Original Article

The Influence Of The Compliance Of Anti Hypertension Diet On Lowering Blood Pressure In Elderly

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ARTICLE INFO	ABSTRACT
	Background: Hypertension is a problem that is difficult to control because people with hypertension rarely feel a symptom that the patient unconsciously experiences complications in vital organs such as the brain and kidney. Prevention of hypertension can be done with a hypertensive diet in a sustainable manner to prevent further severe effects. Objective To find out whether there is a Hypertension Diet Compliance with Blood Pressure in the Elderly in Muara Besar Village Ogodeide Public Health Center Tolitoli District.. The design used in the study is correlational analytic population are all elderly hypertension. The sample size is 37 respondents using the Simple Random sampling technique. Independent variable of research is diet compliance. The dependent variable is blood pressure. Data was collected using a questionnaire, then the data were analyzed using the Spearman rho test, with a significance level of $\alpha < 0.05$. The results showed that $p = 0.021$ with $a = 0.05$, which means that H0 was rejected and H1 was accepted so that it could mean that there was a relationship between adherence to the anti-hypertensive diet to blood pressure reduction in the elderly in Muara Besar Village Ogodeide Community Health Center Tolitoli District, with a correlation coefficient 0.379 which means having a strong enough relationship. An appropriate hypertension diet can help reduce blood pressure by reducing the consumption of causes that cause high blood pressure

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Introduction

Non-communicable diseases (PTM) are a group of diseases that maintain chronic pathological processes, burden severe public health problems, become the main cause of death and quite difficult to overcome and control. Chronic disease itself is defined as a medical condition or health problem related to symptoms or disability that requires long-term management (Smeltzer & Bare, 2002). Hypertension is often referred to as the *"silent killer"* because often

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hypertensive patients for many years do not feel a disturbance or symptom and without realizing it the patient has experienced complications in vital organs such as the brain and kidney. Symptoms of hypertension such as dizziness, vision problems, headaches often occur when hypertension is advanced when blood pressure has reached a significant number. Long-term and continuous hypertension can lead to strokes, heart attacks, heart failure, and is a major cause of chronic kidney failure (Purnomo, 2009)

The World Health Organization (WHO) noted that in 2012 there were at least 839 million cases of hypertension, estimated to 1, 15 billion in 2025 or around 29% of the total world population. Hypertension prevalence in Indonesia reaches 31, 7% of the population aged 18 years and above. of that amount, 60% of patients with hypertension experience stroke complications. while the rest experience heart disease, kidney failure and blindness (Riskesdas 2018). Based on data from the Central Sulawesi Provincial Health Office Hypertension has decreased from total cases, 78. 589 in 2013, to 76. 726 cases in 2014, and decreased to 72. 120 in 2015. Tolitoli District 4699 new case discoveries from 223. 318 soul (Division of Disease Control and Environmental Health / P2Pl Central Sulawesi Health Office 2015) and for 2017 new cases of hypertension 3067 out of 225. 875 people, and for the discovery of new cases of hypertension sufferers Ogodeide puskesmas working area is 417 out of 12816 people (Field of Disease Control and Environmental Health / P2PL PHO and not Communicable Disease control Section of the District of Tolitoli 2017. The results of a preliminary study in Puskesmas Ogodeide obtained an average hypertensive new cases were 62 cases, and cases of hypertension in the elderly as much as 42 individuals from 57 elderly (74%).

hypertension not yet known the exact causes, but found several risk factors that can cause damage not high blood pressure, namely old age, a history of high blood pressure in the family, besides the increase in blood pressure is also influenced by how many risk factors include age, sex, being overweight followed by lack of physical activity, dietary patterns (excess consumption fatty foods and high salt content), living habits such as smoking and drinking alcohol. for those who have these risk factors should be more vigilant and earlier in making prenventive efforts for example the simplest is routine blood pressure control more than once, and try to avoid the trigger factors of hypertension (baradiro). Indonesia with a lower level of health awareness, the number of patients who do not realize that they suffer from hypertension and do not comply with taking medication is likely to be greater. where Hypertension is a degenerative disease, generally blood pressure increases slowly with increasing age, and hypertension is a problem that is relatively (silent) but contains great potential for larger problems. for this reason, proper management is needed in efforts to prevent and control hypertension.

