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The Relationship between the Nutritional Status of Pregnant Women and Anemia at the Nursing Health Center in Blangkejeren City, Gayo Lues Regency, Aceh Province in 2022

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ABSTRACT

For mothers, pregnancy is an important period in their life. During pregnancy, the mother must prepare herself to welcome the birth of her baby. A healthy mother can give birth to a healthy and physically perfect baby with sufficient body weight. Maternal nutritional status in pregnancy affects nutritional status. At the Puskesmas where the study was conducted, out of 14 pregnant women, 8 pregnant women experienced CED, as can be seen from the results of LILA measurements <23.5 cm. The purpose of this study was to determine the relationship between the nutritional status of pregnant women and the incidence of anemia at the Nursing Health Center in Blangkejeren City, Gayo Lues District, Aceh Province in 2022. The research design used was an analytical survey. The population in this study were all Trimester II and III pregnant women who came for treatment at the Nursing Center in September 2022. The sampling technique was a total population of 37 people. The research data was taken using a measuring tape and Hb Sahli. The results of this study, the nutritional status of pregnant women who were not normal were 21 respondents (56.8%), not anemic as many as 1 respondent (4.8%), anemia as many as 20 respondents (54.1%) and normal as many as 16 respondents (43.2%).), 10 respondents (27.%) were not anemic, 6 respondents (16.2%) had anemia. The results of the statistical assessment obtained a value of P = 0.000 <0.05, from the results of this study it was obtained Results There is a relationship between the nutritional status of pregnant women and anemia. In conclusion, there are many pregnant women with poor nutritional status and anemia. It is recommended that pregnant women increase their nutritional intake and consume Fe tablets, and have their pregnancy checked 4 times during pregnancy. Advice to health workers to provide counseling to pregnant women during examinations.

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INTRODUCTION

For mothers, pregnancy is an important period in their life. During pregnancy, the mother must prepare herself to welcome the birth of her baby. A healthy mother can give birth to a healthy and physically perfect baby with sufficient body weight. Maternal nutritional status in pregnancy affects the nutritional status of the fetus. Mother's food intake can enter the fetus through the umbilical cord which is connected to the mother's body.

Pregnancy is an important period of life. At this time the mother must prepare herself as well as possible to welcome the birth of her baby. Healthy mothers will give birth to healthy babies. During pregnancy, the mother is a source of nutrition for the baby she contains. What the mother eats will affect the condition of the baby. If a pregnant woman has poor nutritional status during pregnancy, she is at risk of having a baby with poor health conditions. Women with good nutritional status will give birth to healthy babies (Waryana, 2015).

According to the Ministry of Health (Depkes) in 2013, pregnant women are one of the nutritionally vulnerable groups that require more nutritional elements. Food for pregnant women must really pay attention, especially regarding the amount of energy and protein that is useful for fetal growth and maternal health. One way to assess the quality of the baby is to measure the baby's weight at birth. A baby is healthy if the level of health and nutrition is in good condition, but until now there are still many pregnant women who experience nutritional problems, especially malnutrition during pregnancy. The nutrition of pregnant women needs attention because it greatly affects the development of the fetus they contain (Ministry of Health RI, 2017).

The World Health Organization (WHO) in 2013 reported that the global prevalence of anemia in pregnancy was 55% which was significantly higher in the third trimester compared to the first and second trimesters of pregnancy. And most of these cases are due to the mother's Chronic Energy Deficiency (CED) which causes her nutritional status to decrease. The prevalence of Chronic Energy Deficiency (CED) pregnant women in Indonesia is 21.6%, and the infant mortality rate in Indonesia in 2012 was 324 per 1,000 live births. Among this number, 19 per 1,000 infant deaths occur in the neonatal period from birth to 28 days of age (Ministry of Health RI, 2017).

According to the 2013 Basic Health Research (Riskesdas) report, the prevalence of CED risk in Women of Reproductive Age (WUS) in Indonesia was 20.8%, and the prevalence of CED in pregnant women in NTB Province was above the national rate of 26.7%. The lowest prevalence is in Bali (14%) and the highest prevalence is in East Nusa Tenggara (46.5%). Sixteen provinces with prevalence of SEZ risk above the national level, namely Central Kalimantan, East Java, Banten, South Kalimantan, Aceh, DI Yogyakarta, West Nusa Tenggara, Maluku, Papua, East Nusa Tenggara (Nofita W, Darmawati, 2018).

