

Factors Which Influence Incident Hypertension on Pre-Elderly

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ABSTRACT

The type of research used is an analytic study with cross sectional design. The population in this study were all pre- hypertension suffering as many as 55 people. The sample is the entire population number used as the sample that is as much as 55 people. Data were obtained from Angkola Muaratais Health Center and through interview results using a questionnaire. The results showed statistical test results of independent variables eating habits obtained means there is a significant influence of independent variables with the dependent variable. Physical activity obtained Sig value means there is a significant influence independent variables with dependent. Smoking habits obtained means there is a significant influence independent variables with dependent. Gender obtained indigo means there is no significant influence of independent variable with dependent. Variables that affect the incidence of hypertension. Based on the results of the study concluded there is a lifestyle influence on the incidence of hypertension in the elderly and expected the patient is able to maintain a healthy lifestyle so US to further improve the health status.

Keywords:

lifestyle, Hypertension Incidence, Elderly

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1. INTRODUCTION

Hypertension is nicknamed the "*Silent Killer*" or the silent killer because it is a disease without signs and symptoms typical. People think that hypertension is a normal thing so it is only seen if it is severe and causes hypertension complications which very dangerous like *strokes*. Hypertension increase risk disease heart two time and increase the risk of *stroke* eight times compared with people who do not have hypertension. Apart from that, hypertension cause heart failure, renal impairment and retinopathy. This will be very dangerous if not controlled well. [4] According to the American Heart Association (AHA), Americans aged over 20 years suffering from hypertension has reached up to 74.5 million people or 1 in 3 adults in the United States suffer from hypertension, but almost 90-95% of cases have no known cause. Hypertension is a *silent killer* where Symptoms can vary in each individual and are almost the same as the symptoms of other diseases. Those are the symptoms are headache/heaviness in the neck, palpitations, fatigue, blurred vision, ringing in the ears and nosebleeds. [4] Hypertension can attack almost all groups of people around the world. Amount sufferer hypertension continues increase from year to year. From data study last, put forward that there are about 50 million (21.7%) American adults have hypertension. Hypertension also affects Thailand by 17% of the total population, Vietnam 34.6%, Singapore 24.9%, and Indonesia has a fairly high figure of 15%. In this matter, could concluded from 230 million population Indonesia that is almost 35 million population in Indonesia caught hypertension. [5] Based on the 2020 Indonesian Health Profile, nationally there was an increase in prevalence hypertension from 7.6% in 2007 to 9.5% in 2013. Provinces with the highest prevalence of hypertension in year 2017 is North Sulawesi Province (15.2%), followed by South Kalimantan Province (13.3%), and DI Yogyakarta (12.9%), while the prevalence in Papua (3.3%), followed by West Papua (4.3%), and Riau (6.1%). The highest prevalence increase was in West Sulawesi Province, from 4.7% in 2007 to 9.5% in 2017 2020. [7] Diet is one of the factors that cause hypertension. Excess fat resulting in increased levels of fat in the body, especially cholesterol which causes weight gain so that volume blood experience enhancement pressure which more big. Part big person in Indonesia no consume enough fresh fruit and vegetables. [7] According to research, every 10 cigarettes smoked per day will

increase the risk of death from *cardiovascular disease*. The risk of *cardiovascular disease* is related with hypertension. The prevalence of hypertension is higher in smokers when compared to non-smokers. Riskhypertension related with amount cigarette which sucked and duration smoke. [10].

Hypertension that is not handled properly can cause degenerative diseases such as kidney failure, heart failure, and narrowing vessels blood. Report System Information House Sick (2010) state that hypertension is wrong one from 10 most disease in House Sick (RS) in Indonesia for take care stay and take care Street. Data Insurance Health Indonesia year 2012 mention as big as 29% from whole participant insurance suffer hypertension. Problem main on hypertension is more from 90% from whole sufferer hypertension is sufferer hypertension essential which no is known cause [8] In Sumatra North alone as big as 2.6% population experience hypertension. Population which the more old and aging is faktor risk main for development hypertension and diabetes, as disease kidney chronic. According to data which obtained from Service Health Province Sumatra North on year 2013 sufferer hypertension reach 89,067 and on year 2014 increase Becomes 156.383 sufferer. [10] According to data which obtained from health center Angkola Muaratais Subdistrict South Tapanuli year 2022 hypertension isdisease order 2nd from data ten disease biggest that is with amount sufferer hypertension on year 2015 as much 90 patient hypertension, year 2017 as much 120 patient hypertension and on year 2017 as much 125 patient hypertension. From 125 patient hypertension majority is age seniors (45-59) year with amount case as much 55 patients (21%). Based on the background and the initial survey conducted, the researcher wants to conduct research on " factors which influence Incident Hypertension on Pre seniors in Bintujuh Village in Year 2022".

