The Relationship Between Pregnancy, Age, And Parity With The Incidence Of Anemia At The Pancur Health Center In Serang City In 2022

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Abstract.
Data from the Serang City Health Office in 2021 there are 524 pregnant women in Serang City and of all these pregnant women there are 124 women who experience anemia. In the city of Serang there are 16 health centers where the Pancur Health Center has a high incidence of anemia in pregnant women (23.6%). To determine the relationship between pregnancy spacing, age, and parity with the incidence of anemia at Pancur Public Health Center, Serang City in 2022. Using an analytic method with a cross sectional approach. The population in this study were pregnant women in the working area of the Pancur Health Center, Serang City in 2022, namely 36 people. The sample in this study used a total sampling technique, namely the entire population was taken as a sample, namely 36 pregnant women who met the inclusion and exclusion criteria. There is a significant relationship between pregnancy spacing (p-value 0.001) and parity (p-value 0.002) with the incidence of anemia at Pancur Health Center, Serang City in 2022. There is a significant relationship between the distance between pregnancies and age and the incidence of anemia at Pancur Health Center, Serang City in 2022. For pregnant women, they should always check the health of their mothers and their wombs regularly during pregnancy and routinely attend counseling delivered by health workers. always take care of pregnancy such as fulfilling nutrition and diligently consuming iron tablets.

Keywords: *Anemia, pregnancy interval, and age parity.*

I. INTRODUCTION

Anemia in pregnancy is a national problem because it reflects the value of people's socioeconomic well-being, and its influence is very large on the quality of human resources. Pregnant anemia is called "potential danger to monther and child", therefore anemia requires serious attention from all parties involved in health services at this forefront (Putri and Hastina, 2020).The World Health Organization (WHO) in 2019 reported that the Maternal Mortality Rate (MMR) in developing countries related to anemia in pregnancy is caused by iron deficiency of 40.3%. The countries in Asia with the highest prevalence of anemia of pregnant women are Laos (57.1%) and Filiphina (56.2%), while in European countries the highest prevalence of anemia is Spain (18.3%) and Portugal (16.9%). Complications that make up the majority of maternal death cases, around 75% of the total maternal death cases, including bleeding, infection, high blood pressure during pregnancy, complications of childbirth, and unsafe abortions (WHO, 2019). The maternal mortality rate (MMR) in Indonesia nationally until 2020 is still high at 305 per 100,000 live births (KH), while the 2024 RPJMN MMR target is 183 per 100,000 KH and the AKI Golbal SDGs target is 70 per 100,000 KH. The highest causes of maternal death in Indonesia include bleeding 30.3%, hypertension 27.1%, infection 7.3% and partus lama 1.8% (Ministry of Health RI, 2020).The number of MMR in Banten Province in the last three years has fluctuated, namely in 2017 as many as 226 cases, in 2018 as many as 135 cases and in 2019 as many as 215 cases. The regency/city with the highest MMR in 2019 was Serang Regency with 66 cases, followed by Lebak with 38 cases and Pandeglang with 34 cases.

The regencies/cities with the lowest MMR are Tangerang City with 6 cases and South Tangerang City with 10 cases. The direct cause of maternal death in the Banten region is around 37% due to bleeding, 22% infection, and 14% hypertension, the rest is due to other things such as the lack of family preparedness for mothers who are about to give birth. This becomes very ironic when considering that the various causes of maternal death should be preventable if handled appropriately (Dinkes Banten, 2020).Data from the Serang City Health Office in 2021 there were 524 pregnant women in Serang City and of all pregnant women there were 124 mothers who experienced anemia. In Serang City, there are 16 Puskesmas where the Pancur Health Center experiences a fairly large incidence of anemia in pregnant women, namely (23.6%), (Serang

City Health Profile, 2021).Data obtained from the Pancur Health Center in 2022 there are 97 pregnant women, of which there are 36 pregnant women suffering from anemia. Then of this number there are 25 pregnant women who have a pregnancy distance of under 2 years from the previous pregnancy.A preliminary survey conducted by researchers in September 2022 at the Pancur Health Center to 10 pregnant women who came to conduct pregnancy check-ups, obtained results that 6 of them had anemia, 3 of them had eclampsia pregnancy disorders and 3 of them had a pregnancy distance of under 2 years. Puskesmas Pancur has a laboratory for Hb examination so that pregnant women who have anemia can be detected.Anemia during pregnancy is reported to have a negative impact on maternal and child health and increase the risk of maternal and perinatal mortality. Negative health impacts for mothers include fatigue, poor work capacity or performance, impaired immune function, increased risk of heart disease, and maternal death. Some studies show that anemia during pregnancy contributes to 23% of indirect causes of maternal death in developing countries. Anemia in pregnancy is associated with an increased risk of premature birth, low birth weight babies (BBLR). Prematurity and BBLR are still the leading causes of neonatal death in developing countries.

