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Analysis of risk factors that influence events hypertension pre-elderly

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ABSTRACT

Hypertension is one of disease chronic affects global health, especially in populations pre-elderly. Identification factor influencing risks incident hypertension at stage pre-elderly can give valuable insight _ For effort appropriate prevention and intervention _ time, potential reduce burden disease, as well increase quality life and hope life for affected individual _ impact. Research purposes This is for identify and analyze factors contributing risks _ to incident hypertension in the population pre-elderly. Study This use design cross-sectional study. Data collection methods used in study This is survey method. Data analysis using analysis bivariate and multivariate. Research result show that factor age, breed, habits smoking, alcohol consumption, soft drink consumption are variables that don't relate with factor risk incident hypertension in the elderly. Whereas factor history family, stressors, obesity, activity physical, consuming food high fat, habit consume food salty, habitual drinking coffee > 3 times a day, consuming junk food is variable that becomes factor risk incident hypertension in the elderly.

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INTRODUCTION

Hypertension is a chronic disease that affects global health. Hypertension known as the silent disease because generally sufferer No realize condition the disease and occurs frequently without accompanied symptom whatever (Averjanovaitė et al., 2023). Sufferer hypertension generally No know the symptoms he experienced and even No bring up symptom so that new know after the presence of certain organs that are affected damage. Hypertension, or pressure blood high, is condition serious medical that can _ increase risk happen various diseases and Health complications (Benson & Mu, 2024). Pressure level high blood pressure burdensome heart, arteries, and body organs other in a way sustainable. Hypertension is not controlled can cause damage to the wall arteries , increase risk happen atherosclerosis , which in turn can cause disease heart coronary, attack heart disease, and stroke (Zerihun et al., 2024) . Hypertension can also occur cause enlargement and damage to the heart, which can leads to failure heart (Takahashi et al., 2024). Apart from that, hypertension increase risk happen disease kidneys, incl fail kidney chronic. Condition this can also be done cause damage to vessels blood in the eyes, causing retinopathy

hypertension, which can result lost sight. Hypertension also increases risk happen aortic aneurysm, that is Abnormal widening of the aortic wall broken and threatening soul (Saber Hafez et al., 2022). With thereby hypertension own significant contribution _ For various disease and complications serious health.

Hypertension can diagnosed with inspection pressure blood work done at least 2 times at different times with sitting position. Apart from with measurements are also possible based with results of anamnesis by a doctor related with degrees experienced hypertension, long suffering hypertension, history as well as the symptoms like disease heart and cerebrovascular as well as history hypertension family until change activity or habit (Jiang et al., 2017); (Alexandraki et al., 2021). Inspection complete physical _ will help For confirm the diagnosis of hypertension and identification resulting organ damage primary hypertension and/ or hypertension secondary, encompassing inspection circulation and heart, tests routine blood related Serum lipid profile (total lipids, triglycerides, HDL and LDL cholesterol, ratio total cholesterol- to -HDL), as well as 12-lead electrocardiogram (Groudeva et al., 2020) .

One of vulnerable groups _ experience hypertension is pre-elderly. Pre elderly vulnerable experience hypertension Because a number potential factors _ increase pressure blood on stage life This (Erlianti & Trihandini, 2022) . First , with increase age , elasticity vessels blood tend decreased , which can cause enhancement resistance vessels blood and increase pressure blood (Kikuchi et al., 2020). Second , style a life that doesn't Healthy like pattern eat foods that are high in salt, low fiber , as well lack of activity physical , inclined become more common in the population pre elderly and can contributed to its occurrence hypertension (Susmadi et al., 2022) . In addition, factors Genetics can too play role, with part big case hypertension at age carry on own history same family. Condition health certain more _ often appears at age old like obesity , diabetes, and disease Kidneys can too increase risk happen hypertension in pre elderly (Lacerda et al., 2016) . Combination from factors This make pre elderly become vulnerable groups _ experience hypertension , and is important For increase awareness will importance prevention and management pressure blood on stage life This (Febrianti et al., 2023) .

