FACTORS RELATED TO DEGREE HYPERTENSION IN THE ELDERLY AT SIMPANG IV SIPIN HEALTH CENTERCITY JAMBI YEAR 2022

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ABSTRACT

Background: The prevalence of hypertension sufferers continues to increase every year. Hypertension on elderly occupy order First as disease No infectious. There is Several factors are thought to cause hypertension in the elderly including genetics, obesity, age,type sex, stress, And smoke. By Because That researcher want to see factors Which related to the degree of hypertension in the elderly at Simpang IV Sipin Health Center. This research is quantitative with a *Cross Sectional approach* . The population in this study is all hypertensive elderly who received treatment at the Simpang IV Sipin Community Health Center with a sample size of 96 respondents using purposive sampling technique. This analysis was carried out univariately And bivariate with use test *Kendall's You know* And *Chi-Square* . Results study This It was found that factors related to the degree of hypertension in the elderly included age, gender, and stress. The research results showed a relationship between age and the degree of hypertension with ρ-*value* =0.002 (p<0.05), connection between type sex with degrees hypertension ρ- *value* =0.021 (p<0.05), connection between stress with degrees hypertension ρ-*value* =0.00 (p<0.05), the relationship between smoking and the degree of hypertension ρ-*value* = 0.542 (p <0.05). It is concluded that there is The relationship between age, gender, stress and the degree of hypertension in the elderly. So it's expected Nurses can provide information about hypertension so that they can increase knowledge client.

Keywords : Hypertension, Elderly, Age, Type Sex, stress, Smoke

INTRODUCTION

Elderly is stage end from maturity. And it's a natural process inevitable for every individual. By general, Keep going increase age can cause change on elderly. [1]

Indonesia moment This enter period aging population, Where currently happen enhancement age hope life with followed enhancement amount elderly. Indonesia experience enhancement amount resident elderly from 18 million elderly (7.56%) year 2010, become 25.9 million elderly (9.7%) year 2019, And estimated enhancement will Keep going occurs where in 2035 it will be 48.2 million soul (15.77%). Elderly that is a Which enter aged 60-74 years at this age a person will experience decline Good on factor physique also psychologically and as he gets older the greater the risk of hypertension Which caused change structure blood vessels such as narrowing of the lumen. Based on previous researchers on kabat journal of nursing stress can trigger itenhancement pressure blood in sufferer hypertension. [2]

World Health Organization (WHO)report that prevalence hypertension in Africa own number degrees hypertension highest as big as 27% And Asia Southeastoccupy order third as big as 25% from total resident. *World Health Organization* (WHO) in 2015 in (Riskesdas, 2018) shows that about 1.13 billion people in the world suffer from hypertension, meaning one of three person in world diagnosed suffer hypertension. Amount sufferer hypertension Keep going experience enhancement every the year, It is estimated that by 2025 there will be 1.5 billion person Which suffer hypertension, Andestimated every the year 9.4 million person die Because hypertension And the complications. [3]

In Indonesia, the prevalence of hypertension continues experience enhancement from year to year. Estimated number of hypertension cases in Indonesia as big as 63,309,620 person, whereas number death consequence hypertension as big as 427,218 death. [4] Results Research Health Base show that

number hypertension on year 2018 as big as 34.1% compared to with 2013 amounting to 25.8%. Hypertension which occurs in the age group 31-44 years as much 31.6%, age 45-54 year as much 45.3%, age 55-64 year as much 55.2%, age 65-74 as many years 63.2% And age 75+ year as much 69.5%. On groupelderly hypertension occupy order First as a non-communicable disease with numbers 57.6% followed arthritis 51.9%, strokes 46.1%, dental and oral problems 19.1%, lung disease chronic obstructive disease 8.6% and diabetes mellitus4.8% as consequence from process degenerative (aging). [5]

In city Jambi, amount disabled person hypertension in 2020 there were 20,468 soul (18.82%), whereas amount sufferer hypertension in Public health center Intersection IV Sipin year 2020 as much 2,253 people (43.79%). Type hypertension Which often foundon elderly is *isolated systolichypertension* (ISH), Where pressurethe systole just Which tall (on 140 mmHg), but diastolic pressure remains normal (under 90 mmHg). Elderly often caught hypertension Because stiffness on arteries so that blood pressure increase. [6] The impact of hypertension if not immediately overcome can result abnormality Which fatal for example, abnormality vessels blood, heart (cardiovascular) and kidney disorders, even broke vessels blood capillary inbrain or more commonly known as stroke andend with death. [6]

Based on study Annaas Budi Setyawan (2017) Connection between levelstress and anxiety with the degree of hypertension in the elderly at the Samarinda Islamic Center ClinicThe results of the research obtained a p value = 0.000 <0.05 means that there is a relationship meaningful between variable level stress with incident hypertension on elderly in Clinic Islamic Center Samarinda And with test correlation Spearman ranks obtained mark r=0.895 which means the strength of the correlation between The level of stress with the incidence of hypertension is very high strong. [7]

