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Factors That Influence the Occurrence of Hypertension in The Puskesmas Ogoamas, North Sojol, Donggala in 2024

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ABSTRACT: This research aims to determine "Factors that Influence the Occurrence of Hypertension in the Puskesmas Ogoamas in 2024". This research uses a cross-sectional method with sampling techniques, *Accidental Sampling* with a sample size of 55 people who visited the Puskesma Ogoamas . Analysis using tests *Chi-Square* where three factors have a relationship, namely family history, the most common being no history of hypertension, amounting to 32 people (58.2%) with a value of *ρ value* 0.015 (α<0.05), then the most non-smokers were 36 people (65.5%) with a value of *ρ value* 0.040 (α<0.05), then the most hypertension screening was 39 people (70.9%) with a p value *value* 0.038 (α<0.05). Factors that Influence the Occurrence of Hypertension in the Working Area of the Puskesma Ogoamas in 2024, namely family history, gender, smoking, hypertension screening and hypertension. The incidence of hypertension in the Ogoamas Community Health Center Working Area, North Sojol District, Donggala Regency in 2024 is related to family history, smoking and hypertension screening. The recommended intervention is for respondents to regularly control their blood pressure and have their health checked at the nearest health service facility and increase information through various media about health that can be useful.

Keywords: Family History, Gender, Smoking, Hypertension Screening and Hypertension.

INTRODUCTION

A person is said to have hypertension, sometimes referred to as high blood pressure, when their blood pressure is consistently at or above 140/90 mmHg. Currently, hypertension affects almost one in three people worldwide. As one of the main causes of stroke, heart attack, heart failure and kidney damage, hypertension is known as the "silent killer" because it rarely shows early symptoms. Often, this disease is not treated (World Health Organization (WHO) 2023).

According to World Health Organization (2023) More than 30% of the adult population throughout the world suffers from hypertension. Although the prevalence of hypertension among the population aged 18 years and over in Indonesia has decreased from 34.1% in 2018 to around 30.4%, the latest data regarding hypertension in Indonesia comes from the 2023 Indonesian Health Survey (SKI) in Central Sulawesi Province. This figure is still a major concern because hypertension is a major risk factor for various chronic diseases, such as heart disease, stroke and kidney failure. In the age group 15 years and over, hypertension is more common in women (32.8%) than men (25.6%). In terms of age distribution, the prevalence of hypertension increases sharply in the elderly group, reaching 64% at age 75 years and over. East Kalimantan, North Sulawesi and DI Yogyakarta have lower prevalence rates than DKI Jakarta (12.6%). Hypertension ranks highest among Central Sulawesi residents in 2023, according to the latest statistical data from the Health Service and the Central Statistics Agency. In the previous year (2022), more than 81 thousand cases of essential hypertension were recorded in this province, making it the disease with the most cases among the 10 other main diseases. This figure shows an increasing trend in hypertension cases in the region.

Several factors, including screening, smoking habits, gender, and family history can influence the development of hypertension in a person. A striking increasing trend can be seen in the prevalence of hypertension in Donggala Regency from 2022 (38.9%) to 2023 (46.0%). According to the Central Statistics Agency (BPS) survey and regional health profiles, several risk factors influence the prevalence of hypertension in this area. Unhealthy habits, such as lack of exercise, a diet high in salt, and relatively high levels of smoking, are some risk factors. Data also shows that elderly people, especially those over 60 years old, dominate the number of hypertension cases, because this group is more susceptible to high blood pressure due to age and other health conditions. Based on data from the Donggala District Health Service, (2023) there are 3 largest community health centers with the highest level of hypertension severity, namely Ogoamas Health Center 49.1%, Kayuwou Health Center 32.7% and Batusuya Health Center 16.7%. Based on health service reports at the Ogoamas Health Center, 10 of the biggest diseases are frequently encountered this year. These diseases are a priority in handling and prevention because they have a significant impact on public health (Nugrahani et al., 2023). The following is a brief description of these diseases: Hypertension, gastritis, diabetes mellitus, influenza, acute respiratory infections, allergies, asthma, acute otitis media and migraines. Based on this phenomenon, researchers are interested in conducting research related to "Factors that influence the occurrence of hypertension in the work area of the Ogoamas Health Center in 2024".