2. METHOD

Design The research used is an analytical survey with a cross sectional approach, which uses a research by taking measurements at the same time which aims to determine what factors influence incident hypertension on seniors in Bintujuh Village in Year 2022".

The sample in this study were all pre-elderly aged 45-59 years at Bintujuh Village in Year 2022" ., as many as 55 people. The sampling technique in this study is total sampling, where technique taking amount sample same with population as much 55 person.

3. RESULTS AND DISCUSSION

3.1. Results

Analysis Bivariate

Table 1. Connection Habit Eat With Incident Hypertension On Pre seniors

HabitEat	Incident Hypertension				Total		p Value
	HP I		HP II		F	%	
	f	%	F	%			
Good	6	16.7	5	24	11	20	
Not Good	20	83.3	24	68	44	80	
Total	26	100.0	29	100.0	55	100.0	

Based on the results of research on the relationship between eating habits and the incidence of hypertension in pre-elderly, it was found that yield as much as 44 people (80%) have good eating habits and 11 have bad eating habits people (20%). The results of the chi square statistical test on the eating habits variable with a value of $p = 0.003 < 0.05$, which means there is connection habit eat with incident hypertension.

Table 2. Connection Activity Physique With Incident Hypertension On Pre seniors

Activity Physique	Incident Hypertension				Total		p Value
	HP I		HP II		f	%	
	f	%	f	%			
Not Active	9	43.4	19	76	28	50.9	
Active	17	56.6	10	24	27	41.9	0.044
Amount	26	100	29	100	55	100	

Based on the results of the study the number of respondents as many as 55 people is known to be 27 people (49.1%) have physical activity active and 28 people (50.9%) had inactive physical activity. The results of the chi square statistical test on the variable activity physique obtained score $p=0.044 < 0.05$ which it means there is connection activity physique with incident hypertension .

Table 3. Connection Habit Smoke With Incident Hypertension On Pre seniors

HabitSmoke	Incident Hypertension				Total		p Value
	HP I		HP II		f	%	
	f	%	f	%			
Not Smoking	16	53.3	9	36	25	45.5	0.002
Smoking	10	46.7	20	64	30	54.5	
Total	26	100.0	29	100.0	55	100.0	

Based on the results of research on the influence of smoking habits with the incidence of hypertension, the results obtained are: the number of respondents as much as 34 people (61.8%) who smoke and as many as 21 people (29.2%) who do not smoke. Results test *chi statistics square* on variable smoke obtained score $p=0.046 < 0.05$ which it means there is connection habit smoke with incident hypertension .

3.2. Discussions

Habit Eat To Incident Hypertension On Pre seniors

chi square statistical test on the eating habits variable with a value of $p = 0.002 < 0.05$, which means there is a relationship eating habits with the incidence of hypertension. Based on the results of multivariate statistical tests with logistic regression test double obtained results that habit eat respondent take effect to incident hypertension with score $B = 0.003$ with an Exp (B) value of 8.032, meaning that bad eating habits have 8 times the chance to suffer from hypertension. Respondents also like and often eat foods that contain high levels of salt like peanut butter. Foods that contain coconut milk, such as curry, are very popular, because according to the respondents there are some that are lacking it feels like if you don't eat without using coconut milk sauce. Respondents do not like clear soups such as clear vegetables or fresh vegetables. In addition, respondents also like to cook beef rendang and make it stock in 3 days and reheated if you want to be consumed by adding fried oil and added salt to add good taste. Eating habits in patients with hypertension should really be considered. good schedule, amount and type of food consumed. Given, people with hypertension usually have a tendency to pressure blood which no controlled. Pressure blood will increase drastic after consume type food certain. By because that, habit eat and type food disease hypertension this must set like that appearance.

Connection Activity Physique To Incident Hypertension On Pre seniors

Statistical test results *chi square* on activity variable physical value obtained $p=0.04 < 0.05$ which means there is a relationship between activity physique with incident hypertension. Based on results test statistics by multivariate with test regression logistics double obtained The results showed that the respondent's physical activity had an effect on the incidence of hypertension with p value = $0.04 < 0.05$ with a value of Exp (B) as big as 4,009 it means person which no do activity physique enough 4 time more easy for caught hypertension.