Nonpharmacological therapy must be given to all primary hypertensive patients with the aim of lowering blood pressure and controlling other risk factors and comorbidities. non-compliance with lifestyle modifications namely alcohol consumption, weight control including stress control and anxiety is one of the causes of resistant hypertension. From various research results it is known that nutritional status is strongly related to blood pressure because those who suffer from hypertension and are obese are more compared to normal nutritional status (Seow, 2016). Preliminary study results / preliminary data collection conducted at Ogodeide Health Center Tolitoli Regency on January 9, 2018 from interviews with 4 hypertensive patients conducted at the Posbindu Lansia Muara Besar Village, Researchers found the answer that how much food can affect a patient's blood pressure rise and fall one of them was salted fish and high-fat food (livestock, beef and pork) dismping it, they also answered that since they knew that they were suffering from hypertension they always had blood pressure checked by health workers in the village after processing the food and the results went up, because they agreed to themselves that these foods need to be regulated in the process of avoiding and even avoiding the risk factors for raising blood pressure. Some reasons for disobedience to patients Hypertension in regulating low-fat and

low-salt diets causes the success of prevention and recurrence of hypertension is still low. Based on the background on the previous page, the researchers wished to conduct a study entitled "Compliance with hypertension diets with decreased blood pressure in elderly patients in Muara Village, Ogodeide Community Health Center work area"

Method

design used in the study was correlational analytic Population were All Elderly Hypertension. The sample size was 37 respondents using *Simple Random sampling technique*. Independent variable of research is diet compliance. The dependent variable is blood pressure. Data was collected using a questionnaire, then the data were analyzed using thetest *Spearman rho,* with a significance level of $\alpha \leq 0.05$.

Results

Table 1. Distribution of Frequency of Characteristics of Respondents based on Age at Elderly in Muara Besar Village Ogodeide Health Center Working Area on 30 May-29 July 2018 (n = 37)

No	Age	Frequency	Percentage
1	46-55 years	11	26,8
2	56- 65 years	17	41.5
3	> 65 years	9	22.0
	Total	37	100

The results of the study showed that most of the respondents aged 56-65 years were 17 respondents (41.5%), and the least were aged> 65 years as many as 9 respondents (22%).

Table 2. Distribution of Frequency of Characteristics of Respondents based on Gender in Elderly in Muara Besar Village Ogodeide Health Center Working Area on 30 May-29 July 2018 (n = 37)

No	Gender	Frequency	Percentage
1	Male	21	56.8
2	Female	16	43 , 2
	Total	37	100

The results of the study showed that most of the respondents were male as many as 21 respondents (56.8%), and the least female were 16 respondents (43.2%).

Table 3. Distribution of Frequency Characteristics of Respondents based on education in the Elderly in Muara Besar Village Ogodeide Health Center Work Area on 30 May-29 July 2018 (n = 37)

No	Education	Frequency	Percentage
1	No School	1	2.7
2	SD	26	70.3
3	SMP	5	13.5
4	SMA	3	8.1
5	PT	2	5.4
	Total	37	100

The results of the study showed that the most of the respondents had elementary education as many as 26 respondents (70.3%), and the least were not as many schools 1 respondent (2.7%).

Table 4. Distribution of Frequency of Characteristics of Respondents based on Occupation in the Elderly in Muara Besar Village Ogodeide Health Center Work Area on 30 May-29 July 2018 (n = 37)

No	Job	Frequency	Percentage
1	PNS	3	8.1
2	Private	7	18.9
3	No work	27	73.0
	Total	37	100

The results of the study showed that most respondents did not work as many as 27 respondents (73%), and the least worked as civil servants as many as 3 respondents (8.1%).

Table 5. Frequency Distribution of Respondents based on Compliance with the Elderly in Muara Besar Village Ogodeide Health Center Work Area on 30 May-29 July 2018 (n = 37)

No	Compliance	Frequency	Percentage
1	Less	0	0
2	Enough	5	13.5
3	Good	32	86, 5
	Total	37	100

The results of the study showed that at most respondents had good compliance as many as 32 respondents (86.5%), and at least had a sufficient level of compliance as much as 5 respondents (13.5%).

Table 6. Frequency Distribution of Respondents based on Blood Pressure in the Elderly in Muara Besar Village Ogodeide Health Center Work Area on 30 May-29 July 2018 (n = 37)

No	Hypertension	Frequency	Percentage
1	Mild	21	56.8

	Hypertension		
2	Moderate Hypertension	13	35,1
3	Hypertension Weight	3	8.1
	Total	**37**	**100**

The results of the study showed that more than half of respondents had mild hypertension of 21 respondents (56.8%), and at least had severe hypertension of 3 respondents (8.1%).