Based on the background above, the problem of this research can be formulated as "Factors that influence the occurrence of hypertension in Puskesma Ogoamas Sojol Utara in 2024. Based on the problem formulation above, this research aims to identify "Factors that influence the occurrence of hypertension in the work area of the Puskesma Ogoamas in 2024.

The results of this research can be used as a literature source that can increase insight and knowledge in the field of Public Health. Apart from that, it is hoped that it can be used as a reference or reference and add information about the factors that influence the occurrence of hypertension at the Puskesma Ogoamas in 2024.

METHODS

This research uses a cross-sectional study methodology and an analytical observational research design. Cross-sectional studies, also known as prevalence studies or cross-sectional studies, use a single population and simultaneously evaluate each research variable in the sample. Research topics that arise regularly are usually the subject of this kind of research, which can be descriptive or analytical. However, this research is generally analytical, with analysis adjusted to the type of variable being studied. The research was conducted in the work area of the Puskesmas Ogoamas in July 2024 to January 2025. As much 120 people with hypertension from the Ogoamas Health Center working area in North Sojol District, Donggala Regency were the population for this study. This research uses proportional sampling, which means the number of samples selected for each population group is determined by the size of the group. In this research, the sample size was determined using the Slovin formula, and the probability was calculated using a population of 120 respondents.

The calculations are as follows:

n=N/(1+N 〖and〗^2)

Informatio :

n: sample size

N: population size

and2: error rate 10% (0.1)

Calculations using the Slovin formula in this study are as follows:

n= 120/(1+120 (0,1)〗^2)

n= (120)/(1+1,2)

n= (120)/2,2

n= 54,5

= 55 People

Based on calculations, it can be concluded that the research sample required is 55 respondents. The sampling technique uses the Proportional Sampling Technique, in the following way;

Ogoamas Village I=(35 X 55)/120=16

Ogoamas Village II=(27 X 55)/120=12

Lenju Village=(21 X 55)/120=9.6 rounded to=10

Bengkolli Village=(24 X 55)/120=11

Pesik Village=(13 X 55)/120=5.9 rounded to=6

Total = 55 respondents.

Primary data was collected through the use of questionnaires and interviews. The term "questionnaire" refers to a type of measurement instrument which can be a survey or questionnaire and contains a number of questions. A number of individuals who participated in the survey were subjected to this measuring tool. To achieve this, questionnaires were distributed to patients seeking treatment at the Ogoamas Health Center located in North Sojol District, Donggala Regency who were diagnosed with hypertension. Secondary data was obtained from the annual hypertension records of the Health Service and the monthly records of the Ogoamas Health Center in North Sojol District, Donggala Regency. This research uses a questionnaire as an instrument. Respondents are asked to provide precise responses or data in response to a questionnaire, which is a group of questions that have been collected in a very specific way. DalIn this case, researchers conducted univariate and bivariate analysis and the Chi-Square Test (χ^2).

RESULTS AND DISCUSSION

Univariate Analysis

Occurrence of Hypertension in Puskesma Ogoamas in 2024. The distribution of hypertension in the Puskesma Ogoamas in 2024 can be seen in table 1.

Table 1. Characteristics of the Occurrence of Hypertension in Puskesma Ogoamas in 2024

No	Hypertension	Frequency (n)	Percentage (%)
1.	Yes Hypertension	47	85,5
2.	Not Hypertension	8	14,5
Total		55	100

Source: Primary Data, 2024

In table 1 shows that the respondents at the Puskesma Ogoamas suffered the most from hypertension with 47 people (85.5%).

Factors of hypertension in the Ogoamas Community Health Center, North Sojol District, Donggala Regency in 2024

1) Family History Characteristics

Characteristics of the family history of respondents at the Puskesma Ogoamas in 2024 can be seen in table 1.

