THE FACTORS RELATED TO THE INCIDENCE OF ANEMIA IN PREGNANT WOMEN

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ABSTRAK : FAKTOR-FAKTOR YANG BERHUBUNGAN DENGAN KEJADIAN ANEMIA PADA IBU HAMIL

Latar Belakang: Anemia pada ibu hamil merupakan salah penyumbang angka kematian ibu. Prevalensi anemia di Indonesia pada ibu hamil yaitu 40,1%. Anemia pada ibu hamil juga berkontribusi terhadap peningkatan kematian perinatal, berat badan lahir rendah, kematian janin serta terjadinya *abortus*.

Tujuan: Untuk mengetahui faktor-faktor yang berhubungan dengan kejadian anemia pada ibu hamil di Wilayah Kerja UPTD. Puskesmas Krui Kabupaten Pesisir Barat tahun 2022.

Metode: Jenis penelitian ini adalah kuantitatif dengan rancangan *cross sectional.* Populasi dalam penelitian ini adalah seluruh ibu hamil yang usia kehamilannya ≥20 minggu di Wilayah Kerja UPTD. Puskesmas Krui pada bulan Juli 2022 dengan jumlah 142 orang dengan sampel 110 orang. Teknik sampel yang digunakan yaitu *accidental sampling.* Analisis data dalam penelitian ini menggunakan univariat dan bivariat (*chi-square).*

Hasil: Ada hubungan pendidikan (p=0,000), pengetahuan (p=0,000), pendapatan keluarga (p=0,002), status gizi (p=0,004), konsumsi tablet Fe (p=0,021), paritas (p=0,000), dan jarak kehamilan (p=0,000) dengan kejadian anemia pada ibu hamil. Sedangkan variabel usia (p=0,523) tidak berhubungan dengan kejadian anemia pada ibu hamil.

Kesimpuan: Ada hubungan pendidikan, pengetahuan, pendapatan keluarga, status gizi, konsumsi tablet Fe, paritas, dan jarak kehamilan dengan kejadian anemia pada ibu hamil. Sedangkan variabel usia tidak berhubungan dengan kejadian anemia pada ibu hamil.

Saran untuk ibu hamil agar lebih proaktif dalam memperoleh informasi tentang pencegahan anemia dan rutin mengkonsumsi tablet Fe.

Kata Kunci : Anemia, Jarak Kehamilan, Konsumsi Tablet Fe, Pengetahuan, Status Gizi

ABSTRACT

Background: Anemia in pregnant women was a contributor to maternal mortality. The prevalence of anemia in pregnant women in Indonesia was 40.1%. Anemia in pregnant women also contributed to an increase in perinatal mortality, low birth weight, fetal death and the incidence of abortion.

Purpose: To determine the factors related to the incidence of anemia in pregnant women at Regional Technical Implementing Unit's Work Area of Krui Community Health Center, West Pesisir Regency in 2022.

Methods: This study was quantitative research with a cross sectional design. The population in this study were all pregnant women whose gestational age was in 20 weeks in the Regional Technical Implementing Unit's Work Area of Krui Community Health Center in July 2022. This study used 142 pregnant women as total population with a sample of 110 pregnant women. The sampling technique used was accidental sampling. Data analysis in this study used univariate and bivariate with chi-square test.

Results: Was a relationship between education (p=0.000), knowledge (p=0.000), family income (p=0.002), nutritional status (p=0.004), consumption of Fe tablets (p=0.021), parity (p= 0.000), pregnancy spacing (p=0.000), and age (p=0.523).

Conclution: There was a relationship between education, knowledge, family income, nutritional status, consumption of Fe tablets, parity, and pregnancy spacing and the incidence of anemia in pregnant women. While the variable of age was not related to the incidence of anemia in pregnant women.

 Suggestions for pregnant women to be more proactive in obtaining information about anemia prevention and regularly consuming Fe tablets.

Keywords : Anemia, Consumption of Fe, Knowledge, Nutritional Status, Pregnancy Spacing

INTRODUCTION

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Anemia during pregnancy is a public health problem, especially in developing countries and is associated with adverse outcomes in pregnancy. The World Health Organization (WHO) defines anemia in pregnancy as a hemoglobin (Hb) concentration of less than 11 g/dl. Anemia is an important risk factor in pregnancy and is associated with an increased incidence of maternal and fetal morbidity and mortality. More than three percent of maternal deaths in Africa are directly attributable to anemia. Anemia in pregnant women also contributes to an increase in perinatal mortality, low birth weight, fetal death and the occurrence of abortion. Anemia in pregnancy can also cause dysfunction and heart failure (Anlaaku &0 Anto, 2017).

Anemia in pregnant women is a contributor to maternal mortality. Indonesia's demographic and health survey data (IDHS) 2017 states that the MMR ratio in Indonesia is 177 per 100,000 live births in 2017. In the Sustainable Development Goals (SDGs), the MMR target is 70 per 100,000 live births in 2030 (Ministry of Health). RI, 2017).

World Health Organization(WHO) shows that it is estimated that about 33% of people in the world suffer from anemia, with iron deficiency being considered the main cause, and anemia accounting for almost 9% year on year with disability problems. It is also estimated that worldwide 32 million pregnant women are anemic and 496 million non-pregnant women are anemic (WHO, 2020).

The prevalence of anemia in Indonesia in pregnant women according to the SKRT is still quite high, namely 40.1%. The results of the Basic Health Research show that 73.2% of women aged 15-49 years have received blood-supplement tablets containing iron-folic acid. However, the incidence of anemia in pregnant women still reaches 40 - 50%, meaning that 5 out of 10 pregnant women in Indonesia experience anemia (Kemenkes RI, 2018). Data obtained from the Lampung Provincial Health Office in 2018 the prevalence of anemia in pregnant women is still quite high, namely 100 pregnant women out of 500 pregnant women (33.29%). While the achievement target for anemia in pregnancy in Indonesia is 28% (Lampung Provincial Health Office, 2018).

