Factors Causing Anemia in Women of Reproductive Age

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Abstract—The health problem that is still facing the world today is anemia. The incidence of anemia in the world currently reaches 9% in developed countries and about 43% in developing countries. One age group that is prone to suffer from anemia are women of childbearing age (WUS). WHO says that 35-75% of anemia in developing countries occurs in children and women of reproductive age. The factors that cause anemia in women of reproductive age are social, cultural and economic factors, as well as nutritional factors. This study aims to determine the factors that cause anemia in women of reproductive age. The research method used descriptive research with a total population of 56 and a sample of 49 women of reproductive age who suffered from anemia. The results of the study were 42.8% of respondents who suffered from anemia had a basic or low education, 51% of respondents with a low level of knowledge suffered from anemia, 55.1 % who suffer from anemia have a poor nutritional status and 85.7% of respondents who suffer from anemia have an unhealthy diet. So it can be concluded that the factors that cause anemia in women of reproductive age are the level of education, level of knowledge, nutritional status and diet.

Keywords—factors, causes, anemia, women of reproductive age

I. INTRODUCTION

One of the health problems facing the world today is anemia. The incidence of anemia in the world currently reaches 9% in developed countries and about 43% in developing countries [1]. One age group that is prone to suffer from anemia is women of childbearing age (WUS) [2]. WHO says that 35-75% anemia in developing countries occurs in children and women of reproductive age [3].

Anemia that occurs in women of childbearing age greatly affects their activities, this is because anemia in women of childbearing age can cause fatigue, body weakness, decreased work capacity and productivity [4]. In addition, anemia in women can also increase mortality during childbirth, give birth to babies with low birth weight, infections in the mother and fetus, miscarriage. [5]. The morbidity impact of anemia can also be cognitive impairment [6].

The causes of anemia in women of childbearing age are complex which includes several factors, including social, cultural and economic factors [7]. One of the factors that influence anemia in women is nutrition and infection. Nutritional factors that cause women to suffer from anemia are the consumption of foods that can inhibit iron absorption thus causing the body to get sufficient iron intake. Anemia can also be exacerbated if a woman's nutritional status is poor, especially if it is associated with a deficiency in other substances such as folic acid, vitamin A or vitamin B12 [8]. The low intake of macro and micro nutrients can affect the 2nd Nur Hikmah Universitas Duta Bangsa Surakarta (of Affiliation) Surakarta, Indonesia nur hikmah@udb.ac.id

process of iron metabolism, erythropoesis and the formation of hemoglobin [9]. Several studies have shown that the socioeconomic conditions of the household are also associated with the incidence of anemia. Indonesia is a developing country with a fairly high incidence of anemia. This research was carried out with the aim of knowing the factors that cause anemia in women of childbearing age.

II. METHOD

This type of research is a descriptive study to determine the frequency distribution of each of the factors that cause anemia in women of childbearing age. The research was conducted for 6 months, from September 2020 to February 2021. The research location was carried out in Tamansari District, Boyolali. The study population was 56 people who had been diagnosed with anemia. The sampling technique used in this study was simple random sampling with a total sample of 49 women of childbearing age who suffer from anemia. Data collection in this study used a questionnaire and data analysis was carried out using univariate analysis.

III. RESULT

The results of research on the factors that cause anemia in women of reproductive age are:

Table 1.1 Factors that cause anemia in women of reproductive age

Characteristics of Respondents	Frequency	Percentage
Level of education	Trequency	Tereentage
Basic Education	21	42,8
Middle education	19	38,8
College	9	18,4
Knowledge level		
Less	25	51
Enough	18	36,7
Good	6	12,2
Nutritional Status based on BMI		
Less	27	55,1
Normal	22	44,9
Obesity	0	0
Dietary habit		
Healthy	7	14,3
Not Healthy	42	85,7

Based on the data above, it can be concluded that the highest frequency of factors that cause anemia in women of childbearing age is an unhealthy diet, which is 85.7%, while the factor with the lowest frequency is the level of basic education at 42.8%.

A. Level of education

One of the factors that cause anemia in women of childbearing age is the level of education. The results showed that most of the respondents had a low level of education at primary education or a low level of education as much as 42.8%. This affected the knowledge of women of childbearing age about anemia. This is consistent with a study conducted by Edison which stated that 90.3% of mothers with low levels of education suffer from anemia [10]. The level of knowledge can affect a person's or a mother's level of knowledge because a person's ability to accept and understand something is determined by the level of education one has [11].