In addition, anemia in pregnancy also has an impact on increasing the risk of intrauterine death (IUFD), intrauterine growth restriction (IUGR), asphyxia, stunting, and stillbirth (Stephen et al, 2018).So far, because the incidence of anemia in pregnant women is mostly caused by iron deficiency, the government's attention has focused on handling iron deficiency anemia. The Indonesian Ministry of Health has implemented a program to give iron tablets to pregnant women at Puskesmas and Posyandu for free by distributing 300 mg iron tablets and 0.5 folic acid to all pregnant women as much as 1 tablet per day for 90 days. In 1 tablet of iron contains 200 mg of ferrous sulfate and 0.25 mg of folic acid (equivalent to 60 mg of iron and 0.25 mg of folic acid). Every pregnant woman is recommended to take blood-added tablets at a dose of one tablet every day during her pregnancy period up to 40 days after giving birth. The number of iron tablets consumed by pregnant women is a minimum of 90 tablets during pregnancy (Ministry of Health RI, 2019). The government implements a program to prevent and treat anemia in pregnancy assuming high anemia caused by iron deficiency, but this of course will be different if there is a shift in the focus of handling the cause or type of anemia experienced by the mother, namely megaloblastic anemia. Megaloblastic anemia caused by vitamin B9 (folic acid) and B12 (cobalamin) deficiency can result from changes in maternal consumption patterns (Isselbacher & Braunwald, 2015).According to research by Sjahriani and Faridah (2019), the increasing gestational age of the mother, the risk of suffering from anemia becomes greater if it is not balanced with a balanced diet and regular consumption of Fe. The distance of pregnancy also affects the incidence of anemia in pregnant women, where the distance of pregnancy is too close, which is less than 2 years because the reproductive system has not returned to its original state before pregnancy (Anggraini, 2018).

One of the causes of bleeding is anemia in pregnancy. Anemia is a condition where the number of erythrocytes (red blood cells) in the blood circulation or hemoglobin mass is reduced so that it is unable to fulfill its function as a carrier of oxygen to all body tissues (Tarwoto, 2018). According to WHO, anemia in pregnant women is a condition of the mother's hemoglobin (Hb) level that is less than 11.0 grams / dl.Based on this description, the author is interested in conducting research on ***"The relationship between pregnancy, age, and parity distance with the incidence of anemia at the Pancur Health Center in Serang City in 2022"***.

II. METHODS

The method used is an analytical survey method with a Cross Sectional approach. The population in this study was pregnant women in the work area of the Pancur Health Center in Serang City in 2022, which was 36 people. The samples in this study used the total sampling technique, namely the entire population was sampled all of them, namely 36 pregnant women who met the criteria of inclusion and exclusion. Data analysis method using Chi Square Test with SPSS.

III. RESEARCH RESULTS

Table 1. Attributed to the frequency of anemia, pregnancy distance, age and parity of pregnant women at the Pancur Health Center in Serang City in 2022

Variable	Categories	Frequency (f)	Percentage (%)
Anemia	Anemia	16	44,4
	No Anemia	20	55,6
Pregnancy Distance	Not Good Enough	15	41,7
	Good	21	58,3
Umur	Risk	20	55,6
	No Risk	16	44,4
Parity	Risk	14	38,9
	No Risk	22	61,1

Based on table 1, it is known that out of 36 respondents, mothers who have anemia are 16 people (44.4%), mothers who have a pregnancy distance of <2 years as many as 15 people (41.7%), mothers who have a risk age of 20 people (55.6%) and mothers who have parity are at risk as many as 14 people (38.9%).