Based on data from the East Lombok Regency Health Profile in 2022 cases hypertension in East Lombok Regency experienced enhancement as much as 52.63% (Health Service, 2022) . From the report the enhancement case highest is at the health center Aikmel with enhancement case amounting to 1,824 cases. This matter indicated that disease hypertension Still become problem major among groups pre-elderly in the work area public health center Aikmel. Enhancement case This is quite an increase significant, necessary method for can detection early factor risk disease No infectious through in order to be able to done efforts handling for repair quality public health. Incident hypertension in pre elderly can cause quality bad life , trouble _ in social and physical functions as well as increase number morbidity and mortality consequence the complications it causes (Yen et al., 2015) .

Based on search a number of study previous can is known that influencing factors _ incident hypertension in pre-elderly covers age, type gender, history family, level stress, activity physique, and obesity. Age is factor important Because along increase age , elasticity vessels blood tend decrease , increase resistance arteries , and finally cause enhancement pressure blood (Erlianti & Trihandini, 2022) . Additionally , types _ Gender also plays a role role , with man tend own risk more high for age young , meanwhile woman own more risk _ tall after menopause (Amiri et al., 2024) . Family history hypertension also becomes factor important , because If There is member family near the one who suffers hypertension , risk somebody For develop condition it also increases (Zhang et al., 2024) . High stress levels _ can cause release hormone stress like cortisol, which can increase pressure blood in period long time. Activity physical enough _ proven can help reduce risk hypertension , meanwhile lack of activity physique increase risk happen hypertension (Mahmoud et al., 2023). Lastly , obesity or excess body weight is factor risk main For hypertension , due to excessive body fat increase Work heart and pressure on the walls arteries (Machado et al.,

2023) . With calculate and manage factors that, you can help reduce risk happen hypertension in pre-elderly, as well increase quality life and prosperity.

There are several previous studies related to this research. Firstly, a study examining the relationship between smoking risk factors and the incidence of hypertension in pre-elderly individuals in the Minasaupa Health Center's working area in Makassar City (Hatta et al., 2022). Subsequently, a study discussed the impact of age on clinical outcomes of antihypertensive therapy in patients with hypertension and coronary artery disease (Kikuchi et al., 2020). Another study addressed the relationship between Body Mass Index (BMI), physical activity, stress level, and hypertension in the residents of a certain area (Harlinda et al., 2023). The difference between this study and previous research lies in the factors analyzed; in this analysis, various factors are comprehensively presented, whereas previous studies only covered certain aspects. Based on background behind that, then need done something study for know factor risks include _ age, type gender, family history, stress level, activity physical, obesity that affects incident hypertension in pre-existing elderly _ in the region Work Public health center Aikmel, with analyze factor the expected can modify style life pre-elderly for support control pressure blood to prevent progressiveness disease in attacks other organs so quality life will become more Good. The urgency of this research is to analyze the risk factors that influence the incidence of hypertension in pre-elderly individuals. This is important because understanding the factors contributing to the development of hypertension in this age group can help in formulating effective prevention strategies and timely interventions. Thus, this research can provide valuable insights into addressing the burden of hypertension and prevention efforts at the pre-elderly level, which in turn can improve public health overall.