Table 1. Characteristics of Family History at Puskesma Ogoamas in 2024

No	Family History	Frequency (n)	Percentage (%)

1.	There is a history of hypertension	23	41,8
2.	No History of Hypertension	32	58,2
Total		55	100

Source: Primary Data, 2024

Table 1 showed that most respondents at the Puskesma Ogoamas had no history of hypertension, totaling 32 people (58.2%).

2) Gender Characteristics

The gender characteristics of respondents at the Puskesma Ogoamas in 2024 can be seen in table 2.

Table 2. Gender Characteristics at Puskesma Ogoamas, Sojol Utara, Donggala in 2024

No	Age	Frequency (n)	Percentage (%)
1.	Man	15	27,3
2.	Woman	40	72,7
	Total	55	100

Source: Primary Data, 2024

Table 2 showed that most respondents at the Puskesma Ogoamas were women, numbering 40 people (72.7%).

3) Smoking Characteristics

The smoking characteristics of respondents at the Puskesma Ogoamas in 2024 can be seen in table 3.

Table 3. Characteristics of Smoking at Puskesma Ogoamas, Sojol Utara, Donggala in 2024

No	Age	Frequency (n)	Percentage (%)
1.	Smoker	19	34,5
2.	Non Smoker	36	65,5
Total		55	100

Source: Primary Data, 2024

In table 3 showed that the majority of respondents at the Puskesma Ogoamas were non-smokers, numbering 36 people (65.5%).

4) Hypertension Screening Characteristics

The hypertension screening characteristics of respondents at the Puskesma Ogoamas in 2024 can be seen in table 5.10.

Table 4. Characteristics of Hypertension Screening at Puskesma Ogoamas in 2024

No	Hypertension Screening	Frequency (n)	Percentage (%)
1.	Yes Conduct Screening	39	70,9
2.	Not Screening	16	29,1
	Total	55	100

Source: Primary Data, 2024

Table 4 showed that most respondents at the Ogoamas Community Health Center, North Sojol District, Donggala Regency were screened for hypertension, totaling 39 people (70.9%).

1. Bivariate Analysis

In this study, bivariate analysis consisted of cross tabulation and analysis of factors that influence the occurrence of hypertension at the Ogoamas Health Center located in North Sojol District, Donggala Regency in 2024.

Cross tabulation between factors that influence the occurrence of hypertension and a family history of hypertension

Table 5. presents a cross tabulation between factors that influence the occurrence of hypertension and the history of hypertension in individuals and families.

Table 5. Cross-tabulation of factors that influence family history and the occurrence of hypertension at the Puskesma Ogoamas in 2024

No	Family History	Hypertension				Total		*f Value*
		Yes Hypertension		Not Hypertension				
		N	%	N	%	N	%	
1.	There is a history of hypertension	23	100	0	0,0	23	100	0,015
2.	No History of Hypertension	24	75	8	25	32	100	
	Total	47	85,5	8	14,5	55	100	

Source: Primary Data, 2024

Based on the data presented in Table 5, it can be observed that of the respondents who visited the Ogoamas Health Center located in North Sojol District, Donggala Regency, as many as 47 people (85.5%) were diagnosed with hypertension. Meanwhile, 8 people (14.5%) did not suffer from hypertension. Of the total respondents, 24 people (75%) had no history of hypertension.

Statistical test results obtained from the test *Chi-Square* produces a value of $\mathcal{P}$ = 0.015 with a value of $\mathcal{P}$ < (α <0.05), indicating that there is a significant relationship between family history and the incidence of hypertension at the Puskesma Ogoamas in 2024. This is determined based on the table presented previously.

Cross tabulation between factors influencing gender and the incidence of hypertension

A cross tabulation of factors that influence gender and the occurrence of hypertension can be seen in table 6.