Bivariate Analysis

Table 2. The relationship between pregnancy and the incidence of anemia at the Pancur Health Center in Serang City in 2022

Variable	Categories	Anemia				Sum		P-value
		Anemia		No Anemia				
		n	%	*n*	%	*n*	%	
Pregnancy Distance	Not Good Enough	12	80	3	20	15	100	0,001
	Good	4	19	17	81	21	100	
Age	Risk	14	70	6	30	20	100	0,002
	No Risk	2	12,5	14	87,5	16	100	
Parity	Risk	8	57,1	6	42,9	14	100	0,379
	No Risk	8	36,4	14	63,6	22	100	

Based on table 2, it is known that out of 36 respondents of mothers who have a pregnancy distance of less than 2 years, 12 people (80%) have anemia and 3 people who do not have anemia (20%). From the statistical test, a p-value of 0.001 < α (0.05) and an OR value = 17,000 were obtained. Mothers who are at risk as many as 14 people (70%) have anemia and 6 people who do not have anemia (30%). From the statistical test, a p-value of 0.002 < α (0.05) and an OR value = 11,903 were obtained. Mothers who had parity were at risk as many as 8 people (57.1%) had anemia and 6 people who did not have anemia (42.9%). From the statistical test, a p-value of 0.379 < α (0.05) was obtained, so it can be said that there is a relationship between parity and the incidence of anemia at the Pancur Health Center in Serang City in 2022.

IV. DISCUSSION

Univariate Analysis

Distribution of the frequency of anemia in mothers at the Pancur Health Center in Serang City in 2022

Based on the results of research by respondents of mothers who experienced anemia as many as 16 people (44.4%). Meanwhile, 20 mothers who did not experience anemia (55.6%).Anemia during pregnancy is reported to have a negative impact on maternal and child health and increase the risk of maternal and perinatal mortality. Negative health impacts for mothers include fatigue, poor work capacity or performance,

impaired immune function, increased risk of heart disease, and maternal death. Some studies show that anemia during pregnancy contributes to 23% of indirect causes of maternal death in developing countries. Anemia in pregnancy is associated with an increased risk of premature birth, low birth weight babies (BBLR). Prematurity and BBLR are still the leading causes of neonatal death in developing countries. In addition, anemia in pregnancy also has an impact on increasing the risk of intrauterine death (IUFD), intrauterine growth restriction (IUGR), asphyxia, stunting, and stillbirth (Stephen et al, 2018).

Distribution of the frequency of maternal pregnancy distance events at the Pancur Health Center in Serang City in 2022

Based on the results of research by mothers who have a pregnancy distance of <2 years as many as 15 people (41.7%). Meanwhile, mothers who did not experience anemia were 21 people (58.3%).The results of Rizka Heriansyah's research (2019) obtained a value of p = 0.000 (p<0.05), so there was a significant relationship between the distance between pregnancy and the incidence of anemia at the Lake Marsabut Health Center in 2019. It is recommended to mothers in the Working Area of the Lake Marsabut Health Center to plan and adjust the distance of pregnancy to prevent the incidence of anemia during pregnancy.Researchers argue that the distance of pregnancy greatly affects the hemoglobin levels of pregnant women. This is because a pregnant woman needs birth and mental readiness at the time of pregnancy. The birth readiness in question is the physical readiness of the reproductive organs, the longer the distance of a mother's pregnancy from the previous pregnancy, the more prepared the reproductive organs will be for the next pregnancy.

Distribution of the frequency of maternal age events at the Pancur Health Center in Serang City in 2022

Based on the results of research by mothers who have a risk age of 20 people (55.6%). Meanwhile, mothers who do not have an age are at risk as many as 16 people (44.4%).Age is an age of an individual that starts from the moment of birth until his birthday. The older you get, the more mature a person's maturity and strength will be in thinking and working, so the older they will increase their experience and experience will affect the level of knowledge (Sutanto & Fitriana, 2017). The results of the study related to most mothers who become pregnant at a healthy reproductive age have conformity with the theory that the most suitable age to get pregnant for mothers is at the age of 20-35 years. A healthy and safe reproductive age is 20-35 years old, while for less than 20 years old and over 35 years old has several risks, namely at the age of > 35 years or the older the age when pregnant almost all organs work heavier than usual because of the burden of pregnancy so that the risk of pregnancy complications such as anemia increases (Manuaba, 2018). From the results of this study, it was also found that there are still mothers who are pregnant at the age of < 20 years and > 35 years so that for mothers who are pregnant at that age, it is necessary to provide counseling about the importance of conducting regular pregnancy check-ups (ANC) related to the risks they have and health promotion to adolescents related to a healthy reproductive age or a healthy age for marriage So there are mothers under 20 years old or mothers who decide to have children over 35 years old.

