ANALYSIS OF THE REGULARITY OF ANTENATAL CARE (ANC) VISITS WITH ANEMIA IN PREGNANT WOMEN

Herlinda[1], Ade Elvina[2], Rismayani[3], Linshia[4]

[1,3] Prodi D3 Kebidanan, Sekolah Tinggi Ilmu Kesehatan Sapta Bakti, Bengkulu
[2] Prodi S1 Kebidanan, Sekolah Tinggi Ilmu Kesehatan Sapta Bakti, Bengkulu
Email correspondence : herlindafh14@gmail.com

ABSTRAK : ANALISIS KETERaturan KUNJUNGAN ANTENATAL CARE (ANC) DENGAN ANEMIA PADA IBU HAMIL

Latar Belakang: Sebanyak 40% kematian ibu di negara berkembang berhubungan secara tidak langsung dengan anemia pada kehamilan. Angka kejadian anemia pada ibu hamil pada tahun 2022 berkisar antara 20%-89%. Prevalensi anemia pada ibu hamil di dunia sebesar 38,2%. Kematian ibu di negara-negara berkembang berhubungan dengan anemia pada kehamilan, yang penyebabnya adalah kekurangan zat besi, yang merupakan penyebab utama morbiditas. Pemerintah telah lama mempunyai program pemberian suplemen zat besi sebanyak 90 kali kepada ibu hamil selama kehamilan dan mewajibkan kunjungan ANC minimal 6 kali selama kehamilan.

Tujuan: Penelitian ini dilakukan dengan tujuan untuk mengetahui hubungan kunjungan rutin Antenatal Care (ANC) dengan kejadian anemia pada ibu hamil di Puskesmas Pendopo Kabupaten Empat Lawang.

Metode: Jenis penelitian ini menggunakan metode analitik dan pendekatan cross sectional. Jumlah sampel sebanyak 66 ibu hamil yang diambil secara purposive sampling dengan analisis uji chi square.

Hasil: Hasil penelitian menunjukkan 59,1% ibu hamil memiliki kunjungan ANC yang tidak teratur, 72,7% ibu hamil tidak mengalami anemia.

Kesimpulan: Terdapat hubungan antara keteraturan kunjungan Antenatal Care (ANC) dengan kejadian anemia pada ibu hamil (p=0,020).

Saran: Sebaiknya pihak Puskesmas bersama kader Posyandu lebih aktif dalam memberikan informasi melalui mengadakan kelas bagi ibu hamil mengenai jadwal pelaksanaan ANC bagi ibu hamil dan risiko mengalami anemia.

Kata Kunci: Anemia pada Ibu Hamil, Keteraturan Kunjungan Antenatal Care (ANC).

ABSTRACT

Background: As many as 40% of maternal deaths in developing countries are indirectly related to anemia in pregnancy. The incidence of anemia in pregnant women in 2022 will range between 20%-89%. The prevalence of anemia in pregnant women in the world is 38.2%. Maternal deaths in developing countries are related to anemia in pregnancy, the cause of which is iron deficiency, which is an important underlying cause of morbidity. The government has long had a program to give pregnant women 90 iron supplements during pregnancy and requires ANC visits at least 6 times during pregnancy.

Objective: This research was conducted with the aim of finding out the relationship between regular Antenatal Care (ANC) visits and anemia in pregnant women at the Pendopo Health Center, Empat Lawang Regency.

Method: This type of research uses analytical methods and a cross sectional approach. The total sample was 66 pregnant women taken by purposive sampling with chi square test analysis.

Results: The results of the study showed that 59.1% of pregnant women had irregular ANC visits, 72.7% of pregnant women did not experience anemia.

Conclusion: There is a relationship between the regularity of Antenatal Care (ANC) visits and anemia in pregnant women (p = 0.020).

Suggestion: The Community Health Center together with Posyandu cadres should be more active in providing information through holding classes for pregnant women regarding the ANC implementation schedule for pregnant women and the risks of experiencing anemia.

