



Factors Affecting Iron Deficiency Anemia in Young Women in the Working Area of the Puuwatu Health Center

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Abstract

Anemia adalah kekurangan zat gizi makro (protein) dan zat gizi mikro terutama zat besi. Anemia banyak dialami oleh remaja putri karena mengalami siklus menstruasi ketidakseimbangan zat gizi, dapat berdampak panjang bagi dirinya dan juga anak yang dilahirkan kelak. Dampak dari anemia adalah terganggunya pertumbuhan dan perkembangan, meningkatnya kerentanan terhadap infeksi karena sistem kekebalan tubuh yang menurun, hingga lebih rentan terhadap keracunan. kadar hemoglobin dalam darah kurang dari jumlah normal Angka prevalensi anemia pada remaja berumur 15-24 tahun sebesar 32%. Menurut WHO, kadar hemoglobin normal untuk wanita dengan usia diatas 15 tahun yakni >12,0 g/dl (>7,5 mmol). Anemia membawa dampak yang negatif bagi kesehatan seorang remaja jika terjadi secara terus menerus. Penelitian ini bertujuan untuk mengetahui faktor – faktor yang mempengaruhi kejadian Anemia pada remaja putri seperti pola makan dan pola tidur yang tidak baik pada siswi SMP dan SMA yang berada di wilayah kerja Puskesmas Puuwatu Kota Kendari tahun 2024. Metode penelitian yang digunakan adalah pemberian edukasi kesehatan terkait Anemia melalui media leaflet cetak, metode ceramah dan diskusi. Informasi yang disampaikan mencakup panduan dan pengetahuan tentang anemia dan pemberian tablet FE bagi remaja putri dalam upaya mencegah kejadian anemia. Dengan populasi sebanyak 1502 orang remaja putri dan sampel terdiri dari 314 orang remaja putri. Setelah dilakukan intervensi kepada remaja putri dengan memberikan pengetahuan tentang pola makan yang baik dan pola tidur yang baik maka didapatkan Adanya penurunan kasus anemia menjadi 49 orang. Sehingga masih perlu dilakukan intervensi secara mendalam dan lebih dengan melakukan penyuluhan kepada remaja putri agar kedepannya kasus anemia bisa ditekan dengan baik.

Kata Kunci: Anemia, Remaja Putri, Intervensi

Abstract

Anaemia is a deficiency of macronutrients (protein) and micronutrients, especially iron. Anaemia is mostly experienced by adolescent girls due to experiencing menstrual cycle nutritional imbalances, which can have a long impact on themselves and their future children. The impact of anaemia is the disruption of growth and development, increased susceptibility to infection due to a decreased immune system, to be more susceptible to poisoning. haemoglobin levels in the blood are less than the normal amount The prevalence rate of anaemia in adolescents aged 15-24 years is 32%. According to WHO, the normal haemoglobin level for women over 15 years old is >12.0 g/dl (>7.5 mmol). Anaemia has a negative impact on the health of an adolescent if it occurs continuously. This study aims to determine the factors that influence the incidence of anaemia in adolescent girls such as poor diet, poor sleep patterns and lack of physical activity in junior and senior high school students in the working area of Puskesmas Puuwatu Kendari City in 2024. The research method used was the provision of health education related to anaemia through printed leaflets, lecture and discussion methods. The information presented included guidance and knowledge about anaemia and the provision of FE tablets for adolescent girls in an effort to prevent anaemia. With a population of 1450 adolescent girls and a sample of 314 adolescent girls. According to data from Puskesmas Puuwatu in 2024, there were 9 cases of severe anaemia and 69 cases of moderate anaemia. After intervening with adolescent girls by providing knowledge about good diet, good sleep patterns and doing physical activity, it was found that there was a decrease in anaemia cases to 49 people. So it is still necessary to intervene in depth and more by conducting counseling to adolescent girls so that in the future anaemia cases can be suppressed properly.