The results of the 2016 Nutritional Status Monitoring (PSG), the percentage of pregnant women according to energy consumption against nutritional adequacy standards was 73.6%, meaning that the average level of energy consumption in pregnant women per day in Indonesia was 73.6% Energy Adequacy Rate (AKE)). The percentage of pregnant women according to protein consumption against nutritional adequacy standards was 86.4%, carbohydrates 76.8% and fat 70.0% (Masturah, 2014).

Pregnant women with CED are at risk of giving birth to low birth weight babies (LBW) which can also be an indirect cause of maternal death. For this reason, pregnant women who are at risk for CED, namely those who have an upper arm circumference (LILA) <23.5 cm, are given additional food. The results of monitoring nutritional status found that 79.3% of pregnant women at risk for KEK received additional food, which was greater than the 2016 national target of 50% (Masturah, 2014).

Chronic energy deficiency (CED) in pregnant women is caused by pregnant women's lack of knowledge about nutrition, the family's inability to provide nutritious food and the lack of awareness among pregnant women to consume food with balanced nutrition. Maternal nutrition

before and during pregnancy can affect the growth of the fetus they contain (Ministry of Health9 RI, 2017).

Previous research was conducted by Nofita (2016) with the title "Factors Influencing Nutritional Status in Pregnant Women in Aceh Besar District." The results showed that for the knowledge variable a p-value of 0.020 was obtained so that the hypothesis (Ho) was rejected. This means that there is a relationship between knowledge, income, education, and eating patterns that affect the nutritional status of pregnant women in Aceh Besar District (Nofita W, Darmawati, 2018).

Based on the results of an initial survey at the Blangkejeren City Health Center, Gayo Lues Regency in 2022, out of 14 pregnant women, 8 pregnant women experienced CED, which can be seen from the results of LILA measurements <23.5 cm, which is caused by the lack of knowledge of pregnant women about nutrition, the inability of the family to provide nutritious food and the lack of awareness among pregnant women to consume food with balanced nutrition, so that the mother's eating pattern is irregular, and the education of the majority of families who have graduated from elementary school so that the family income is below the minimum wage for the Gayo Luwes area. Whereas 6 other people are not affected by SEZ because family income reaches the minimum wage so that the mother's regular eating pattern and good education level of the mother can influence the mother's knowledge about parenting, care and child feeding patterns.

RESEARCH METHOD

Types of research

This type of research is qualitative research to determine the relationship between variable X (factors of nutritional status) and variable Y (anemia). Furthermore, the data collected will be analyzed to find a relationship between the nutritional status of pregnant women and anemia at the Blangkejeren City Health Center, Gayo Lues District, Aceh Province in 2022.

Research design

The research design used was an analytic survey with a cross-sectional approach which is a continuation of a descriptive study that describes the relationship between the variables studied.

Location and Time of Research

a. Research sites

The location where the research was conducted was in the Working Area of the Nursing Health Center in Blangkejeren City, Gayo Lues Regency, Aceh Province in 2022. For the reason that there are pregnant women who experience anemia, the location is easily accessible to researchers and research has never been carried out with the same variables, population and sample size. sufficient.

b. Research time

This research will be carried out from July to September 2022, starting from conducting literature searches, preparing Proposals, Proposal seminars, research, data analysis and preparation of the final report.

Table 1. Research schedule

No	Description	July	august	Sept	Oct	Nov
1	Title Submission					
2	Acc title					
3	Proposal preparation					
4	Proposal exam acc					
5	Research preparation					
6	Research implementation					
7	Results tabulation					
8	Thesis examination					

Population and Sample

a. Population
The population in this study were all pregnant women whose gestational age was Trimester II and III who came to visit in September 2022. There were 37 people at the Nursing Health Center in Blangkejeren City, Gayo Lues Regency.

b. Sample
The sample is the object under study and is considered to represent the entire population. Sampling was carried out using the total population technique, namely the Total Population, namely the sampling was carried out by taking the entire population of 37 people.