The results of the research in the field showed that the respondents did not do much physical activity or did not move often such as sweeping the house or cleaning the house and clean the yard both morning and evening. A number of Respondents admitted that every time they finished eating, they immediately fell asleep. Along with the rapid advancement of technology so as to make the respondent does anything in a practical way, such as if there is a need with relatives, the respondent it is enough to just make a phone call without going to a relative's house so that the respondent's physical activity is less. Part respondents said that for activities outside the home such as recitation and going to the mosque they were lazy to walk because assumption they more practical ride bicycle motorcycle.

Connection Habit Smoke To Incident Hypertension On Pre senior

chi square statistical test on the smoking variable obtained p value = $0.04 < 0.05$ which means there is a habitual relationship smoking with hypertension. Based on the results of multivariate statistical tests with multiple logistic regression tests results obtained that the respondent's smoking habit has no effect on the incidence of hypertension with a B value of 0.921 with an Exp (B) value of 2.511, it means that someone with a smoking habit tends to be 2 times at risk compared with non-smokers. Every cigarette butt causes blood vessels to constrict which results in worsen the condition of the blood vessels. Respondents admitted that smoking started from the age of 21 years and over with the reasons: join in friend, try try until addicted cigarette and according to they smoke could reduce dizzy and stress.

4. CONCLUSION

Based on research the relationship of lifestyle (eating habits, physical activity, smoking habits) pre-elderly with The incidence of hypertension at the Angkola Muaratais Health Center, Kab. South Tapanuli in 2022. Based on the conclusions above, then can be given advice or recommendations To health workers at the Angkola Muaratais Health Center are expected to do health education to the public on how to prevent hypertension, for example by reducing consumption the food trigger the occurrence of hypertension conduct counseling about balanced nutrition for the prevention of hypertension and To do activities routine like gymnastics together on the elderly.

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REFERENCES

- [1] Bustan N. Management control disease no infectious. Jakarta : Rineka Create ; 2015. Soetardjo. nutrition balanced in cycle life. Jakarta : grammar References Main ; 2011. Sutarani L. Hypertension. Jakarta : grammar References Main ; 2006.
- [2] Gain. The factors that relate with incident hypertension primary [document in Internet]. 2015 [Downloaded January 11th2017]. Available from : <http://www.pusdiknakes.go.id> _
- [3] Ministry health republic Indonesia. Research health base (RISKESDAS) year 2013 [document in Internet]. 2014. [downloaded 11 January 2017]. Available from :[http:// www.riskesdas.go.id](http://www.riskesdas.go.id)
- [4] Shadine M. Recognize disease hypertension, diabetes, stroke and heart. Jakarta : Fmedia ; 2010. Prasetyaningrum. Hypertension no for feared. Jakarta : Fmedia ;2014.
- [5] Arief D. factors which relate with incident hypertension on elderly [document in Internet]. 2015. [downloaded on 11 January 2017]. Available from : <http://www.stickesmuh.kudus.ac.id>
- [6] Ministry health republic Indonesia. Profile health Indonesia 2013. Jakarta. Pusdiknakes [document in Internet.2014 [downloaded 12 December 2016]. Available from : <http://pusdiknakes.go.id>
- [7] Prasetyaningrum. Hypertension no for feared. Jakarta : Fmedia ;2014. William B. Pressure blood tall. Jakarta : Erlangga ; 2012.
- [8] Sutanto. block (prevent and guard) disease modern. Yogyakarta : Andi ; 2012.
- [9] Marito L. Factors that influence hypertension in adult women in the working area of the Gunung Tua Public Health Center Mandailing Natal district in 2016. [Thesis]. North Sumatra. SII Public Health Study Program Helvetia Institute of Health; 2016.
- [10] Rossefi S. Residents of North Sumatra have hypertension. [documents on the Internet]. 2015. [Downloaded January 9, 2017]. Available from: <http://beritastote.com.warga.sumut.hypertensi.go.id>
- [10] Ministry of Health of the Republic of Indonesia. Technical guidelines for the discovery and management of hypertension [document di Internet]. 2015. [downloaded 10 January 2017] available from : <http://www.depkes.go.id>
- [11] Atikah P. Behavior life clean and healthy. Yogyakarta : Noah medicine ; 2012.
- [12] Mustakim, Mustakim & Djokusujono, Kusharisupeni. (2020). Determinants of non-cardiorespiratory fitness in pre-elderly women. *Jurnal Gizi dan Dietetik Indonesia (Indonesian Journal of Nutrition and Dietetics)*. 7. 41. 10.21927/ijnd.2022.7(2).41-50.
- [13] Everson-Rose, Susan & Goldberg, Debbie & Kaplan, George & Julkunen, Juhani & Salonen, Johanna. (1998). Anger Expression and Incident Hypertension. *Psychosomatic medicine*. 60. 730-5. 10.1097/00006842-199811000-00014.
- [14] Jones, Alana & Chaudhary, Ninad & Patki, Amit & Howard, Virginia & Howard, George & Colabianchi, Natalie & Judd, Suzanne & Irvin, Marguerite. (2021). Neighborhood Walkability as a Predictor of Incident Hypertension in a National Cohort Study. *Frontiers in Public Health*. 9. 611895. 10.3389/fpubh.2021.611895.
- [15] Rahmad, Ardhi & Wahyu Ningtyias, Farida & Rohmawati, Ninna. (2020). The Determinant of Hypertension on Pre-Elderly and Elderly Prolanis in Sukowono Primary Health Center Jember Regency in 2022. *J-Kesmas: Jurnal Fakultas Kesehatan Masyarakat (The Indonesian Journal of Public Health)*. 7. 6. 10.35308/j-kesmas.v7i1.1865.
- [16] Gong, X & Chen, J & Li, J & Cao, J & Hu, D & Shen, C & Lu, X & Zhou, Z & Liu, Z & Yang, X & Huang, J & Chen, S & Gu, D. (2018). The relationship between physical activity and incident hypertension in rural Chinese. *Zhonghua yu fang yi xue za zhi [Chinese journal of preventive medicine]*. 52. 615-621. 10.3760/cma.j.issn.0253-9624.2018.06.010.
- [17] Cohen, Lisa & Curhan, Gary & Forman, John. (2012). Association of Sweetened Beverage Intake with Incident Hypertension. *Journal of general internal medicine*. 27. 1127-34. 10.1007/s11606-012-2069-6.
- [18] Elisabeth, Febrina & Lesmana, Defry & Aulia, Destanul. (2017). Dominant Factor Analysis of Hypertension in Pre-Elderly Men and Women in Puskesmas Rangkapanjaya, Depok City, 2016. 10.2991/phico-16.2017.12.
- [19] Völzke, Henry & Fung, Glenn & Itermann, Till & Yu, Shipeng & Sebastian, Emma & Dörr, Marcus & Lieb, Wolfgang & Völker, Uwe & Linneberg, Allan & Jørgensen, Torben & Felix, Stephan & Rettig, Rainer & Rao, Bharat & Kroemer, Heyo. (2013). A new, accurate predictive model for incident hypertension. *Journal of hypertension*. 31. 10.1097/HJH.0b013e328364a16d.
- [20] Kubzansky, Laura & Boehm, Julia & Allen, Andrew & Vie, Loryana & Ho, Tiffany & Trudel-Fitzgerald, Claudia & Koga, Hayami & Scheier,

