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Factors Influencing The Incidence of Gestational Hypertension in Sally Clinic, Tembung District, Deli Serdang Regency, North Sumatera Province, 2024

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Abstract : Hypertension in pregnancy is a dangerous condition in pregnancy because it can disturb the health of the mother and baby. Pregnancy Hypertension or Gestational Hypertension is a condition of systolic blood pressure of 140 mmHg and diastolic 90 mmHg or blood pressure increases by 30 mmHg or more and diastolic increases by 15 mmHg or more. **Objective** : To determine the factors that influence the incidence of gestational hypertension at the Sally Clinic in 2024. Population **and Sample:** Pregnant women who came to the Sally clinic experienced hypertension, the number of 30 people with a total population sampling technique, so the number of samples was 30 people. **Place and time:** at the Sally Clinic, Tembung on month April– July 2024. **Results** : **Univariate** : The majority of respondents with high school education were 15 people (50%), the majority had a good lifestyle were 18 people (60%), the majority had genetics were 26 people (87%), the majority were aged 20-35 years were 25 people (83%). The majority did not experience gestational hypertension as many as 21 people (70%). **Bivariate** : From 12 respondents with unhealthy lifestyles, 9 experienced gestational hypertension (30%). The results of the *p value calculation* = 0.000 , from respondents who had a family history of hypertension, 6 people overall experienced gestational hypertension, the *P Value value* = 0.000 <0.05 was obtained , the age of 9 respondents experiencing gestational diabetes, there were 5 respondents (17%) aged over 35 years, The results of the statistical analysis of the three variables showed a p-value <0.05, so Ha was accepted, namely there was a lifestyle and medical history, age with the incidence of gestational hypertension at the Sally Tembung Clinic in 2024. **Conclusion** : there is a relationship between lifestyle, medical history and age with the incidence of gestational hypertension at the Sally Tembung Clinic in 2024.

Keywords: Factor, Gestational Hypertension, Pregnant mother

1. INTRODUCTION

Journal According to Prawihardjo in 2009, pregnancy is the result of conception in the intrauterine until delivery occurs. There are 3 trimester divisions in pregnancy, maternal changes that are influenced by increased hormones. All of this is normal but requires adaptation in the pregnant woman (Ariendha, 2023) . Many discomforts due to physical and psychological changes require pharmacological or non-pharmacological treatment, such as back pain due to changes in the pregnant woman's posture due to uterine enlargement, which can be overcome with pregnancy exercises or using tapping (Mardinasari et al., 2022) . In changes during pregnancy, not all of them will be physiological because sometimes they become pathophysiological and can endanger the mother and baby. This is greatly influenced by the knowledge and attitude of pregnant women themselves in recognizing danger signs in pregnancy, both those obtained from health workers and from other sources of information (Dewie, 2021) . For this, it is necessary to provide counseling to increase the knowledge of pregnant women in recognizing these signs and dangers. According to research by Rahman et al., 2021, there is a

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relationship between providing counseling and increasing knowledge in pregnant women about danger signs (Eni et al., 2021) Hypertension in pregnancy is a dangerous condition in pregnancy because it can disturb the health of the mother and baby. Pregnancy Hypertension or Gestational Hypertension is a condition of systolic blood pressure of 140 mmHg and diastolic 90 mmHg or blood pressure increases by 30 mmHg or more and diastolic increases by 15 mmHg or more (Astuti & Claudia, 2024) . The incidence of hypertension in pregnancy is 5-15% and is one of the 3 causes of maternal death (Masriadi et al., 2022) . Gestational Hypertension is hypertension that occurs during pregnancy without urine protein. According to WHO, the incidence of Hypertension in pregnancy contributes 14% to maternal mortality. In the United States, the rate of hypertension in pregnancy is 6-10% and in Indonesia it occurs in 12.7% (Kontesah et al., 2023) . For Deli Serdang Regency in 2022, out of 23 maternal deaths, there were 3 maternal deaths due to hypertension in pregnancy (Wicaksana & Rachman, 2022) . The occurrence of hypertension in pregnancy is due to differentiation of endothelial invasion in the spiral blood vessels of the myometrium, resulting in placental hypofunction and ischemia (Laksono & Masrie, 2022) . There are many factors that cause hypertension in pregnancy such as age, parity, stress and history of hypertension (Dayani & Widyantari, 2023) . According to research by Ramadhani, et al. in 2023, the majority of those who experience hypertension in pregnancy aged 20-35 years were 34.5% and grande multiparity was 56.3% and lack of knowledge was 56.3% and pregnant women who worked were 59.7% (Rahmadini et al., 2023) . According to research by Kontesah, et al. in 2023, the majority of cases of hypertension in pregnancy occurred in pregnant women who experienced stress (Kontesah et al., 2023) . According to research by Susanto in 2022 in Makassar, the incidence of gestational hypertension was related to age, parity and history of hypertension in pregnant women (Susanto, 2022) . Management of pregnant women with gestational hypertension is to lower the blood pressure of pregnant women to normal with a low-salt diet, reduce activity and stress levels, and consume blood pressure-lowering drugs to return to normal. The drug that is widely used by pregnant women is nifedipine at 51.8% (Ristyaningsih et al., 2019) . The impacts that can occur due to gestational hypertension are fetal death in the womb (KJDK), Low Birth Weight, premature in the baby and the impact on the mother can experience pre-eclampsia and eclampsia and even death in the mother (Basta et al., 2022) . Therefore, it is necessary to educate pregnant women about the dangers of hypertension in pregnancy so that it does not develop into gestational hypertension, pre-eclampsia and even death in the mother and baby (Kartika et al., 2023), From the data from Sally's clinic, it was found that in the last 4 months, there have been 2 referrals for pregnant women due to gestational hypertension who must receive hospital

