INTERNATIONAL JOURNAL ON ADVANCED TECHNOLOGY, ENGINEERING, AND INFORMATION SYSTEM (IJATEIS)

THE RELATIONSHIP BETWEEN LIFESTYLE AND THE INCIDENCE OF HYPERTENSION IN THE COMMUNITY IN THE WORKING AREA OF THE LAGEUN COMMUNITY HEALTH CENTER, SETIA BAKTI SUB-DISTRICT, ACEH JAYA DISTRICT IN 2024

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Abstract

High blood pressure or hypertension is an increase in diastolic pressure of more than 90 mmHg and systolic pressure of more than 140 mmHg. This disease is usually not accompanied by symptoms (asymptomatic). According to JNC hypertension occurs when blood pressure is more than 140/90 mmHg. Based on the data input into SPSS, it is related to age and physical activity and age to eating restrictions. Based on the research results, the total number of respondents aged with physical activity was 84 people, with 9 people who were sedentary with 100%, and the total respondents aged with smoking were a total of 13 people and those who did not smoke were 80 people with a total of 93 respondents with 100%. and those aged with abstinence eating with a total of 84 respondents who abstain from eating, and 9 who do not abstain from eating with a total of 93 respondents with 100%.

Keywords: *Hypertension, Lifestyle Relationship, High Blood Pressure, Smoking*

1. INTRODUCTION

Indonesia is currently faced with an epidemiological transition where there is a decrease in infectious diseases and an increase in non-communicable diseases, this is due to changes in people's lives, including changes in lifestyle and diet, because people tend not to do physical activity due to technological, economic and social advances (Nurmandhani et al., 2020). Indonesia is currently carrying a double burden in dealing with health problems. The burden is that on the one hand the problem of infectious diseases (infectious) is still a priority health problem because the number is still high, and on the other hand the development of non-communicable diseases is increasing due to the shift in the lifestyle of Indonesian people who are all instant (fast), one of the non-communicable diseases that occurs due to changes in lifestyle is hypertension (Sartika et al., 2023).

Non-communicable diseases are the leading cause of death globally and one of the major health challenges of the 21st century. Non-communicable diseases are a health problem with an increasing incidence of morbidity and mortality. Deaths from non-communicable diseases are expected to continue to increase worldwide and become the most common etiology of death by 2030. The global status of Noncommunicable Diseases (NCDs) reported that in 2016 71% of the world's 57 million deaths were caused by non-communicable diseases. The World Health Organization (WHO) states that the four major diseases responsible for non-communicable disease deaths are cardiovascular

disease, cancer, chronic respiratory disease, and diabetes. The main risk factors for cardiovascular disease are elevated blood pressure or hypertension (Harahap, 2021).

Hypertension or high blood pressure is a state of change in which blood pressure rises unnaturally and continuously due to damage to one or more factors that play a role in maintaining high blood pressure or hypertension if the blood pressure is or is higher than 140/90 mmHg, even at rest (Harahap, 2021). High blood pressure or hypertension is an increase in diastolic pressure above 90 mmHg and systolic pressure above 140 mmHg. The disease is usually asymptomatic (Potter & Perry, 2010). According to JNC, hypertension occurs when blood pressure is more than 140/90 mmHg. (Harahap, 2021).

According to Wijaya & Putri (2013), classification based on the cause can be divided into two groups, namely primary and secondary hypertension. Essential Hypertension (Primary) constitutes 90% of cases of hypertension. Where until now the cause is not yet known with certainty. Several factors influence the occurrence of essential hypertension, such as: genetic factors, stress and psychological factors, as well as environmental and dietary factors (increased use of salt and reduced intake of potassium or calcium) (Harahap, 2021).

Unhealthy lifestyles such as smoking are also at high risk for hypertension. Chemicals such as nicotine and carbon monoxide inhaled from cigarettes will enter the bloodstream and can damage the endothelial layer of blood vessels, resulting in the process of atherosclerosis and leading to hypertension. A diet high in fat and cholesterol can lead to dyslipidemia which plays a role in increasing the process of atherosclerosis. Lack of physical activity can aggravate the situation. Excessive alcohol consumption that is high in calories can cause an increase in cortisol, blood volume and blood viscosity leading to an increase in blood pressure.

The exact cause of hypertension is still not clearly known. Data shows that almost 90% of people with hypertension have no known cause. Experts have revealed that there are two factors that make it easier for a person to develop hypertension, namely uncontrollable factors such as genetics, age, gender, and race. Controllable risk factors are related to environmental factors in the form of behavior or lifestyle such as obesity, lack of activity, stress and food consumption. Food consumption that triggers hypertension, namely foods high in salt, consumption of sweet foods such as soy sauce, consumption of fatty foods and consumption of caffeinated drinks, namely coffee or tea (Fadhli, 2018).

2. RESEARCH METHODS

This study is a quantitative analytic study, with a cross sectional approach. this study uses variables of the relationship between lifestyle and the incidence of hypertension in the working area of the lageun health center such as lifestyle, obesity, diet, and level of physical activity. the population in this study were all people with hypertension in the working area of the lageun health center UPTD, setia bakti subdistrict, aceh jaya district according to data at the lageun health center, there were 268 people with hypertension in 2020. the sample size used in this study used primary data, namely data directly obtained from the object of research conducted by distributing questionnaires to respondents. respondents were asked to answer questions directly from the object of

research. The number of samples involved in this study using the proportional random sampling formula was 95 people. the data used in this study used primary data, namely data directly obtained from the object of research conducted by distributing questionnaires to respondents. respondents were asked to answer the questions posed by the author.

