



**RELATIONSHIP OF ANC VISIT, *EMESIS GRAVIDARUM* AND DIETARY HABIT AGAINST ANEMIA IN PREGNANT WOMEN AT T PMB RABIAH, AM. KEB KELURAHAN SENTOSA SEBRANG ULU KOTA DISTRICT PALEMBANG PROVINCE OF SOUTH SUMATERA YEAR 2023**

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**Abstract**

Background Behind: A anemia is Wrong One of the major health problems in the world, especially in developing countries. Anemia can have a negative impact on quality of life, physical performance, and health of mother and baby during pregnancy. Prevention and anemia treatment involves increasing intake of substance iron and vitamin B12 via food or supplements, as well as handling underlying medical conditions. Negative impact for anemia during pregnancy reported can increase risk of maternal and perinatal death. Impact on Mother such as \_ fatigue, poor work capacity or performance, distraction \_ function immunity body, increase risk of heart disease, even death, Objective Study He knows connection ANC visits, *emesis gravidarum* And pattern Eat against anemia in pregnant Mother. Method: Research method used \_ in study This is quantitative descriptive. Design used \_ is *cross-sectional* that is something research that studies dynamics connection between factors risk with effect, with method approach, observation or data collection carried out in once on \_ the same time And No There is a *follow-up period*. Population in study this is mom First trimester pregnancy at TPMB Rabiah, Am.Keb on month July-September that is as many as 35 respondents. Big The sample uses total sampling techniques. Sample on study This totaling 35 respondents. Results of this study: Test results chi square with CI = 95% obtained p value <.001 (P<0.05) which means there is a significant relationship between ANC visits, *Emesis Gravidarum* and Diet against anemia in Mother pregnant at TPMB Rabiah, Am.Keb Ward Sentosa Subdistrict Across Ulu, Palembang City, South Sumatra Province in 2023. Conclusion and Suggestions: there is a relationship between ANC visits, *Emesis Gravidarum* and Diet against anemia in Mother pregnant at TPMB Rabiah, Am.Keb Ward Sentosa Subdistrict Across Ulu, Palembang City, South Sumatra Province in 2023. Expected can be used as source of information for pregnant mothers. To add outlook and knowledge. Pregnant mothers about anemia and prevention of anemia in her pregnancy.

**Keywords:** Anemia, ANC Visits, Diet, Emesis Gravidarum, Pregnant Women

**Introduction**

Efforts to ensure a healthy life, according to the World Health Organization, anemia is one of the main health problems in the world, especially in developing countries. WHO defines anemia as a hemoglobin level of less than 12 g/dL in adult women and less than 13 g/dL in adult men. Anemia can have a negative impact on quality of life, physical performance, and the health of the mother and baby during pregnancy. Prevention and treatment of anemia involves increasing intake of iron and vitamin B12 through food or supplements, as well as treating the underlying medical condition. According to

the World Health Organization (WHO), the prevalence of anemia in the world reaches 41% and the majority (75%) is in developing countries (WHO, 2022)

The prevalence of anemia in pregnant women in Indonesia is 37.1%, the highest in rural areas, namely 37.8%, and the lowest in urban areas, 36.4%. This data provides a deeper understanding of the level of anemia in pregnant women in this country (Indonesian Ministry of Health, 2021) . Based on data from the Health Service, cases of anemia in pregnant women in South Sumatra Province in 2019 reached 7.26%. Anemic pregnant women in districts/cities range from 0.16 - 61.02%, where the highest cases occur in PALI district (61.02%) (South Sumatra Health Service, 2019) . Meanwhile, data from the Palembang City Health Service in 2018, the prevalence of anemia in pregnant women in Palembang City reached 6.2% or around 1793 pregnant women in Palembang City experienced anemia during pregnancy (Palembang City Health Service, 2018) .