Keywords: Anemia in Pregnant Women, Regularity of Antenatal Care (ANC) Visits

INTRODUCTION

The success of maternal health programs can be assessed through the main indicator Maternal Mortality Rate (MMR). The World Health Organization (WHO), stated that the MMR in 2022 is very high, around 830 women will die from complications related to pregnancy or childbirth throughout the world every day. About 303,000 women die during and after pregnancy and childbirth. This data shows that the prevalence of MMR is still high and it is hoped that countries in the world can achieve the targets set by the Sustainable Development Goals (SDGs).

SDGs is a sustainable development program established by the UN to achieve a better and more sustainable life. In the SDGs there are 17 goals with 169 targets which are expected to be achieved by 2030, namely no poverty, zero hunger, good health and well being, quality education. , gender equality, clean water and sanitation, affordable and clean energy, decent work and economic growth, industry, innovation and industrial infrastructure. , innovation and infrastructure), reducing inequality, cities and sustainable thinking (sustainable cities and communities), responsible consumption and production, handling climate change (climate action), ocean ecosystems (life below water), the Dratan ecosystem (life on land), peace, justice and strong institutions (peace, justice and strong institutions) and partnerships to achieve goals (partnerships for the goals).

The target set by the Sustainable Development Goals (SDGs) 2030 is MMR 70 per 100,000 live births. As many as 40% of maternal deaths in developing countries are indirectly related to anemia in pregnancy. The incidence of anemia in pregnant women in 2022 will range between 20%-89%. The prevalence of anemia in pregnant women in the world is 38.2% and this is an extreme health problem throughout the world with the highest prevalence in Africa at 44.6% followed by Asia with a prevalence of 39.3% (WHO, 2020)

The number of maternal deaths collected from family health program records at the Ministry of Health increases every year. In 2022, it shows that the prevalence has not reached the specified target, namely 305 per 100,000 live births (KH) from the target of 183 per 100,000 KH in 2024 (Ministry of Health of the Republic of Indonesia, 2022).

The Maternal Mortality Rate (MMR) in South Sumatra Province is 175, which means there are 175 female deaths during pregnancy, during childbirth or the postpartum period per 100,000 live births. In 2020 there were 111 cases, in 2021 there were 100 cases and in 2022 there were 93 cases (South Sumatra Provincial Health Office, 2021). Meanwhile, the number of maternal deaths in Empat Lawang Regency also appears to be decreasing, where in 2018 there were 39 cases, in 2019 there were 35 cases and in 2020 there were 32 cases. The causes of maternal deaths in Empat Lawang Regency in 2020 include several factors such as bleeding in 13 people, hypertension in pregnancy in 5 people, blood disorders in 3 people, metabolic disorders in 1 person and others not mentioned as many as 10 people (Empa Lawang District Health Office, 2022).

Factors that contribute to maternal death are generally direct causes and indirect causes. The direct causes of maternal death are factors related to complications of pregnancy, childbirth and postpartum such as bleeding 30.3%, hypertension 27.1%, infection 7.3%, prolonged labor and abortion 0% and others 40.8%. Indirect causes of maternal death include maternal deaths caused by non-obstetric causes. Examples include pregnant women who die from tuberculosis, heart disease, malaria, anemia and others. This disease is considered to aggravate pregnancy, thereby affecting the optimization of maternal and fetal health and increasing the risk of morbidity and death (Ministry of Health of the Republic of Indonesia, 2022).

Anemia is a medical condition in the form of a low number of red blood cells or hemoglobin in the body. Anemia in pregnancy is the condition of a mother with hemoglobin levels below 11 gr% in the first and third trimesters or levels <10.5 gr% in the second trimester. Based on Basic Health Research (Riskesdas) in 2018 there were 48.9% of pregnant women suffering from anemia in Indonesia (RI Ministry of Health, 2022).

Anemia in pregnancy can have a negative impact on both the health of the mother and her baby. Apart from its effect on death and bleeding, anemia during pregnancy will affect fetal growth, low birth weight (LBW) and increase perinatal mortality. Considering the various negative impacts that arise due to anemia in pregnant women, anemia should be prevented early through good pregnancy checks (Ministry of Health of the Republic of Indonesia, 2022).

The impact of anemia on the fetus includes abortion, intrauterine death, prematurity, low birth weight, congenital defects and easy infection. In mothers, pregnancy can result in abortion, premature birth, threat of cord decompensation and premature rupture of membranes. During childbirth it can result in histitis, retained placenta and post partum bleeding due to uterine atony (Mufdlillah, 2020).