RESEARCH METHOD

Study This use design cross-sectional study. A cross-sectional study design was used For see connection between factor risk with effect carried out with observation and measurement variable on one circumstances certain (Notoatmojo, 2018) . Study This aim for know influencing factors _ incident hypertension in pre-elderly in the work area community health center Aikmel. The population will used is all over pre-elderly people who regularly check their health at the community health center aikmel that is as many as 129 people. Retrieval technique sample used _ in study This is simple random sampling. Samples taken from study This use Stanley Lameshow formula. From the results calculation the so amount samples taken _ are 42 people from amount pre-elderly people who regularly check their health at the community health center aikmel in the group cases and controls. Data collection tools use questionnaire, namely a list of questions / statements that are logical relate with problem research, and each question / statement is answer that has meaning in test hypothesis. Data analysis using analysis bivariate and multivariate. Analysis Multivariate is something method objective statistics _ it uses is for analyze the data it consists of from Lots variable as well as allegedly between variable the each other relate One each other. In research This analysis Multivariate done for know influence age, type gender, family history, stress level, activity physique, obesity, habits smoking, consumption food high in fat, consume food salty, consuming alcohol, drinking coffee, consuming junk food, and drinking soft drinks against incident hypertension in a way simultaneous. The selected variables for analysis in relation to hypertension are based on a strong foundation of previous research, established theoretical frameworks, and proven empirical findings. Previous studies have shown that certain factors, such as smoking, age, Body Mass Index (BMI), physical activity, and stress level, have significant correlations with the development of hypertension. For instance, empirical evidence has confirmed that smoking can increase the risk of hypertension due to its adverse effects on cardiovascular health. Additionally, aging is a well-established risk factor for hypertension, with blood pressure tending to increase as individuals age. Similarly, research has indicated that high BMI or obesity is closely associated with an increased risk of hypertension, while regular physical

activity can reduce the risk of developing hypertension. Finally, chronic stress has also been shown to contribute to the development of hypertension through complex biological mechanisms. Taking into account this evidence, this study chose to analyze the effects of these variables on hypertension to provide a better understanding of the factors influencing the condition and identify potential interventions for more effective prevention.

RESULTS AND DISCUSSIONS

Bivariate Analysis

Bivariate analysis aims to determine the relationship and magnitude of the odds ratio value of risk factors, and is used to find the relationship between the independent variable and the dependent variable using statistical tests that are adjusted to the scale of the existing data. The statistical test used was Chi-Square and determined the Odds Ratio (OR) with a confidence level (CI) of 95% and a significance level of 0.05. The following are the results of bivariate analysis :

Table 1 . Summary of bivariate analysis results

No.	Variable	OR	95%CI	*P*
1.	Age	0.533	0.174-1.632	0.405
2.	Gender	0.821	0.343-1.963	0.824
3.	Family History	3,100	1,240-7,751	0.025*
4.	Stress	0.871	1,096-6,395	0,000**
5.	Obesity	2,641	1,094-6,371	0.050**
6.	Physical Activity	3,625	1,469-8,945	0.009**
7.	Smoke	0.748	0.315-1.775	0.660
8.	High fat foods	2,284	0.315-1.775	0.008**
9.	Salty Foods	2,292	3,120-23,160	0.007**
10.	Alcohol consumption	1,315	1,469-8,945	0.794
11	Coffee Consumption	8,500	3,120-23,160	0,000**
12	Consume junk food	2,818	1,128-7,043	0.043
13	Consume soft drinks	0.779	0.194-3.129	1,000

Information:

* = variable that becomes candidate in regression testing logistics ($p<0.25$)

** = related variables with variable dependent ($p<0.05$) at once become candidate in the logistic regression test.

Analysis Multivariate

Analysis Multivariate aim for analyze connection a number of variable independent to One variable dependent in a way together. Analysis Multivariate used _ is analysis regression logistics for see variable the most influential independent in variable dependent. The variable that becomes Multivariate model candidate is variable independent with p value <0.025 in analysis bivariate. Based on Table 1 results analysis bivariate so variable with a p value <0.25 was entered to in a multivariate model that is variables Family History, Stress, Obesity, activity physical, food high in fat, consume food salty, coffee consumption, junk food consumption. Then done analysis regression logistics double with Backward LR method, ie enter all variable independent to in the model, but then one by one variable independent issued from the model based criteria meaning statistics certain. Variables that can enter in the regression model logistics is variables that have p value <0.05. Analysis results regression logistics can seen in the table following.

