

Relationship Age, Type Gender And Sleep Patterns To Incident Hypertension In The Elderly At Posyandu Sari Waluyo

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ABSTRACT

Background Rear : several causative factor _ happening hypertension , among others age , type gender , history family , obesity , less activity physical , smoking , excessive salt consumption , consumption alcohol , stress , depression , support low social and quality _ sleep . Purpose : find out connection age , type gender and pattern Sleep to incident hypertension in the elderly at Posyandu Sari Waluyo. Method : research This performed on 100 samples , with _ use saturated sampling technique . The design used in research This is analytic observational with approach *cross sectional* with data analysis using *Chi Square* test . Age data taken use method interviews , quality data Sleep taken use questionnaire , as well pressure blood checked using a sphygmomanometer. Results : results study This show that the sample mean are in category age elderly end (68%), manifold sex female (64%), pattern Sleep bad (64%), and hypertension with category stage I (68%), Relationship between age to incident hypertension in the elderly ($p=0.007$). Connection type sex to hypertension in the elderly ($p=0.434$). Connection between quality Sleep to incident hypertension in the elderly ($p = 0.266$), Conclusion: There is connection between age to incident hypertension in the elderly . No There is connection type gender and pattern Sleep to incident hypertension in the elderly at Posyandu Sari Waluyo.

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1. INTRODUCTION

Elderly is bunch humans who have enter age stages end from phase his life, which is stages end from A cycle life to be experienced by everyone individual. Disturbance joints, stroke, hypertension, disease heart disease, cataracts, emotional mental disorders and diabetes mellitus are a number of disease frequent degenerative suffered by the elderly.

Hypertension or pressure blood tall is enhancement pressure blood systolic Where the numbers more of 140mmHg and pressure blood diastolic more of 90 mm Hg on two measurements with hose five minutes in circumstances calm. Prevalence sufferer hypertension Keep going continuously experience enhancement every the year . According to Riskesdas 2018, prevalence hypertension in Indonesia by 34.11% increased compared to Riskesdas 2013 of 25.18%. Whereas prevalence based on results population measurements _ age ≥ 18 years in the Province Central Java by 37.57%. on month January September 2019, proportion case hypertension in Surakarta City as much as 26.5% .

A number of possible factor become reason hypertension in the elderly among them is factor that is not can changed like age , type gender and history family, meanwhile possible factor changed among them overweight (obesity), habits smoking , less activity physical activity (exercise), excess salt consumption and consumption alcohol. Hypertension can too caused by various factor psychosocial such as job stress, personality, support low social , depression and quality sleep.

Amount sufferer hypertension worldwide continues continuously experience improvement . According to WHO data, around the world, around 972 million people or 26.4% suffer from it hypertension, numbers This possibility increase to 29.2% in 2025. From 972 million sufferer hypertension, 333 million are in developed countries and the remaining 639 in developing countries, including in Indonesia. Prevalence hypertension highest to be in Africa ie by 46% in men and women , in the UK 34% men and 30% women suffer hypertension or currently get treatment hypertension.

Relationship Age, Type Gender And Sleep Patterns To Incident Hypertension In The Elderly At Posyandu Sari Waluyo. Dewi Marfuah, et al

Quality bad sleep or habit duration short sleep can relate with enhancement pressure blood . lack of quantity and quality Sleep can damage memory and abilities cognitive. If matter the continues in a manner Keep going continuously during years , then will impact on pressure blood to be increase, rise stroke, attack heart , to problem psychological. Based on background behind on so researcher interested stare about connection age , type gender and pattern Sleep with incident hypertension in the elderly at Posyandu Sari Waluyo.

2. METHOD

Study This is type study analytic observational use _ approach cross sectional with saturated sampling technique . Data analyzed using the Chi-Square test . Variable free on research This is age , type gender , pattern sleep , meanwhile variable bound is incident hypertension .

Procedure study use letter application become sample , mail explanation to samples and letters willingness become sample , so No There is coercion to sample . Study This Already filed application review ethics to Committee ethics Health Research (KEPK) ITS PKU Muhammadiyah Surakarta. Study This Already obtain information worthy ethics of ITS PKU Muhammadiyah Surakarta with number *Ethical Clearance* 084N/LPPM/ITS.PKU /VIII/2021.

Study This carried out at Posyandu Elderly Sari Waluyo Kadipiro Surakarta. Population and sample in study This is whole sufferer Hypertension aged 45-84 years as many as 50 people. Age and type data sex taken in a manner direct through interviews , pattern data Sleep taken using a questionnaire form and pressure data blood sample obtained with measurement direct with using a sphygmomanometer.