Based on the Health profile of Pesisir Barat Regency in 2019, there were 583 (18.84%) cases of anemia and 7.4% cases of SEZ. Meanwhile, in 2020 there were 344 (13%) pregnant women with anemia and 6.8% cases of KEK. In 2019 the coverage of anemia cases was from 11 puskesmas with 3 major puskesmas with the highest presentation, namely Krui Health Center 199 cases (28.63%), Ngambur Health Center 123 cases (22.78%), Biha Health Center 98 cases (21.17%). Meanwhile, in 2020 the coverage of anemia cases with 3 major health centers with the highest presentation is Krui Health Center (28.6%), Bengkunat Health Center (25.6%), and Bengkunat Belimbing Health Center (11.1%) (Pesisir Barat District Health Office, 2019;2020). The incidence of anemia in pregnant women in Pesisir Barat Regency is higher than the incidence of anemia in West Lampung Regency. Based on data from the West Lampung District Health Office, in 2019 the number of anemia cases in pregnant women reached 112 cases, and in 2020 there was a slight increase of 121 cases (West Lampung Health Office, 2019; 2020). While at the Krui Health Center in 2018 it was the health center with the 3rd highest anemia cases, namely there were 234 (27.2%) cases, in 2019 there were 105 (28.63%) pregnant women who experienced anemia and in 2020 there were 112 (28.63%) 28.6%) pregnant women with anemia. Meanwhile, in 2021 there were 83 (21.7%) cases of anemia in pregnant women. This shows that the case of anemia in pregnant women at the Krui Health Center has decreased, but is still the highest case compared to other cases such as KEK (Puskesmas Krui, 2021). and in 2020 there was a slight increase of 121 cases (West Lampung Health Office, 2019; 2020). While at the Krui Health Center in 2018 it was the health center with the 3rd highest anemia cases, namely there were 234 (27.2%) cases, in 2019 there were 105 (28.63%) pregnant women who experienced anemia and in 2020 there were 112 (28.63%) 28.6%) pregnant women with anemia. Meanwhile, in 2021 there were 83 (21.7%) cases of anemia in pregnant women. This shows that the case of anemia in pregnant women at the Krui Health Center has decreased, but is still the highest case compared to other cases such as KEK (Puskesmas Krui, 2021). and in 2020 there was a slight increase of 121 cases (West Lampung Health Office, 2019; 2020). While at the Krui Health Center in 2018 it was the health center with the 3rd highest anemia cases, namely there were 234 (27.2%) cases, in 2019 there were 105 (28.63%) pregnant women who experienced anemia and in 2020 there were 112 (28.63%) 28.6%) pregnant women with anemia. Meanwhile, in 2021 there were 83 (21.7%) cases of anemia in pregnant women. This shows that the case of anemia in pregnant women at the Krui Health Center has decreased, but is still the highest case compared to other cases such as KEK (Puskesmas Krui, 2021). While at the Krui Health Center in 2018 it was the health center with the 3rd highest anemia cases, namely there were 234 (27.2%) cases, in 2019 there were 105 (28.63%) pregnant women who experienced anemia and in

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Efforts to prevent and control anemia are carried out by the government through the provision of iron tablet supplementation with a daily dose of 1 item (60 mg iron and 0.400 mg folic acid) in succession for at least 90 days during pregnancy. The government program that has been implemented can be seen in the coverage rate of giving blood supplement tablets (TTD) to pregnant women in Indonesia in 2018 amounting to 81.16%. This figure has not reached the 2018 Strategic Plan target which should be 95% (Ministry of Health, 2019).

Anemia can be influenced by several factors such as socioeconomic, knowledge, education, and culture, Antenatal Care (ANC) visits, parity, age, husband's support, consumption patterns of Fe tablets, infectious diseases, and bleeding (Nurhaidah and Rostinah, 2021). Meanwhile, according to Ariyani (2016), the factors related to the incidence of anemia in pregnant women include age, parity, pregnancy distance, nutritional status, frequency of antenatal care (ANC), economic status, knowledge, education level, culture and husband's support. Based on the results of research conducted by Handayani (2016), it was found that there was a relationship between consumption of Fe tablets, gestational distance, nutritional status and knowledge with the incidence of anemia in pregnant women (p <0.05). Meanwhile, according to Afriyanti's research (2020) it was found that there was a relationship between education, family income,

The results of the preliminary study found that the number of pregnant women who experienced anemia at the Krui Health Center, Pesisir Barat Regency from January to November 2021 from 394 pregnant women found 83 (21.06%) pregnant women.

RESEARCH METHODS

In this research, the writer uses quantitative research,The research design used analytic observation with a cross sectional design. The population in this study was taken from the total number of pregnant women whose gestational age was 20 weeks in the UPTD Working Area. Puskesmas Krui in July 2022 with a total of 142 people and the sample in this study was 110 people who were selected based on inclusion and exclusion criteria, the sampling technique used purposive sampling. Analysis of univariate and bivariate data using chi square.

RESULTS
Univariate Analysis

Based on the table above, it is known that from 110 respondents, 38 (34.5%) respondents had anemia and 72 (65.5%) respondents did not.

Table 1
Distribution of the frequency of anemia in pregnant women in the UPTD Work Area. Krui Health Center West Coast District in 2022

Incidence of Anemia	Frequency	Percentage (%)
Anemia	38	34.5
No anemia	72	65.5

Table 2
Distribution of the frequency of education, knowledge, family income, age, nutritional status, consumption of Fe tablets, parity, and pregnancy distance among pregnant women in the UPTD Work Area. Puskesmas Krui Pesisir Barat Regency in 2022

Variable	Frequency	Percentage (%)
Education		
Low	32	29.1
Tall	78	70.9
Knowledge		
Not good	37	33.6
Well	73	66.4
Family Income		
Low	34	30.9
Tall	76	69.1
Age		
at risk	32	29.1
No Risk	78	70.9
Nutritional status		
Abnormal	28	25.5
Normal	82	74.5
Consumption of Fe . Tablets		
Not obey	39	35.5
Obey	71	64.5
Parity		
at risk	28	25.5
No Risk	82	74.5
Pregnancy Distance		
at risk	27	24.5
No Risk	83	75.5

Based on the table above, it is known that 78 (70.9%) respondents have higher education, 37 (33.6%) respondents have poor knowledge, 34 (30.9%) respondents with low family income, 78 (70.9%)) respondents with age not at risk, 82 (74.5%) respondents with normal nutritional status, 71 (64.5%) respondents obediently taking Fe tablets, 82 (74.5%) respondents with parity not at risk, and 83 (75 ,5%) respondents with a distance pregnancy is not at risk.

Bivariate Analysis
Based on the table above, it is known that from 32 respondents with low education, 23 (71.9%)

respondents were anemic and 9 (28.1%) respondents were not anemic. Meanwhile, from 78 respondents with higher education, 15 (19.2%) respondents were anemic and 63 (80.8%) respondents were not anemic. Chi square test results obtained p value 0.000 <0.05, meaning that there is a relationship between education and the incidence of anemia in the working area of UPTD. Puskesmas Krui Pesisir Barat Regency in 2022. The results of OR = 10,733 means that respondents with low education have a risk of 10,733 times the incidence of anemia.

Table 3
The relationship between education and the incidence of anemia in pregnant women in the UPTD Working Area. Puskesmas Krui Pesisir Barat Regency in 2022

Education	Incidence of Anemia				Total		P value	OR
	Anemia		No anemia					
	n	%	n	%	N	%		
Low	23	71.9	9	28.1	32	100	0.000	10,733
Tall	15	19.2	63	80.8	78	100		(4,133-27,876)

Table 4
The relationship between knowledge and the incidence of anemia in pregnant women in the UPTD Working Area. Puskesmas Krui Pesisir Barat Regency in 2022

Knowledge	Incidence of Anemia				Total		P value	OR
	Anemia		No anemia					
	n	%	n	%	N	%		
Not good	22	59.5	15	40.5	37	100	0.000	5,225 (2,213-12,337)
Well	16	21.9	57	78.1	73	100		

Based on the table above, it is known that from 37 respondents with poor knowledge, 22 (59.5%) respondents had anemia and 15 (40.5%) respondents were not anemic. Meanwhile, from 73 respondents with good knowledge, 16 (21.9%) respondents had anemia and 57 (78.1%) respondents were not anemic. Chi square test results obtained p value 0.000 <0.05, meaning that there is a relationship between knowledge and the incidence of anemia in the working area of UPTD. Puskesmas Krui Pesisir Barat Regency in 2022. The results of OR = 5.225 means that respondents with poor knowledge are at risk of 5.225 times for the incidence of anemia.