Table 2. Variables associated with the incidence of hypertension in the elderly

No.	Variable	B grade	aOR	95%CI	*P*
1.	Coffee Consumption	2,144	8,533	2,572-28,304	0,000
2.	Physical Activity	1,636	5,133	1,565-16,834	0.007
3.	Obesity	1,217	3,379	1,079-10,583	0.037
4.	High fat consumption	0.915	2,498	1,113 – 5,604	0.026

No.	Variable	B grade	aOR	95%CI	*P*
5.	Consume salty foods	0.909	2,481	1,097 – 5,610	0.029
6.	Stress	-2,009	0.134	0.051 – 0.355	0,000
7.	Family history	-2,397	0.091	0.034 – 0.240	0,000

Based on table 2, after analysis using multivariate with the Backward LR method, the results showed that the risk factors that most influence the incidence of hypertension in the elderly are: 1). Elderly people who consume coffee >= 2 times/week have an 8.533 times greater risk of experiencing hypertension compared to elderly people who consume coffee <2 times/week), where the p value is 0.000 < 0.05, which means there is a relationship between coffee consumption and the incidence of hypertension in the elderly with a value of (95% CI=2.572-28.304). 2) . Elderly people who have a low level of physical activity with a total MET <600 have a 5.133 times greater risk of experiencing hypertension compared to elderly people who have a physical level with a total MET >=600, where the p value is 0.007 <0.05, which means there is the relationship between physical activity and the incidence of hypertension in the elderly with a value (95% CI=1.565-16.834). 3) . Elderly people with obesity status (>= 25 kg/m2) have a 3.379 times greater risk of experiencing hypertension compared to non-obese elderly people (< 25 kg/m2), where the p value is 0.037 < 0.05, which means there is a relationship between obesity status. with the incidence of hypertension in the elderly with a value of (95% CI=1.079-10.583). 4) . Elderly people who consume high fat have a 2.498 times greater risk of experiencing hypertension compared to elderly people who do not consume high fat, where the p value is 0.026 < 0.05, which means there is a relationship between consuming high fat and the incidence of hypertension in the elderly with a value of (95% CI =1.113 – 5.604). 5) . Elderly people who consume salty food have a 2.481 times greater risk of experiencing hypertension compared to elderly people who do not consume salty food, where the p value is 0.029 < 0.05, which means there is a relationship between consuming salty food and the incidence of hypertension in the elderly with a value of (95% CI=1.097 – 5.610). 6) . Elderly people who are stressed have a 0.134 times greater risk of experiencing hypertension compared to elderly people who are stressed, where the p value is 0.000<0.05, which means there is a relationship between stress and the incidence of hypertension in the elderly with a value of (95% CI=0.051 – 0.355). 7) . Elderly people who have a family history of hypertension have a 0.091 times greater risk of experiencing hypertension compared to elderly people who have a family history of hypertension, where the p value is 0.000 < 0.05, which means there is a relationship between having a family history of hypertension and the incidence of hypertension in the elderly with a value of (95 % CI=0.034 – 0.240).

Discussion

Connection Age with Incident Hypertension

Research result show No exists significant relationship _ between age with incident hypertension in the elderly with a p value of 0.405. This matter No in line with research conducted by (Amanda & Martini, 2018) is deep his research put forward exists connection between age with incident hypertension . This matter No in line with study (Lionakis et al., 2012) which states that hypertension is factor risk important For morbidity and mortality cardiovascular disease , especially in the elderly . Even required treatment hypertension to use reduce incident disturbance Cognitive and dementia in the elderly. This matter prove that the more increase age so pressure blood will too experience enhancement. Wall arteries will experience thickening caused by buildup _ substance collagen in the layers muscles, so result vessels blood narrow and become rigid after 40 years old. Statement This also supported by research conducted by (Tular et al., 2017) which shows that part big respondents aged ≥ 40 years experience hypertension .