treatment every month. From the results of a survey conducted on pregnant women on May 5, 2024, out of 100 pregnant women who undergo pregnancy check-ups at Sally's clinic every month, 5 people experience gestational hypertension (5%). Based on this background, the idea arose to research the Factors Affecting the Incidence of Gestational Hypertension at Sally's Clinic in 2024.

2. PROPOSED METHOD

The research method is: *survey* research using *cross-sectional designsectional* which researchers want to analyze the phenomenon, namely analyzing Factors Affecting Gestational Hypertension At Sally Clinic In 2024. Held at the Sally Tembung Clinic, Deli Serdang Regency from April to July 2024. The subjects to be used in this study are all pregnant women who have undergone pregnancy check-ups at the Sally Clinic in a state of gestational hypertension from January to June 2024, as many as 30 people are called the population. The sample of this study is total sampling, so all pregnant women who experience gestational hypertension at the Sally clinic are 30 people. The data used in this study are primary data: data from respondents directly through interviews using questionnaire instruments, secondary data, namely respondent data from the Sally clinic through medical records, secondary data: published data according to the respondent's condition. Data collection was carried out by researchers by distributing 10 questionnaires for lifestyle, 1 question was given a weight of 10 if the weight was more than 50 then there was an influence, for life history with a checklist. The results of the respondents' answers and gave codes then tabulated the data and then analyzed the data. Data analysis will be presented in the form of a frequency table distribution. From this data, data will be obtained in percentage, Bivariate analysis is a test used in a test that will prove the relationship between variables in the study. The test used is the Chi Square test. If the P Value> 0.05 then Ho is rejected and Ha is accepted then there is a relationship.

3. RESULTS AND DISCUSSION

Research result

The results of the univariate analysis of the study are as follows:

Respondent Characteristics

Table 1. Frequency Distribution of Respondent Characteristics Based on Education at the Sally Clinic, Tembung, Deli Serdang, North Sumatra Province 2024

No	Variables	f	%
	Education		
1	JUNIOR HIGH SCHOOL	2	7
2	SENIOR HIGH SCHOOL	15	50
3	College	13	43
	Total	30	100
	Lifestyle		
1.	Not good	12	40
2.	Good	18	60
	Total	56	100
	Medical History		
1.	There is a History	4	13
2.	No History	26	87
	Total	56	100
	Age		
1.	< 20 years	3	10
2.	20-35 years	25	83
3	>35 years	2	7
	Total	30	100
	Gestational Hypertension		
1.	Having hypertension	9	30
2.	Not experiencing	21	70
	Total	56	100

Based on Table 1. The majority of respondents' education is high school graduates, 15 people (50%), the majority of respondents' lifestyles are not good, 18 people (60%), the majority of respondents have a genetic history, 26 people (87%), the majority of respondents are aged 20-35 years, 25 people (83%), and 21 respondents do not have gestational hypertension (70%).

Bivariate Analysis

Bivariate analysis on lifestyle and disease history as follows

a. Relationship between Lifestyle and the Occurrence of Gestational Hypertension

Table 2. Cross Tabulation of the Relationship between Lifestyle and the Occurrence of Gestational Hypertension at the Sally Clinic in 2024

Gestational Hypertension								
No	Lifestyle	Experience		No Experience		Amount		*p-value*
		f	%	f	%	f	%	
1	Not good	9	30	3	10	12	40	0,000
2	Good	0	0	18	60	18		
	Total	9	30	21	70	30	100	

Based on table 2, it was found that out of 12 respondents with an unhealthy lifestyle, 9 experienced gestational hypertension (30%). The results of the *p value calculation* = 0.000, so p <0.05 that there is a relationship between lifestyle and the incidence of gestational hypertension in pregnant women at the Sally Clinic, Tembung District, Deli Serdang Regency, North Sumatra Province in 2024.

