

## THE IMPLEMENTATION OF CERDIK BEHAVIOR IN THE ELDERLY IN SUPPORT GROUP KARANG WERDHA

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### ABSTRACT

**Background:** The increasing number of elderly people cannot be separated from health problems. The elderly will experience decreased bodily functions due to physical, psychosocial, cultural and spiritual changes. Hypertension is a state of abnormally high blood pressure, namely systolic blood pressure above 140 mmHg and diastolic blood pressure above 90 mmHg, measured at least on three different occasions. Hypertension is a chronic non-communicable disease that can reduce the patient's immune system and is very susceptible to infections and complications of metabolic diseases. **Methods:** This type of research is quantitative with a non-hypothetical descriptive survey research design. The population in this study were 20 people with hypertension who were members of Karang Werdha in Sukorambi villages Jember using the accidental sampling technique. This research tool uses digital blood pressure measurements and CERDIK behavioral questions that have been tested for validity (0.635-0.784) and reliability (0.817). **Results:** The results showed that most of the respondents had an average age of 61 years, 19 of the respondents were female, 12 respondents were finished Junior High School, and 10 of the respondents worked as laborers. Classification of hypertension stage 1 as many as eight respondents. CERDIK behavior includes: Majority of 12 respondents routine health check-up, 19 respondents eliminating cigarette smoke, 18 respondents having good physical activity, 18 respondents having a good healthy eating pattern, 18 respondents having good rest, 16 respondents having good stress management. **Conclusions:** Health workers need support and supervision so CERDIK behavior can become a culture in treating elderly hypertension.

**Keywords:** CERDIK behavior, elderly, hypertension

### INTRODUCTION

The increase in the elderly population cannot be separated from health problems that arise in the elderly; decreased organ function triggers various degenerative diseases (Azizah, 2011). The elderly will experience decreased bodily functions due to physical, psychosocial, cultural, and spiritual changes. Physical changes will affect various body systems. This degenerative disease in the elderly if

not handled properly will cause an increase in the state's financial burden which is not small and will reduce the quality of life of the elderly because it increases morbidity and can even result in death (Ministry of Health, 2013). Degenerative diseases are included in the type of non-communicable diseases (PTM), namely: chronic diseases and some have experienced organ damage so that they can gradually reduce the patient's



immune system and are very susceptible to infections, one of which is gastrointestinal infections.

Hypertension is a condition of abnormally high blood pressure, namely systolic blood pressure above 140 mmHg and diastolic blood pressure above 90 mmHg measured at least on three different occasions (Smeltzer and Bare, 2010; Corwin, 2009). Hypertension is a non-communicable disease (PTM), a serious health problem today. The 2010 Global Status Report on Noncommunicable Diseases data from the World Health Organization (WHO) states that the number of people with hypertension in developing countries reaches 40 %, whereas in developed countries only 35%. The prevalence of hypertension in the world is estimated at 1 billion people and nearly 7.1 million deaths each year due to hypertension or around 13% of total deaths (Gusmira, 2012). Adults with hypertension in the Southeast Asia region comprise 36%. According to WHO representatives for Indonesia, it was revealed that there was an increase in the number of people with hypertension by 13%, both in men and women. The 2013 Basic Health Research published the results of its research on the incidence of hypertension in Indonesia based on the results of measurements at the age of 18, namely 25.8%, the coverage of health workers was 36.8% and around 63.2% cases of hypertension. undiagnosed. The prevalence of hypertension in Indonesia among people over 25 years is 8.3%, 12.2% for men and 15.5% for women. Based on the results of the Ministry of Health's Basic Health Research (Riskesmas) in 2013, around 76% of cases of hypertension in the community have not been diagnosed. This can be seen from blood pressure measurements at the age of 18 years and over, the prevalence of hypertension in Indonesia is 31.7% (Depkes RI, 2013).