Data collection technique

a. Primary data
The data collected in this study is primary data where the data collection technique is carried out using a questionnaire, namely a number of written questions used to obtain information from respondents in the sense of personal reports by first giving a brief explanation of the examination to be carried out and asking the respondent for approval in sampling.

b. Secondary Data
Data collection was obtained using secondary data including data on pregnant women from the MCH handbook and carrying out Hb examination

RESULTS AND DISCUSSIONS

Respondent Demographic Data

Tab1e 2. Demographic Data of Pregnant Women at the Health Center in Blangkejeren City Gayo Lues Regency Aceh Province in 2022

No	Demographic Data	Frequency	Percentage (%)
1	Age		
	19- 29 Years	16	48,6
	30-38 Years	21	51,4
	Amount	37	100
2	Education		
	JUNIOR HIGH SCHOOL	14	41,2
	SENIOR HIGH SCHOOL	17	55,9
	BACHELOR	1	2,9
	Amount	32	100%
3	Parity		
	Primipara	15	47,1
	Multipara	17	52,9
4	Work		
	IRT	2	5,4
	Trader	9	24,3
	Private employees	13	35,1
	Farmer	13	35,1

Based on table 2. the frequency distribution of respondents at the Blangkejeren City Health Center for Health Care, Gayo Lues District, Aceh Province in 2022, the majority aged 30-38 years, as many as 21 respondents (51.4%). Based on table . the frequency distribution of respondents based on mother's occupation at the Kuala Nursing Health Center in Simeulue Regency in 2019 the majority worked as farmers and private employees as many as 13 respondents (35.1%). Based on table 4.2. the frequency distribution of respondents based on education at the Kuala Nursing

Health Center in Simeulue Regency in 2019 the majority of high school education was 19 respondents (51.4%)..

Frequency Distribution of Nutritional Status at the Nursing Health Center in Blangkejeren City, Gayo Lues District, Aceh Province in 2022

Table1 3. Frequency Distribution of Nutritional Status of Pregnant Women at Nursing Health Centers Blangkejeren City, Gayo Lues Regency, Aceh Province in 2022

No.	Nutritional status	F	%
1	Well	16	43.2
2	Not good	21	56.8
	Amount	37	100

Based on table 4.2, the frequency distribution of respondents based on the nutritional status of the Blangkejeren City Health Center, Gayo Lues Regency, in 2022, the majority of respondents with abnormal nutritional status were 21 people (56.8%), normal nutritional status were 16 respondents (43.2%).

Distribution of the Frequency of Anemia Incidence at the Treatment Health Center in Blangkejeren City, Gayo Lues District, Aceh Province in 2022

Table1 4. Frequency Distribution of Anemia in Pregnant Women at the Nursing Health Center in Blangkejeren City, Gayo Lues District, Aceh Province in 2022

No.	Anemia Incidence	F	%
1	Anemia	26	70.3
2	Not Anemia	11	29.7
	Amount	37	100

Based on table 4.4 the frequency distribution of respondents based on the incidence of anemia at the Blangkejeren City Health Center, Gayo Lues Regency, the majority of respondents with normal anemia incidence were 26 people (70.3%), abnormal anemia was 11 respondents (29.7%)

The Relationship between the Nutritional Status of Pregnant Women and Anemia at the Nursing Health Center in Blangkejeren City, Gayo Lues Regency, Aceh Province in 2022

Tab1 5. The Relationship between the Nutritional Status of Pregnant Women and Anemia at the Nursing Health Center in Blangkejeren City, Gayo Lues Regency, Aceh Province in 2022

No	Nutritional status	Category Anemia				Amount		asymp. Sig
		Not Anemia		Anemia				
		F	%	F	%	F	%	
1	Normal	10	27.0	6	16.2	16	43.2	
2	Abnormal	1	2.7	20	54.1	21	56.8	0.000
	Total	11	29.7	26	70.3	37	100	

Based on table 5, it can be seen that 37 respondents with abnormal nutritional status were 21 respondents (56.8%), 1 respondent (2.7%) not anemic, 20 respondents (54.1%) anemic and 16 respondents (43.2%) normal.).), 10 respondents (27.%) were not anemic, 6 respondents (16.2%) had anemia. After statistical tests were performed using the chi-square test with a 95% confidence level, it was found that sig-p = 0.000 < 0.05. This means that this proves that there is a relationship

between the nutritional status of pregnant women and anemia at the Blangkejeren City Health Center, Gayo Lues Regency, Aceh Province in 2022.