Anemia in pregnancy is often reported to occur due to iron deficiency (62.3%), other causal factors are also reported such as deficiencies of vitamin B12 (cobalamin) (18.9%) and vitamin B9 (folic acid) (11.7%) and due to other factors (7.4%) (Sari & Romlah, 2019). Another report states that pregnancy anemia often occurs in the third trimester with the average prevalence of anemia in the third trimester being more than 30% (Manuaba, 2016). This is proven by Guspaneza & Martha's research that 48.9% of anemia occurs in pregnant women in the third trimester, the remainder occurs in the second trimester 41.6% and in the first trimester only 9.5% (Guspaneza & Martha, 2019) .

Maternal mortality rate (MMR) and infant mortality rate (IMR) are indicators of health development in the RPJM (Medium Term Development Plan) and SDGs 2015-2019. According to SDKI (Indonesian Demographic and Health Survey) data, the maternal mortality rate decreased by 305 per 100,000 births life on year 2015, And number death baby as big as 2,223 per 1,000 live births. The results of the study found that 33.07% of mothers experienced high blood pressure, 27.03% experienced bleeding, 15.7% experienced substance deficiencies iron And complications, 19% give birth to with heavy body low And premature, 6.06% experienced infection, and other causes 8.2% (Rohmah, 2019)

The negative impact of anemia during pregnancy is reported to increase the risk of maternal and perinatal mortality. Impacts on mothers include fatigue, poor work capacity or performance, impaired immune function, increased risk of heart disease, and even death, where anemia during pregnancy contributes to 23% of indirect causes of maternal death in developing countries (Faizah et al., 2023) . The impact on babies is also reported that anemia during pregnancy can increase the risk of premature birth, low birth weight (LBW) babies, intrauterine death (IUID), intrauterine growth restriction (IUGR), asphyxia, stunting, and stillbirth (Tanzihah et al., 2018) .

The Indonesian government has made efforts to prevent and control anemia in pregnant women, one of which is by providing free blood supplementation tablets (TTD) and folic acid supplementation programs. Every pregnant woman in the first trimester is entitled to a minimum of 90 Fe tablets to be consumed during pregnancy. Pregnant women are also advised to consume 60 mg of iron and 0.25 folic acid or the equivalent of 200 mg of ferrosulphate during pregnancy (Triharini, 2019) . Even though the government has implemented this program with the aim of reducing the rate of anemia in pregnant women, the incidence of anemia in pregnant women is currently reported to still be high (Harna et al., 2020) .

The incidence of anemia in pregnant women can be influenced by multifactors. Previous research stated that factors related to the incidence of anemia in pregnant women were parity, age and *antenatal care* (ANC) visits (Rahmi & Husna, 2020) . This is supported by research by Wulandari (2021) that maternal age and history of ANC visits are related to the incidence of anemia in pregnant women. Other research states that enabling factors such as pregnancy spacing, *emesis gravidarum* and diet are significantly related to the incidence of anemia in pregnant women (Alamsyah, 2020) . In this

study, researchers only focused on three variables to be studied, namely ANC visits, and *emesis gravidarum* and diet which are considered to be related to the incidence of anemia in pregnant women.

Based on the results of a preliminary study conducted at TPMB Rabiah, Am.Keb, Sentosa Village, Sebrang Ulu District, Kota Palembang, South Sumatra Province in 2022 shows that the prevalence of anemia in TPMB TPMB Rabiah, Am.Keb is 47 (30%) with a total of 155 pregnant women, while in 2023 the prevalence of anemia in January-September is 40 (33%) with a total of 120 pregnant women.

Based on the background description above, researchers feel it is important to conduct research on "The relationship between ANC visits, *emesis gravidarum* and diet on anemia in pregnant women".

## Research Methods

The research method used in this research is descriptive quantitative. The design used is *cross sectional*, namely a study that studies the dynamics of the relationship between risk factors and effects, by means of an approach, observation or data collection carried out once at the same time and without a *follow-up period*. The population in this study were pregnant women in the first trimester at TPMB Rabiah, Am.Keb in July-September, namely 35 respondents. The sample size uses total sampling techniques. The sample in this study consisted of 35 respondents.