Processing and analysis of data on research This using SPSS (Static Package for Social Science) version 21.0. data that has been analyzed served in form tables and narration For discuss results research . Data analysis used in study This is Analysis Univariate and Bivariate . Analysis univariate done to each variable from results study with use Table distribution frequency so that produce distribution and percentage from every variables in research this . Analysis bivariate done For know connection variable dependent and independent in form tabulation cross (*cross tabulation*) with using a computerized system for *the Statistical Package for Social program Science* (SPSS) with Test *Chi-Square* statistics .

3. RESULTS AND DISCUSSION

Results obtained from study This is as following.

Analysis Univariate

Table 1 . Distribution Frequency Category Age Elderly

Kategori Umur	Frequency (f)	Percentage (%)
Lansia Awal	16	32
Lansia Akhir	34	68
Total	50	100

From Table 1. in on showing that part big elderly are in category elderly end as many as 34 samples (68%).

Table 2. Distribution Frequency Type Sex Elderly

Type Sex	Frequency (f)	Percentage (%)
Man	18	36
Woman	32	64
Total	50	100

From Table 2. in on showing that part big sample manifold sex Woman as many as 32 samples (64%).

Table 3. Distribution Frequency Sleep Patterns Elderly [3]

Sleep Patterns	Frequency (f)	Percentage (%)
Good	18	36
Bad	32	64
Total	50	100

From Table 3. above show that part big elderly own pattern bad sleep as many as 32 samples (64%).

Table 4. Distribution Frequency Category Hypertension Elderly

Completeness Equipment Medical	Frequency (f)	Percentage (%)
Stage I	34	68
Stage II	16	32
Total	30	100

From Table 4. in on showing that part big elderly experience stage I hypertension as many as 34 samples (68%).

Analysis Bivariate

Table 5. Connection Age To Incident Hypertension in the Elderly

Age (Years)	Hypertension				Amount		p*
	Stage I		Stage II		n	%	
	n	%	n	%			
45-56	15	30	1	2	16	32	0.007
>56	19	38	15	30	34	68	
Total	34	68	16	32	50	100	

*Chi-Square Test

On Table 5. on showing that majority elderly experience stage I hypertension as many as 19 samples (38%) were elderly end . Minority elderly experience hypertension stage II as much as 1 sample (2%) is elderly early . Hypothesis test results *chi square* obtained p value of 0.007, then can concluded that There is connection age with incident hypertension in the elderly at Posyandu Sari Waluyo.

Table 6. Relationships Type Sex To Incident Hypertension in the Elderly

Type Sex	Hypertension				Amount		p*
	Stage I		Stage II		n	%	
	n	%	n	%			
Man	11	22	7	14	18	36	0.434
Woman	23	46	9	18	32	64	
Total	34	68	16	32	50	100	

*Chi-Square Test

On Table 6. on showing that majority elderly experience stage I hypertension is elderly Woman as many as 23 samples (46%) and Minority elderly experience stage I hypertension is elderly man as many as 11 samples (22%) . Results test hypothesis *chi square* obtained a p value of 0.434, then can concluded that No There is connection type sex to incident hypertension in the elderly at Posyandu Sari Waluyo.

Table 7. Relationship Sleep Patterns To Incident Hypertension in the Elderly

Sleep Patterns	Hypertension				Total		p*
	Stage I		Stage II		n	%	
	n	%	n	%			
Good	14	28	4	8	18	36	0.266
Bad	20	40	12	24	32	64	
Total	34	68	16	32	50	100	

*Chi-Square Test

On Table 7 on showing that results test hypothesis *chi square* obtained p.s value of 0.266 so can concluded that No There is connection between pattern Sleep with incident hypertension in the elderly at Posyandu Sari Waluyo.

Age

Research results show part big sample own category age elderly end ie aged >56 years as many as 34 people (68%). Incident hypertension related tightly with age someone , even more old age somebody the more big risk too attacked hypertension (Frilyan , 2011). he added age a person , body will experience decline elasticity in the vessels resulting blood increasing pressure blood in a manner automatic and inclined No stable . Aging process cause happening degeneration ability body , where body start experience decline from strength muscle , to strength heart pump blood so that must offset with a number of activity light exercise in a manner routine such as gymnastics and walking.

In advanced age is the time when something condition man start lost Power immunity to resulting infection decline function network muscle until organ function like heart, kidney, brain and liver. Impact from decline heart organ function is happening deposition characteristic substances possible atherosclerosis cause change elasticity vessels blood.

Type Sex

Based on type sex is known part sample Lots Woman as much as many as 32 people (64%). this in line with research conducted by Fitriana, et al (2015) which states that type gender also matters to hypertension . Prevalence happening hypertension in women can caused from disease cardiovascular before menopause, women who go through menopause have trend suffer hypertension more tall compared to with man .

women will experience enhancement risk hypertension after menopause ie moment age is at over 45 years. The woman who has experiencing menopause have rate low estrogen . Whereas estrogen function For increase High Density Lipoprotein (HDL) plays a role in look after health vessels blood . In menopausal women , decreased estrogen levels will also followed with decline HDL level if No offset with pattern healthy life .