b. Genetic/Family History Relationship With Gestational Hypertension

Table 3 Cross Tabulation of Genetic Relationship with the Occurrence of Gestational Hypertension at Sally Clinic in 2024

Gestational Hypertension								
No	History/Genetics	Experience		No Experience		Total		*p-value*
		f	%	f	%	f	%	
1	There is a history	6	20	0	0	6	20	
2	No History	3	10	21	70	24	80	0,000
	Total	9	30	21			100	

Based on table 3. From respondents who have a family history of hypertension, 6 people overall experienced gestational hypertension . The results of the calculation of *p value* = 0.000 then <0.05 that there is a genetic relationship with the incidence of gestational hypertension in pregnant women at the Sally Clinic in 2024

c. Relationship Between Age and the Occurrence of Gestational Hypertension

Table 4. Cross Tabulation of the Relationship between Respondents' Age and the Occurrence of Gestational Hypertension at the Sally Clinic in 2024

Gestational Hypertension								
No	Age	Experience		No Experience		Amount		*p-value*
		f	%	f	%	f	%	
1	< 20tahun	0	0	3	10	3	10	0,005
2	20-35 tahun	4	13	17	57	21	70	
3	>35 tahun	5	17	1	3	6	20	
	Total	9	20	21	70	30	100	

Based on Table 4., of the 9 respondents who experienced gestational diabetes, 5 people (17%) were over 35 years old. The results of the statistical analysis showed that the p-value was 0.005, which indicated a significant relationship between age and the incidence of gestational hypertension in pregnant women at the Sally Clinic, Tembung District, Deli Serdang Regency, North Sumatra Province, in 2024.

DISCUSSION

1. Relationship between Lifestyle and the Occurrence of Gestational Hypertension

   The results of the calculation of *p value* = 0.000 that there is a relationship between lifestyle and the occurrence of gestational hypertension in pregnant women at the 2024 Clinic. Darwati said from the results of previous studies that there is a relationship between lifestyle and the occurrence of hypertension in pregnancy (Lilik Darwati, 2023) . An unhealthy lifestyle tends to trigger gestational hypertension. The results of this study are in accordance with the results of previous studies that there is a relationship between

lifestyle and the occurrence of gestational hypertension. The results of this study are in accordance with the results of previous studies, namely that there is a relationship between lifestyle and the occurrence of gestational hypertension because a lifestyle that likes to eat fast food, smokes and even inappropriate activities will result in damage to blood vessels so that gestational hypertension occurs.

2. Genetic Relationship With Gestational Hypertension

The results of the calculation of *p value* = 0.005 indicate that there is a genetic relationship with the occurrence of gestational hypertension in pregnant women at the Sally Clinic, Tembung District in 2024. During conception, the DNA code of the mother and father will be copied to the fetus. When both parents have a history of hypertension, the child tends to also experience hypertension because the genetic structure of the hypertension sufferer is copied. The results of this study are in accordance with the results of previous studies that there is a genetic relationship or family history of disease to the occurrence of gestational hypertension, namely the egg cell that unites with the sperm cell will copy the DNA of the mother and father to their offspring so that the disease in the parents can be passed on to their children including gestational hypertension (Dayani & Widyantari, 2023) .

Researchers assume that respondents experienced gestational hypertension because there was a family history of hypertension.

3. Relationship Between Age and the Occurrence of Gestational Hypertension

from the calculation of *the P value* = 0.005, there is a relationship between age and the incidence of hypertension in respondents at the Sally Clinic, Tembung District, Deli Serdang Regency, North Sumatra Province in 2024.

p value calculation = 0.005 show that there is a relationship between age and the incidence of gestational hypertension in pregnant women at the Sally Clinic, Tembung District, Deli Serdang Regency, North Sumatra Province in 2024.

Blood plays an important role in a person's health. The older a person gets, the more the condition of the body's organs declines, such as blood vessels which become increasingly

narrow due to plaque in the blood vessels. In addition, the mother's condition during pregnancy will increase the risk of hypertension.

The results of previous studies stated that there is a relationship between age and the occurrence of gestational hypertension, namely that the younger the pregnant woman is, the blood vessels are still susceptible to vasoconstriction due to increased plasma volume, and with increasing age, there will be a decrease or degenerative blood vessels **(Kontesah et al., 2023) .**

4. CONCLUSIONS

From the results of the study conducted at the Sally Clinic, Tembung District, data analysis found that the lifestyle and medical history *P value* was 0.000 for the age variable P value 0.005, so the three variables, namely P value <0.05, then Ha is accepted: There is a Relationship between Lifestyle, History of Hypertension and Age with the Incidence of Gestational Hypertension at the Sally Clinic, Tembung District, Deli Serdang Regency, North Sumatra Province in 2024.

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