Sex Relations _ with Incident Hypertension

Based on bivariate test results were obtained that No There is connection between type sex with incident hypertension in the elderly with a p value of 0.824. The bivariate test results also

show that sufferer hypertension more many types _ sex man. This matter No in accordance with theory from Bustan who mentioned that woman more many suffer _ hypertension compared man, p This caused Because exists the hormone estrogen in women. The results of other research conducted by (Ahmad & Oparil, 2017) also mention that factor other predispositions in development hypertension influence woman postmenopausal in a way No proportional including obesity, which occurs in 40% of women accompanying postmenopause _ with level more depression and anxiety _ tall . This is also supported by research conducted _ (Choi et al., 2017) which states that between more individuals _ young, male _ _ hypertension show level control more hypertension _ low than woman.

Family History Relationships with Incident Hypertension

The Chi Square test results show that P value Value Sig. 0.025 < 0.05 means There is connection history family with incident hypertension in the elderly. So, the elderly have history hypertension own risk experience hypertension amounting to 6.129 times more big compared to seniors who don't own history hypertension. Family history is factor inborn trigger emergence hypertension, esp primary hypertension. If deep family somebody there is hypertension, there is a 25% chance of that person attacked hypertension. Research result prove that factor descendants own role important and becoming decider how much big people's tendency to suffer hypertension, however when left will give rise to signs and symptoms. This matter in accordance with research conducted by (Rijalludin & Chandra, 2017) shows that there is connection between history family with hypertension. People who have member family hypertension mentioned risk 17.71 times more big compared to with people who don't have member suffering family _ hypertension.

Stress Relationship with Incident Hypertension

Analysis results bivariate show exists connection between stress and incident hypertension in the elderly with a p value of 0.000. This result in line with research conducted by (Imelda et al., 2020) which also obtained that there is connection between stressful events with incident hypertension. Stress is response physiology, psychology, and behavior somebody for adjustment self to pressure. Stress can happen too stimulate kidney release the hormone adrenaline that causes pressure blood rises and increases viscosity blood. This matter in line with study conducted by (Kumar, 2013) stated understanding about situation current mental health This as well as factor affecting _ stress, like consumption alcohol and disease in the community elderly. Stress and hypertension relate through activity nerve sympathetic, who can increase pressure blood in a way gradually.

Connection obesity with Incident Hypertension

The Chi Square test results show that P value Value Sig. 0.050 < 0.05 means There is connection between obesity status with incident hypertension in the elderly. In research This proportion elderly with obesity status as many as 26 elderly people (61.9%) experienced it hypertension, meanwhile as many as 16 elderly people (38.1%) did not experience hypertension. these factors is factor risk incident hypertension in the elderly. Obesity is abnormal accumulation of body fat that can cause risk for health. It said obesity is If a person 's weight exceeds the normal limit, namely >= 25 kg/m2, body weight be measured with unit Body Mass Index (WHO). Apart from that, you can also explained that obesity will increase Reabsorption of sodium in the kidneys causes rising pressure blood. Study the in line with (Kurnaisih & Setiawan, 2013) obtained results that part sufferer hypertension own index mass incoming body mass (BMI). category obesity (50%). Research conducted by Sulistiyowati, 2010 also mentioned that There is connection between obesity with incident hypertension in Magelang City.

Connection Activity Physique with Incident Hypertension

The Chi Square test results show that P value Value Sig. 0.009 < 0.05 means There is connection activity physique with incident hypertension in the elderly. In regression testing logistics show that The p value is 0.007 < 0.05 which means There is significant relationship _

between activity physique with incident hypertension in the elderly. In research This proportion activity physical condition in the elderly in category not enough as many as 29 elderly people (64.4%) experienced it hypertension, meanwhile as many as 16 elderly people (35.6%) did not experience hypertension. Activity Physique is Suite movement producing muscles _ energy from burning calories. Lack of activity physique raise risk pressure blood tall Because increase risk For become fat. People who don't active tend have beat heart more fast and muscular heart they must Work more hard on every contractions, increasing loud and frequent heart must pump the more the pressing force is great arteries (Nuraini, 2015) . Study the in line with (Gusti & Fany, 2013) which states that There is meaningful relationship _ between activity physique with hypertension .

