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FACTORS AFFECTING THE INCIDENCE OF ANEMIA IN THIRD TRIMESTER PREGNANT WOMEN IN THE WORKING AREA OF THE BELAWAN HEALTH CENTER

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ABSTRACT

Background: Maternal Mortality Rate (MMR) is one indicator to see the success of maternal health efforts. MMR is the ratio of maternal mortality during pregnancy, childbirth and postpartum caused by pregnancy, childbirth, and postpartum or its management but not due to other causes such as accidents in every 100,000 live births Methods: **:** The research method is carried out in a descriptive-quantitative form in which the relationship between anemia and other causative factors will be obtained. Results: the results of research can be described regarding the Factors that affect the Incidence of Anemine in Third Trimester Pregnant Women in the working area of the Belawan Health Center totaling 45 people in 2023.

Keywords : anemia

INTRODUCTION

Maternal Mortality Rate (MMR) is one indicator to see the success of maternal health efforts. MMR is the ratio of maternal mortality during pregnancy, childbirth and postpartum caused by pregnancy, childbirth, and postpartum or its management but not due to other causes such as accidents in every 100,000 live births (Ministry of Health, 2018).

In 2019 the leading causes of maternal death were hemorrhage (1,280 cases), hypertension in pregnancy (1,066 cases), infection (207 cases) breakdown per province. Efforts to accelerate MMR reduction are carried out by ensuring that every mother is able to access quality maternal health services, such as pregnant women's health services, childbirth assistance by trained health workers in health care facilities, postpartum care for mothers and babies, special care and referrals in case of complications, and family planning services including postpartum family planning (Ministry of Health, 2018).

Maternal death can be caused directly or indirectly. Indirect causes of 4.1% include anemia, chronic lack of energy (SEZ), 4 too (too young, too old, too often and too much) and socioeconomic status. Direct causes of death include eclampsia 12.9%, abortion complications 1.1%, postpartum sepsis 9.6% and hemorrhage 45% (Prawirohardjo, 2018).

The Ministry of Health uses the second model with an average decrease of 5.5% per year as a performance target. Based on the model, it is estimated that by 2030 MMR in Indonesia will decrease to 131 per 100,000 live births, one of the causes of maternal death is bleeding due to anemia (WHO, 2018).

Anemia is a condition of haemoglobin (Hb) levels in the blood (Hb < 11g / dl) caused by lack of nutrients needed for the formation of Hb. In Indonesia, most of this anemia is caused by iron deficiency (Fe) to be called iron deficiency anemia or iron nutrition anemia. Pregnant women are one of the groups that are vulnerable to nutritional problems, especially iron nutrition anemia. Iron Deficiency Anemia (ADB) is still a public health concern due to its high prevalence and impact on the health of mothers and their babies. The high prevalence of ADB affects almost all age groups in the community. One group of people who have a high prevalence of ADB is the group of pregnant women (Ani, 201: 8).

Anemia in pregnant women can be called Potential Danger To Mother and Children (Potential danger to mother and child), that's why anemia requires serious attention from all parties involved in health services. According to WHO, the prevalence of anemia in pregnant women in developing countries is 51%, while in developed countries it is 14%. While in Indonesia, the prevalence of pregnant

women with anemia is 63.5%. The most common causes of anemia in pregnant women are iron deficiency, folic acid deficiency and vitamin B12 deficiency (Sukaisi, 2017).

Anemia in pregnant women increases the risk of postpartum hemorrhage, if anemia occurs since early pregnancy can result in premature labor. Fe deficiency in pregnant women will have a fatal impact because pregnant women need a lot of energy to give birth, and at the time of childbirth usually blood comes out in large quantities so that the condition of anemia will worsen the condition of pregnant women and can be at risk of death (Prawirohardjo, 2018).

According to the World Health Organization (WHO), anemia impairs health and well-being in women and increases the risk of harming both mother and baby. Anemia affects women of reproductive age worldwide. In 2011 it was shown that 29% (496 million) of non-pregnant women and 38% (32.4 million) of pregnant women aged 15-49 years suffered from anemia. While the prevalence of anemia is highest in southern, central and western African Asia. The cause of anemia is estimated that half of such cases are caused by iron tablet deficiency (WHO,2018).