This is supported by Imelda's research, et al (2020) about factors Which associated with the incidence of hypertension in elderly in Public health center Water Cold Lubuk Minturun, Which put forward that there is connection between habit pattern Eat, stress And No there is connection between habit smoke, sports, obesity And status social economy with incident hypertension. [8] Seeing the phenomenon above, it is veryimportant for elderly For do control pressure blood in a way routine. Considering the importance of this matter, the author is interestedto conduct research on "factors factor Which relate with degrees hypertension in the elderly at Simpang Community Health Center IV Sipin City Jambi". Study This aim or know factors Whichrelate with degrees hypertension on elderly at Simpang IV Sipin City Health Center Jambi.

METHOD IMPLEMENTATION
Type study This is study quantitative with a Cross Sectional approach . As for Which observed covers factors Which relate with degrees hypertension in the elderly. All variables are measured simultaneously at one time. This research was carried out in Simpang Health Center IV Sipin City Jambi. Population in study This is all over elderly hypertension Which treatment in Public health center Intersection IV Sipin, City Jambi with amount sample 96 respondents withuse technique purposive sampling. With criteria inclusion that is elderly aged more from 55 year with hypertension Which seek treatment at the Simpang IV Sipin City Health Center Jambi, can communicate well and willing be a respondent. Collection data done with method, namely measuring blood pressure with using a sphygmomanometer.Data collection on factors such as age, gender, stress And smoke researcher do measurement in a way direct withuse questionnaire to respondents which contains questions and data collection stress using *Depression Anxiety Stress Scales* (DASS).

RESULTS AND DISCUSSION
Analysis Univariate

Table 1. Distribution Frequency Respondent Based on Degrees Hypertension In Public health center Intersection IV Sipin Jambi City 2022

Degrees hypertension	Amount (n)	Percentage (%)
Light	61	63.5
Currently	32	33.3
Heavy	3	3.1
Total	**96**	**100**

Table 2. Distribution Frequency Respondent Based on Age, Type Sex, stress, And Smoke In Public health center Simpang IV Sipin Jambi City 2022

Variable	Category	Amount (n)	Percentage (%)
Age	Age 55-59	24	25
	Age 60-64	25	26
	Age >65	47	49
Total		**96**	**100**
Type Sex	Man	36	37.5
	Woman	60	62.5
Total		**96**	**100**
Stress	Normal	27	28.1
	Light	31	32.3
	Currently	20	20.8
	Heavy	18	18.8
Total		**96**	**100**
Smoke	Yes	21	21.9
	No	75	78.1
Total		**96**	**100**

Table 2. obtained respondents Which experienced a mild degree of hypertension 61 people (63.5%). Table 4.2 shows the results part big elderly age>65 year Which totaling 47 respondents (49%), some of whom were elderly manifold sex Woman Which amount 60 respondents (62.5%). Beside That Also, obtained the results of elderly people who experienced levels mild stress amounted to 31 respondents (32.3%), and elderly people who do not smoke are 75 respondents (78.1%).

Analysis Bivariate

Table 3. Relationship between Age and Degree of Hypertension at Simpang IV Sipin City Health Center Jambi 2022

Degree Age	Degree Hypertension						Total		Number of *P value*(p<0.05)
	Light		Medium		Heavy				
	N	%	N	%	N	%	N	%	
Age 55-59	10	41.7	13	54.2	1	4.2	24	100	
Age 60-64	14	56	10	40	1	4	25	100	0.002

Age >65	37	78.7	9	19.1	1	2.1	47	100
Amount	**61**	**63.5**	**32**	**33.3**	**3**	**3.1**	**96**	**100**

Based on table 3. obtained results 24 respondents aged 55-59 years, where most Lots obtained on hypertension while there were 13 respondents (54.2%). For the 60-64 year age category there are 14 respondents (56.0%) experience degrees hypertension light, whereas category age >65 year as much 37 respondents (78.7%) experience degrees hypertension light. Based on test statistics obtained *p-value* of 0.002 because the *p-value is* 0.002 <0.05 then it can be concluded that there is a relationship between the age variable and the degree of hypertension on elderly.

Table 4. Connection between Type Sex with Degrees Hypertension in Public health center Intersection IV Sipin City Jambi 2022

Type sex	Degree Hypertension						Total		*ρ value* (p<0.05)
	Light		Medium		Heavy				
	N	%	n	%	n	%	n	%	
Man	28	77.8	6	16.7	2	5,6	36	100	0.021
Woman	33	55	26	43.3	1	1.7	60	100	
Amount	**61**	**63,5**	**32**	**33,3**	**3**	**3,1**	**96**	**100**	

Based on table 4. obtained respondents of which there are 28 males respondents (77.8%) experience degrees hypertension light. Whereas Which manifold sex Woman as much 33 respondents (55.0%) experience degrees hypertension light. From results test statistics obtained *p-value* of 0.021 because the *p-value is* 0.021 <0.05 then it can be concluded that there is a relationship between the variables of gender and degree hypertension on elderly.