Table 6. Cross tabulation of factors that influence gender and the occurrence of hypertension at the Puskesma Ogoamas in 2024

No	Gender	Hypertension				Total		$\mathcal{P}$ *Value*
		Yes Hypertension		Not Hypertension				
		N	%	N	%	N	%	
1.	Man	13	86,7	2	13,3	15	100	1,000
2.	Woman	34	85	6	15	40	100	
	Total	47	85,5	8	14,5	55	100	

Source: Primary Data, 2024

Table 6 shows that of the respondents at the Puskesma Ogoamas , the number of female respondents was greater, namely 34 people (85%), where 47 people (85.5%) of male and female respondents had hypertension and 8 people (14.5%) did not have hypertension. This shows that compared to male respondents, female respondents have a higher probability of suffering from hypertension.

In 2024, the Ogoamas Health Center in North Sojol District, Donggala Regency, did not find a significant relationship between gender and hypertension, according to the results of the Chi-Square test, which showed a statistical test value of $\mathcal{P}$ = 1,000 with a value of $\mathcal{P}$ > (α <0.05).

Cross tabulation of factors that influence smoking habits and the occurrence of hypertension

A cross tabulation of factors that influence smoking and the occurrence of hypertension can be seen in table 7.

Table 7. Cross tabulation of factors that influence smoking and the occurrence of hypertension at the Puskesma Ogoamas in 2024

No	Smoking	Hypertension				Total		*ƒ Value*
		Yes Hypertension		Not Hypertension				
		N	%	N	%	N	%	
1.	Smoker	19	100	0	0,0	19	100	0,040
2.	Non Smoker	28	77,8	8	22,2	36	100	
Total		47	85,5	8	14,5	55	100	

Source: Primary Data, 2024

In Table 7, it can be seen that among respondents at the Ogoamas Health Center in North Sojol District, Donggala Regency, 47 people (85.5% of those who smoked or did not smoke) had hypertension. In comparison, 8 people (14.5%) of those who smoked or did not smoke did not have hypertension. The number of people who do not smoke who have hypertension is higher, namely 28 people (77.8%).

At the Puskesma Ogoamas , smoking is significantly associated with the incidence of hypertension in 2024, according to test results *Chi-Square* which is shown in the table above, which also shows a p value = 0.040 with a value of $ƒ < (\alpha < 0.05)$.

Cross tabulation of factors that influence hypertension screening and the occurrence of hypertension

A cross tabulation of factors that influence hypertension screening and the occurrence of hypertension can be seen in table 8.

Table 8. Cross tabulation of factors that influence hypertension screening and the occurrence of hypertension at the Ogoamas Community Health Center, North Sojol District, Donggala Regency in 2024

No	Hypertension Screening	Hypertension				Total		*ƒ Value*
		Yes Hypertension		Not Hypertension				
		N	%	N	%	N	%	
1.	Yes Conduct Screening	36	92,3	3	7,7	39	100	0,038
2.	Not Screening	11	68,8	5	31,2	16	100	

Total	47	85,5	8	14,5	55	100

Source: Primary Data, 2024

The data presented in Table 8 shows that among respondents who visited the Ogoamas Health Center located in North Sojol District, Donggala Regency, 47 people (85.5%) were diagnosed with hypertension. On the other hand, 8 people (14.5%) did not suffer from hypertension. This data also shows that the highest number of respondents who underwent hypertension screening was 36 people (92.3%).

At the Ogoamas Health Center located in North Sojol District, Donggala Regency in 2024, test results Chi-Square The obtained p value = 0.038 with a value of $\mathcal{P} < (\alpha < 0.05)$. This shows that there is a positive relationship between hypertension screening and hypertension.