Connection habit smoke with Incident Hypertension

Analysis results bivariate show that No There is connection between habit smoke with incident hypertension in the elderly with a p value of 0.068. Majority respondents who are elderly disclose that they Already No smoking, though previously had time Once become smokers, however Already start stop smoke since a long time ago. This matter can look at the results analysis bivariate shows _ that elderly who have habit smoking and suffering hypertension only 39 people (39.8%), more A little compared to with seniors who don't own habit smoke However suffer hypertension. Research result This No in line with research conducted _ (Setyanda et al., 2015) who get that There is connection between habit smoke with incident hypertension , especially in men _ _ with p value = 0.017.66. Research result this also goes away behind with many revealing research _ that there is connection between cigarette with enhancement risk cardiovascular. Apart from long smoking, risks smoke biggest depending on the quantity smoked cigarettes _ per day. Someone who smokes and spends more from One Sir cigarette a day become 2 times more prone to hypertension than those who do n't smoking.

Connection Habit Consume food high in fat with Incident Hypertension

Analysis results bivariate show There is connection between habit consume food high in fat with incident hypertension in the elderly with a p value of 0.008. OR value = 2.284, which means elderly who have habit consume food high fat has odds 2,284 times more tall suffer hypertension compared to with seniors who don't own habit consuming fat. Saturated fat consumption also increases risk associated atherosclerosis _ with enhancement pressure blood (Situngkir, 2018) . In study cohort prospective scale great thing to do (Wang et al., 2023) to woman middle age and beyond old , saturated fat intake relate positive with risk hypertension . Saturated fat consumption also increases risk associated atherosclerosis _ with increase pressure blood. For can lower risk hypertension, must more Lots consuming fat is not originating saturation _ from oil vegetables and other sourced foods from plant compared to with consume saturated fat from animal.

Connection Habit Consume Salty Food with Incident Hypertension

Analysis results bivariate shows p value <0.05, namely 0.007 with OR value = 2.292 which means elderly who have habit consume food salty have odds 2,292 times more tall suffer hypertension compared to with seniors who don't own habit consume food salty. This matter in line with research conducted _ (Adriaansz et al., 2016) which states that exists connection between behavior consume food salty with incident hypertension in the elderly . People react differently to sodium. In some people, both are healthy or those who have hypertension, though they consuming unlimited sodium, its effects to pressure blood A little very or even No There is. In groups others, too a lot of sodium causes increase blood which also triggers happen hypertension. Salt is very important factor in pathogenesis hypertension. Hypertension almost No Once found in tribes nation with minimal salt intake.

Connection Habit Consume Alcohol with Incident Hypertension

Analysis results bivariate shows p value > 0.05, namely 0.794, which means No There is connection between habit consuming alcohol with hypertension in the elderly. This matter No in line with research conducted _ (Malonda et al., 2012) which explains exists influence between habit consuming alcohol with incident hypertension in the elderly. However thereby consumption excessive alcohol _ must watch out Because survey show that 10% of cases hypertension related with consumption alcohol. The mechanism that occurs allegedly consequence exists enhancement rate cortisol and increased cell volume blood red as well as viscosity blood red role in raise pressure blood. About 5-20% of all case hypertension caused consumption alcohol in excessive amount. Consumption three glass or more drink alcohol per day can increase risk hypertension twice as large, if consumed in long term will damage heart and other organs.