## Research Result

### 1. Univariate Analysis

#### Respondent Characteristics

**Table 5.1. Characteristics of Respondents Based on Age, Education, Occupation, Parity and Gestational Age of Pregnant Women in TPMB Rabiah, Am.Keb, Sentosa District, Sebrang Ulu District, Kota Palembang South Sumatra Province in 2023**

No	Karakteristik	Frekuensi	Persentase
	Responden		(100%)
<b>1</b>	<b>Usia Ibu</b>		
	<20 Tahun dan >35 Tahun	5	14
	20 Tahun – 35 Tahun	30	86
	Jumlah	35	100
<b>2</b>	<b>Pendidikan</b>		
	Rendah <SLTA	13	37
	Tinggi >SLTA	22	63
	Jumlah	35	100

<b>3 Pekerjaan</b>		
Bekerja	8	23
Tidak Bekerja	27	77
Jumlah	35	100
<b>4 Paritas</b>		
Primipara	18	51
Multipara	9	26
Grandemulti	8	23
Jumlah	35	100
<b>5 Usia Kehamilan</b>		
< 3 Bulan	18	51
>3 Bulan	17	49
Jumlah	35	100

Based on table 5.1, it can be seen from the 35 respondents studied that the majority of respondents were of productive age, namely 20-35 years, 30 respondents (86%), and for maternal age <20 years and >35 years, there were 5 respondents (14%). In the education category, the majority had high education >high school, 22 respondents (63%), while for the low education category <high school, there were 13 respondents (37%). For the employment category, the majority of mothers did not work, namely 27 respondents (77%) and 8 respondents (23%). For the parity category, the majority were 18 respondents (51%) in primiparous mothers, 9 respondents in multiparous mothers (26%) and 8 respondents in grandemultis (23%). Meanwhile, in the gestational age category, the majority of pregnant women were < 3 months, namely 18 respondents (51%) and 17 respondents (49%) were pregnant > 3 months.

**Table 5.2. Frequency Distribution of Anemia in Pregnant Women in TPMB Rabiah, Am. Keb Palembang City Province South Sumatra in 2023**

Anemia Ibu Hamil	N	%
9Anemia Ringan	11	31
Anemia Sedang	21	60
Anemia Berat	3	9
Total	35	100

Based on Table 5.2, it can be seen that of the 35 respondents, the majority of pregnant women had moderate anemia, 21 respondents (60%), 11 respondents (31%) had mild anemia and 3 respondents (9%) had severe anemia.

**Table 5. 3. Frequency Distribution of ANC Visits among Pregnant Women At TPMB Rabiah, Am.Keb, Palembang City South Sumatra Province in 2023**

Kunjungan ANC	N	%
< 6 Kunjungan	18	51
> 6 Kunjungan	17	49
Total	35	100

Based on Table 5.3, it can be seen that from the 35 respondents, the majority of pregnant women who made < 6 ANC visits were 18 respondents (51%), while the pregnant women who made > 6 ANC visits were 17 respondents (49%).

**Table 5.4. Frequency Distribution of *Emesis Gravidarum* in Pregnant Women At TPMB Rabiah, Am.Keb, Palembang City South Sumatra Province in 2023**

Emesis Gravidarum	N	%
Emesis Ringan	20	57
Emesis Sedang	12	34
Emesis Berat	3	9
Total	35	100

Based on Table 5.4, it can be seen that of the 35 respondents, the majority of pregnant women experienced mild emesis, 20 respondents (57%), 12 respondents (34%) experienced moderate emesis and 3 respondents (9%) experienced severe emesis.

**Table 5.5. Frequency Distribution of Dietary Patterns of Pregnant Women in TPMB Rabiah, Am. Keb Palembang City Province South Sumatra in 2023**

Pola Makan	N	%
Pola Makan Baik	3	9
Pola Makan Cukup	21	60
Pola Makan Kurang	11	31
Total	35	100

Based on Table 5.5, it can be seen that of the 35 respondents, the majority of pregnant women have an adequate diet, 21 respondents (60%), 11 respondents (31%) have a poor diet and 3 respondents (9%) have a good diet.

