FACTORS RELATED TO HYPERTENSION CONTROL IN THE ELDERLY AT PUSKESMAS BANTEN GIRANG YEAR 2024

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Abstract

Hypertension is still the most common health problem experienced by the world's population. Hypertension is a condition of a person who has systolic blood pressure $\geq$140 mmHg and diastolic pressure $\geq$90 mmHg. The high prevalence of hypertension in the elderly group is caused because with age, resulting in a decrease in physiological functions of the body, so that non-communicable diseases begin to appear. Hypertension control behavior is the main thing to prevent complications, such as stroke, coronary heart disease, and kidney failure. This study aims to determine the factors associated with elderly behavior in controlling hypertension. This type of research is quantitative with a cross sectional design. Independent variables are gender, education level, lifestyle. While the dependent variable is the control behavior of hypertension in the elderly. The population of all hypertensive patients recorded in the Banten Girang Health Center work area in 2023. The sample number of 100 people was selected by purposive random sampling. Statistical test using Chi square test with 95% CI and logistic regression test. The results of statistical tests showed that sex and education variables did not have a significant relationship with hypertension control behavior in the elderly ($p > 0.05$), while lifestyle variables with $p = 0.003$ OR = 4,902, and family support variables with $p = 0.010$ OR = 3,778 which means they have a meaningful relationship with hypertension control behavior in the elderly.

Keywords: Hypertension, Elderly, Control, Behavior

1. Introduction

Hypertension is still the most common health problem experienced by the world's population (Ministry of Health, 2019). Hypertension is a condition of a person who has systolic blood pressure $\geq$140 mmHg and diastolic pressure $\geq$90 mmHg (WHO, 2019).

In Indonesia, the prevalence of hypertension in the elderly from the results of Riskesdas in 2018 shows quite high, namely 45.9% of hypertension occurs in the age group of $\geq$18 years by 25.8% in the age group of 55-64 years, 57.6% in the age group of 65-74 years and 63.8% in the age group of 75 years and over with a diagnosis from health worker coverage of only 36.8%, and most cases of hypertension in the community are not diagnosed at 63.2%. (Riskesdas, 2018).

Research on factors related to elderly behavior in controlling hypertension in Banten is still not widely conducted. In addition, Banten also has a fairly high prevalence of hypertension. So, the purpose of this study is to conduct research on Factors Associated with Elderly Behavior in controlling hypertension.

2. Theoretical Background

Hypertension control behavior is the main thing to prevent complications from occurring. Without good control, hypertension can cause complications such as stroke, coronary heart disease, and kidney failure (Ministry of Health RI, 2019). The prevalence

of hypertension in Indonesia has increased. The prevalence of hypertension in the population aged ≥ 18 years was 25.8% in 2013 and increased to 34.1% in 2018 (Ministry of Health, 2018a).

The prevalence of hypertension with screening achievements in Banten Province ranks third after Gorontalo and West Nusa Tenggara, which is 18.80%. The highest prevalence of hypertension in Banten is in the age group ≥ 65 years. Based on data from the Ministry of Health 2023, the prevalence of hypertension in the age group of 65-74 years in Banten is 71.59%, while in the age group of ≥75 years is 80.87% (Ministry of Health, 2018b).

Elderly is someone who has reached the age of 60 years and over (Kusumo, 2020). The elderly experience health problems, this problem begins with the deterioration of body cells, so that the function and resistance of the body decreases and risk factors for disease also increase, including hypertension (Susanti, 2018). Health problems that often arise in the elderly are: Hypertension, DM, Arthritis Joint Disease, Stroke, COPD (Kusumo, 2020).

The high prevalence of hypertension in the elderly group or hereinafter referred to as the elderly is caused because with age, it results in a decrease in the physiological function of the body, so that non-communicable diseases begin to emerge (Dewi, 2018). In addition, there is an increase in blood pressure because the artery walls in the elderly group are thickened so that there is a buildup of collagen in the muscle layer which results in narrowing of blood vessels and becoming stiff (Anggraini et al, 2019).

3. Methods

This type of research is quantitative with the design used in this study is cross sectional by analyzing factors related to hypertension control in the elderly. The population in this study was all hypertensive patients recorded in the Banten Girang Health Center work area. The sampling technique in this study was taken by purposive random sampling with a total sample of 68 people. The research was conducted from December 2023 to January 2024 in the working area of the Banten Girang health center, Serang Regency. Data collection techniques are carried out by checking blood pressure in the elderly, interviews and with data collection tools, namely questionnaires filled out by respondents.