- Lawrence & Seligman, Martin. (2020). Optimism and Risk of Incident Hypertension: A Target for Primordial Prevention. *Epidemiology and Psychiatric Sciences*. 29. 10.1017/S2045796020000621.
- [21] Lee, Sooyeon. (2021). A Study on the Sports Participation and the Expectation of Pre-elderly Group in Life Transitions. *Korean Journal of Sports Science*. 30. 149-159. 10.35159/kjss.2021.12.30.6.149.
- [22] Ezquerro, Arturo. (1989). Group Psychotherapy with the Pre-Elderly. *Group Analysis*. 22. 299-308. 10.1177/0533316489223007.
- [23] Mustakim, Mustakim & Djokosujono, Kusharisupeni. (2020). Determinants of non-cardiorespiratory fitness in pre-elderly women. *Jurnal Gizi dan Dietetik Indonesia (Indonesian Journal of Nutrition and Dietetics)*. 7. 41. 10.21927/ijnd.2022.7(2).41-50.
- [24] Fidianingsih, Ika & Jamil, Nur & Andriani, Russy & Rindra, Wira. (2018). Decreased anxiety after Dawood fasting in the pre-elderly and elderly. *Journal of Complementary and Integrative Medicine*. 16. 10.1515/jcim-2017-0172.
- [25] Kwak, In. (2013). Study on Family Strength and Happiness of the Pre-Elderly and the Elderly. *Journal of the Korean Home Economics Association*. 51. 10.6115/khea.2013.51.1.001.
- [26] Jang, Mi-Seon. (2022). The Difference in Needs on Housing Support Policy of the Elderly and Pre-elderly Households. *Journal of the Korean Institute of Interior Design*. 28. 79-88. 10.14774/JKIID.2022.28.3.079.