The main factors that cause anemia are currently unknown, while malnutrition, lack of knowledge and lack of attention to pregnant women predispose to iron deficiency anemia in pregnant women. However, in general, anemia during pregnancy is caused by a lack of nutrients and changes in body hormones which can affect the production of red blood cells in the body (Dartiwien & Nurhayati Y, 2019).

In an effort to prevent birth deaths, the government has since programmed health services for pregnant women, including a program to provide pregnant women with 90 iron supplements during pregnancy (Ministry of Health of the Republic of Indonesia, 2022).

Assessment of the implementation of health services for pregnant women can be done by looking at the coverage of K1, K4 and K6. K1 coverage is the number of pregnant women who have received antenatal care for the first time by health workers, compared to the target number of pregnant women in one work area within one year. K4 coverage is the number of pregnant women who have received standard antenatal care at least four times according to the recommended schedule in each trimester, compared to the target number of pregnant women in one work area within one year. Meanwhile, K6 coverage is the number of pregnant women who have received antenatal care according to the standard of at least six examinations and a minimum of two doctor's examinations according to the recommended schedule in each semester, compared to the target number of pregnant women in one work area within one year. This indicator shows access to health services for pregnant women and the level of compliance of pregnant women in having their pregnancy checked by health workers (Ministry of Health of the Republic of Indonesia, 2022).

The low number of visits from pregnant women shows that staff access to mothers still needs to be improved, while the minimum contact is 6 times, with details of 2 times in the first trimester, 1 time in the second trimester and 3 times in the third trimester. At least 2 times checked by a doctor during the 1st visit in the 1st trimester and at the 5th visit in the third trimester. K4 coverage below 70% (compared to the target number of pregnant women within a year) indicates inadequate quality of antenatal care. K4 has not been achieved, one of the reasons is because there is still a lack of understanding of maternal and child health (MCH) guidelines, especially pregnancy check-up visits, so that pregnant women are still found who do not know the importance of regular pregnancy checks (Dewi et al., 2021).

The supporting factors for a group or person in maintaining health are the availability of health service facilities and the ease of achieving them, while the driving factors are the attitudes and behavior of community leaders and health workers. Of the three groups of factors that are closely related to low ANC visits among pregnant women, namely the redisposition factor which includes education level, socio-economics and level of knowledge. Knowledge is one of the factors that stimulates or stimulates the realization of health behavior. Good health behavior has an effect on reducing the incidence of anemia in pregnant women (Nilam, 2021).

Research with the title factors related to the incidence of anemia in pregnant women, especially in the work area of the Mpunda Community Health Center, Bima City. The results of Chi Square statistical analysis showed p value = 0.022 (p = 0.05), which means that there is a relationship between ANC visits and the incidence of anemia in pregnant women. It is said to be regular if a pregnant woman visits ANC at least once in the first trimester, once in the second trimester and twice in the third trimester. Irregular, if pregnant women do not fulfill the minimum visits in each trimester (Nurhaidah & Rostinah, 2021).

The results of the research entitled the relationship between the frequency of ANC visits and the incidence of anemia in pregnant women in the third trimester at the Bilalang Community Health Center, Kotamobagu City, the results showed that there was a relationship between the frequency of Antenatal Care and the incidence of anemia in pregnant women in the third trimester. If p = 0.013 > p = 0.05, it means that Ho is rejected, HI is accepted (Elfasari et al., 2020).

Data from the South Sumatra Provincial Health Service shows that the incidence of anemia in pregnant women continues to increase from year to year. In 2017 the prevalence of pregnant women with anemia was only (2.31%), in 2018 it increased again to (3.93%) and in 2019 the prevalence of pregnant women with anemia increased drastically to (19.09%). The highest percentage of anemic pregnant women is in Empat Lawang Regency at 36.6%, followed by Lahat at 18.3% and East Oku at 10.1%, while the lowest coverage of anemia is in Palembang City at 2.6%, followed by Regency Prabumulih was 2.9% and North Musi Rawas Regency was 3.7% (South Sumatra Provincial Health Office, 2021).