The prevalence of pregnant women at risk of anemia with iron deficiency is around 35-75%, and is increasing along

with the increase in gestational age. Physiological changes that occur during pregnancy result in a progressive decrease in hemoglobin until about the 30th week (III trimester). Iron deficiency anemia is more likely to occur in developing countries than developed countries, 36% or about 1400 million people out of an estimated population of 3800 million people. In developed countries the prevalence is only about 8% or approximately 100 million people out of an estimated population of 1200 million people. In Indonesia, the prevalence of anemia in pregnant women ranges from 20-80% (Riswan, 201: 8).

Based on the anemia survey conducted, it was found that the coverage of pregnant women who received 90 iron tablets in North Sumatra showed an increase of 62.22% in 2015 to 75.15% in 2016 and 77.37% in 2017. This increase has not been able to achieve the national target of 80%. One of the challenges that causes

the achievement of Fe coverage is not optimal is the lack of maternal awareness and knowledge about the benefits of Fe tablets and also the lack of maternal knowledge about anemea and its effects during pregnancy, childbirth and postpartum (Dinkes Sumut, 2017).

Based on data from the World Health Organization WHO in 2018 reported that the prevalence of anemia in pregnant women in the world is 41.8%. The prevalence of anemia in pregnant women in Asia is 48.2%. Pregnant women are one of the groups that are vulnerable to nutritional problems, especially iron nutrition anemia. Based on the results of a survey conducted in 2018, the prevalence of anemia of pregnant women was 40.1% and in 2013 rose to 43.6% (Riskesdas, 2018).

According to Astriana (2017) who cites the results of Noverstiti research, anemia in pregnancy cannot be separated from physiological changes that occur during the process of pregnancy, fetal age, and the condition of previous pregnant women. During pregnancy, the body will experience significant changes, the amount of blood in the body

RESULT AND DISCUSSION

After conducting research, the results of research can be described regarding the Factors that affect the Incidence of Anemine in Third Trimester Pregnant Women in the working area of the Belawan Health Center totaling 45 people in 2023

The characteristics of respondents based on identity that play a role in the incidence of anemia in third trimester pregnant women in the Belawan Health Center Work Area can be seen in the table below:

Table 4.1 Characteristics of Respondents Categories Hb Levels, Maternal Age, Education, Parity

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No	Factor	Frequency	%
1	Hb Rate		
	Anemia	25	56%
	Tidak Anemia	20	44%
	Sum	45	100%
2	Age		
	Age < 20 years	12	27%
	Or > 35th	33	73%
	Age 20-35 years	45	100%
	Sum		
3	Education		
	Low < High School	12	27%
	High ≥ High School	33	73%
	Sum	45	100%
4	Parity		

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Parity > 1	27	60 %
Parity 1	18	40 %
Sum	45	100 %

Based on table 5.1, it can be seen from 45 respondents studied that third trimester pregnant women who experience anemia are as many as 25 respondents (56%), while third trimester pregnant women who are not anemic as many as 20 respondents (44%). For the majority age category aged 20-35 as many as 33 respondents (73%), and for mothers aged 35 years as many as 12 respondents (27%). For the higher education category, the majority of high school ≥ were 33 respondents (73%), while the category of low education < high school was 12 respondents (27%). For the parity category, the majority of parity > 1 was 27 respondents (56%), while parity 1 was 18 respondents (40%). For the nutritional status category, the majority of normal were 36 respondents (80%), while those with abnormal nutritional status were 9 respondents (20%).

Table 4.2 Cross-tabulation by Age with the incidence of Anemia in Third Trimester

Pregnant Women in the working area of the Belawan Health Center in 2023

Age	Up to hemoglobin				Total	
Age	Up to hemoglobin				Total	
	Anemia		Tidak Anemia			
	Anemia		Tidak Anemia			
	n	%	n	%	n	%
	n	%	n	%	n	%
Rendah <SLTA	11	25	1	2	12	27
< 20->35 Years	12	27	0	0	12	27
Tinggi >SLTA	14	31	19	42	33	73
20-35 Years	13	29	20	44	33	73
Total	**25**	**56**	**20**	**44**	**45**	**100**
Total	**25**	**56**	**20**	**44**	**45**	**100**

Based on the table above, the majority of age categories who experience anemia at theage of mothers 20-35 years are as many as 13 respondents (29%) while for the age of 35 years who experience anemia as many as 12 respondents (27%).