Hypertension has become a major risk factor for chronic disease and death. WHO recommends the importance of primary health services in fighting hypertension . Health workers, especially nurses, must play a role in creating awareness among community members and play an active role in providing health education about risk factors (Kilic et al., 2016). The Ministry of Health of the Republic of Indonesia (2014) states that the prevention and management of hypertension in Indonesia must begin by increasing public awareness of making changes to healthier living habits. To realize this, it is necessary to carry out community service activities in the form of Hypertension Screening and Counseling (Warjiman et al., 2020). The Indonesian government in this case has paid serious attention to disease prevention and control, one of which is hypertension. The government's hypertension control program includes the Healthy Living Community Movement (GERMAS), PHBS (Clean and Healthy Behavior), PTM Posbindu, and CERDIK. The health program aims to improve health status, increase efforts to improve clean and healthy living behavior, and reduce mortality, and monitor and detect risk factors for non-communicable diseases in the community. One way to deal with hypertension is CERDIK behavior. CERDIK namely routine health checks (Cek kesehatan rutin), eliminating cigarette smoke (Enyahkan asap rokok), being diligent in physical activity (Rajin olahraga), Health diet (Diet seimbang), getting enough rest (Istirahat cukup) and managing stress (Kelola stress) (Ministry of Health, 2018).

## METHODS

This type of research is quantitative with a non-hypothetical descriptive survey research design. The population is elderly hypertension in Sukorambi Karang Werdha, Jember Regency. The research

sample is 20 respondents with an accidental sampling technique. This research was conducted in May 2023. The data collection technique was to visit the respondent's house directly. This research tool uses a tensimeter and a questionnaire. The questionnaire consists of a questionnaire about the characteristics and CERDIK behavior of the respondents with

the answers always, sometimes, and never. If each CERDIK component, all question items are always answered, it is categorized as good behavior. The validity test results showed that the CERDIK behavior questionnaire was worth 0.635-0.784 and the reliability test results were worth 0.817. Data analysis using univariate: distribution and proportion.

## RESULTS

Table 1. Distribution of the age (n=20)

No	Variable	Mean	(SD)
1	Age	61,00	7,89

Table 2. Characteristics of the respondent (n=20)

No	Variable	Frequency	Percentage
1	Gender		
	Male	1	5
	Female	19	95
2	Education		
	Elementary	4	20
	Junior High School	12	60
	Senior High School	4	20
3	Job		
	Laborer	10	50
	Farmer	2	10
	No job	8	40

Table 3. Grade of hypertension in respondents (n=20)

No	Grade of hypertension	Frequency	Percentage
1	Pre Hypertension	6	30
	Grade I	8	40
	Grade 2	6	30

Table 4. Implementation of CERDIK (n=20) (Continue to page 33)

No	Variable	Frequency	Percentage
1	Cek Kesehatan Rutin (Routine Health Check)		
	Good	8	40
	Not good	12	60
2	Enyahkan Asap Rokok (Get Rid of Cigarette Smoke)		
	Good	19	95
	Not good	1	5
3	Rajin Aktivitas Fisik (Physical Activity)		
	Good	18	90
	Not good	2	10

No	Variable	Frequency	Percentage
4	Diet Sehat (Health diet)		
	Good	18	90
	Not good	2	10
5	Istirahat Cukup (Get Rest enough)		
	Good	18	90
	Not good	2	10
6	Kelola Stress (Control stress)		
	Good	16	80
	Not good	4	20

Table 1. Shows the results that the average age of the respondents is 61 years ( $\pm$ SD = 7.89). Table 2. Shows the results that the elderly with hypertension are dominated by women, namely 19 (95%) of respondents, the level of education between not graduating from Junior High School, namely 12 (60%) of respondents respectively, and 10 (50%) of respondents working as a laborer. Table 3. Shows the results of the level of hypertension in the elderly, the majority are in Grade 1 Hypertension, namely 8 (40%) respondents. Table 4. Shows the results of CERDIK behavior of elderly people with hypertension including routine health checks of respondents who were not good, namely 12 (60%) of respondents, eliminating cigarette smoke, respondents who were not good, namely 19 (95%) of respondents, continuous activity of good respondents, namely 18 (90%) of respondents, healthy diet of respondents were good, namely 18 (90%) of respondents, adequate rest/get rest enough, namely 18 (90%) of respondents, and good stress management, namely 16 (80%) of respondents.

