NUTRITION EDUCATION AND HEALTH SERVICES IN YOUTH ANEMIA PREVENTION AT SMA NEGERI 11 PALEMBANG

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Abstract

Adolescence (10-18 years) is a period of nutritional vulnerability due to various reasons. Some research data shows that there are still nutritional problems in adolescents in Indonesia, especially the problem of nutritional anemia. The results of the 2018 Riskesdas research state that the cause of the high prevalence of nutritional anemia in adolescent girls is that they tend to go on a diet so that they can reduce their intake of nutrients, including iron. In addition, the existence of a monthly menstrual cycle is one of the factors that cause young women to be susceptible to iron deficiency anemia. Based on this, community service activities were carried out in the form of nutrition education activities (counseling) and health services in preventing anemia in adolescent girls at SMA Negeri 11 Palembang. This community service is carried out in 2 stages of activities, namely nutrition education in the form of counseling, as well as conducting health service activities in the form of screening by capturing students who have less or more nutritional status and students with indications of anemia. From anthropometric measurements, we get Most of the 60% of students with normal nutritional status for very thin and thin nutritional status were 16.7% and 3.3%, while those with nutritional status were fat and very fat as much as 6.7% and 13.3%, respectively. The results of the Hb examination showed that most of the students (66.7%) did not have anemia (Normal Hb), there were (20.%) students with moderate anemia status, and (13.3%) with mild anemia status. An increase in students' knowledge of 18.17 points after the post-test. In addition, this community service activity is expected to increase knowledge of nutrition and health, especially regarding anemia in adolescents and how to treat it.

Keywords: Anemia Prevention, Adolescents, Nutrition Education.

INTRODUCTION

Adolescents aged 10 to 19 years are the largest age group in Indonesia's population structure, which is 23% of the total population, and are the focus of attention and strategic intervention points for human resource development.

The most important step that must be taken is increasing attention to health and nutrition for adolescents, especially young women because they face greater risk and they are more vulnerable to facing the social environment.

Adolescence (10-18 years) is a period of nutritional vulnerability due to various reasons. Some research data shows that there are still nutritional problems in adolescents in Indonesia, especially the problem of nutritional anemia.

The results of research by Ahmad Sadiq, et al (2019) regarding the Determinants of Anemia in Adolescents at SMA Negeri 6 Palembang, stated that the prevalence of anemia in adolescents in SMA Negeri 6 Palembang was still high at 29%. This can be caused because young women tend to go on a diet that can cause reduced nutrient intake including iron. In addition, the existence of a monthly menstrual cycle is one of the factors that cause young women to be susceptible to iron deficiency anemia (Riskesdas, 2018).

Efforts to prevent and overcome nutritional problems, especially anemia in adolescent girls, are one form of appropriate intervention to improve the quality of the First 1000 Days of Life program. This program is one of the government's priority programs that not only have an impact on morbidity and mortality rates for mothers and children but also has consequences for the quality of life of individuals who are determined from the health and nutritional status of a woman to become a prospective mother, including adolescent girls.

The results of this study are used as the basis for community service activities in the form of nutrition education and anemia prevention activities for adolescent girls at SMA Negeri 11 Palembang.

IMPLEMENTATION METHOD

The target of the community service activity was students at SMA Negeri 11 Palembang, which were selected, totaling 30 students who were representatives of all classes and 10 school health unit program managers. Activities in the form of nutrition education through the provision of nutrition and health materials about nutritional anemia, symptoms, impacts, and prevention are also carried out. Health services are also carried out by conducting screening to find out whether the student is an abnormal nutritional status and low Hb levels through weighing and measuring height and examination of student Hb levels.

It is hoped that after the implementation of this activity the student has the knowledge and can understand:
  a. Characteristics of Adolescent Growth
  b. Adolescent Health and Nutrition Problems
  c. Definition and factors that influence the nutritional status of adolescents
  d. Efforts to prevent nutritional anemia
  e. Knowing the results of the Hb check to identify anemia

Based on the types of community service activities, the community service activities targeting students at SMA Negeri 11 Palembang were carried out with 2 activities, namely providing nutrition education through counseling and health services. The activity process is as follows
a. Nutrition Education (Counseling)
    Activities in the form of counseling / providing adolescent nutrition materials and the latest information related to nutrition to students. Before counseling, students were given a pretest to determine the extent of their understanding of anemia in adolescents, its symptoms, impacts, and their mitigation. After completing the counseling, the student takes a post-test that has been prepared to find out whether the level of student knowledge of the material provided has increased.

b. Health services, namely by screening Nutritional Status and Anemia status

In this activity, nutritional status was measured for all targets, namely by weighing and measuring height. The results of these measurements are recorded in the Anthropometric Form. Furthermore, they are calculated using the BMI formula to determine their nutritional status. Furthermore, Anemia Screening was carried out by checking HB levels with the EasyTouch Hb tool.