Table 5
Relationship between family income and the incidence of anemia in pregnant women in the Work Area UPTD. Puskesmas Krui Pesisir Barat Regency in 2022

Family Income	Incidence of Anemia				Total		P value	OR
	Anemia		No anemia					
	n	%	N	%	N	%		
Low	19	55.9	15	44.1	34	100	0.002	3,800 (1,619-8,919)
Tall	19	25.0	57	75.0	76	100		

Based on the table above, it is known that from 34 respondents with low family income, 19 (55.9%) respondents had anemia and 15 (44.1%) respondents were not anemic. Meanwhile, from 76 respondents with high family income, 19 (25.0%) respondents were anemic and 57 (75.0%) respondents were not anemic. Chi square test results obtained p value 0.002 <0.05, meaning that there is a relationship between family income and the incidence of anemia in the UPTD work area. Puskesmas Krui Pesisir Barat Regency in 2022. The result of OR = 3,800 means that respondents with low family income are at risk of 3,800 times for the incidence of anemia.

Table 6
The relationship between age and the incidence of anemia in pregnant women in the UPTD Working Area. Puskesmas Krui Pesisir Barat Regency in 2022

Age	Incidence of Anemia				Total		P value	OR
	Anemia		No anemia					
	n	%	N	%	N	%		
at risk	13	40.6	19	59.4	32	100	0.523	1,451 (0.619-3.396)
No risk	25	32.1	53	67.9	78	100		

Based on the table above, it is known that from 32 respondents with age at risk, 13 (40.6%) respondents had anemia and 19 (59.4%) respondents were not anemic. Meanwhile, from 78 respondents with no risk age, 25 (32.1%) respondents had anemia and 53 (67.9%) respondents were not anemic. The results of the Chi square test obtained p value 0.523 > 0.05, meaning that there is no relationship between age at risk and the incidence of anemia in the working area of UPTD. Puskesmas Krui West Coast District in 2022. The results of OR = 1.451 means that respondents with age at risk have a chance of 1.451 times for the incidence of anemia.

Table 7
The relationship between nutritional status and the incidence of anemia in pregnant women in the UPTD Working Area. Puskesmas Krui Pesisir Barat Regency in 2022

Nutritional status	Incidence of Anemia				Total		P value	OR
	Anemia		No anemia					
	n	%	N	%	N	%		
Abnormal	16	57.1	12	42.9	28	100	0.004	3,636
Normal	22	26.8	60	73.2	82	100		(1,488-8.889)

Based on the table above, it is known that from 28 respondents with abnormal nutritional status, 16 (57.1%) respondents had anemia and 12 (42.9%) respondents were not anemic. Meanwhile, from 82 respondents with normal nutritional status, 22 (26.8%) respondents had anemia and 60 (73.2%) respondents were not anemic. Chi square test results obtained p value 0.004 <0.05, meaning that there is a relationship between nutritional status and the incidence of anemia in the working area of UPTD. Puskesmas Krui Pesisir Barat Regency in 2022. The results of OR 3,636 means that respondents with abnormal nutritional status are at risk of 3.636 times for the incidence of anemia.

Table 8
The relationship between consumption of Fe tablets and the incidence of anemia in pregnant women in the UPTD Working Area. Puskesmas Krui Pesisir Barat Regency in 2022

Consumption of Fe . Tablets	Incidence of Anemia				Total		P value	OR
	Anemia		No anemia					
	n	%	N	%	N	%		
Not obey	19	48.7	20	51.3	39	100	0.021	2,600
Obey	19	26.8	52	73.2	71	100		(1,147-5,896)

Based on the table above, it is known that from 39 respondents consuming Fe tablets, 19 (48.7%) respondents experienced anemia and 20 (51.3%) respondents were not anemic. Meanwhile, from 71 respondents who consumed Fe tablets obediently, 19 (26.8%) respondents experienced anemia and 52 (73.2%) respondents were not anemic. Chi square test results obtained p value 0.021 <0.05, meaning that there is a relationship between consumption of Fe tablets and the incidence of anemia in the working area of UPTD. Puskesmas Krui Pesisir Barat Regency in 2022. The OR 2,600 means that respondents who do not comply with consuming Fe tablets are at risk of 2,600 times the incidence of anemia.

Table 9
The relationship between parity and the incidence of anemia in pregnant women in the UPTD Working Area. Krui Health Center West Coast District in 2022

Parity	Incidence of Anemia				Total		P value	OR
	Anemia		No anemia					
	n	%	N	%	N	%		
at risk	20	71.4	8	28.6	28	100	0.000	8.889
No risk	18	22.0	64	78.0	82	100		(3,361-23,506)

Based on the table above, it is known that from 28 respondents with parity at risk, 20 (71.4%) respondents had anemia and 8 (28.6%) respondents were not anemic. Meanwhile, from 82 respondents with parity not at risk, 18 (22.0%) respondents had anemia and 64 (78.0%) respondents were not anemic. The results of the Chi square test obtained p value 0.000 <0.05, meaning that there is a parity relationship with the incidence of anemia in the UPTD working area. Puskesmas Krui, Pesisir Barat Regency in 2022. The OR result is 8.889, meaning that respondents with parity at risk have a chance of 8.889 times for the incidence of anemia.

Table 10
Relationship between pregnancy distance and the incidence of anemia in pregnant women in the Work Area UPTD. Puskesmas Krui Pesisir Barat Regency in 2022

Pregnancy Distance	Incidence of Anemia				Total		P value	OR
	Anemia		No anemia					
	N	%	N	%	N	%		
at risk	20	74.1	7	25.9	27	100	0.000	10,317
No risk	18	21.7	65	78.3	83	100		(3,770-28,233)

Based on the table above, it is known that from 27 respondents with a risky pregnancy interval, 20 (74.1%) respondents had anemia and 7 (25.9%) respondents were not anemic. Meanwhile, from 83 respondents with no risk of pregnancy spacing, 18 (21.7%) respondents had anemia and 65 (78.3%) respondents were not anemic. The results of the Chi square test obtained p value 0.000 <0.05, meaning that there is a parity relationship with the incidence of anemia in the UPTD working area. Puskesmas Krui Pesisir Barat Regency in 2022. The results of OR 10,317 means that respondents with a distance between pregnancies at risk have 10,317 times the chance of anemia.

DISCUSSION
Univariate Analysis
Distribution of the frequency of anemia in pregnant women in the UPTD Work Area. Puskesmas Krui Pesisir Barat Regency in 2022
The results of this study showed that from 110 respondents, 38 (34.5%) respondents had anemia and 72 (65.5%) respondents did not have anemia.