4. Results and Discussion

4.1 Univariate Analysis

This data is primary data collected through filling out questionnaires conducted on 68 respondents. These univariate data consisted of age, sex, education, lifestyle, and family support as independent variables and hypertension as dependent variables. The following is the analysis of univariate statistical tests:

Table 1. Frequency Distribution of Factors Associated with Hypertension Control in the Elderly of Banten Girang Health Center Area in 2023

Variable	Sum	(%)
Gender		
Man	30	44.1 %
Woman	38	55.9 %
Age		
60 - 69 years old	66	97%
> 70 years	2	3%
Education		
Low	57	83.8%
Tall	11	16.2%

Lifestyle		
Bad	31	45.6%
Good	37	54.4%
Family Support		
Not Supported	37	54.4%
Support	31	45.6%

Based on the table above, from 68 respondents, there were 38 (55.9%) female respondents and 30 (44.1%) male respondents, based on the age of the elderly, the majority of respondents aged 60-69 years were 66 (97%) respondents, while based on education, the majority of respondents had low education, as many as 57 (83.8%) respondents did not finish junior high school. Based on the lifestyle of 68 respondents, 37 (54.4%) respondents had a good lifestyle and 31 (45.6%) respondents had a bad lifestyle, based on family support, there were 31 (45.6%) respondents who supported and 37 (54.4%) respondents who did not support.

4.2 Bivariate Analysis

In bivariate analysis, the test used is the chi square test with $p < 0.05$. The factors studied in research related to the incidence of hypertension in pregnant women can be seen in the table as follows:

Table 2. The Relationship Between Sex and Hypertension Control in the Elderly in the Banten Girang Health Center Working Area in 2023

Variable	Hypertension Control						P value	OR	CI 95%
	Do		Not Doing		Total				
	N	%	n	%	N	%			
Gender Man Woman	11 15	43.3% 42.1%	19 23	56.7% 57.9%	30 38	100% 100%	0.813	1.126	0.420-3.023
Sum	26		42		68				

The results of the analysis showed that of the 68 respondents based on male gender who carried out hypertension control as many as 11 (43.3%) respondents, and those who did not control hypertension as many as 19 (56.7%) respondents. While in the female sex who carried out hypertension control as many as 15 (42.1%) respondents, and those who did not control as many as 23 (57.9%) respondents. Based on the results of the Chi square test, $p = 0.813$ and $p > 0.05$, which means there is no significant relationship between sex and hypertension control in the elderly. And gain OR = 1,126 CI 95% = 0. .420-3.023.

Table 3. The Relationship Between Education and Hypertension Control in the Elderly in the Banten Girang Health Center Working Area in 2023

Variable	Hypertension Control						P value	OR	CI 95%
	Do		Not Doing		Total				
	N	%	n	%	N	%			
Education Low Tall	23 3	40.4% 27.3%	34 8	59.6% 72.7%	57 11	100% 100%	0.414	0.554	0.133-2.313
Sum	26		42		68				

Based on education, in lower education those who carried out hypertension control as many as 23 (40.4%) respondents, and those who did not control hypertension as many as 34 (59.6%) respondents. While in higher education who carried out hypertension control

as many as 3 (27.3%) respondents, and those who did not control as many as 8 (72.7%) respondents.

Based on the results of the Chi square test, a value of $p = 0.414$ and $p > 0.05$, which means there is no significant relationship between education and hypertension control in the elderly. And the gain OR = 0.554 CI 95% = 0.133-2.313.

Table 4. The Relationship Between Lifestyle and Hypertension Control in the Elderly in the Banten Girang Health Center Work Area in 2023

Variable	Hypertension Control						P value	OR	CI 95%
	Do		Not Doing		Total				
	N	%	N	%	N	%			
Lifestyle Good Bad	20 6	54.1% 19.4%	17 25	45.9% 80.6%	37 31	100% 100%	0.003	4.902	1.630-14.739
Sum	26		42		68				

Based on lifestyle, respondents who have a good lifestyle who control hypertension as many as 20 (54.1%) respondents, and those who do not control hypertension as many as 17 (45.9%) respondents. While in respondents who have a bad lifestyle who control hypertension as many as 6 (19.4%) respondents, and those who do not control as many as 25 (80.6%) respondents. Based on the results of the Chi square test, $p = 0.003$ and $p < 0.05$, which means there is a significant relationship between lifestyle and hypertension control in the elderly. And the gain OR = 4,902 CI 95% = 1,630-14,739.