## DISCUSSION

### Routine Health Check

The results showed that the majority of the study respondents, as many as 12 (60%) respondents, did not carry out routine health checks. Health checks or screening must be routinely carried out, especially for the elderly, both healthy and at risk, as a promotive and preventive

effort to determine their health status (Susanti et al., 2021).

Moreover, the impact caused by hypertension is quite severe, so knowing early on the presence of risk factors for hypertension will facilitate further treatment. Elderly screening activities can actually be carried out at home, at the health center, or in the community to monitor or find new cases and treatment of hypertension can be carried out immediately (Ministry of Health, 2018). Awareness to carry out routine health checks is influenced by several factors, one of which is the level of knowledge of the elderly (Anshari, 2020). The better the level of knowledge of the elderly about hypertension, the better the behavior they will show.

Knowledge is not always determined by how high the level of education that has been achieved, someone can easily collect their own knowledge in this era. Based on this statement, the researchers concluded that the disobedience of the elderly in conducting routine health checks is possible because the elderly tend not to feel that there is an element of interest in themselves to control the examination, if they feel unwell or sick but are unable to handle themselves, then they will start examining it. to health services.

### Get Rid of Cigarette Smoke

The results showed that smoking behavior or exposure to cigarette smoke at the point of eliminating cigarette smoke



was not good enough for 19 (95%) respondents. Research by Retnaningsih et al. (2017) explained that the smoking behavior of the elderly in Muktiharjo Village was 22 (44%) elderly in the mild category, 17 (34%) elderly in the moderate category, and 11 (22%) elderly in the severe category. Both active smokers and passive smokers have a fairly close relationship with the incidence of hypertension (Retnaningsih et al., 2017). Chemical substances in cigarettes can cause an increase in blood pressure in the elderly, one of the substances that has a major influence in increasing blood pressure is nicotine, because it has a pounding effect on the heart, increases frequency, and increases heart contractions. Hall, 2010 in Retnaningsih et al., (2017). Based on this statement, it can be concluded that the more chemical substances in cigarettes consumed by the elderly, the greater the risk of hypertension that will be experienced by the elderly.

### **Routine Physical Activity**

Based on the results of the research that has been done, it shows that most of the physical activities carried out by elderly people with hypertension are classified as good, namely 18 (90%) respondents. This result is inversely proportional to research conducted by Iswahyuni (2017) which showed that 58.8% of the elderly had poor physical activity, and the results of this study also showed that there was a relationship between physical activity and the incidence of hypertension in the elderly. The more active the physical activity, the normal the systolic and diastolic blood pressure values, and the less physical activity, the higher the systolic and diastolic blood pressure values. This is supported by research conducted by Sumarta (2020) which states that there is a relationship between the degree of

hypertension in the elderly and daily physical activity.

Physical activity is the activity of bodily movements produced by skeletal muscles and requires energy expenditure. Lack of physical activity can be an independent risk factor for chronic disease and overall can be expected to cause death (Iswahyuni, 2017). In addition, if people with hypertension do not do physical activity, then this can be one of the factors causing uncontrolled blood pressure values in people with hypertension (Maharani & Syafrandi, 2018). The physical activity of the elderly needs to be adjusted to the abilities and conditions of the elderly concerned (Ministry of Health RI, 2018). Physical activity in the elderly who suffer from hypertension must meet the FITT criteria (frequency, intensity, time, type). Physical activity that is carried out regularly and becomes a habit will be able to increase one's physical endurance (Moeloek, 2019).