Table 7. Compliance and blood pressure in the elderly in Muara Besar Village Ogodeide Health Center Working Area on 30 May-29 July 2018 (n = 37)

Kepatu han	Tekanan Darah						p
	Hiperte nsi Ringan		Hiperte nsi Sedang		Hiperte nsi Berat		
	∑	%	∑	%	∑	%	
Cukup	0	0	5	13,5	0	0	0,0 21
Baik	21	56,8	8	21,6	3	8,1	
Total	21	56,8	13	35,1	3	8,1	

The results of the study found that most respondents had a good level of adherence by having as little as 21 hypertension respondents (56.8%). The statistical test results obtained p = 0.021 with a <0.05, which means that H0 is rejected and H1 is accepted so that it can be interpreted that there is a relationship between adherence to anti-hypertensive diet for blood pressure reduction in the elderly in Muara Besar Village Ogodeide District Tolitoli Health Center, with a correlation coefficient 0.379 which means having a strong enough relationship.

Discussion

The statistical test results obtained p = 0.021 with a = 0.05, which means that H0 is rejected and H1 is accepted so that it can be interpreted that there is a correlation between adherence to anti-hypertensive diet for blood pressure reduction in the elderly in Muara Besar Village Ogodeide District Tolitoli Health Center, with

coefficients correlation of 0.379 which means having a strong enough relationship.

Camous (2016) found that the provision of diet health education can improve the attitude of respondents to hypertension. A high salt diet is associated with an increase in blood pressure and the prevalence of hypertension. the latest guide from the British Hypertension society recommends sodium intake be limited to less than 2, 4 grams a day, the amount is equivalent to 6 grams a day or about 1 teaspoon / day. following a dose of diet for hypertensive patients in nursing services for hypertensive sufferers in an integrated manner (Endang Tryanto 2014). Hypertension is a disease that is relatively covert (silent) but contains great potential for larger problems. for this reason, proper management is needed in efforts to prevent and control hypertension. The handling of hypertension in general can be divided into two types, namely non-pharmacological and pharmacological (Lewis 2000). pathological conditions require treatment or therapy, namely nonfarmalogical therapy and pharmacological therapy.

Based on the results of the study there is a relationship between adherence to hypertension and blood pressure in elderly patients. In accordance with the results of the study that Compliance with care is a behavior of a person to obey the rules in this case treatment which includes special treatment of lifestyle such as diet, rest and exercise and drug consumption that must be consumed, time to drink, when to stop, when to visit to do blood pressure control (Gunawan 2011). The results of previous studies based on Gunawan (2011) that compliance in carrying out hypertension diit can be done and greatly helps the elderly in carrying out therapy to prevent hypertension. Regular hypertension sufferers in diit and treatment will increase blood pressure stability through prevention and treatment. Compliance with diits and regular treatment will support blood pressure stability at normal pressure. If these therapies are carried out regularly, they will cause the relaxation mechanism of

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the blood vessels to be located in the vasomotor center, which results in additional vasodilatory activity. The adrenal medulla will reduce the secretion of epinephrine, which causes vasodilation, these changes have the consequence of large aorta and arteries increasing their ability to accommodate the volume of blood pumped by the heart and causing blood pressure to stabilize. At the research site there was a Prolaris program and the results of identification were 3 respondents with severe hypertension categories. It is possible that the respondents had complications or complications, or were on a diabetes mellitus diet that affected blood pressure in these respondents, another thing was Prolaris activities that not all respondents followed. , such as physical activity and gymnastics.

Conclusion

1. The results of the study found that most respondents had good compliance as many as 32 respondents (86.5%), and at least had a sufficient level of compliance as much as 5 respondents (13.5%).
2. The results showed that more than half of respondents had mild hypertension of 21 respondents (56.8%), and the least had severe hypertension of 3 respondents (8.1%).
3. The statistical test results obtained p = 0.021 with a = 0.05, which means that H0 is rejected and H1 is accepted so that it can be interpreted that there is a relationship of hypertension diet compliance with blood pressure in the Muara Besar Village Ogodeide District Tolitoli Health Center, with a correlation coefficient of 0.379 means having a strong enough relationship.

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