Anemia in pregnant women is a condition in which hemoglobin levels decrease, so that the oxygen-carrying capacity for the needs of vital organs in the mother and fetus is reduced (Suhartiningsih, 2017). In addition, according to Manuaba (2014), anemia in pregnancy is the condition of the mother with hemoglobin (hb) <11 g% in the first and third trimesters, while in the second trimester the hemoglobin level is <10.5 g%. Factors related to the incidence of anemia in pregnant women include age, parity, pregnancy distance, nutritional status, frequency of antenatal care (ANC), economic status, knowledge, education level, culture and husband's support (Ariani, 2016).

This study is in line with research conducted by Sari et al (2021) which showed that there were 32 respondents with anemia (47.8%) and 35 respondents (52.2%).

In the opinion of researchers, anemia in pregnancy is a condition where the hemoglobin level in pregnant women is below the standard of 11 mg/dl. Anemia during pregnancy can be caused by several factors including education, knowledge, family income, age, nutritional status, consumption of Fe tablets, parity, and distance between pregnancies.

Distribution of the education frequency of pregnant women in the UPTD Work Area. Puskesmas Krui Pesisir Barat Regency in 2022
The results of this study indicate that from 110 respondents, 32 (29.1%) respondents with low education and 78 (70.9%) respondents with higher education.

Education is a conscious and planned effort to create a learning atmosphere and learning process so that students actively develop their potential to have spiritual, religious, self-control, personality, intelligence, noble character, and skills needed by themselves, society, nation and state. Education is a learning process which means that in education there is a process of growth, development or change towards a more mature, better and more mature individual, group or community. The level of education can affect a person's level of knowledge because a person's ability to accept and understand something is determined by the level of education he has.

According to RI Law No. 23 of 2003, a person's level of education can support or influence the level of knowledge, namely the higher the education, the higher the knowledge of a person because high education makes it easier for mothers to receive new information so they are not indifferent to health information, while the lower the education, the knowledge is very limited. so indifferent to existing health programs. Knowledge is a collection of information that is used and obtained through a process during life and is used as a means of adjustment for oneself and the environment (Edison, 2019).

This study is in line with research conducted by Chandra et al (2019) which showed that the majority of respondents had a high education level of high school as many as 28 people (68.3%).

In the opinion of researchers, the level of education also has a relationship with the level of health. The higher the level of education, the easier

it is to accept the concept of healthy living independently, creatively and sustainably. The level of education also greatly affects the ability to receive information, determine or influence whether or not someone easily receives knowledge, the higher the education, the easier it is to receive information about health.

Frequency distribution of knowledge of pregnant women in the UPTD Work Area. Puskesmas Krui Pesisir Barat Regency in 2022

The results of this study indicate that from 110 respondents, 37 (33.6%) respondents had poor knowledge and 73 (66.4%) respondents had good knowledge.

Knowledge is a very important domain for the formation of one's actions. Knowledge is needed as support in growing self-confidence as well as attitudes and behavior every day, so it can be said that knowledge is a fact that supports one's actions. Knowledge is one of the factors that influence health behavior. Pregnant women who know and understand the consequences of anemia and how to prevent anemia will have positive behaviors and actions so that they can avoid the effects and risks of anemia during pregnancy. There is a theory that states that good knowledge will affect health behavior so that it affects health behavior (Sulistyoningsih, 2011).

Lack of knowledge about anemia has an influence on health behavior, especially in pregnant women, will result in less than optimal health behavior of pregnant women to prevent anemia in pregnancy. Pregnant women who have less knowledge about anemia can result in a lack of consumption of foods containing iron during pregnancy due to their ignorance, so that knowledge about anemia is important for pregnant women to know (Purbadewi and Ulvie, 2013).

This study is in line with research conducted by Wulandini (2018) which showed that most pregnant women had poor knowledge of 37 people (56.1%) and it was found that minority pregnant women had good knowledge of 11 people (16.7%).

In the opinion of the researcher, the knowledge possessed by a mother will influence decision making and also affect her behavior. Mothers with poor knowledge are likely to have an impact on poor maternal behavior.

Frequency distribution of family income of pregnant women in the UPTD Work Area. Puskesmas Krui Pesisir Barat Regency in 2022

The results of this study indicate that from 110 respondents, 34 (30.9%) respondents had low family income and 76 (69.1%) respondents had high family income.

Income is the amount of real income from all household members that are donated to meet the collective and individual needs of the household. The level of family income is income or family income which is arranged from low to high. The income level of each family is different. The occurrence of these differences is influenced by many factors, including the type of work and the number of working family members (Suparyanto, 2014).

Family income that is less than the provincial minimum wage (UMP) affects the occurrence of anemia in pregnant women. The amount of income that a person receives greatly affects the types of needs that can be met. Income is closely related to the fulfillment of the necessities of life, including the fulfillment of food needs to prevent and overcome anemia in pregnancy. Thus, someone with a low income will increase the risk factors for anemia, including inadequate Fe intake, inadequate nutrition and meeting health needs such as drugs and others (Dhilon et al, 2019).

This study is in line with research conducted by Yuliansyah et al (2015) which showed that most of the respondents with low incomes were 58 respondents (85.3%).

In the opinion of researchers, income is related to a person's ability to meet needs. One of the impacts of poverty is the inability of households to meet their food needs in good quantity and quality, such as meeting the nutritional needs of pregnant women.

Frequency distribution of the age of pregnant women in the UPTD Working Area. Puskesmas Krui Pesisir Barat Regency in 2022

The results of this study showed that from 110 respondents, 32 (29.1%) respondents were at risk and 78 (70.9%) were at risk.

Age is defined as the length of time living or existing since birth or held until now. The causes of maternal death from reproductive factors include maternal age or maternal age. In the period of healthy reproduction, it is known that the safe age for pregnancy and childbirth is 20-35 years. Maternal mortality in pregnant women and childbirth at the age of under 20 years was 2 to 5 times higher than maternal deaths that occurred at the age of 20 to 35 years. Maternal mortality increases again after 35 years and over (Prawirohardjo, 2016).

Pregnant women at an age that is too young, namely <20 years old, will easily experience food competition between the fetus and the mother who is still in the process of growth which can result in

impaired growth for the fetus due to the hormonal growth process that occurs during pregnancy. Pregnant women at a young age are also relatively not ready to pay attention to the environment needed for fetal growth, as well as growth for themselves. In developing countries, about 10-20% of babies are born to mothers in their teens (Demnoeche and Moulesshoul, 2011).

Pregnant women over the age of 35 years tend to experience anemia due to the influence of decreased iron reserves in the body due to the fertilization period. The first pregnancy in women aged over 35 years will also have a risk of complications in pregnancy and childbirth, due to a decrease in the functions of the reproductive organs (Proverawati, 2018).

This study is in accordance with research conducted by Widayati and Luvi Dian (2018) in Candirejo Village which shows that of the 23 pregnant women, the majority are in the age range of 20-35 years as many as 15 people (65.2%) and 33.3% suffer from anemia. 8 people (34.8%) and 87.5 had anemia in pregnancy with age < 20 years and > 35 years.

In the opinion of researchers, many pregnant women of no risk age but experience anemia due to other factors that can cause low hemoglobin levels, such as the behavior of mothers who do not like to consume vegetables and fruits that contain iron. In addition, maternal compliance in performing ANC is not good, and the habit of mothers who are not obedient in consuming Fe tablets. So the hope is that even though pregnant women at a non-risky age should still routinely carry out prenatal checkups, regularly eat foods that contain lots of iron, and be obedient in performing ANC.