3. RESULTS AND DISCUSSION

3.1. Research Results

Table 1. Characteristics Based on The Relationship Between Age and Physical Activity

Age	On	Frequency	Sedentary	Frequency	Percentage
Adults (28-45)	1	1,2%	0	0,0%	100%
Elderly (46-80)	83	98,8%	9	9,7%	100%
Total	93	100%	100%	100%	100%

Based on table 1, it is known that the variable relationship between age and physical activity. from age (28-45) which is 1.2%, with a total active respondent of 1%. And known high physical activity with a total of 83 respondents with 98.8% and the elderly aged 40-80 with 83 with active physical activity with 83 respondents with 98, 8% and a total response of 100% and age respondents with a total of 100%.

Table 2. Relationship between Age and Smokers and Non-Smokers

Crosstab

			Smoking		Total
			Smokers	No Smoking	
Age	Adults (28-45)	Count	0	1	1
		% Within Age	0.0%	100.0%	100.0%
		% Within Smoke	0.0%	1.3%	1.1%
		% of Total	0.0%	1.1%	1.1%
	Elderly (46-80)	Count	13	79	92
		% Within Age	14.1%	85.9%	100.0%
		% Within Smoke	100.0%	98.8%	98.9%
		% of Total	14.0%	84.9%	98.9%
	Total	Count	13	80	93
		% Within Age	14.0%	86.0%	100.0%
		% Within Smoke	100.0%	100.0%	100.0%
		% of Total	14.0%	86.0%	100.0%

Based on the table 2, the relationship between smokers and adult age is 0.0% with 0% respondents. and elderly age is 13 respondents who smoke with 100%. with a total of 14.0% who smoke and who do not smoke 85.9% of respondents with 100%.

Table 3. Age Characteristics with Dietary Restrictions

Crosstab

			Abstinence From Food		Total
			Yes	No	
Age		Count	0	1	1
		% Within Age	0.0%	100.0%	100.0%
	Adults (28-45)	% Within Abstinence from Food	0.0%	11.1%	1.1%
		% of Total	0.0%	1.1%	1.1%
		Count	84	8	92
		% Within Age	91.3%	8.7%	100.0%
	Elderly (46-80)	% Within Abstinence from Food	100.0%	88.9%	98.9%
		% of Total	90.3%	8.6%	98.9%
	Total	Count	13	84	9
		% Within Age	14.0%	90.3%	9.7%
		% Within Abstinence from Food	100.0%	100.0%	100.0%
		% of Total	14.0%	90.3%	9.7%

Based on table 3, the relationship between variables with adult age (28-45) 0.0%, with a total of 0 respondents who did not abstain and abstinence. who abstained from eating with 84 respondents with 100%, and did not abstain from eating 9 respondents 9.7% with a total of 100%.

3.2. Discussion

Based on the results of the research used, it shows quite good results where there is an extension program that can be one of the methods that can be used to increase community and elderly knowledge. Unhealthy lifestyles such as smoking are also at high risk for hypertension. Chemical substances such as nicotine and carbon monoxide inhaled from cigarettes will enter the bloodstream and can damage the endothelial layer of blood vessels resulting in the process of atherosclerosis and lead to hypertension.

Lifestyle is an important factor that greatly affects people's lives and is closely related to the incidence of hypertension, especially in adulthood. Factors causing hypertension in adulthood are due to unhealthy lifestyles such as eating patterns that are too salty and high in fat such as fried foods, lack of physical activity such as exercise, and smoking. The impact of hypertension causes the heart to work harder so that the process of destroying the blood wall takes place more quickly. Hypertension also increases the risk of heart disease twice and increases the risk of stroke eight times compared to people who do not experience hypertension, besides that hypertension also causes heart failure, kidney problems and blindness and the most severe is the long-term effect in the form of sudden death (Burhan & Mahmud, 2020). According to research, it is stated that lifestyle

is one of the factors that cause the occurrence of hypertension, because there are still many people who do not know the dangers of lifestyle with the incidence of hypertension (Panarung et al., 2023).

The purpose of this community research activity is to improve the optimal level of public health by increasing understanding of the importance of preventing hypertension and the relationship between lifestyle and the incidence of hypertension. This includes promoting healthy living behaviors, improving health status, and detecting emerging degenerative diseases. The benefits of this community service activity include the prevention of cholesterol-related diseases and the improvement of community health status, particularly among residents over 40 years of age. With increased knowledge, it is hoped that the risk of stunting in toddlers will be reduced.

This community research activity aims to enhance public health by raising awareness about preventing hypertension and promoting healthy lifestyles. By educating people, particularly those over 40, about the importance of physical activity, diet, and early detection of diseases, the program seeks to improve health behaviors and overall well-being. The expected outcomes include reduced rates of hypertension, better management of cholesterol levels, and lower risks of chronic diseases and stunting in toddlers. These efforts can lead to a healthier, more informed community, empowered to take charge of their health and well-being.

4. CONCLUSION

The findings from the research on the correlation between lifestyle and hypertension prevalence in Setia Bakti village revealed a significant association between lifestyle elements such as physical activity and diet, and the occurrence of hypertension. Through the SPSS analysis, it was evident that age plays a role in both physical activity and dietary choices. The study highlighted that out of the total respondents, all 84 individuals (100%) were physically active, with only 9 individuals being inactive. In terms of smoking habits, 13 respondents were smokers, while 80 were non-smokers, making up 93 respondents (100%). As for dietary patterns, 84 respondents followed dietary restrictions, while 9 did not, also totaling 93 respondents (100%).

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