Sleep Patterns

Study This obtained results part big sample own quality bad sleep that is as many as 32 people (64%). Research results This show that average quality Sleep sample bad , p This caused Because many samples that wake up at night day For carry out pray midnight and ke bathroom , besides that's also a lot difficult sample sleep at night day Because think about Lots p .

Quality bad sleep can cause happening enhancement activity sympathetic and mean pressure increase blood as well as heart rate for 24 hours . With method this , custom restrictions resulting sleep disturbance Sleep can cause enhancement activity system nerve sympathetic sustainable.

Relationship Age To Incident Hypertension in the Elderly

Based on results research in table 5 is obtained p - value of 0.007 (p- value <0.05). Which means There is connection age with incident hypertension in the elderly at Posyandu Sari Waluyo. Pressure blood in a manner experience will increase along with increase age someone . Elderly is something circumstances Where man start lost Power immunity to infection which causes it to decrease function network muscles and organ function other like heart , kidney , brain and liver. one

Relationship Age, Type Gender And Sleep Patterns To Incident Hypertension In The Elderly At Posyandu Sari Waluyo. Dewi Marfuah, et al

impact from decline heart organ function is happening deposition characteristic substances possible atherosclerosis cause change elasticity vessels blood .

Research results This in line with research conducted by Zhu et al (2016) which states that change related physiology _ with aging cause enhancement pressure blood systolic , the average increase in pressure arteries , increase in pressure pulse and decline ability For respond change hemodynamics in a manner drastic . aging process can associated with changes to the system vascular , cardiac , and systems autonomous . Research results this is also appropriate with results research conducted by Aristotle (2018) at the Home Unit Emergency Center Islamic Hospital Siti Khadijah Palembang with results part big respondent 50-60 years old (old) (60%), however different with study Widjaya et al (2019) in the District Kresek and Tegal Angus, Tangerang Regency . Research results obtained of 115 respondents i.e. the average age in the range aged 18-40 years (61.7%) . because That elderly recommended For more notice health with apply behavior life healthy , regular do consultation health , as well arrange types and patterns eat .

Relationship Type Sex With Hypertension in the Elderly

Based on results research in table 6 is obtained p - value of 0.434 (p- value <0.05), which means No There is connection type sex to incident hypertension in the elderly at Posyandu Sari Waluyo. Research results This own suitability with study previously by Novitaningtyas (2014) in Kelurahan Hajj Graves Subdistrict Kartasura Regency Sukoharjo with results that No there is connection in a manner statistics between type sex with incident hypertension . Although so , if seen based on table frequency type sex elderly , look that amount suffering woman hypertension more Lots compared to with man . Although difference That No give significant relationship between type gender and incident hypertension. Women will experience enhancement risk hypertension after menopause ie start from age over 45 years . Menopausal women have rate more estrogen low compared to with those who are not yet menopausal. Meanwhile, the hormone estrogen function For increase *High Density Lipoprotein* (HDL) plays a role in guard health vessels blood . In menopausal women , decreased estrogen levels will also followed with decline HDL level if No followed with pattern healthy life .

Sleep Pattern Relationship To Incident Hypertension in the Elderly

Based on results research in table 7 is obtained p - value of 0.266 (p- value <0.05), which means No There is connection pattern Sleep to incident hypertension in the elderly at Posyandu Sari Waluyo. Research results are not significant This caused because of the sample average own enough time For Sleep will but often awakened in the middle night , no can withhold sleepy and hard concentrate when work that causes bad quality sleep on most elderly so that raises happening hypertension caused by the disorder time Rest or time Sleep elderly . Although in a manner statistics No There is relationship , however according to data theory that is part big sample own quality Sleep bad 32 people (64%) were followed part big sample experience risk hypertension stage I category as many as 34 people (64%).

Research results This in line with study Pitaloka , et al (2015) which mentions that No There is connection between quality Sleep with pressure blood , p This caused Because variation Daily is also one possible factor influence pressure blood .

4. CONCLUSION

There are differences in nutritional status toddlers before and after administration to the pumpkin and papaya seed pudding group (p=0.007). There are differences in nutritional status toddlers before and after administration in the papaya pudding group (p=0.047). There was no difference in nutritional status toddlers after administration between the pumpkin and papaya seed pudding group and the papaya pudding group (p=0.263).

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Relationship Age, Type Gender And Sleep Patterns To Incident Hypertension In The Elderly At Posyandu Sari Waluyo. Dewi Marfuah, et al

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