Factors influencing the prevalence of hypertension in Puskesma Ogoamas

There are two main forms of hypertension: primary hypertension, where the cause is unclear (affecting 90% of cases), and secondary hypertension, where conditions such as kidney disease, endocrine disorders, heart disease, and kidney disease account for 10% of cases. Suppose two separate measurements are taken at different times and the systolic blood pressure is 140 mmHg or higher and the diastolic blood pressure is 90 mmHg or higher. In that case, it can be confirmed that the patient has hypertension (Riyada et al., 2024). Following the Joint National Committee 8 guidelines, lifestyle changes such as controlling diet, exercising, reducing salt and losing weight can help lower blood pressure. Antihypertensive drugs can be given if these efforts do not produce results (Maringga & Sari, 2020). It is normal for blood pressure to fluctuate throughout the day. Only when high blood pressure persists does it become a problem. Consistently high blood pressure puts stress on the circulatory system, heart, and brain, among other organs that receive blood flow (Riyada et al., 2024). The following is a list of four factors which according to research findings have an impact on the incidence of hypertension at the Ogoamas Health Center located in North Sojol District, Donggala Regency:

Occurrence of Hypertension

A total of 55 participants participated in this research at the Ogoamas Health Center located in North Sojol District, Donggala Regency. Of these, 47 (85.5%) were diagnosed with hypertension. Apart from that, the Ogoamas Health Center in North Sojol District, Donggala Regency, has the largest number of hypertension cases, namely 2,175 patients. This is in addition to the prevalence of hypertension. According to research findings, a large number of hypertension patients are caused by several causal factors. These factors include a history of hypertension in the patient's family as well as a high proportion of parents, both of which contribute to the incidence of hypertension.

Family History

In the case of primary hypertension, which is sometimes referred to as essential hypertension, having a family history of hypertension can increase the chances of developing hypertension. In addition, genetic variables are related to the process of salt metabolism and the development of membrane-bound renin 57. Many individuals who participated in this study did not have a history of hypertension in their families. 32 people, constituting 58.2% of the total, had no history of hypertension in their families; however, some lifestyle factors, such as nutrition, may contribute to the development of hypertension in these individuals. Besides foods that can increase blood pressure, such as not exercising or being physically active, most respondents choose processed foods and fast food. Regular physical activity provides several benefits for a person's physical health, including maintaining stable blood pressure. On the other hand, lack of physical activity can increase the risk of hypertension because it can cause unstable blood pressure.

Gender

Compared with men, women are more likely to suffer from hypertension. This is because women are more likely to engage in activities that can cause an increase in blood pressure. However, hypertension can also be a problem for men, especially after the age of 56, which is the age at which menopause begins.

With forty people (72.7% of the total), this survey had more female respondents. As a result of lack of physical activity, women are more likely to suffer from hypertension than men. This is because inadequate physical activity causes blood pressure to fluctuate within the normal range, which in turn increases the risk of hypertension. Poor eating habits are another factor that contributes to hypertension, as respondents often consume foods that contribute to the condition. Among these foods are canned foods, fatty foods, oily foods, and fast food. Lack of physical activity is another factor.

Smoking

The risk of developing hypertension is correlated with the number of cigarettes smoked and the duration of smoking. Nicotine can increase blood buildup in the arteries and hardening of the artery walls, while alcohol consumption can increase blood pressure (Anindita Larasati & Isti Istianah, 2021)

Of the 36 respondents in this survey, the majority (65.5%) did not smoke. However, this is caused by several other factors, including lack of physical exercise, which increases the risk of hypertension, and poor eating habits, which can also increase the risk of hypertension.

Hypertension Screening

Tests used to identify excessive blood pressure, often known as hypertension, are called hypertension screening. By using this test, the risk of major complications associated with hypertension, such as heart attack and stroke, can be lowered. It is estimated that hypertension is one of the most common disorders suffered in Indonesia. According to research results, hypertension affects 34.1% of the population in Indonesia. If a person's systolic blood pressure consistently exceeds 130 mmHg and their diastolic blood pressure consistently exceeds 80 mmHg, then that person is considered hypertension. Today, sphygmomanometers—blood pressure monitors—are more sophisticated and automated. As a result, hypertension examinations can be carried out by doctors or other professional health workers in hospitals or independently at home (Indriawati & Usman, 2018).

According to research findings, 39 participants (70.9%) underwent screening when they came to the Ogoamas Health Center in North Sojol District, Donggala Regency. Hypertension screening generally does not cause serious side effects. However, some people report pain in the arm being examined. However, this condition only lasted a short time.