Frequency distribution of the nutritional status of pregnant women in the UPTD Work Area. Puskesmas Krui Pesisir Barat Regency in 2022

The results of this study indicate that from 110 respondents, 28 (25.5%) respondents with abnormal nutritional status and 82 (74.5%) respondents with normal nutritional status.

Nutritional status is the state of the body as a result of food consumption and use of nutrients. Nutritional status is a picture of the balance between care and nutritional needs of a person. If the intake is appropriate then it is called good nutrition, if it is lacking it is called undernutrition and if the intake is more then it is called over nutrition (Asyirah, 2012).

Pregnancy causes an increase in energy metabolism, therefore the need for energy and other nutrients increases during pregnancy, especially the need for iron. This is because the volume of blood in the body increases by 35%. This is equivalent to 450mg of iron for producing red blood cells. If the need for iron is not met, it will cause anemia in pregnancy (Asyirah, 2012).

This study is in line with research conducted by Oktavia (2021) which showed that most pregnant women had normal nutritional status, namely 75 respondents (69.4%), and a small proportion of pregnant women had abnormal nutritional status, namely 33 respondents (30.6%). %).

In the opinion of researchers, nutritional status is a balance between the amount of nutrient intake and the amount needed (by the body used for biological functions (activity, physical growth, development, health maintenance, etc.). The lower the nutritional status of pregnant women, the higher the nutritional status of pregnant women. risk of anemia The incidence of anemia is basically directly influenced by the pattern of daily food consumption.

Distribution of the frequency of consumption of Fe tablets in pregnant women in the UPTD Work Area. Puskesmas Krui Pesisir Barat Regency in 2022

The results of this study indicate that from 110 respondents it was found that 39 (35.5%) respondents did not comply with consuming Fe tablets and 71 (64.5%) respondents complied with taking Fe tablets.

Pregnant women are given iron tablets every day or at least 90 tablets during pregnancy (Kemenkes RI, 2014). The aim of the government in Indonesia to conduct an iron supplementation program is to prevent anemia in pregnancy. The iron absorbed from food is not sufficient to meet the needs of the mother and fetus, so additional iron intake is needed through iron tablets. However, the effectiveness of this program is often hampered by the compliance of pregnant women. Pregnant women who are not obedient in consuming iron tablets mean they are not able to meet the needs of iron in pregnancy. As a result, the risk of anemia in pregnancy, especially iron deficiency anemia, increases. Anemia can indirectly cause maternal death.

This study is in line with research conducted by Erwin (2017) which showed that out of 52 pregnant women who obediently took iron tablets as recommended by health workers, only 11 people (21%), while 41 people (79%).

In the opinion of researchers, pregnant women who are not obedient in consuming iron tablets mean they are not able to meet the needs of iron in pregnancy. As a result, the risk of anemia in pregnancy, especially iron deficiency anemia, increases. Anemia can indirectly cause maternal

death. Mothers with anemia are at risk for postpartum hemorrhage and giving birth to premature babies or babies with low birth weight. To increase the compliance of pregnant women, it is necessary to know in advance the factors related to the compliance of pregnant women in consuming iron tablets, one of which is knowledge.

Distribution of parity frequency of pregnant women in the UPTD Working Area. Puskesmas Krui Pesisir Barat Regency in 2022

The results of this study indicate that from 110 respondents, 28 (25.5%) respondents with parity at risk and 82 (74.5%) respondents with parity at risk.

Parity is the number of children born both alive and dead, parity can be divided into primiparas are women who have given birth to a child large enough to live outside the womb, multipara are women who have given birth to more than one child, and grandemultipara are women who have give birth to five or more people and are usually more at risk of experiencing complications in pregnancy and childbirth (Prawirohardjo, 2016).

There is a tendency that the higher the number of births, the higher the incidence of anemia. One of the causes of the risk of pregnant women experiencing anemia in pregnancy is the mother who often gives birth and in subsequent pregnancies the mother does not pay attention to good nutritional intake during pregnancy. This is because during pregnancy the nutrients will be divided for the mother as well as for the fetus it contains (Arisman, 2014).

Parity affects the occurrence of anemia because during pregnancy requires additional iron to increase the number of maternal red blood cells and form fetal red blood cells. If the supply of Fe reserves is minimal, each pregnancy will deplete the body's Fe supply and eventually cause anemia in the next pregnancy.

This is in line with the results of research conducted by Amini (2018) which showed that most of the respondents were in the primiparous parity group, namely 36 people (52.9%), while the least respondents were respondents with multiparity parity, namely 32 people (47 ,1%).

In the opinion of researchers, parity is the number of pregnancies that produce a fetus that is able to live outside the womb. Parity > 3 is a factor in the occurrence of anemia. This is because too often pregnant can deplete the mother's body's nutrient reserves. Meanwhile, mothers with parity are not at risk but experiencing anemia can be caused by other factors such as gestational age, the incidence of KEK, education and mother's occupation.

Distribution of the frequency of pregnancy intervals among pregnant women in the UPTD Working Area. Puskesmas Krui Pesisir Barat Regency in 2022

The results of this study indicate that from 110 respondents, 27 (24.5%) respondents with a risky pregnancy interval and 83 (75.5%) respondents with a non-risk pregnancy interval.

Birth spacing is the interval between two successive births of a woman. Birth spacing that tends to be short can cause several negative effects both on the health of the woman and the health of the baby she is carrying (Rifdiani, 2017).

Gestational interval is the time since the mother is pregnant until the next birth occurs. The distance between pregnancies is too close can cause anemia. One of the causes that can accelerate the occurrence of anemia in pregnant women is a short pregnancy interval. A distance of less than 2 years shows a higher proportion of maternal deaths. The distance between pregnancies that are too close causes the mother to have a short time to restore the condition of her uterus so that it can return to its previous condition. Pregnant women who are too close are at risk of anemia in pregnancy. Because pregnant women's iron reserves are restored. Finally reduced for the needs of the fetus it contains (Ramadini, 2016).

This study is in line with research conducted by Gusnidarsih (2020) with the results of 56 respondents that 29 (50%) respondents with risky pregnancy intervals and 29 (50%) respondents with non-risk pregnancy intervals.

In the opinion of researchers, pregnancy spacing that is too close can cause anemia, because the mother's condition has not recovered and the fulfillment of nutritional needs has not been optimal, it must meet the nutritional needs of the fetus being conceived. The community still has a lot of risky pregnancy intervals because there are still people who do not want to install contraception.

Bivariate Analysis

The relationship between education and the incidence of anemia in pregnant women in the UPTD Working Area. Puskesmas Krui Pesisir Barat Regency in 2022

The results of this study indicate that of the 32 respondents with low education, 23 (71.9%) respondents were anemic and 9 (28.1%) were not anemic. Meanwhile, from 78 respondents with higher education, 15 (19.2%) respondents were anemic and 63 (80.8%) respondents were not anemic.

Chi square test results obtained p value 0.000 <0.05, meaning that there is a relationship between education and the incidence of anemia in the working

area of UPTD. Puskesmas Krui Pesisir Barat Regency in 2022. The results of OR = 10,733 means that respondents with low education have a risk of 10,733 times for the incidence of anemia.