Keywords: Anemia, Adolescent Girls, Intervention

A. Introduction

A medical disorder in which blood hemoglobin concentrations are below normal or decrease. Anemia affects 32 percent of adolescents between the ages of 15 and 24, meaning that 3 out of 4 out of every 10 adolescents are estimated to have anemia. Tends to experience anemia (27.2%) compared to men (20.3%) including people most at risk of anemia (Ministry of Health of the Republic of Indonesia, 2019). Anemia is widespread worldwide with 25-40% of people in Southeast Asia suffering from anemia. According to WHO (2018), there are 53.7% of all adolescent girls in each country with anemia. In 2019, the incidence rate of anemia was 29.9%, higher than the estimated 1.6 million women in the age range of 15 to 49 years. (WHO, 2019). In 2019, the prevalence of anemia in working-age women in Indonesia is estimated to be around 31.2%, with the most age group being from 20-44 years old. In addition, an estimated 32 million women worldwide suffer from anemia and 496 million women worldwide who are not pregnant suffer from anemia. (WHO, 2020).

Data that can be obtained from the Southeast Sulawesi Provincial Health Office can be found to have a prevalence of anemia of 10.5% in 2019. According to information from the Kendari City Health Office, there were 2567 cases of anemia in women of childbearing age in Kendari City in 2020. Then in 2021 the prevalence of anemia in women of childbearing age decreased by 2029 cases and in 2022 from January to September there were 947 cases of anemia.

Based on a preliminary survey that has been conducted on 10 students of SMA 3 Kendari on 10 students, data was obtained that there were 7 students who showed signs of suffering from anemia because they often felt dizzy and weak, did not consume blood-boosting tablets, had an irregular diet and felt weak during menstruation.

Anemia has a negative impact on the health of a teenager if it occurs continuously. Previous research has shown that a student who has anemia can experience a decrease in attention in the classroom and also cognitive abilities so that it has an impact on the length of the school graduation period. Studies have suggested that a person with anemia may experience cognitive impairments, such as poor concentration in class, as well as anemia-related fatigue, leading to poor performance towards the end of the school year (Mosino et al. 2020). Anemia also has the potential to increase the risk of kidney dysfunction and dysmenorrhea during menstruation (Sato, et al. 2018; Raique et al. 2018).

Decreased motor, mental, health development in reproduction, fitness level and height may

not be optimal (Septyawati., 2021). As a long-term impact, anemia during pregnancy can increase the risk of premature birth (Rahmati et al. 2020). This research makes an important contribution to educational institutions in providing preliminary data for more in-depth research on the incidence of anemia in female students. For the Eye Health Center, data on the incidence of anemia is a relevant basis for taking solution steps, such as giving blood supplement tablets regularly to female students and conducting periodic screening and socialization. With this action, it is hoped that the incidence of anemia in adolescent girls of SMA Negeri 3 Kendari can be effectively suppressed (Oothavia, 2021).

B. Methodology

The research method used in this study is to provide health education related to anemia to all junior and senior high school girls in the work area of the Puuwatu Health Center, Kendari City in 2024. This information is provided through printed leaflets and power point slides, using lecture and discussion methods. The information presented includes guidance and knowledge on the proper administration of FE tablets for adolescent girls in an effort to prevent anemia. This activity involved a lecture session where the resource person gave a presentation using power point slides, which was then followed by an interactive discussion session with young women to ensure good understanding and reception of information. A printed leaflet containing anemia information was also distributed to participants to take home as reference materials and reminders. This method is expected to increase the awareness and knowledge of young women about the importance of good diet, good sleep patterns and doing physical activity.