The relationship between variables that influence the prevalence of hypertension at the Ogoamas Health Center in North Sojol District, Donggala Regency

Using statistical tests with SPSS, it was found that 47 (85.5%) of the 55 respondents who visited the Ogoamas Health Center in North Sojol District, Donggala Regency, suffered from hypertension based on cross tabulation results.

The relationship between the incidence of hypertension at the Ogoamas Community Health Center, North Sojol District and family history

The chance of developing hypertension may increase if there is a family history of the condition. The chance of developing hypertension may increase if there is a family history of the condition. Davidson asserts that the chance of a child developing hypertension increases to about 45% in families where both parents have the disease, and to about 30% in families where only one parent has the condition. A family history of hypertension also contributes to the incidence of hypertension because genetic factors also influence cell membrane regulation and salt and renin metabolism (Davidson in Hifiz, 2016).

The mechanism of hypertension involves genes that regulate salt balance in the kidney, such as the I/D polymorphism (insertion/deletion) of the ACE (angiotensin-converting enzyme) gene, on the one hand, and genes that alter steroid metabolism, on the other. According to research, there are three possible genotypes for the I/D polymorphism of the ACE gene: homozygous II, heterozygous ID, and homozygous DD. ACE concentrations are higher in DD homozygotes compared to other people. 2015).

The majority of the 24 people who participated in this study, which constituted 43.6% of the total respondents, were diagnosed with hypertension. This is caused by no history of hypertension in the family. However, when the question was examined further, it was found that many respondents claimed that they suffered from hypertension because either their parents or one of them had also

been diagnosed with hypertension. Lifestyle choices and stress experienced by hypertensive patients are two additional factors that may cause hypertension. At the Puskesma Ogoamas , there is a strong relationship between family history and the prevalence of hypertension. This finding is based on the conclusion that the statistical test for family history of hypertension produces a value of $\mathcal{P} = 0.015$ with a value of $\mathcal{P} < (\alpha = 0.05)$.

The findings of this study are in line with previous studies (Merlisa C. Talumewo, 2014) which found a statistically significant correlation between hypertension and family history, with the value $\mathcal{P} = 0.000$ $\mathcal{P}$ value < (α=0.05). When compared with individuals who did not have relatives with hypertension, those who had relatives with the condition were 17.71 times more likely to be at risk.

The Relationship Between Gender and the Incidence of Hypertension at the Ogoamas Health Center, North Sojol District

Due to the role of the hormone estrogen, women are more susceptible to hypertension. Due to the role of the hormone estrogen, women are more susceptible to hypertension. During sympathetic nervous system activity, the hormone estrogen helps protect resting blood pressure. Estrogen production begins to decline in women over 40, which reduces blood pressure protection during sympathetic nervous system activity. Women are more likely to experience hypertension as they approach menopause. Due to hormonal considerations, women are more likely than men to develop hypertension, even after age 65 (Dwi, 2017)

According to research findings, 40 respondents or 72.7% of the total were women and on average were housewives. Respondents said they felt that doing only light activities and not exercising regularly was sufficient when asked. A large number of female respondents choose foods that are high in fat and oil. This explains why more women suffer from hypertension, even though most of the respondents in this study had not yet entered menopause. Unhealthy diet decisions and lifestyle choices are the root cause. According to findings from the Ogoamas Health Center, which is located in North Sojol District, Donggala Regency, there is no relationship between gender and the prevalence of hypertension. According to statistical tests, which produces a value of $\mathcal{P} = 1{,}000$ with a value of $\mathcal{P} > (\alpha = 0.05)$.

Following the findings of (Kurniadi & Nurrahmani, 2014), the findings of this study support the hypothesis that there is no correlation between gender and the incidence of hypertension in the elderly population in Manisrejo Village, Madiun City. Research findings from this study reveal a value of $\mathcal{P} = 0.824$ with a value of $\mathcal{P} > (\alpha = 0.05)$.