## Bivariate Analysis

**Table 5.6. Relationship between ANC visits and anemia Pregnant Women at TPMB Rabiah, Am.Keb Ward Sentosa, Sebrang Ulu District, Palembang City South Sumatra Province Year 2023**

ANC visit	Anemia Light		Anemia Currently		Anemia Heavy		Amount		P-Value
	F	%	F	%	F	%	N	%	
	< 6 Visits	0	0	17	49	1	3	18	
> 6 Visits	11	31	4	11	2	6	17	49	
Total	11	31	21	60	3	9	35	100	<.001

Based on table 5.6 from 35 respondents Mother pregnant majority mothers experienced moderate anemia, namely 21 respondents (60 %), mild anemia 11 respondents (31%) and 3 respondents (9 %) experienced severe anemia. For the category < 6 ANC visits, the majority of pregnant women experienced moderate anemia, 17 respondents (49%), and 1 respondent (3%) experienced severe anemia. For category > 6 ANC visits, the majority of pregnant women experienced mild anemia, 11 respondents (31%), 4 respondents (11%) experienced moderate anemia and 2 respondents (6%) experienced severe anemia. Based on test chi square with CI = 95% obtained p value <.001 (P<0.05) which means there is a significant relationship between ANC visits and anemia in pregnant women in TPMB Rabiah, Am.Keb, Sentosa Village, Sebrang Ulu District, Palembang City, South Sumatra Province in 2023

**Table 5.7. The Relationship between *Emesis Gravidarum* and Anemia Pregnant Women at TPMB Rabiah, Am.Keb Ward Sentosa, Sebrang Ulu District, Palembang City South Sumatra Province in 2023**

<i>Emesis Gravidarum</i>	Anemia Light		Anemia Currently		Anemia Heavy		Amount		P-Value
	F	%	F	%	F	%	N	%	
	Emesis Light	0	0	18	51	2	6	20	
Emesis Currently	10	28	2	6	0	0	12	34	
Severe Emesis	1	3	1	3	1	3	3	9	
Total	11	31	21	60	3	9	35	100	<.001

Based on table 5.7 from 35 respondents Mother pregnant majority mothers experienced moderate anemia, namely 21 respondents (60 %), mild anemia 11 respondents (31%) and 3 respondents (9 %) experienced severe anemia. For the mild emesis category, the majority of pregnant women experienced moderate anemia, 18 respondents (51%), and 2 respondents (6%) experienced severe anemia. For the moderate emesis category, the majority of pregnant women experienced mild anemia, 10 respondents (28%), and 2 respondents (6%) experienced moderate anemia. Meanwhile, for the severe emesis category, the majority of pregnant women experienced mild anemia, moderate anemia and severe anemia, namely 1 respondent (3 %). Based on test chi square with CI = 95% obtained p value <.001 (P<0.05) which means there is a significant relationship between *emesis gravidarum* against anemia in pregnant women in TPMB Rabiah, Am.Keb, Sentosa Village, Sebrang Ulu District, Palembang City, South Sumatra Province, 2023

**Table 5.8. The Relationship between Diet and Anemia in Pregnant Women At TPMB Rabiah, Am.Keb Sentosa Village Sebrang Ulu District, Palembang City South Sumatra Province in 2023**

Pola Makan	Anemia						Jumlah	P-Value	
	Ringan		Sedang		Berat				
	F	%	F	%	F	%			N
Pola Makan	3	9	0	0	0	0	3	9	0.001
Baik									
Pola Makan	0	0	19	54	2	6	21	60	
Cukup									
Pola Makan	8	22	2	6	1	3	11	31	
Kurang									
Total	11	31	21	60	3	9	35	100	

Based on table 5.8 from 35 respondents Mother pregnant majority 21 respondents (60 %) experienced moderate anemia, 11 respondents (31%) experienced mild anemia, while 3 respondents (9 %) experienced severe anemia. For the good diet category, the majority of pregnant women experienced mild anemia, namely 3 respondents (9 %). For the adequate diet category, the majority experienced moderate anemia, 19 respondents (54%), and 2 respondents (6%) experienced severe anemia. Meanwhile, in the poor diet category, the majority experienced mild anemia, 8 respondents (22 %), 2 respondents (6%) experienced moderate anemia and 1 respondent (3%) experienced severe anemia. Based on test chi square with CI = 95% obtained p - value <.001 (P<0.05) which means there is a significant relationship between Dietary patterns against anemia in pregnant women at TPMB Rabiah, Am.Keb, Sentosa Village, Sebrang Ulu District, Palembang City, South Sumatra Province, 2023.