C. Results and Discussion

Data Collection

From the activities carried out by collecting data or observation at junior and senior high schools in the Puuwatu Health Center work area which was carried out on November 18 – 21, 2024 with the following results:

Table 1. Population of Junior and Senior High School Girls in the Puuwatu Health Center Working Area

SCHOOL NAME	SMP/MTs/SMA
SMP NEGERI 3 KENDARI	407
SMP NEGERI 13 KENDARI	254
SMP NEGERI 21 KENDARI	25
MTs AL WAHDAH ISLAMIYAH	110
MTs IHSAN KAMBOY	24
MTs AL ULUM	37
SMA 6 KENDARI	550
SMA AL QURAN WAHDAH ISLAMIYAH	80
SMAS ALJABAR KENDARI	15
TOTAL	1502

Source: Primary Data, 2024

Healthy Eating

An overview of healthy eating for adolescent girls in the work area of the Puuwatu Health Center is:

Table 2. Distribution of Healthy Eating for Young Women

Places To Eat	Number Respondents	Percentage (%)
Makanan Rumah	834	55,5
Makanan siap saji	361	24,1
Makanan warung	169	11,2
Jajanan	138	9,2
Total	1502	100%

Source: Primary Data, 2024

Based on the data above, junior high school girls and high school girls, in understanding what is meant by a varied and balanced diet to meet the energy and nutritional needs of young women. Based on the 2014 Ministry of Health Regulation on balanced nutrition, mothers can make a food menu with five food groups every time they eat. The number of respondents was 834 people with a percentage of 55.5% stated that food at home is the best food and can meet energy needs, in addition to the preparation when cooking, the ingredients used in fresh conditions. Meanwhile, in ready-to-eat food, there were 361 respondents with a percentage of 24.1% stating that there was ease in getting the food and it was available at any time. Meanwhile, 169 respondents with a percentage of 11.2% stated that food stalls are more efficient and fast because they are available in large quantities and have many and varied food choices. And snack food, there were 138 respondents with a percentage of 9.2% saying that snacks are healthy food and can satisfy hunger at the right time.

Good Sleep Patterns

An overview of sleep patterns in adolescent girls who are in the work area of the Puwatu Health Center are:

Table 2. Distribution of Adolescent Women's Sleep Patterns

Sleep Time 8-10 Hours/Day	Number Respondents	Percentage (%)
More than 10 hours/day	207	13,7
8-10 hours/day	411	27,2
Less than 8 hours/day	884	59,1
Total	1502	100%

Source: Primary Data, 2024

Based on the data above, junior high school girls and high school girls, in understanding what is meant by a good sleep pattern, sleep is a very important human need to maintain physical and mental health, because when sleeping our body organs also rest. If you don't sleep, you will definitely feel tired and can cause extraordinary achievements. Having enough and quality sleep is the key to feeling refreshed and fit throughout the day. However, often we overlook the importance of getting enough sleep, and this can negatively impact our overall health.

According to the National Sleep Foundation, the ideal bedtime for adults is between 8-10 hours per night. If it is less than that hour, it may not have an impact in the short term. However, if it is done repeatedly, it will have an expected long impact. The number of respondents 207 people with a percentage of 13.7% stated that they could sleep better than 10 hours/day because they were happy with sleep, while at sleep time 8-10 hours/day 411 respondents with a percentage of 27.2% stated that they were very disciplined when they wanted to sleep and when they woke up. While sleeping less than 8 hours a day, 884 respondents with a percentage of 59.1% stated that they do activities such as playing games and others so that they forget time to rest.

D. Conclusion

The results of collecting data on the population of adolescent girls in junior high school and high school equivalent in the work area of the Puwatu Health Center with a total of 1502 oarng, that the factors that affect the incidence of iron deficiency anemia in adolescent girls are 2 variables that are studied, namely healthy food that is consumed, whether it is home food, home food by 55.5%, ready-to-eat food by 24.1%, food at stalls by 11.2% and those who eat snacks by respondents by 9.2% which has an effect on inhibiting iron absorption can affect hemoglobin levels. Some researchers suggest that adolescents' diets today are very bad because they eat fast food or snacks more often, less nutritious foods such as animal protein, green vegetables, and other foods that contain iron. Meanwhile, the good sleep pattern of the number of respondents is divided into 3 parts, namely sleeping more than 10 hours/day is 13.7%, sleeping 8-10 hours/day is 27.2% and adolescent girls who lack sleep more than 8 hours/day is 59.1% which is very influential on the incidence of anemia. Therefore, counseling and intervention are needed for junior and senior high school girls in understanding healthy food and good sleep patterns.

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