Discussion

a. Frequency Distribution based on Nutritional Status of Pregnant Women with Anemia at Nursing Health Centers in Blangkejeren City, Gayo Lues Regency in 2022

Frequency distribution of respondents based on the nutritional status of pregnant women with anemia at the Blangkejeren City Nursing Health Center, Gayo Lues Regency in 2022. The majority of respondents with abnormal nutrition were 21 respondents (56.8%), and those who were normal were 16 respondents (43.2%). Nutritional status is the state of a person's body as a result of consumption, absorption and use of food nutrients. This status is a sign or appearance of a person due to the balance between income and expenditure of nutrients from the food consumed. The nutritional status of pregnant women is a state of balance in the body of pregnant women as a result of the intake of food consumption and the use of nutrients used by the body for survival in maintaining the functions of the organs of the body.

The nutritional status of pregnant women during pregnancy can describe the availability of nutrients in the mother's body with the fulfillment of nutrients during pregnancy, one of which is the need for macronutrients. Nutritional needs increase with increasing gestational age, growth and development of the fetus for the growth of the fetus, placenta, amniotic fluid, addition of the uterus, increase in breast tissue, and increase in blood volume along with changes in tissue and metabolism of the mother's body. Fetal growth and development accelerates during pregnancy so that sufficient energy and protein intake is needed (Aritonang, 2018).

Based on the frequency distribution of respondents, it was found that pregnant women with anemia at the Nursing Health Center in Blangkejeren City, Gayo Lues Regency in 2022, the majority of respondents with abnormal nutritional status were 21 people (56.8%), normal nutritional status were 16 respondents (43.2%)

According to the researchers' assumptions, pregnant women with poor nutritional status, from the study, found that many pregnant women with abnormal nutritional status, namely LILA less than 23.5 cm, mothers with Lila below 23.5 cm are at risk of CED because pregnant women do not understand the importance of nutrition during pregnancy and other than that mothers pregnant women also have more status as farmer workers, permanent employees, so pregnant women have less rest and have to have more energy to carry out work activities so that it affects the nutritional status of mothers.

b. Frequency Distribution Based on Anemia at Nursing Health Centers in Blangkejeren City, Gayo Lues Regency in 2022

Distribution of the frequency of respondents based on the nutritional status of pregnant women with anemia at the Nursing Center in Blangkejeren City, Gayo Lues Regency in 2022. The majority of respondents with anemia were 26 people (70.3%), abnormal anemia were 11 respondents (29.7%). Anemia is a condition in which red blood cells (erythrocytes) in circulation are reduced or hemoglobin mass is unable to fulfill its function as a carrier of oxygen throughout the tissues.

Anemia is a condition of the mother with hemoglobin levels below 11 g% in the first and third trimesters or 10.5% lower in the second trimester (Cunningham, 2005). Anemia in pregnancy is anemia due to iron deficiency, according to WHO the incidence of anemia in pregnancy ranges from 20% to 89% by setting Hb 11 g% as a basis. Hb 9-10 gr% is called mild anemia, Hb 7-8 gr% is called moderate anemia, Hb <7 gr% is called severe anemia (28).

The low capacity of the blood to carry oxygen triggers the body's compensation by stimulating the heart to increase cardiac output. A heart that is continuously driven to work hard can lead to heart failure and other complications such as preeclampsia. Based on the results of this study, it was found that there were many pregnant women with anemia, namely 26 respondents (70.3%), abnormal anemia as many as 11 respondents (29.7%) also supported by several factors

such as mothers with LILA less than 23.5 and the ages of mothers who were old and young, the number of children who more than 3 and more taking Fe tablets during pregnancy.