Distribution of the frequency of maternal parity events at the Pancur Health Center in Serang City in 2022

Based on the results of research by mothers who have parity at risk as many as 14 people (38.9%). Meanwhile, mothers who had parity were not at risk as many as 22 people (61.1%).Parity is the number of births that have been experienced by mothers. Parity 2-3 is the safest parity in terms of maternal mortality (maternal mortality) (Manuaba, 2012). Based on this theory, the results of most mothers with parity 1-3 are still included in the parity that tends to be safe for pregnancy and childbirth. The risk of experiencing disruption in pregnancy and childbirth at higher parity is related to the health of the reproductive organs that have decreased due to the previous pregnancy and delivery process, the higher the parity the greater the risk of developing complications related to the condition of the reproductive organs. Related to anemia, 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 be divided for the mother and for the fetus she contains. Mothers who have high parity can generally increase susceptibility to bleeding and maternal nutritional depletion (Manuaba, 2018). Based on the results obtained, there are also still mothers with high parity (>3) so

counseling is needed for mothers with high parity to pay more attention to their nutritional intake during pregnancy and to routinely conduct pregnancy checks so that any complications that occur can be detected as early as possible.

Bivariate Analysis

The relationship between pregnancy and the incidence of anemia at the Pancur Health Center in Serang City in 2022

Based on the results of research by mothers who have a pregnancy distance of less than 2 years, as many as 12 people (80%) have anemia and 3 people who do not have anemia (20%). From the statistical test, a p-value of 0.001 < α (0.05) was obtained, so it can be said that there is a relationship between the distance between pregnancy and the incidence of anemia at the Pancur Health Center in Serang City in 2022. From the results of the analysis, OR = 17,000 with a 95% confidence level, so mothers who have a pregnancy distance of less than 2 years have a 17 times greater risk of anemia compared to mothers who have a pregnancy distance of more than 2 years.The relationship between the distance between pregnancy and the incidence of anemia, one of the causes is because the mother's reproductive organs have not really recovered. The results of this study are in line with the theory presented by Prawirohardjo (2018) that one of the factors that cause anemia during pregnancy at a birth distance of <2 years is because the fulfillment of nutritional needs is not optimal after meeting the nutritional needs of the fetus being conceived. The results of this study are supported by Nurhidayat's opinion which states that pregnant women with too close pregnancy distances can cause anemia. This happens because the mother's condition has not recovered too much so that the fulfillment of nutritional intake needs for the mother's body is less than optimal. If the nutritional intake during pregnancy is insufficient, it can cause pregnant women to lack chronic energy and can cause mothers to experience anemia (Gusnidarsih, 2020)

Age relationship with the incidence of anemia at the Pancur Health Center in Serang City in 2022

Based on the results of research by mothers who have a risk age as many as 14 people (70%) have anemia and those who do not have anemia as many as 6 people (30%). From the statistical test, a p-value of 0.002 < α (0.05) was obtained, so it can be said that there is a relationship between age and the incidence of anemia at the Pancur Health Center in Serang City in 2022. From the results of the analysis, OR = 11,903 with a confidence level of 95%, then mothers who have a risky age have an 11 times greater risk of anemia compared to mothers who have a non-risky age.Age is one of the risk factors that most often causes anemia in pregnant women. The reproductive age of the mother corresponds to the reproductive apparatus of the female. Getting pregnant at a young age is biologically not optimal emotionally tends to be labile, mentally immature so that it is easy to experience shocks that cause inattention to meeting the needs of nutrients during pregnancy. Meanwhile, pregnancy in old age is related to the deterioration and decrease in endurance and diseases that often occur at this age. As a result, it can cause complications at the time of delivery (difficulty in delivery, abnormalities in the location of the baby), and growth disorders due to insufficient nutrition to meet self-needs and for the growth of the baby which causes babies to be born with low birth weight and premature birth (Dai, 2021) The results of this study contradict the research conducted by Astriana (2017) and Yunita (2017) at the Umbulharjo II Health Center, where the results showed a significant relationship between the age of the mother and the incidence of anemia in pregnant women at the Yogyakarta Health Center in 2017.