Table 5. Connection between Stress with Degrees hypertension in Public health center Intersection IV Sipin Jambi City 2022

Degree Stress	Degree Hypertension						Total		*ρ value* (p<0.05)
	Light		Medium		Heavy				
	N	%	n	%	N	%	n	%	
Normal	24	88.9	3	11.1	0	0	27	100	
Light	24	77.4	6	19.4	1	3,2	31	100	
Currently	12	60	7	35.0	1	5.0	20	100	0.00
Heavy	1	5,6	16	88.9	1	5,6	18	100	
Amount	**61**	**63.5**	**32**	**33.3**	**3**	**3.1**	**96**	**100**	

Based on table 4.5 results study on factor stress obtained 27 respondents No experience stress, For category stress light as much 24 respondents (77.4%) experience mild degree of hypertension. For the stress category currently as much 12 respondents (60.0%) experience degrees hypertension light. Whereas category stress heavy as much 16 respondents (88.9%) experience degrees hypertension currently, And 1 respondents (5.6%) experiencing severe hypertension. From the results test statistics obtained *p-value* as big as 0.00 Because mark *p-value* 0.00<0.05 so can concluded that There is connection between age variable on the degree of hypertension in elderly.

Table 6. Connection between Smoke with Degrees Hypertension in Public health
center Intersection IV Sipin City Jambi 2022

| Smoking | Degree Hypertension | | | | | | Total | | ρ value (p<0.05) |
| | Light | | Medium | | Heavy | | | | |
	N	%	n	%	N	%	n	%	
Yes	24	88.9	3	11.1	0	0	27	100	
No	24	77.4	6	19.4	1	3,2	31	100	0.542
Amount	**61**	**63.5**	**32**	**33.3**	**3**	**3.1**	**96**	**100**	

Based on table 6 results study on the smoking factor, there were 21 respondents smoking, 15 respondents (71.4%) smokedexperience hypertension light, more Lots compared to respondents Which experience hypertension heavy Which amount 1 respondents (4.8%). From the results test statistics obtained *p- value* as big as 0.542 Because mark *p-value* 0.542>0.05 so can concluded that no connection between smoking variables to degree of hypertension in elderly.

DISCUSSION
Degrees Hypertension
In this research the degree variable Hypertension consists of 3 categories namely light, currently, And heavy. From results study obtained that respondents Which experience degrees hypertension light as much 61 person (63.5%), more Lots If compared to with respondents Which experience moderate degree of hypertension that is as much 32 person (33.3%) and respondents who suffer from severe degrees of hypertension, namely as much 3 people (3.1%). Based on existing research resultscan made conclusion that respondents more Lots experience degrees hypertension light compared to degrees hypertension currently And heavy, that matter This can caused by respondents currently taking blood pressure lowering medication, and the respondent is not experiencing stress

Age
In study This variable age consists of 3 categories, namely aged 55-59 years, 60-64 year And >65 year. From resultsstudy obtained respondents Which aged >65 as many as 47 respondents (49%), more Lots If compared to with respondents Which aged 60-64 that is, as much as 25 respondents (26%) And respondents Whichaged 55-59, namely 24 respondents (25%). Based on the characteristics of the respondents, age respondents elderly Which Lots experience hypertension more Lots ongroup age >65 year. Based onresearch conducted by Hazellarissa, 2017 Which show hypertension onage group >60 years is 51.% and on group <60 year is 39.7%, based on results test statistics *chi square* obtained $ρ-value = 0.195> α=0.05$, then No There is connection Which significant betweenage with the degree of hypertension.

Type Sex
In study This variable type Gender consists of 2 categories, namely male And Woman. From results study obtained that respondents Which type sex Woman as much 60 person (62.5%), more than respondents Which type sex man as much 36 people (37.5%). Results This in line with research conducted by Oktarini (2015), about connection between age, type sex,work with disease hypertension in *value* 0.044.

Stress

In study This variable stress consists of 5 categories, namely not stressed, stressed mild stress, moderate stress and severe stress. Normal if the score is 0-14, mild stress, score 15-18, stress currently 19-25, stress heavy 26-33, And stress very heavy >34. From results study obtained that respondents Which experience stress light as much 31 respondents (32.3%), more Lots compared to those experiencing stress heavy as many as 18 respondents (18.8%). Results from study This in line with study Which done Imelda, et al (2020) about factors Whichrelated to the degree of hypertension elderly in Public health center Water Cold Lubuk Minturun, Which obtain results *p-value* as big as 0.011 (p<0.05) It means level stresshave a significant relationship with the degree of hypertension in the elderly.