The Relationship Between Hypertension at Ogoamas Health Center, North Sojol District and Smoking

Tar, nicotine and carbon monoxide are just a few of the thousands of toxic compounds found in cigarettes. Tar, nicotine and carbon monoxide are just a few of the thousands of toxic compounds

found in cigarettes. According to Nurkhalida (2003), these compounds that are absorbed into the bloodstream have the potential to cause damage to the arterial endothelial lining, which can lead to the development of atherosclerosis and hypertension. Nitrogen monoxide and nicotine are two harmful compounds that are absorbed through cigarettes and reach the circulation. These chemicals have the potential to cause damage to the endothelial lining of arteries, which can result in atherosclerosis and hypertension.

When a person smokes two cigarettes, his blood pressure will increase by 10 millimeters of mercury at both systolic and diastolic levels. There will be a thirty minute period where blood pressure will remain at this level after quitting smoking. While heavy smokers will continue to have high blood pressure throughout the day, light smokers will not experience this phenomenon (Nurkhalid, 2003).

A total of 36 participants participated in this study, and 65.5% did not have a smoking habit. As a result of the final statistical test, the smoking habit was found to have a value of $\mathcal{P} = 0.040$ less than the value of $\mathcal{P} < (\alpha = 0.05)$. Therefore, it can be concluded that there is a relationship between smoking habits and the incidence of hypertension at the Ogoamas Health Center, which is located in North Sojol District, Donggala Regency.

This research is consistent with the research conducted by Sari (2018) entitled "Determinant factors for the incidence of hypertension in the Cempaka Banjarmasin Community Health Center". The research findings show that the statistical test produces a value of $\mathcal{P} = 0.002$ with a value of $\mathcal{P} <(\alpha = 0.05)$. Therefore, it can be concluded that there is a correlation between smoking and the incidence of hypertension at the Cempaka Community Health Center in Banjarmasin.

The relationship between hypertension screening and the occurrence of hypertension at the Ogoamas Community Health Center, North Sojol District

The hypertension screening process is fast, risk-free and painless. During the examination, the sphygmomanometer cuff will expand, causing the arm to be compressed and compressed. For a time, this may cause some people to feel uncomfortable; however, this is completely harmless. Hypertension examinations should not be performed on arms with deviated ducts (fistulas), swelling caused by lymphatic blockage (lymphedema), or arms on an IV drip. In situations like this, hypertension screening can be done on the other arm or the lower leg (Nugraha, 2022).

Before carrying out the test, patients must inform the doctor about any medications they are taking. This is because certain drugs have the potential to affect the patient's blood pressure, which can cause false screening results (Nugraha, 2022).

Most of the participants in this study, namely 39 people or 70.9%, were those who had their blood pressure checked. At the Puskesma Ogoamas , statistical test results showed a relationship between the prevalence of hypertension and screening, with a p value = 0.038 with a $\mathcal{P}$ Value < ($\alpha = 0.05$).

Based on the findings and hypotheses developed, researchers assume that smoking, family history, and hypertension screening are factors that significantly influence the prevalence of hypertension at the Puskesma Ogoamas.

CONCLUSION

The findings of this study indicate that several factors significantly influence the prevalence of hypertension in the work area of Puskesmas Ogoamas in 2024. Family history was found to play a critical role, suggesting that genetic predisposition is a major risk factor in the development of hypertension. Gender differences also contributed to varying prevalence rates, likely due to differences in biological, behavioral, and social determinants. Additionally, smoking habits were shown to have a strong association with hypertension, reinforcing existing evidence that tobacco use negatively impacts cardiovascular health. The study also highlighted the positive effect of routine screening in reducing hypertension prevalence by enabling early detection and timely intervention. These results contribute to a broader understanding of how hereditary and lifestyle factors intersect to influence hypertension in a community setting. Therefore, public health institutions can utilize these insights to design targeted education and prevention programs. They can incorporate the findings into their teaching materials, and the general public is encouraged to use this information to adopt healthier practices. Finally, this research provides a foundation for further studies to develop more localized interventions and long-term strategies for managing hypertension in North Sojol and beyond.

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