B. Knowledge level

Based on the results of the study, it can be seen that most of the knowledge level of anemia sufferers in women of childbearing age is the level of knowledge that is lacking, namely as much as 51%. This is consistent with research conducted by Purbadewi and Ulvie in 2013 which stated that mothers with low levels of anemia tended to have negative behavior as much as 50%, resulting in mothers suffering from anemia [12]. In addition, this research is also in accordance with the research conducted by Siantarini, et al. In 2018 which stated that the level of respondent's lack of knowledge made the respondents not to consume foods with high nutrients and not consume iron, causing anemia [13].

C. Nutritional Status based on BMI

The results showed that most of the mothers with poor nutritional status were 55.1%. This is in accordance with the study of Sudigno et al, who also stated that the incidence of anemia in WUS tends to occur in women with a thin BMI compared to those with a normal BMI [14]. Other studies have reported that the level of energy consumption affects the incidence of anemia. Subjects with low energy consumption tend to be more prone to anemia than those with sufficient energy consumption [15].

D. Dietary habit

Based on the results of the study, as many as 85.7% of women of childbearing age who suffer from anemia have unhealthy eating patterns. This is consistent with Gozali's research in 2018 which states that 93% of anemia is influenced by diet, there is a strong negative relationship between diet and the incidence of anemia [16].

IV. CONCLUSION

This study states that the factors that cause anemia in women of childbearing age is the level of education, level of knowledge, nutritional status and diet. The education level of women of reproductive age who suffer from anemia mostly has basic education of 42.8%, the level of knowledge of women of childbearing age who suffer from anemia is mostly less, 51%, the nutritional status based on BMI is mostly lacking as much as 55.1% and the diet of women of age fertile who suffer from anemia are mostly unhealthy as much as 85.7%.

REFERENCES

- Sudigno, Sandjaja. Prevalensi dan Faktor Risiko Anemia pada WUS di Rumah Tangga Miskin di Kabupaten Tasikmalaya dan Ciamis, Provinsi Jawa Barat. Jurnal Kesehatan Reproduksi. 2016;7(2):71–82J.
- [2] World Health Organization. WHA Global Nutrition Targets 2025: Anaemia Policy Brief. Geneva: World Health Organization; 2012
- [3] World Health Organization. The Global Prevalence of Anaemia in 2011. Geneva: World Health Organization; 2015.
- [4] Briawan, D. Anemia: Masalah Gizi Pada Remaja Wanita. Jakarta: ECG.2014.
- [5] Kementerian Kesehatan RI. Profil Kesehatan Indonesia Tahun 2014. Jakarta: Kementerian Kesehatan RI. 2015
- [6] Horton S, Ross J. The economics of iron deficiency. Food Policy 2003; 28: 51–75.
- [7] Balarajan Y, Ramakrishnan U, Özaltin E, Shankar AH, Subramanian SV. Anaemia in low-income and middle-incomecountries. Lancet. 2011: 1-13.
- [8] Kaur K. Anaemia 'a silent killer' among women in India: Present scenario. Euro J Zool Res, 2014, 3 (1):32-36.
- [9] Sahana ON, Sumarmi S. Hubungan Asupan Mikronutrien dengan Kadar Hemoglobin pada Wanita Usia Subur (WUS). Media Gizi Indonesia. 2015;10(2):184–91.
- [10] Edison E. Hubungan Tingkat Pendidikan dengan Kejadian Anemia Pada Ibu Hamil. Jurnal JKFT. 2019:4(2): 68
- [11] Notoatmodjo, Soekidjo. Metodologi Penelitian Kesehatan. Jakarta : PT. Rineka Cipta. 2012
- [12] Purbadewi dan Ulvie. Hubungan Tingkat Pengetahuan dengan Kejadian Anemia pada Ibu Hamil. Jurnal Gizi Universitas Muhammadiyah Semarang. 2013, 2(1): 33
- [13] Siantarini, dkk. Hubungan Tingkat Pengetahuan Tentang Anemia dengan Perilaku Pemenuhan Kebutuhan Zat Besi Pada Ibu Hamil. Community of Publishing in Nursing (COPING). 2018;6(1);27-34
- [14] Sudigno, Sandjaja. Prevalensi dan Faktor Risiko Anemia pada WUS di Rumah Tangga Miskin di Kabupaten Tasikmalaya dan Ciamis, Provinsi Jawa Barat. Jurnal Kesehatan Reproduksi. 2016;7(2):71–82
- [15] Mantika AI, Mulyati T. Hubungan Asupan Energi, Protein, Zat Besi dan Aktivitas Fisik dengan Kadar Hemoglobin Tenaga Kerja Wanita di Pabrik Pengolahan Rambut PT. Won Jin Indonesia. J Nutr Coll. 2014;3(4):848–54.
- [16] Gozali, W. Hubungan Pola Makan Dengan Kejadian Anemia pada Ibu Hamil di Wilayah Kerja Puskesmas Buleleng III. International Journal of Natural Sciences and Engineering. 2018:2 (3);117-122