Mother's education greatly influences how a person acts and looks for causes and solutions in his life. Highly educated people will usually act more rationally. Therefore, educated people will be more receptive to new ideas. Likewise, mothers who are highly educated will have their pregnancy checked regularly in order to maintain the health condition of themselves and the children in their womb (Walyani, 2015).

Education in general is all planned efforts to influence other people, both individuals and community groups so that they do what is expected by education actors. The low level of education is related to the level of understanding of iron (Fe) and awareness of the consumption of tablets (Fe) for pregnant women. The state of iron deficiency in pregnant women is largely determined by many factors, including the level of education of pregnant women. The low level of education of pregnant women will affect the acceptance of information so that knowledge about iron (Fe) is limited and has an impact on the occurrence of iron deficiency (Elisabeth, 2013).

Education greatly affects a person's ability in nutritional information. The higher the level of education (long schooling) of a person, the easier it is to accept a healthy life independently, creatively and sustainably. Therefore, the level of education has an exponential relationship to nutritional and health status (Sasono, 2021).

This study is in line with research conducted by Edison (2019) which showed the prevalence of anemia in mothers who had a low level of education reached 90.3% compared to mothers who had a higher education level of only 9.7%. Chi Square test results obtained a value of = 0.001. Thus, there is a significant relationship between the level of education and the incidence of anemia in pregnant women at the Blue Health Center, Bone Regency.

In the opinion of the researcher, the higher the education, the higher the awareness of the mother to get good nutrition so that it does not cause anemia in pregnancy. Anemic pregnant women with low education have a higher prevalence than mothers with higher education. Education is closely related to the ability to receive information related to health, especially for anemic pregnant women, such as knowledge of anemia, selection of high-iron foods and iron intake. Someone who has low education is at risk of having poor knowledge. So that it can affect the work that is less decent and generate low income.

A person with a low income can be at risk of not being able to meet the nutritional needs of his family including his pregnant wife.

The relationship between knowledge and the incidence of anemia in pregnant women in the UPTD Working Area. Puskesmas Krui Pesisir Barat Regency in 2022

The results of this study indicate that from 37 respondents with poor knowledge, 22 (59.5%) respondents had anemia and 15 (40.5%) respondents were not anemic. Meanwhile, from 73 respondents with good knowledge, 16 (21.9%) respondents had anemia and 57 (78.1%) respondents were not anemic.

Chi square test results obtained p value 0.000 <0.05, meaning that there is a relationship between knowledge and the incidence of anemia in the working area of UPTD. Puskesmas Krui Pesisir Barat Regency in 2022. The results of OR = 5.225 means that respondents with poor knowledge are at risk of 5.225 times for the incidence of anemia.

Knowledge of pregnant women about anemia greatly affects the behavior of pregnant women. Lack of knowledge about anemia will result in less than optimal health behavior of pregnant women to prevent anemia in pregnancy. Pregnant women who have less knowledge about anemia cause pregnant women to consume less foods containing iron during pregnancy (Suhartatik et al, 2018).

According to Lawrence Green's theory in (Notoatmodjo, 2014), one's knowledge of health is one of the predisposing factors that influence one's behavior, so if pregnant women do not get information or counseling about anemia, it can affect how pregnant women avoid anemia. Knowledge is an important factor for the formation of a person's behavior, because from experience and research it is proven that behavior based on knowledge will be more lasting than behavior that is not based on knowledge. With increasing knowledge of pregnant women about anemia, it is expected that there will be changes in behavior in a direction that supports health.

Pregnant women who have good knowledge of course act well towards their health and vice versa pregnant women who have a low level of knowledge about anemia, where things that cause anemia mean a lack of understanding of the meaning of anemia, things that cause anemia, signs and symptoms of anemia, things that cause anemia -Things caused by anemia when anemia occurs (Susilowati et al, 2021).

This study showed that Teja et al (2021) showed that 2.8 percent of pregnant women who had good knowledge had anemia and 50 percent of

mothers who had less knowledge experienced anemia. Most pregnant women have good knowledge as many as 69 people with a p value of 0.001 meaning that there is a relationship with knowledge with the incidence of anemia in pregnant women.

In the opinion of the researcher, lack of knowledge about anemia has an influence on health behavior, especially when a woman is pregnant, will result in less than optimal health behavior of pregnant women to prevent anemia in pregnancy. Pregnant women who have less knowledge about anemia can result in a lack of consumption of foods containing iron during pregnancy due to their ignorance.

Relationship between family income and the incidence of anemia in pregnant women in the UPTD Working Area. Puskesmas Krui Pesisir Barat Regency in 2022

The results of this study indicate that from 34 respondents with low family income, 19 (55.9%) respondents had anemia and 15 (44.1%) respondents were not anemic. Meanwhile, from 76 respondents with high family income, 19 (25.0%) respondents were anemic and 57 (75.0%) respondents were not anemic.

Chi square test results obtained p value 0.002 <0.05, meaning that there is a relationship between family income and the incidence of anemia in the UPTD work area. Puskesmas Krui Pesisir Barat Regency in 2022. The result of OR = 3,800 means that respondents with low family income are at risk of 3,800 times for the incidence of anemia.

Family socioeconomic factors have an influence on the incidence of iron deficiency anemia because the family's food purchasing power depends on the amount of income earned. The higher the income, the more able the family to meet their nutritional needs. This shows that the poverty rate has an influence on anemia in pregnancy (Oktaviani, 2018).

Pregnant women with low family incomes are three times more likely to experience anemia than mothers with high family incomes. Family income is an important factor that affects the level of anemia in pregnant women because it increases several other related factors such as nutrition, education, awareness and hygienic conditions (Morsy & Alhady, 2014).

This study is in line with research conducted by Angraini et al (2019) which shows that there is an influence between family income and the incidence of anemia (p = 0.048), pregnant women who have family incomes less than the provincial minimum wage (UMP) will be at risk of 1.1 times more likely to suffer from anemia in pregnancy (OR=1.13).

In the opinion of researchers, low family income is generally closely related to health problems faced. A person with an upper middle education level and family income will have many choices in choosing a source of iron, especially the type of heme (animal) which is the largest source of Fe for the body. Iron deficiency anemia reflects the ability of family income to be able to meet the needs in the amount and quality of nutrition which is reflected in nutritional status.

The relationship between age and the incidence of anemia in pregnant women in the UPTD Working Area. Puskesmas Krui Pesisir Barat Regency in 2022

The results of this study indicate that from 32 respondents with age at risk, 13 (40.6%) respondents had anemia and 19 (59.4%) respondents were not anemic. Meanwhile, from 78 respondents with no risk age, 25 (32.1%) respondents had anemia and 53 (67.9%) respondents were not anemic.

The results of the Chi square test obtained p value 0.523 > 0.05, meaning that there is no relationship between age at risk and the incidence of anemia in the working area of UPTD. Puskesmas Krui West Coast District in 2022. The results of OR = 1.451 means that respondents with age at risk have a chance of 1.451 times for the incidence of anemia.