## Discussion

### A. Visiting Relations Anc Against Anemia in Pregnant Women at TPMB Rabiah, Am.Keb Sentosa Village, Sebrang Ulu District, Palembang City, South Sumatra Province Year 2023

Based on table 5.6 from 35 respondents Mother pregnant majority mothers experienced moderate anemia, namely 21 respondents (60 %), mild anemia 11 respondents (31%) and 3 respondents (9 %) experienced severe anemia. For the category < 6 ANC visits, the majority of pregnant women experienced moderate anemia, 17 respondents (49%), and 1 respondent (3%) experienced severe anemia. For category > 6 ANC visits, the majority of pregnant women experienced mild anemia, 11 respondents (31%), 4 respondents (11%) experienced moderate anemia and 2 respondents (6%) experienced severe anemia. Based on test chi square with CI = 95% obtained p value <.001 (P<0.05) which means there is a significant relationship between ANC visits and anemia in pregnant women in TPMB Rabiah, Am.Keb, Sentosa Village, Sebrang Ulu District, Palembang City, South Sumatra Province in 2023.

This research is in line with research (Maula, 2022) test chi square with CI = 95% obtained p value <.001 (P<0.05) which means there is a significant relationship between ANC visits and anemia in pregnant women.

The incidence of anemia in pregnant women can be influenced by multifactors. Previous research stated that factors related to the incidence of anemia in pregnant women were parity, age and *antenatal care* (ANC) visits (Rahmi & Husna, 2020) .

This is supported by research by Wulandari (2021) that maternal age and history of ANC visits are related to the incidence of anemia in pregnant women. Other research states that enabling factors

such as pregnancy spacing, *emesis gravidarum* and diet are significantly related to the incidence of anemia in pregnant women (Alamsyah, 2020)

Research (Naibaho et al., 2023) also reveals that age, education, employment, income, hyperemesis gravidarum, and nutritional status are factors that cause anemia in pregnancy. Work, income, knowledge, hyperemesis gravidarum are the factors that most influence anemia in pregnant women. Early detection and prevention of anemia needs to be improved during ANC visits, and provide counseling about the importance of ANC visits to pregnant women. So it can reduce the risk of pregnant women experiencing anemia.

According to (Faizah et al., 2023) there is a negative impact of anemia during pregnancy reported can increase the risk of maternal and perinatal mortality. Impacts on mothers include fatigue, poor work capacity or performance, impaired immune function, increased risk of heart disease, and even death, where anemia during pregnancy contributes to 23% of indirect causes of maternal death in developing countries. (Tanziha et al., 2018) The impact on babies is also reported that anemia during pregnancy can increase the risk of premature birth, low birth weight (LBW) babies, intrauterine death (IUID), intrauterine growth restriction (IUGR), asphyxia, stunting, and stillbirth.

One of the current world problems is anemia during pregnancy, which is a health problem with various risk factors, one of which is nutritional status. During pregnancy, nutritional problems have a huge impact on the mother and fetus, so special attention is needed. Insufficient nutritional status during pregnancy can cause pregnant women to become malnourished which results in anemia in pregnant women (Fadli & Fatmawati, 2020).

The results of research (Siregar & Sulistiyaningsih, 2023) showed that the results of the Chi Square test were that there was a relationship between the nutritional status of pregnant women and the incidence of anemia in Manismata Village, Manismata District, Ketapang Regency, West Kalimantan with the Chi Square test showing a value of  $p = 0.003$ , where  $p < \alpha (0.05)$ . It is important to carry out health education about meeting nutritional needs and preventing anemia in pregnant women so that post-pregnancy complications do not occur.