Connection Consuming Coffee with Incident Hypertension in the Elderly

The Chi Square test results show that P value Value Sig. 0.000 < 0.05 means There is connection between consume coffee with incident hypertension in the elderly. In regression testing logistics show that p value 0.000 < 0.05 which means There is connection between consume coffee with incident hypertension in the elderly. In research This proportion elderly people who consume >2 cups of coffee / day as many as 34 elderly people (70.8%) experienced it hypertension, meanwhile as many as 14 elderly people (29.2%) did not experience hypertension. these factors is factor risk incident hypertension in the elderly. Based on research conducted by (Elvivin et al., 2016) show that respondents who drink coffee above three glass per day have risk experience hypertension 12,500 times more big compared to with one respondent who drank coffee until three glass per day . Study It is also supported by (Martiani & Lelyana, 2012) , which states that someone who has habit drink 1-2 cups of coffee per day increase risk hypertension 4.12 times more big compared with those who don't own habit drinking coffee.

Connection Consume Junk Food with Incident Hypertension

The Chi Square test results show that P value Value Sig. 0.043 < 0.05 means There is connection consume junk food with incident hypertension in the elderly. In regression testing logistics show that the p value is 0.342 > 0.05 which is significant consumption of junk food is variables that don't influential with incident hypertension in the elderly. Study the No in line with results study (Sumarni et al., 2016) , who found that factor risk happen Frequent hypertension in the elderly consuming junk food amounted to 4,083 more big compared to rare elderly _ consuming junk food and there are connection between consume junk food with incident hypertension (p- value =0.05 with mark significance 0.002). Junk food is food Ready containing food _ a number lots of sodium. More carry on (Sumarni et al., 2016) , explained that the more Lots consumption food fast serve , increasingly tall incident nutrition more , because its height content calories and fat in food fast which you can also serve increases the volume of blood inside body so that heart must pump blood more strong cause _ pressure blood more tall .

CONCLUSION

Based on the results of the discussion, it can be concluded that The factors age, type, smoking habits, alcohol consumption, soft drink consumption are not related to risk factors for hypertension in the elderly in the work area Public health center Aikmel , meanwhile Family history factors, stressors, obesity, physical activity, consuming high-fat foods, the habit of consuming salty foods, the habit of drinking coffee > 3 times a day, consuming junk food are variables that are risk factors for the incidence of hypertension in the elderly at the Aikmel Health Center. Based on the conclusions that have been presented, the suggestions from this research include: researcher furthermore For incident hypertension from facet different factors and variables. Party Public health center recommended for increase quality service and giving information about hypertension with do counseling or installation pamphlet about style life Healthy For sufferer hypertension. Recommended for public especially sufferer hypertension for check it out health regularly serviced

_ health or follow regularly _ Integrated Healthcare Center elderly who are held by the community health center for pressure blood elderly still controlled. For elderly people who are obese and active physically lacking _ should guard ideal body weight and do activity quite physical, at least take part in elderly exercise at the posyandu One month very.

This research can provide better insights into the risk factors associated with hypertension in the elderly population. This can aid researchers, healthcare practitioners, and policymakers in developing more effective prevention and intervention strategies. Furthermore, this study may stimulate further research in this field, which could yield deeper and more applicable findings. Additionally, a better understanding of these risk factors can also enhance public awareness of the importance of healthy lifestyles and hypertension prevention efforts. Lastly, the findings from this research can help improve healthcare services for the elderly population by providing better information to healthcare professionals on managing and treating patients at risk of hypertension

The limitations of this study include a relatively small sample size or limited geographic coverage, which may affect the generalization of the findings to a broader population. Furthermore, reliance on self-reported data for variables such as smoking habits, alcohol consumption, and dietary patterns may introduce bias or inaccuracies. Future research could address these limitations by employing larger and more diverse samples, utilizing objective measurement methods for variables whenever possible, and conducting longitudinal studies to assess the long-term effects of risk factors on the incidence of hypertension in the elderly population. Additionally, further investigation into additional factors that may contribute to hypertension risk in the elderly, such as socioeconomic status, access to healthcare, and psychological factors, could provide a more comprehensive understanding of the issue. Moreover, qualitative research methods, such as interviews or focus groups, could offer deeper insights into the experiences and perspectives of elderly individuals living with hypertension.

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