If the mother's age at the time of pregnancy is relatively young (<20 years) she will be at risk of developing anemia, this is because at that age there is still growth that requires more nutrients than the age above. If the nutrients are not met, there will be nutritional compensation between the mother and her baby (Wijianto, 2012).

The age of a woman at the time of pregnancy should not be too young and not too old, those who are less than 20 years old and more than 35 years old are at high risk for giving birth. A woman's readiness to conceive also includes physical, emotional, psychological, social and economic readiness. Adolescents are individuals aged 10-19 years. The main causes of death in women aged 15-19 years are complications of pregnancy, childbirth, and complications of miscarriage (Depkes, 2014).

Complications in teenage pregnancy (<20 years) are higher than the healthy reproductive period between 20-30 years, this situation will be even more difficult when coupled with psychological, social, and economic stress, making it easier for miscarriages to occur. Teenage pregnancies under the age of 20 have risks; often experience anemia, impaired fetal growth and development, miscarriage,

preterm or low birth weight, labor disorders, preeclampsia, and antepartum bleeding (Prawirohardjo, 2016).

Mothers under 20 years old and more than 35 years old are more susceptible to anemia caused by physical and psychological factors. Women who are pregnant at the age of less than 20 years are at risk for anemia because at this age malnutrition often occurs. This usually occurs because teenagers want an ideal body, so they encourage them to do a strict diet without paying attention to nutritional balance so that when they enter pregnancy they have less nutritional status. Meanwhile, mothers who are over 35 years of age are susceptible to decreased immune systems, resulting in pregnant women being susceptible to infection and disease (Lulu, 2012).

Pregnant women at risky age but do not experience anemia due to good maternal behavior, such as consuming Fe tablets regularly, consuming foods rich in iron, and routinely doing ANC. Iron Tablets Blood supplement tablets can avoid iron anemia and folic acid anemia. Pregnant women are recommended to consume at least 90 iron tablets during pregnancy. While the ANC visit is to produce a healthy pregnancy through physical examination, supplementation and health education for pregnant women. Regular antenatal visits result in the immediate detection of various pregnancy risk factors, one of which is anemia (Purwandari, 2016).

This is in line with Sjahriani's research (2019) which shows that most of the respondents are 35 years old, with a significant relationship between the age of pregnant women and the incidence of anemia (p 0.000) with the risk that the age of pregnant women 35 years can cause anemia incidence by 15 times.

In the opinion of the researcher, the age of less than 20 years or more than 35 years will trigger anemia, because mothers who are less than 20 years old have their reproductive organs not so ready that it will affect the nutritional supply of pregnant women. Meanwhile, pregnant women who are more than 35 years old will also have an effect on their nutritional needs due to less than optimal organ function. And have a higher risk of bleeding which will later lead to anemia.

The relationship between nutritional status and the incidence of anemia in pregnant women in the UPTD Working Area. Puskesmas Krui Pesisir Barat Regency in 2022

The results of this study indicate that from 28 respondents with abnormal nutritional status, 16 (57.1%) respondents experienced anemia and 12 (42.9%) respondents were not anemic. Meanwhile,

from 82 respondents with normal nutritional status, 22 (26.8%) respondents had anemia and 60 (73.2%) respondents were not anemic.

Chi square test results obtained p value 0.004 <0.05, meaning that there is a relationship between nutritional status and the incidence of anemia in the working area of UPTD. Puskesmas Krui Pesisir Barat Regency in 2022. The results of OR 3,636 means that respondents with abnormal nutritional status are at risk of 3.636 times for the incidence of anemia.

Nutritional status is strongly influenced by food consumption and a person's health condition. One indicator of measuring nutritional status in Indonesia is to measure the Upper Arm Circumference (LILA). The LILA measurement aims to assess whether a person has Chronic Energy Deficiency (KEK) with an LILA threshold of 23.5. Pregnant women who experience CED and anemia have a greater risk of giving birth to babies with low birth weight (LBW), death during childbirth, bleeding, and difficult postpartum because of weakness (Oktavia, 2021).

In fact, pregnant women with SEZ tend to experience anemia more than those without anemia. This is due to the pattern of consumption and absorption of food that is not balanced during pregnancy. Nutrition greatly affects a person's nutritional state. If pregnant women during pregnancy do not consume balanced nutrition, both macronutrients and micronutrients, then pregnant women are at risk of experiencing nutritional disorders or chronic energy deficiency can occur which can lead to anemia (Larasati, 2018).

Pregnant women who do not have SEZ tend to be less likely to have anemia than those who have anemia. Pregnant women who are not SEZ usually maintain the supply of nutrients consumed during their pregnancy by consuming foods that contain balanced nutrition, both macronutrients and micronutrients, accompanied by the consumption of Vitamin C so that pregnant women are less likely to experience anemia. If pregnant women who do not have SEZ experience anemia, it may be due to how to maintain iron in food not accompanied by food consumption or water consumption that can help iron absorption, because caffeine consumption can inhibit iron absorption (Larasati, 2018).

This study is in line with research conducted by Mutiarasari (2019) which showed that there was a relationship between nutritional status and the incidence of anemia, where pregnant women with good nutritional status tended to be at risk of not being anemic as much as 6,500 times compared to less nutritional status.

In the opinion of researchers, nutritional status is the end result of a balance between the food consumed and the body's needs. If the nutritional intake is appropriate then it is called good nutrition, if the intake is less it is called undernutrition and if the intake is more it is called excess nutrition. The nutritional status of pregnant women is one of the factors that must be considered. Low nutritional status can cause anemia which results in low physical quality and affects reproductive efficiency. The higher a person's nutritional status, the better his physical condition, thus indirectly affecting reproductive efficiency.

The relationship between consumption of Fe tablets and the incidence of anemia in pregnant women in the UPTD Working Area. Puskesmas Krui Pesisir Barat Regency in 2022

The results of this study indicate that from 39 respondents who consumed Fe tablets, 19 (48.7%) respondents experienced anemia and 20 (51.3%) respondents were not anemic. Meanwhile, from 71 respondents who consumed Fe tablets obediently, 19 (26.8%) respondents experienced anemia and 52 (73.2%) respondents were not anemic.

Chi square test results obtained p value 0.021 <0.05, meaning that there is a relationship between consumption of Fe tablets and the incidence of anemia in the working area of UPTD. Puskesmas Krui Pesisir Barat Regency in 2022. The OR 2,600 means that respondents who do not comply with consuming Fe tablets are at risk of 2,600 times the incidence of anemia.

Anemia in pregnancy is the most common anemia due to iron deficiency. This deficiency can be caused by lack of entry of iron elements with food, because of impaired absorption, impaired use, or because too much iron is released, for example in bleeding. Women who are pregnant or breastfeeding, need very high iron so it needs to be prepared as early as possible since adolescence. For pregnant women, take 1 tablet plus blood every day for at least 90 days of pregnancy and 40 days after giving birth (Maternity, 2014).

If the reserve supply is minimal, then each pregnancy will deplete the body's iron supply and eventually cause anemia in the next pregnancy. In pregnancy, relatively anemia occurs because pregnant women experience hemodilution (dilution) with an increase in volume of 30% to 40%, which peaks at 32 to 34 weeks of gestation. The number of blood cells increases by 18 to 30% and hemoglobin by about 19%. If the mother's hemoglobin before pregnancy is around 11 g% with hemodilution, it will result in physiological pregnancy anemia, and the mother's Hb will be 9.5 to 10 g% (Manuaba 2014).

