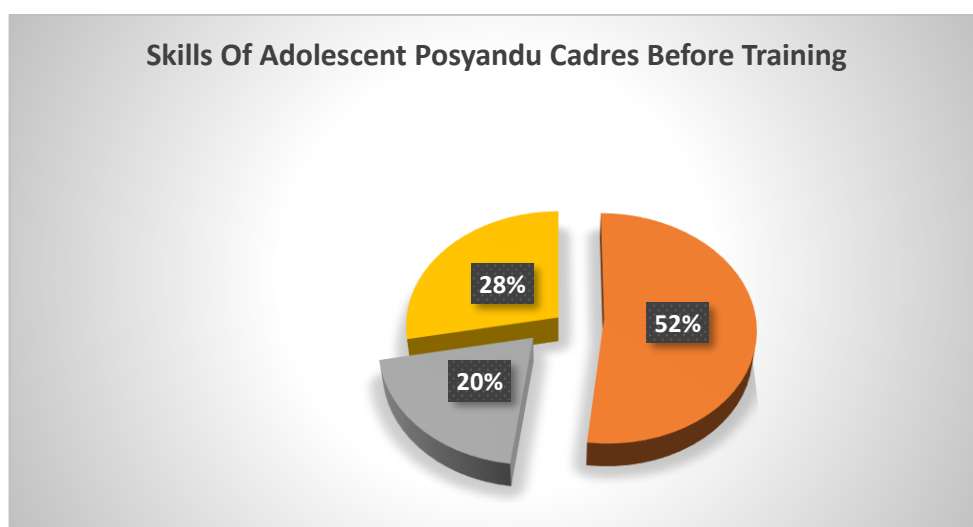


Figure 3.
Distribution of Target Skills Before Training

After the training, the target skills were measured with the same instrument as before the training. The measurement results can be seen in Figure 4

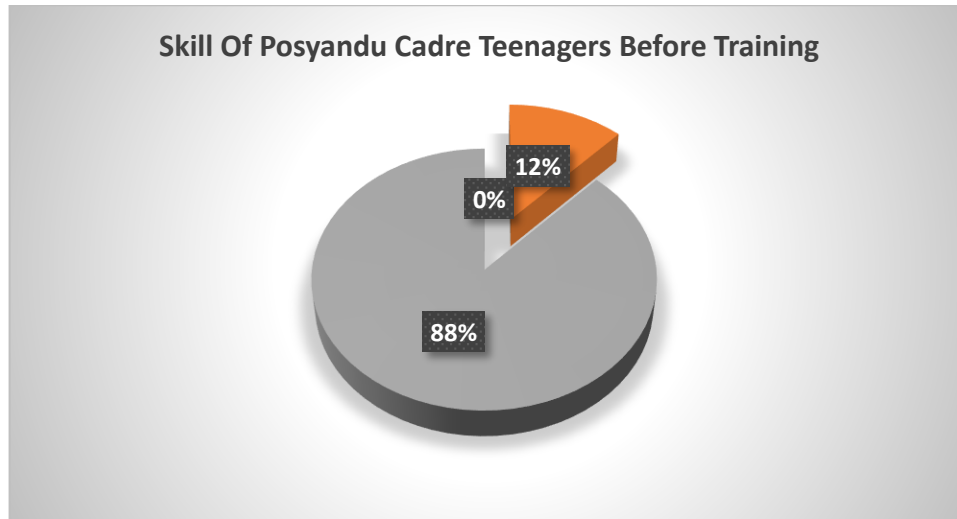


Figure 4.
Distribution of Target Skills After Training

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.

In accordance with the objectives of Community Service, it was concluded that the implementation of the training for adolescent posyandu cadres in Tunjuk Village was very beneficial. This can be seen from Increasing the knowledge and attitudes of adolescent posyandu cadres from an average knowledge score of 74.20 to 89.9, an increase of 15.7 (21%) and Increasing the skills of adolescent posyandu cadres from an average skill score of 72.46 to 78.2, an increase of 5.74 (8%). The cooperation that has been established with Tunjuk Village, Tabanan District, Tabanan Regency can be further improved by conducting training more often, especially training with materials in accordance with the guidelines for adolescent posyandu, such as reproductive health and environmental health

CONCLUSION

In accordance with the objectives of Community Service, it was concluded that the implementation of the training for adolescent posyandu cadres in Tunjuk Village was very beneficial. This can be seen from

1. Increasing the knowledge and attitudes of adolescent posyandu cadres from an average knowledge score of 74.20 to 89.9, an increase of 15.7 (21%).
2. Increasing the skills of adolescent posyandu cadres from an average skill score of 72.46 to 78.2, an increase of 5.74 (8%)

REFERENCES

- Georgieff MK. 2020. Iron deficiency in pregnancy. *Am J Obstet Gynecol*;14 March: S0002-9378(20)30328-8.
- Juul SE, Derman RJ, Auerbach M. 2019. Perinatal iron deficiency: implications for mothers and infants. *Neonatology*;115(3):269–74.
- Kassebaum NJ, Jasrasaria R, Naghavi M, Wulf SK, Johns N, Lozano R, et al. 2014. A systematic analysis of global anemia burden from 1990 to 2010. *Blood*;123(5):615-
- Kemendes RI, 2022. *Buku Saku Hasil Survey Status Gizi Indonesia (SSGI), 2022*. Badan Kebijakan Pembangunan Kesehatan Indonesia, Jakarta
- Kementerian Kesehatan Republik Indonesia. 2007. *Riset Kesehatan Dasar Tahun 2007*. Jakarta: Kementerian Kesehatan.

-
- Kementerian Kesehatan Republik Indonesia. 2013. Riset Kesehatan Dasar Tahun 2013. Jakarta: Kementerian Kesehatan.
- Kementerian Kesehatan Republik Indonesia. 2018. Riset Kesehatan Dasar Tahun 2018. Jakarta: Kementerian Kesehatan.
- Pasricha SR, Low M, Thompson J, Farrell A, De-Regil LM. 2021. Iron supplementation benefits physical performance in women of reproductive age: a systematic review and meta-analysis. *J Nutr*; 144(6):906–14.
- Passi S, Vir S. 2000. Functional consequences of nutritional anaemia in school age children. In: *Nutritional Anaemia*. Usha Ramakrishnan. Ed. Florida: CRC Press.
- Stevens GA, Finucane MM, De-Regil LM, Paciorek CJ, Flaxman SR, Branca F, et al. 2013. Global, regional, and national trends in haemoglobin concentration and prevalence of total and severe anaemia in children and pregnant and non-pregnant women for 1995-2011: a systematic analysis of population-representative data. *Lancet Global Health*;1(1):e16-25,
- World Health Organization. 2017. *Nutritional Anaemias: Tools for Effective Prevention and Control*. Geneva: World Health Organization.