According to (Nurmasari & Sumarmi, 2019), anemia is a condition of lack of iron and folic acid in the body, this condition in pregnancy can result in abortion, premature birth, obstacles to the growth and development of the fetus in the uterus, easy infection and bleeding. This anemia condition can be prevented with a government program. The Maternal and Child Health (KIA) policy in Indonesia currently stipulates giving all pregnant women 90 blood supplement tablets for a minimum of 90 days. Another effort made by the government to reduce anemia is through efforts to improve family nutrition. The aim of this service activity is to prevent and motivate pregnant women to always consume Fe tablets and nutritious food.

Researchers concluded that visiting pregnant women at least 6 times during pregnancy is very important for pregnant women because these visits are useful for pregnant women in knowing the development of the fetus in their womb. And can minimize risks that could endanger the mother and fetus in her womb.

#### **B. The Relationship between *Emesis Gravidarum* and Anemia in Pregnant Women at TPMB Rabiah, Am.Keb Sentosa Village, Sebrang Ulu District, Palembang City, South Sumatra Province Year 2023**

Based on table 5.7 of 35 respondents Mother pregnant The majority of mothers experienced moderate anemia, namely 21 respondents (60%), 11 respondents (31%) had mild anemia and 3 respondents (9%) experienced severe anemia. For the mild emesis category, the majority of pregnant women experienced moderate anemia, 18 respondents (51%), and 2 respondents (6%) experienced severe anemia. For the moderate emesis category, the majority of pregnant women experienced mild anemia, 10 respondents (28%), and 2 respondents (6%) experienced moderate anemia. Meanwhile, for



the severe emesis category, the majority of pregnant women experienced mild anemia, moderate anemia and severe anemia, namely 1 respondent (3%). Based on test chi square with CI = 95% obtained p value  $<.001$  ( $P<0.05$ ) which means there is a significant relationship between *emesis gravidarum* and anemia in pregnant women in TPMB Rabiah, Am.Keb, Sentosa Village, Sebrang Ulu District, Palembang City, South Sumatra Province in 2023.

The results of this research are in line with research (Sari et al., 2023) that there is a relationship between hyperemesis gravidarum and anemia in pregnant women in the first trimester, calculated  $X^2$  value =  $5.84 > X^2$  table =  $3.841$ . Chi Square with a significance level of  $\alpha = 0.05$  with  $dk = 1$ . Based on the research results, it was concluded that there was a relationship between hyperemesis gravidarum and anemia in first trimester pregnant women in PMB Devi Ariani, S. Tr.Keb, Candimas Village, South Abung District, North Lampung Regency in 2021.

Nausea and vomiting or in medical language called *emesis gravidarum* or morning sickness is a condition of nausea which is sometimes accompanied by vomiting (frequency less than 5 times). During pregnancy, 70-85% of women experience nausea and vomiting. Symptoms of *emesis gravidarum* in pregnant women are feelings of dizziness, bloated stomach and body feeling weak accompanied by the expulsion of stomach contents through the mouth with a frequency of less than 5 times a day in pregnant women in the 1st trimester. Symptoms of nausea and vomiting usually start between 2 to 4 weeks after fertilization, peaking between 9 and 16 weeks of gestation and generally will be completed within 22 weeks of gestation. Even though it looks mild, it is closely related to pregnancy. Excessive nausea and vomiting risks causing various negative effects for pregnant women and the fetus. Pregnant women can experience dehydration, losing nutrition which can have an impact on the growth and development of the fetus. Age and gravida status are risk factors for *emesis gravidarum* (Sucipto et al., 2023).

According to (Rudiyanti & Rosmadewi, 2019), regarding gravida status with *emesis gravidarum*, the highest percentage was found in primigravida pregnant women who experienced risky emesis, amounting to 34 respondents (87.2%). The results of the contingency coefficient test obtained a p value =  $0.000 (< 0.05)$  which shows that there is a significant relationship between primigravida and risky emesis.