The relationship between parity and the incidence of anemia at the Pancur Health Center in Serang City in 2022

Based on the results of research by mothers who have parity at risk as many as 8 people (57.1%) have anemia and 6 people who do not have anemia (42.9%). From the statistical test, a p-value of 0.379 < α (0.05) was obtained, so it can be said that there is no relationship between parity and the incidence of anemia at the Pancur Health Center in Serang City in 2022.The results of the study above are in line with Ririn's research (2020) where this study shows that there is a relationship between parity in the incidence of anemia in pregnant women (p-value = 0.003). The results of this study are in line with Jasmi's research (2016) where

the results of the study showed a relationship between parity and anemia in pregnant women (p-value = 0.000). This research is in line with research conducted by Hidayati I & Andyarini N E, (2018), with the cross-sectional research method obtained a p-value result of 0.044. This shows that there is a relationship between the amount of parity and the incidence of anemia in pregnant women. Thus with the research conducted by Astriana, Willy (2017) Chi-Square statistical test results obtained a p-value of 0.023 (<0.05) which showed a meaningful relationship between parity and the incidence of anemia in pregnant women.

In this study, the results of pregnant women with parity who are not at risk but still have anemia and mothers with parity who are at risk but do not experience anemia, which is the same as age where parity is also not the only factor related to anemia but there are many other factors related to anemia conditions in pregnant women. In mothers with parity at risk but not experiencing anemia can be possible because the mother's nutritional intake during pregnancy is well met so that the mother does not experience anemia and in mothers with parity who are not at risk but still have anemia can also be possible because nutritional intake, especially Fe is lacking so that even with parity that is not at risk but still has the possibility of anemia. Based on the results obtained, a mother who wants to get pregnant next to pay more attention to her nutritional needs, because during pregnancy nutrients will be formed for the mother and the fetus she contains, and provide a safe distance of 2-3 times the number of births (parity) so that the risk is lower. In addition, it is also necessary to promote the health of pregnant women, especially mothers with high parity, to pay more attention to their nutritional asuopan and routinely conduct ANC as an effort to early detect the occurrence of anemia or prevent the occurrence of other complications related to the condition of the reproductive organs that have decreased so that the incidence of anemia and other complications during pregnancy can be prevented as early as possible.

V. CONCLUSION

1. Based on the results of the study, it was described that 16 mothers who had anemia (44.4%).
2. Based on the results of the study, it was illustrated that mothers who had a pregnancy distance of <2 years were 15 people (41.7%), mothers who had a risk age of 20 people (55.6%) and mothers who had parity were at risk as many as 14 people (38.9%).
3. There is a significant relationship between the distance between pregnancy and the incidence of anemia at the Pancur Health Center in Serang City in 2022 with a p-value of 0.001 and an OR value of 17,000.
4. There is a significant relationship between age and the incidence of anemia at the Pancur Health Center in Serang City in 2022 with a p-value of 0.002 and an OR value of 16.333
5. There is no significant relationship between parity and the incidence of anemia at the Pancur Health Center in Serang City in 2022 with a p-value of 0.379.

VI. SUGGESTION

For health workers at the Puskesmas Pancur Kota Serang to be able to always improve their knowledge and skills to detect risk factors in pregnant women, especially pregnant women with anemia, health workers are also required to be able to provide appropriate information about risk factors in pregnant women and how to detect the correct risk factors in pregnant women.For pregnant women, they should always check the health of the mother and her womb regularly during pregnancy and regularly follow the counseling delivered by health workers. For mothers aged <18 years, it is recommended to postpone pregnancy first until reproductive age that is not at risk Mothers who are >35 years old are advised not to get pregnant again at this age are already at risk of getting pregnant. Mothers aged <18 and > 35 years who are pregnant are expected to always maintain pregnancy such as fulfilling nutrition and diligently consuming iron tablets. Mothers who already have 3 children are advised not to get pregnant again because the next pregnancy will be risky, and for pregnant women with a parity of more than 3 it is expected to meet nutrition during pregnancy and consume iron tablets regularly.

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