If the Fe supplement is given according to the standard of antenatal care, which is 90 tablets during pregnancy and a good diet, it will have a significant effect on the Hb status of pregnant women. In the sense that the increase in Hb levels of pregnant women increased significantly, from being anemic to being no longer anemic. So great is the effect of Fe tablets on the health of pregnant women in preventing anemia, therefore when pregnant women carry out pregnancy checks, the role of health workers, especially midwives, is needed to further improve counseling programs repeatedly for pregnant women and their closest families, such as husbands and other people. old. It is intended that there are other individuals who provide a stimulus to pregnant women to consume iron tablets regularly at least 90 tablets during pregnancy (Manuaba, 2014).

This study is in line with research conducted by Maternity (2014) which showed that there was a significant relationship between the consumption of Fe tablets and the incidence of anemia at BPS Nengah Astiti Sidorejo, East Lampung in 2013. times greater for those affected by anemia compared to respondents who consumed 90 tablets.

According to the researcher's opinion, pregnant women who consume Fe tablets obediently and non-compliantly are motivated by Hb results where pregnant women who obediently consume Fe tablets mostly have Hb levels above the standard. However, pregnant women who do not experience anemia must still comply with taking Fe tablets. There are several factors that cause mothers to disobey Fe tablets, such as mothers who do not like taking drugs, mothers often forget to take Fe tablets or mothers who deliberately do not take Fe tablets because they feel that their hemoglobin levels are normal.

The relationship between parity and the incidence of anemia in pregnant women in the UPTD Working Area. Puskesmas Krui Pesisir Barat Regency in 2022

The results of this study indicate that of the 28 respondents with parity at risk, 20 (71.4%) respondents were anemic and 8 (28.6%) were not anemic. Meanwhile, from 82 respondents with parity not at risk, 18 (22.0%) respondents had anemia and 64 (78.0%) respondents were not anemic.

The results of the Chi square test obtained p value 0.000 <0.05, meaning that there is a parity relationship with the incidence of anemia in the UPTD working area. Puskesmas Krui, Pesisir Barat Regency in 2022. The OR result is 8.889, meaning

that respondents with parity at risk have a chance of 8.889 times for the incidence of anemia.

Parity is the number of live or stillbirths with a gestational age of 36 weeks and above that have been experienced by the mother. Parity 1-3 is a good parity for the health of the mother and fetus in the womb. Pregnant women with high parity have a risk of 1,454 times greater for anemia than those with low parity (Djamilus and Herlina, 2010).

Parity >3 years can increase the frequency of complications in pregnancy and childbirth, such as anemia in pregnancy can increase the risk of fetal death in the womb and bleeding before and after childbirth, is more common in anemic pregnant women and this can be fatal, because women pregnant women who are anemic cannot tolerate blood loss. The tendency is that the higher the number of births (parity), the higher the incidence of anemia (Ramadini, 2016).

This is in line with the research conducted by Fitriani (2012) which showed that there was a significant relationship between parity and the incidence of anemia at the Kinali West Pasaman Health Center in 2012. The results of this study are also in line with Suryani's (2014) research on factors related to the incidence of anemia. , showed that there was a significant relationship between parity and the incidence of anemia at the Air Cold Padang Public Health Center in 2014.

Supported by Jasmi's research (2016) which shows that of 145 pregnant women who have high risk parity of anemia as many as 47 pregnant women (87%). Meanwhile, 30 pregnant women with low risk parity experienced fewer anemia as many as 30 pregnant women (32.9%). The results of statistical tests using chi square obtained a value of p = 0.000 (p <0.05) which means that there is a relationship between parity and the incidence of anemia in pregnant women, with an OR value of 13,652 which means that parity pregnant women who are at high risk are 13 times more likely to experience anemia compared to pregnant women with low risk parity.

In the opinion of researchers, anemia can occur in mothers with high parity related to the mother's biological condition and iron intake. Parity is more at risk when associated with short gestation intervals. Anemia in this case will be related to previous pregnancies where if the iron reserves in the body are reduced then pregnancy will deplete iron supplies in the body and will cause anemia in subsequent pregnancies.

Relationship between pregnancy distance and the incidence of anemia in pregnant women in the UPTD Working Area. Puskesmas Krui Pesisir Barat Regency in 2022

The results of this study showed that from 27 respondents with a risky pregnancy interval, 20 (74.1%) respondents had anemia and 7 (25.9%) respondents were not anemic. Meanwhile, from 83 respondents with no risk of pregnancy spacing, 18 (21.7%) respondents had anemia and 65 (78.3%) respondents were not anemic.

The results of the Chi square test obtained p value 0.000 <0.05, meaning that there is a relationship between pregnancy distance and the incidence of anemia in the UPTD work area. Puskesmas Krui Pesisir Barat Regency in 2022. The results of OR 10,317 means that respondents with a distance between pregnancies at risk have 10,317 times the chance of anemia.

Birth spacing is too close can cause anemia. One of the factors that can accelerate the occurrence of anemia in pregnant women is a short birth interval, because the mother's condition has not yet recovered and the fulfillment of nutritional needs is not optimal, but she must meet the nutritional needs of the fetus she contains (Prawirohardjo, 2016).

The results of this study are in line with Tanziah's research (2016) which states that pregnant women who have a pregnancy interval of less than 2 years have a 2.3 times risk of developing anemia. It is very important to pay attention to the distance between pregnancies, because the distance between pregnancies of less than 2 years can accelerate the occurrence of anemia in pregnant women. Supported by research conducted by Gusnidarsih (2020) which shows that there is a relationship between maternal distance from pregnancy and the incidence of clinical anemia during pregnancy in the Talang Randai Health Center Work Area, South Bengkulu Regency.

In the opinion of researchers, a good pregnancy interval of at least 2 years is important to note so that the mother's body is ready to accept the fetus again without having to produce iron reserves. After the postpartum period, the period after it is done. Physiologically, the condition of the female reproductive organs has recovered. But it all comes back to physical and psychological readiness, especially on the part of women. In addition, a distance that is too close will cause the quality of the fetus or child to be low and the mother not getting the opportunity to improve her own body. If maternal nutritional intake is not met, it can affect SEZ in pregnant women and cause anemia.

CONCLUSION

There is a relationship between knowledge, family income, age, nutritional status, parity, consumption of Fe tablets, the distance of pregnancy and the incidence of anemia in pregnant women in the UPTD Working Area. Puskesmas Krui Pesisir Barat Regency in 2022 with a p value of 0.000

SUGGESTION

It is expected that pregnant women can routinely attend classes for pregnant women in order to add insight for pregnant women about complications during pregnancy, one of which is anemia. In addition, pregnant women are expected to be more obedient in consuming Fe tablets as an effort to prevent the incidence of anemia. further researchers will be able to examine other variables that are more varied and include broader research with different research methods, especially those related to the incidence of anemia in pregnant women so that research can continue to be developed.

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