This research is in line with the Setia Pakpahan Official with the title Relationship between Nutritional Status and Anemia in Pregnant Women at the Medan Deli Primary Clinic. These results indicate that the prevalence of anemia in pregnant women is 66.7%. From the results of the chi square statistical test, it was found that the value of p = 0.006 concluded that the hemoglobin level of pregnant women was related to nutritional status, consumption of bsei tablets and consumption patterns.

Anis Ervina's research with the title Relationship of Nutritional Status with Anemia Incidence in pregnant women in 2015 was obtained in the study, with the sample being all pregnant women who experienced anemia 99 people from a population of 730. The results of statistical tests using the chi square test at α = 0.05 obtained P value as large as 0.000 (P <0.05) which is statistically significant there is a significant relationship between the nutritional status of pregnant women and the incidence of anemia at the Rangkasbitung Health Center in 2014.

According to the researchers' assumptions, in this study the majority of respondents with anemia were caused not only by a lack of nutritional intake, the causes of anemia in pregnant women were also influenced, such as the age of pregnant women during pregnancy, it also affected anemia in pregnant women.

c. The Relationship between Nutritional Status and Anemia in Pregnant Women at the Nursing Health Center in Blangkejeren City, Gayo Lues Regency, Aceh Province in 2022

Relationship between Nutritional Status and Anemia in Pregnant Women at the Blangkejeren City Health Center, Gayo Lues District, Aceh Province in 2022, based on the analysis of the chi-square statistical test with a 95% confidence level, it was found that sig-p = 0.000 <0.05, it can be concluded that there is relationship between nutritional status and anemia in pregnant women. Based on table 4.4. abnormal nutrition as many as 21 respondents (56.8%), not anemia as much as 1 respondent (4.8%), anemia as many as 20 respondents (54.1%) and normal as many as 16 respondents (43.2%). Respondents who are not anemic as many as 10 respondents (27.%), 6 respondents (16.2%) had anemia. Iron deficiency can cause interference or obstacles to the growth of body cells including brain cells. In pregnant women it can cause miscarriage, premature birth, low birth weight, bleeding before and during labor and can even result in death for the mother and fetus. Pregnant women with iron anemia are unable to meet their needs. the need for iron in the fetus optimally so that the fetus is very at risk of impaired maturity/maturity of the organs of the fetus and the risk of premature occurrence. Bleeding during childbirth in anemic conditions will be very at risk for hypovolemic shock to occur and death will be greater (Nawangsih, 2015).

Anis Ervina's research with the title Relationship of Nutritional Status with Anemia Incidence in pregnant women in 2015 was obtained in the study, with the sample being all 99 pregnant women who had anemia from a population of 730. The results of statistical tests using the Chi Square test at α = 0.05 obtained a P value as large as 0.000 (P <0.05) which is statistically significant there is a significant relationship between the nutritional status of pregnant women and the incidence of anemia at the Rangkas bitung health center in 2014.

According to the researchers' assumptions regarding the relationship between nutritional status and anemia in pregnant women at the Blangkejeren City Health Center, Gayo Lues Regency in 2022, the majority of pregnant women with nutritional status are at risk of anemia, some respondents were not anemic because the respondents received Fe tablets regularly during pregnancy. Respondents with nutritional status were not at risk of experiencing anemia but some respondents also experienced anemia, it was found that the factors that supported anemia in pregnant women were the age of the respondent.

CONCLUSION

Based on data analysis using the chi-square test that was carried out by the author regarding the relationship between the nutritional status of pregnant women and anemia at the Blangkejeren City Health Center, Gayo Lues Regency, Aceh Province in 2022, the researchers concluded that: The nutritional status of pregnant women at the Blangkejeren City Health Center Gayo Lues District Aceh Province In 2022 the majority is not good. The majority of pregnant women at the Blangkejeren City Health Center, Gayo Lues Regency, Aceh Province, 2022 have anemia. There is a significant relationship between the nutritional status of pregnant women and anemia with a 95% confidence level, it is obtained that sig-p = 0.000 <0.05.

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