RESULTS AND DISCUSSION

This community service activity was carried out at SMA Negeri 11 Palembang which was carried out with 2 activities, namely nutrition education through nutrition counseling and the provision of health services as follows:

a. **Nutrition Education (counseling)**

Nutrition education activities for SMA Negeri 11 students are in the form of outreach activities by providing material on Characteristics of Adolescent Age, Problems of Adolescent Nutrition, and Balanced Nutrition. The number of participants who took part in this activity was 30 students. Besides being given material, participants were also given material in the form of audio-visual (video) about anemia in adolescent girls.

The material is given for 90 minutes

Counseling   45 minutes

Video View   15 minutes

Question and answer   30 minutes

To determine the level of student knowledge of the material given, pre-test and post-test were carried out.

Figure 1. Providing nutrition education (counseling) to students of SMA Negeri 11 Palembang

b. **Health Services**

   1. Measurement of Student's Weight and TB

The activity is in the form of anthropometric measurements, namely body weight and height to 30 students to determine the nutritional status of students. Measurement of weight and height was assisted by three 4th semester students from DIII Nutrition at the Palembang Health Polytechnic who had received the Nutrition Status Assessment course.

Table 1. Distribution of Nutritional Status Based on BMI Indicator SMA Negeri 11 Palembang

Nutritional status	BMI	n	%
Very thin	< 17	5	16.7
Thin	17 - 18.5	1	3.3
Normal	18.5 – 25	18	60.0
Fat	25 – 27	2	6.7
Very fat	> 27	4	13.3
Amount		30	100.0

Table 2 above is the nutritional status of the BMI calculation which is the result of measuring the weight and height of students at SMA Negeri 11 Palembang. From the table, most 60% of students normal nutritional status. Nutritional status is very thin and thin by 16.7% (5 people) and 3.3% (1 person), while the nutritional status is fat and very fat as much as 6.7% (2 people) and 13.3% (4 people).

Figure 2. Measurement of Height and Weight of SMA Negeri 11 Palembang Students

2. Anemia Screening

The screening was carried out to obtain information on the anemia status of students by examining hemoglobin using the Hb check tool which can quickly determine the anemia status of each student.

Table 2. Distribution of Anemia Status in SMA Negeri 11 Palembang

Status Anemia	Hb . level	n	%
Normal	> 12 g/dl	20	66.7
Mild	11.0 - 11.9 gr/dl	4	13.3
Moderate	8.0 - 10.9 gr/dl	6	20
Severe	< 8 gr/dl	0	0
Amount		30	100.0

Table 2 shows the anemia status of female students from the results of measuring blood samples. The results showed that most of the 20 female students (66.7%) did not have anemia (Normal Hb). There were 6 students (20.%) with moderate anemia status and 4 students (13.3%) with mild anemia status. From the results of the Hb measurement, there were no students who suffered from severe anemia.

From the test results, students who have problems with anemia, both mild and moderate, are recommended through the school health unit at SMA Negeri 11 Palembang to conduct periodic Hb checks at the Pakjo Health Center which is the regional supervisor at the school location.

Figure 3. Hb Check for Students of SMA Negeri 11 Palembang

CONCLUSION

From the results of anthropometric measurements, it is obtained Most 60% of the students have normal nutritional status. Nutritional status is very thin and thin by 16.7% and 3.3%, while nutritional status is fat and very fat as much as 6.7% and 13.3%, respectively. The results of the Hb examination showed that most of the students (66.7%) did not have anemia (Normal Hb), there were (20.%) students with moderate anemia status, and (13.3%)

with mild anemia status. An increase in students' knowledge of 18.17 points after the post-test. In addition, this community service activity is expected to increase knowledge of nutrition and health, especially regarding anemia in adolescents and how to treat it.

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