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Based on data from the Empat Lawang District Health Service in 2022, of the number of pregnant women, the 3 health centers with the highest number of pregnant women with cases of anemia were the Pendopo Health Center with 46 cases from 53 mothers who underwent hemoglobin (Hb) checks from 307 pregnant women, followed by the Muara Health Center Pinang had 19 cases from 28 mothers who had hemoglobin (Hb) checked from 351 pregnant women and Lesung Batu Community Health Center had 13 cases from 89 mothers who had hemoglobin (Hb) checked from 288 pregnant women (Emma Lawang District Health Office, 2022).

Information obtained from the Pendopo Health Center shows that in 2021 there were 294 visits from pregnant women, in 2022 there were 307 people and during the period from January to June 2023 there were 191 people (Pendopo Health Center, 2022).

In the initial survey conducted by researchers on 22-24 May 2023, it was found that 6 out of 10 pregnant women admitted that they only came to the Community Health Center for a pregnancy check if they only had complaints such as fever, fever or cough, if there were no complaints they rarely came to the hospital. Public health center. In reality, efforts to ensure that mothers avoid the risk of anemia are often carried out by community health center officers, especially by midwives in the form of direct invitations, or during posyandu activities and at every MCH program outreach activity. Meanwhile, 4 other people admitted that they regularly and scheduledly visited the Puskesmas to check their pregnancy. From interviews with Puskesmas officers, it was found that many factors can influence pregnant women in making Antenatal Care visits, one of which is the mother's knowledge about Antenatal Care itself.

Based on the description above, researchers are interested in conducting research on "The relationship between regular Antenatal Care (ANC) visits and maternal anemia".

RESEARCH METHODS

This research was conducted from 12 February to 4 March 2024, at the Pendopo Health Center, Empat Lawang Regency. The design of this study was to use a cross sectional approach, the population was third trimester pregnant women who visited the Pendopo Community Health Center, Empat Lawang Regency from January to October 2023, totaling 191 pregnant women. The sample taken in this study used the Accidental Sampling technique as many as 58 people, and data collection was carried out using primary data from interviews using questionnaires. Data analysis used univariate and bivariate.

RESEARCH RESULTS

Respondent Characteristics

Respondents in this study consisted of pregnant women in the Pendopo Health Center Work Area, Empat Lawang Regency. More details of the distribution of respondents can be seen in the following table:

Table 1
Frequency Distribution of Characteristics of Pregnant Women

Characteristics	Frequency (n)	Persentase (%)
Age		
< 20 tahun	0	0
20-35 tahun	57	86,4
> 35 tahun	9	13,6
Paritas		
Primipara	39	59,1
Multipara	27	40,9
Grandemultipara	0	0
Education		
Base	25	37,9
Intermediate	26	39,4
Tall	15	22,7
Work		
Work	39	59,1
Not a Job	27	40,9

Source: Research Data for 2024

Based on table 1, it is known that of the 66 pregnant women aged 20-35 years, almost all of the respondents were 57 (86.4%). Of the 66 pregnant women, the majority of respondents 39 (59.1%) were primiparous. Of the 66 pregnant women, a small number of respondents, 26 (39.4%) had secondary education. Of the 66 pregnant women, most of the respondents, 39 (59.1%) were working.

Table 2
Frequency Distribution of Regular Antenatal Care (ANC) Visits for Pregnant Women

ANC Regularity	Frekuensi (n)	Persentase (%)
Reguler	39	59,1
Irreguler	27	40,9
Amount	66	100

Source: Research Data for 2024

Based on Table 2, it shows that the majority of respondents 39 (97.1%) had irregular ANC regularity.

Table 3
Frequency Distribution Frequency Distribution of Anemia in Pregnant Women

Anemic	Frekuensi (n)	Persentase (%)
Not Anemic	48	72,7
Anemic	18	27,3
Amount	66	100

Source: Research Data for 2024

Based on table 3. Shows that the majority of respondents are not anemic 48 (77.5%)

Table 4
Relationship between regularity of antenatal care (ANC) visits and anemia in pregnant women

ANC REgularity	Anemic				Total		X^2	C	p value
	Anemic		Not Anemic						
	N	%	N	%	N	%			
Irreguler	6	9,1	33	50,0	39	59,1	6,793	0,305	0,020
Reguler	12	18,2	15	22,7	27	40,9			