Table 4.2 Cross-tabulation based on Education with the incidence of anemia in third **trimester pregnant women in the working area of the Belawan Health Center in 2023**

Based on the table above, respondents with low education categories who experienced anemia as many as 11 respondents (25%) while pregnant women with higher education there were 14 respondents (31%) experiencing anemia.

Table 4. 3 Cross-tabulation based on Parity with the incidence of Anemia in Third Trimester Pregnant Women in the work area of the Belawan Health Center in 2023

Age	Up to hemoglobin				Total	
	Anemia		Tidak Anemia			
	n	%	n	%	n	%
Parity > 1	18	40	9	20	27	27
Parity 1	7	16	11	24	18	73
Total	**25**	**56**	**20**	**44**	**45**	**100**

Based on the table above, the > 1 parity category had the majority of anemia as many as 18 (40%), while for parity 1 who had anemia as many as 7 respondents (16%).

Discussion

The relationship of **age with** the incidence of **anemia in** the **third trimester of pregnancy**

The results of the statistical test obtained a value of P = 0.000 (P < 0.05). These results can be concluded that there is an influence between age and the incidence of anemia in pregnant women.from the results of the analysis it is known that the value of odds ratio = 0.800 < 1 which means there is no influence.

This study is in line with (Majidah, 2017) stating that it is statistically meaningful with a value of p = 0.012 which states there is a relationship between the age of pregnant women and the incidence of anemia. Based on the researchers' assumptions, the age of 35 years is more at

risk than the age of 20-35 years mother. Because healthy reproduction for pregnant women, namely 20 years – 35 5 years is physically and psychologically ready to conceive and maintain her pregnancy optimally, while the age of the mother who < 20 years is a state that is immature and not ready for pregnancy, so it can be detrimental to the health and development of the mother or fetal growth.

The relationship between education and the incidence of anemia in third trimester pregnant women in the working area of the Puskesmas

Based on the chi square test, a p value of 0.000 (P< 0.05) is obtained, which means that there is an influence between education and the incidence of anemia in pregnant women. From the results of the analysis, it is known that the value of odds ratio = 0.893 < 1 which means there is no influence.

The results of this study are in line with research conducted by Yusuf & Rohmah where the p-value = 0.001 is smaller than α = 0.05 which means there is a relationship between education level and the incidence of anemia. According to the researchers' assumptions, the greatest incidence of anemia occurs in highly educated mothers, this is possible because pregnant women rarely take Fe tablets because the side effects of Fe tablets cause nausea, causinganemia.**The Relationship of Parity with the Incidence of Anemia in Third Trimester Pregnant Women in the Working Area of the Belawan Health Center**

Based on the chi square test with CI = 95%, a p value of 0.000 (P < 0.05) is obtained, which means there is a significant relationship between parity and the incidence of anemia in pregnant women. As for the OR value, it can be known that the odds ratio value

= 3.143 which means that pregnant women with parity > 1 are at 3,143 times greater risk of anemia compared to parity 1.

This research is in line with research (Rahayu, 2016) obtained a value of P = 0.000 (P = < 0.05). It can be concluded that there is a significant relationship between parity and the incidence of anemia. According to the researchers' assumption, a mother who often gives birth has a risk of anemia in the next pregnancy if she does not pay attention to nutritional needs, because during pregnancy nutrients will share for the mother and the fetus she contains. The more often a woman gives birth, the greater the risk of blood loss and has an impact on reducing Hb levels

CONCLUSION

1. Based on the characteristics of respondents, it is known from 45 respondents studied that third trimester pregnant women who experience anemia are 25 respondents (56%), in the majority age category aged 20-35 as many as 33 respondents (73%), in the category of higher education ≥ high school which is as many as 33 respondents (73%) while the parity category is the majority of parity > 1 is as many as 27 respondents (56%).
2. The majority of age categories who experience anemia aged 20-35 years are as many as 13 respondents (29%) while for the age of 35 years who experience anemia as many as 12 respondents (27%). Respondents with low education category who experienced anemia as many as 11 respondents (25%) while pregnant women with higher education there were 14

respondents (31%) experiencing anemia. Parity > 1 the majority experienced anemia as much as 18 (40%), while for parity 1 who experienced anemia as many as 7 respondents (16%).

3. Age Relationship with the Incidence of Anemia in Third Trimester Pregnant Women The results of statistical tests obtained a value of P = 0.000 (p < 0.05). It can be concluded that there is an influence between age and the incidence of anemia.

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