Smoke

In study This variable Smoking consists of 2 categories namely yes and No. From the research results it was found thatThere were 96 respondents who did not smoke person (78.1%), more Lots If compared to with respondents Whichsmoke that is as much 21 person (21.9%). Matter This in line with study Imelda, et al (2020) about factorsWhich relate with degrees hypertensionon elderly in Public health center Water Cold LubukMinturun, Which put forward that Nothere is connection between habit smokewith the degree of hypertension (p=0.846).

Relationship between Age and Degree Hypertension in the elderly

Based on test statistics *Kendall'stau* obtained *a p-value of* 0.002 smaller than α=0.05 Which It means There is connection between age and degree of hypertension at the Community Health Center Intersection IV Sipin City Jambi 2022. Pressure blood on age carry on (elderly) will tend tall so that Elderly people are at greater risk of developing hypertension. Increasing age result pressureblood increases, because the walls of the arteries on elderly will experience thickening Which result accumulation substance collagen in the muscle layer, so that the blood vessels will gradually narrowed And become rigid. [11] In line withincrease age, almost every person experiencing an increase in blood pressure, pressure systolic and increases until age 80 yearsand diastolic pressure continues to increase until55-60 year, Then reduce in a wayslowly or even decrease drastic. Matter This in line with study Which done by Aristotle (2017) show exists connection between agewith degrees hypertension obtained *p-value* 0.001, matter This caused Because pressure arterial Which increase in accordance with increase age, happen regurgitation aorta, as well as the presence of degenerative peruses more often on age old.

Relationship between Gender and Degree Hypertension in the elderly

Results test statistics *chi square* obtained *p-value* 0.021 more small from α=0.05 Which It means There is connection between type sex with degrees hypertension in Public health center Intersection IV Sipin City Jambi 2022. Results This in line with study Miftahul (2019) that There is connectionsignificant between type sex with incident hypertension in ward Tamnasaricity Tasikmalaya with mark results *p-value*=0.035<α (0.05). Women experiencing menopause is one of the factors causing womenown trend number incident hypertension more tall than man, statement This supported with studycarried out by Wahyuni and Eksanoto (2013) that Woman will experience enhancement risk hypertension after menopause that is age on 45 year. Woman Which has experience menopause own rate estrogen Which

low, whereas estrogen increase Very *High Density Lipoprotein (HDL).*plays a role in maintaining vascular healthblood. On woman menopause, kadaeestrogen Which lead Also will followed with decline rate HDL If Nofollowed with style life Which Good Also.

Connection Stress with Degrees Hypertension on Elderly

Results test statistics *Kendall's you know* obtained ρ *value* 0.00 more small from α=0.05 Which It means There is connection between stress with the degree of hypertension at the Community Health Center Intersection IV Sipin City Jambi 2022. Results from study This in line with research conducted by Eva Purwati (2018) in Public health center Suli Regency Luwu obtained *p-value* as big as 0.007 (p<0.05). With thereby can concluded that there is a relationship meaningful between stress with incident hypertension. [14] In accordance with theory that pressure blood tall or hypertension can caused Because stress Which suffered individual, the cause of the reaction that arises against impulse stress is pressure his blood increase. Besides That, individual Which experiencing stress it will be difficult to rest or Sleep, Sick head, fatigue, easy offended, Lots contemplating or center self Which excessive, Respiratory panting, so that willimpact on pressure his blood Which tend tall.

Connection Smoke with Degrees Hypertension in the elderly

Based on test statistics *chi square*obtained *a p-value* of 0.542 because of the value*p-value* 0.542>0.05 so it can be concluded that No There is that relationship significant (means) between variable smoke todegrees hypertension in elderly. Results study This in line with studyWhich done by Hazellarissa, 2017 Whichshowed hypertension in the groupage >60 year is 51% And ongroup <60 years is 39.7%, based on results test statistics chi squareobtained ρ-value=0.951> α=0.05, soNo There is connection Which significant betweensmoke with incident hypertension. In this study it was foundthat nothere is connection between smoke withdegree of hypertension in the elderly. Noit's proven smoke as factor risk. The occurrence of hypertension is caused by a number of matter that is the sample on studythese are mostly women. Meanwhile, the smoking habit ofgenerally done by man.

CONCLUSIONS

The knot

Based on results study Factors Which Relate with Degrees Hypertension on Elderly in Public health center Intersection IV Sipin City Jambi, obtainedconclusion that there is a relationship between age, type sex, stress with degrees hypertension on elderly. And No there is connection between smoke with degrees hypertension on elderly.

Suggestion

Recommended to elderly Which suffer hypertension For do regular blood pressure control and for health workers to do promotion health or preventionhypertension related to the elderly.

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