Source: Research Data for 2024

Based on the research results, it is known that of the 66 respondents there were 39 (59.1%) pregnant women with irregular ANC visits, of which 6 (9.1%) had anemia and 33 (50.0%) did not have anemia. Of the 27 (40.9%) pregnant women with regular ANC visits, 12 (18.2%) were anemic and 15 (22.7%) were not anemic. The results of the statistical calculation of the chi square test showed that the continuity correction value

DISCUSSIONS

The results of the analysis of the relationship between regular Antenatal Care (ANC) visits and anemia in pregnant women, it was found that of the 66 respondents there were 39 (59.1%) pregnant women with irregular ANC visits, of whom 6 (9.1%) had anemia. In the group of mothers who did not regularly attend ANC visits, anemia occurred due to the number of children and relatively close birth spacing. Therefore, there is no other person who can look after their child during ANC, so pregnant women prefer to be absent from the ANC schedule, especially because they feel that their pregnancy is fine and they have no complaints.

Pregnant women are a group that is vulnerable to malnutrition, because there is an increase in nutritional needs to meet the needs of the mother and fetus in the womb. The nutritional problem that often occurs in pregnant women is anemia. Anemia in pregnant women is a condition where the hemoglobin level is below 1 gr% in the first and third trimesters, and below 10.5 gr% in the second trimester. Anemia in pregnant women is generally caused by increased plasma volume in the blood and iron deficiency during pregnancy (Nilam, 2021).

Pregnant women with anemia due to iron deficiency caused by a lack of consuming Fe tablets during pregnancy, difficulty in getting information due to lack of health promotion or the frequency of prenatal check-up visits is not carried out regularly so that the information given to pregnant women is late (Dewi et al., 2021).

The results of the statistical calculation of the chi square test showed that the continuity correction value

In accordance with research on the relationship between education and knowledge and

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the incidence of anemia in pregnant women in the Karang Dapo Health Center Working Area, North Musi Rawas Regency, it is known that there is a relationship between education and the incidence of anemia in pregnant women (p value = 0.011) and there is a relationship between knowledge and the incidence of anemia in mothers pregnant (p value = 0.006) (Hervika O, 2019).

Similar research on the relationship between age and the incidence of anemia in pregnant women in the Metro City of Bandar Lampung, it is known that the p value = 0.001, which means there is a relationship between age and the incidence of anemia in pregnant women where the pregnant mother is under 20 years old and over 35 years old. 3,921 times to experience anemia compared to mothers aged 20-35 years (Nurianti et al., 2021).

In line with research entitled the relationship between the regularity of antenatal care (ANC) visits and compliance with the consumption of Fe tablets with the incidence of anemia in third trimester pregnant women in Maron District, Probolinggo, the results showed that there was a relationship between the regularity of antenatal care (ANC) visits (p=0.001; OR =4) and adherence to consuming Fe tablets (p=0.001; OR=3.46) with the incidence of anemia. Pregnant women who do not regularly attend ANC visits have a 4 times greater risk of experiencing anemia, while pregnant women who do not comply with taking Fe tablets have a 3.46 times greater risk of experiencing anemia (Nurmasari & Sumarmi, 2019).

Supported by research entitled factors that influence the incidence of anemia in pregnant women at the Kebon Jeruk District Health Center, it is known that the results of the chi square test analysis show that there is a significant relationship between parity, family income, knowledge of anemia, compliance with consuming Fe tablets and ANC visits with p value = 0.001 (< 0.05) (Marisi & Isti Istianah, 2021).

According to researchers, ANC during pregnancy really needs to be done regularly, because this can monitor the mother's health during pregnancy and can detect various complaints and risks that may occur later. Of course, in this case, the role of the husband and those closest to you is also needed as a moral encouragement so that the mother is enthusiastic about making efforts for her own health during pregnancy.

CONCLUSIONS

The conclusion of this study is that there is a relationship between the regularity of Antenatal Care (ANC) visits and anemia in pregnant women (p = 0.020).

SUGGESTIONS

For Community Health Centers, existing programs at Community Health Centers should be optimized to provide information through class activities for pregnant women about the regularity of ANC and the dangers or risks of anemia in pregnant women.

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