The physical and psychological changes in early pregnancy cause changes in the body's systems which can cause various symptoms such as nausea, vomiting and emotional instability in pregnant women. Nausea and vomiting experienced by pregnant women can reduce appetite and result in malnutrition in pregnant women. Malnutrition during pregnancy due to nausea and vomiting (*emesis gravidarum*) carries the risk of poor nutritional status and pregnancy complications. Emotional changes are unstable and tend to increase during pregnancy, which can increase the incidence of nausea and vomiting which can worsen the health condition of pregnant women (Sucipto et al., 2023).

Danger signs to watch out for include weight loss, malnutrition or changes in nutritional status, dehydration, electrolyte imbalance, and ketosis. Apart from that, excessive and continuous nausea and vomiting during pregnancy can disrupt the body's nutritional, fluid and electrolyte balance and loss of more than 5% of body weight before pregnancy can be defined as hyperemesis gravidarum. This can have bad consequences for the fetus, such as abortion, IUFD, premature parturition, LBW, IUGR (Atiqoh & Keb, 2020).

Researchers concluded that there is a significant relationship between *emesis gravidarum* and anemia in pregnant women. Nausea and vomiting during pregnancy psychologically affect more than 80% of pregnant women and have a significant effect on quality of life. Some pregnant women feel that nausea and vomiting are common things during pregnancy and some feel that it is uncomfortable and interferes with their daily activities. If the nausea and vomiting experienced by a pregnant woman continues and is worse than before, it is advisable to immediately seek help from the nearest midwife/medical personnel to ascertain the condition of the mother and the fetus she is carrying. So

that midwives/medical personnel can provide optimal treatment according to the conditions experienced by pregnant women.

### **C. The Relationship between Diet and Anemia in Pregnant Women at TPMB Rabiah, Am.Keb Sentosa Village Sebrang Ulu District, Palembang City South Sumatra Province in 2023**

Based on table 5.8 from 35 respondents Mother pregnant majority 21 respondents (60 %) experienced moderate anemia, 11 respondents (31%) experienced mild anemia, while 3 respondents (9 %) experienced severe anemia. For the good diet category, the majority of pregnant women experienced mild anemia, namely 3 respondents (9 %). For the adequate diet category, the majority experienced moderate anemia, 19 respondents (54%), and 2 respondents (6%) experienced severe anemia. Meanwhile, in the poor diet category, the majority experienced mild anemia, 8 respondents (22 %), 2 respondents (6%) experienced moderate anemia and 1 respondent (3%) experienced severe anemia. Based on test chi square with CI = 95% obtained p - value <.001 (P<0.05) which means there is a significant relationship between diet and anemia in pregnant women in TPMB Rabiah, Am.Keb, Sentosa Village, Sebrang Ulu District, Palembang City, South Sumatra Province in 2023.

This is in line with research (Winarno et al., 2021) showing results that there was a reduction in nausea and vomiting in first trimester pregnant women after being given education on how to consume food and maintaining food consumption patterns. The respondents studied were given 2 treatments with the result that the majority of respondents appeared more relaxed and calm, but nausea and vomiting were still present because the mothers rarely wanted to eat and consume the recommended foods.

Anemia is the most common hematological disorder in pregnant women. There are several factors that cause anemia in pregnant women, including compliance with the consumption of blood supplement tablets and diet. According to (Kurniawati et al., 2023) there is an influence of compliance with the consumption of blood supplement tablets (p value: 0.017) and diet (p value: 0.001) on the incidence of anemia in pregnant women in the second trimester. Lack of iron and folic acid can cause anemia, for this reason it is necessary to consume iron and foods containing iron. Compliance with the consumption of blood supplement tablets and dietary patterns influence the incidence of anemia in pregnant women.

The results of this research are in line with research (Mariana et al., 2018) which shows that the  $\rho$ -value of eating patterns = 0.006 is smaller than the  $\alpha$  value (0.05). So it can be concluded that  $H_0$  is rejected and  $H_1$  is accepted. Meanwhile, the p value of consumption compliance = 0.048 is smaller than  $\alpha$  (0.05). There is a very significant influence between diet and the incidence of anemia and also compliance with the consumption of Fe tablets and the incidence of anemia in pregnant women.