Table 5. The Relationship Between Family Support and Hypertension Control in the Elderly in the Banten Girang Health Center Work Area in 2023

Variable	Hypertension Control						P value	OR	CI 95%
	Do		Not Doing		Total				
	N	%	N	%	N	%			
Family Support Support Does not support	17 9	54.8% 24.3%	14 28	45.2% 75.7%	31 37	100% 100%	0.010	3.778	1.346-10.600
Sum	26		42		68				

Based on family support, 17 (54.8%) respondents received family support for hypertension control, and 14 (45.2%) respondents did not control hypertension. While in respondents who did not get family support who carried out hypertension control as many as 9 (24.3%) respondents, and those who did not control as many as 28 (75.7%) respondents. Based on the results of the Chi square test, $p = 0.010$ and $p < 0.05$, which means there is a significant relationship between family support and hypertension control in the elderly. And gain OR = 3.778 CI 95% = 1.346-10.600.

4.3 The relationship between sex and hypertension control in the elderly

The results showed that the majority of sex were women, based on the results of the Chi square statistical test obtained $p > 0.05$ which means there is no significant relationship between sex and hypertension control behavior in the elderly in the Banten Girang health center work area.

This study is in line with research conducted by Sari, et al (2023) The results of bivariate analysis are known that there is no relationship between sex and hypertension control management with a p-value of 0.306.

According to Anindiya (2012) in Azri (2017) said that the number of people with hypertension is more women than men because in women who have experienced menopause there will be hormonal changes, namely a decrease in the ratio of estrogen and androgen which causes an increase in renin release, so that it can cause an increase in blood pressure.

Although female gender is a factor that affects high blood pressure, this is likely due to many factors that influence hypertension control behavior such as lifestyle, family support, and others.

4.4 The relationship between education and hypertension control in the elderly

The results showed that the majority of respondents had low education (83.8%) did not finish junior high school. Based on the Chi square test results, p > 0.05 was obtained, which means that there is no significant relationship between education and hypertension control in the elderly in the Banten Girang health center work area.

This is in line with Adhitomo's (2014) research which says that education has no relationship with the incidence of hypertension with the acquisition of p value = 0.825.

The level of education also affects a person's knowledge, health knowledge will affect behavior as a medium-term result (intermediate impact) of health education, then health behavior will affect the improvement of public health indicators as an output of health education (Rezki Putri, et al, 2017).

Findings in the field show that with low education the majority of respondents affect hypertension control behavior because education is very close to an individual's knowledge. Although respondents know bad behavior towards hypertension control, respondents do not know exactly the impact that occurs if they do not control hypertension

4.5 The relationship between lifestyle and hypertension control in the elderly

The results showed that the majority of respondents had a good lifestyle (54.4%). Based on the results of the Chi square test, a p value of < 0.05 was obtained, which means that there is a significant relationship between lifestyle and hypertension control behavior in the elderly in the Banten Girang health center work area.

This is in line with Maimunah's research (2020), from 73 respondents showed a relationship between lifestyle and the incidence of hypertension where the p value was 0.019.

The main factor of a person suffering from hypertension is their lifestyle. In line with this research, a previous study conducted by (Fauziyyah &; Solikhah, 2021) also explained that paying attention to lifestyle is very important for people with hypertension, especially in dietary problems. Changes in lifestyles that are increasingly modern and advanced greatly affect changes in consumption patterns in the elderly who are more likely to choose foods that are high in calories, high in fat, low in fiber and so on.

Findings in the field show that respondents have a good diet, besides that the majority of respondents are women who do not have the habit of smoking and also drinking coffee, but in doing physical activity Some respondents said it was difficult or rarely did physical activity due to conditions that were not fit.

4.6 The relationship between family support and hypertension control in the elderly

The results showed that the majority of respondents had unsupportive family support (54.4%). Based on the results of the Chi square test, a p value of < 0.05 was obtained, which means that there is a significant relationship between family support and hypertension control behavior in the elderly in the Banten Girang health center work area.

This is in line with research conducted by Handayani (2022) where the results of the chi square test p = 0.000 this shows that there is a relationship between family support and hypertension control behavior in Gampong Umang, Central Aceh Regency.

This happens because a person cannot meet physical or psychological needs alone. Individuals need social support where one of them comes from the family (Sinaga, 2015).

From the findings in the field, the author assumes that families who care about family members suffering from hypertension will pay attention to feeding, invite exercise together, accompany and remind to routinely check blood pressure.   The support provided by family members shows family attention and concern so that hypertensive patients will be motivated to undergo treatment properly and correctly.

5. Conclusion

These findings show that there is a significant relationship between lifestyle and family support with hypertension control in the elderly in the Banten Girang Health Center Area. However, there was no significant relationship between sex and education with hypertension control in the elderly in the Banten Girang Health Center Area.

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