Eating patterns are behavior in meeting food needs which includes attitudes, beliefs and food choices. Food is a necessity for all living creatures, various types of food are consumed with various types of processing. In general, a diet has 3 (three) components consisting of: type, frequency and amount of food. Types of food Types of food are a type of staple food that is eaten every day consisting of staple foods, animal side dishes, vegetable side dishes, vegetables and fruit that are consumed every day. The staple food consists of rice, corn, sago, tubers and flour (Pebrina et al., 2021) .

A balanced diet, which is in accordance with needs accompanied by choosing the right food ingredients, will give birth to good nutritional status. Food intake that exceeds the body's needs will cause excess weight and other diseases caused by excess nutrients. On the other hand, food intake that is less than required will cause the body to become thin and susceptible to disease (Aisyah, 2020)

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cause excess weight and other diseases caused by excess nutrients. On the other hand, food intake that is less than required will cause the body to become thin and susceptible to disease (Aisyah, 2020)

According to research (Ristica, 2022) , there is a significant relationship ( $p < \alpha 0.05$ ). Respondents who eat an unhealthy diet are more at risk of experiencing anemia than people who eat a healthy diet.

Research Results (Mariana et al., 2018) test chi square with CI = 95% obtained p - value 0,000 ( $P < 0.05$ ) which means there is a significant relationship between diet and anemia in pregnant women

According to researchers, one of the factors that influences pregnant women to experience anemia is pattern eating unhealthy. An adequate diet during pregnancy can help the body cope with the special demands of pregnancy, as well as having a positive influence on the health of the fetus. Pregnant women must adopt a healthy lifestyle so that the baby they are carrying also gets good nutritional intake during pregnancy. Efforts to prevent and control anemia in pregnant women can be done by increasing consumption of nutritious foods. Pay attention to the composition of the dish every time you eat and eat foods that contain lots of iron from animal foods such as meat, fish, chicken, liver, eggs and plant foods such as dark green vegetables, nuts and tempeh.

## Conclusion

1. It is known that of the 35 respondents, the majority were of productive age, namely 20-35 years, 30 respondents (86%). For the education category, the majority had tertiary education > high school, 22 respondents (63%). For the job category, the majority of mothers do not work, namely 27 respondents (77%). For the parity category, the majority of primiparous mothers were 18 respondents (51%). Meanwhile, in the gestational age category, the majority of mothers <3 months pregnant, namely 18 respondents (51%).
2. Test results chi square with CI = 95% obtained p value <.001 ( $P < 0.05$ ) which means there is a significant relationship between ANC visits and anemia in pregnant women in TPMB Rabiah, Am.Keb, Sentosa Village, Sebrang Ulu District, Palembang City, South Sumatra Province in 2023.
3. Test results chi square with CI = 95% obtained p value <.001 ( $P < 0.05$ ) which means there is a significant relationship between *emesis gravidarum* and anemia in pregnant women in TPMB Rabiah, Am.Keb Sentosa Village, Sebrang Ulu District, Palembang City, South Sumatra Province in 2023
4. Test results chi square with CI = 95% obtained p - value <.001 ( $P < 0.05$ ) which means there is a significant relationship between diet and anemia in pregnant women in TPMB Rabiah, Am.Keb, Sentosa Village, Sebrang Ulu District, Palembang City, South Sumatra Province in 2023.

## A. Suggestion

1. For pregnant women  
It is hoped that it can be used as a source of information for pregnant women to increase the insight and knowledge of pregnant women about anemia and preventing anemia in pregnancy.
2. For Educational Institutions  
It is hoped that it can be used as learning material and a source of scientific information for health sciences students.
3. For future researchers  
It is hoped that it can be used as a reference by future researchers both theoretically and methodologically regarding factors related to anemia in pregnant women by adding variables, modifying the design, adding research samples and expanding the research area so that research results are more optimal and accurate.

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