Based on this statement, the researchers concluded that regular physical activity can help the elderly in controlling blood pressure rather than hypertension. The physical activity carried out by the elderly must also be in accordance with the conditions and abilities of each individual so that the results obtained are maximum, and the elderly need to pay attention to the type, time, frequency and intensity of doing physical activity.

### **Healthy diet**

From the results of the research that has been done, it shows that the majority of elderly people with hypertension have practiced a healthy diet well, namely as many as 18 (90%) of the elderly. This is different from research conducted by Elvia (2012) which said that the types of food consumed by the elderly are still in the bad category, such as consuming foods that contain sugar, high in salt, excess fat, and coffee that is drunk every day. According to Putri and





Supartayana's research (2020), there is a relationship between the elderly's knowledge of hypertension and dietary adherence, meaning that the elderly who already know and understand the meaning, benefits and goals of the hypertension diet which must be done regularly, will be able to adhere to the diet.

According to research conducted by Maheasy, et al (2015) there is a relationship between the diet consumed by the elderly and the incidence of hypertension. A healthy diet for elderly people with hypertension aims to help lower blood pressure and maintain it towards normal. In addition, diet can also help reduce risk factors for other diseases such as overweight, high levels of fat, cholesterol and uric acid in the blood (Pudiastuti, 2013). The right diet for people with hypertension is to reduce salt and fat consumption, eat lots of vegetables and fruit, avoid organ meats, brains, thick coconut milk, chicken skin and drink lots of water (Arista, 2013). Based on the results of the explanation above, the researcher concluded that the high compliance of the elderly in adopting a healthy diet was because the elderly already knew and understood the goals and benefits, so that they could stabilize their blood pressure.

### **Get Enough Rest**

The results of the research that has been done show that 18 (90%) elderly with hypertension have a good rest. This is inversely proportional to research conducted by Hidayah (2017) which found that 68.8% of elderly people with hypertension have poor sleep quality. According to Asti and Ibrahim (2020), their research explained that there is a relationship between sleep quality and the incidence of hypertension in the elderly. A person's sleep quality consists of quantitative and qualitative aspects. The quantitative aspects include the length of sleep, the time it takes to fall asleep, and

the number of awakenings, while the qualitative aspects include the depth and soundness of sleep (Hidayat, 2014).

Sleep conditions can alter autonomic nervous function and other physiological events that can affect blood pressure. During the sleep process there will be a relative decrease in blood pressure, this decrease occurs due to a decrease in the work of the sympathetic nerves by 10-20% of normal blood pressure when awake. Conversely, if a person experiences a decrease in blood pressure when they are not sleeping, it is possible that when they are asleep they can increase their blood pressure by up to 20% (Harsismanto, et al. 2020). In addition, the results of a study conducted by Writes (2017) show that people with sleep disorders are twice as likely to experience hypertension as people without sleep disorders. This relationship may occur because there is a biological mechanism of sleep deprivation by changing the stress hormone cortisol and the sympathetic nervous system, resulting in an increase in blood pressure. It also tends to be severe, especially when a person is experiencing excessive stress and anxiety related to the illness or problem they are experiencing.

Based on the explanation above, the researchers concluded that the sleep quality of the elderly with hypertension can be said to be good because the quantitative, qualitative and psychological aspects of the elderly and the physiological functions of the elderly are still in good condition. However, this must be watched out for because the elderly are people of a vulnerable age who can experience sudden changes according to their individual conditions.

### **Control Stress**

Based on the results of the research that has been done, it was found that stress management in the elderly with hypertension was mostly good, namely 16 (80%) elderly. Results This is in line with



research conducted by Lestari (2017) which found that more than half (54%) of elderly people with hypertension have adaptive coping mechanisms when dealing with their illness. Seke, et al (2016) found a relationship between stress experienced by the elderly and hypertension experienced. Causes of stress or so-called stressors can change in line with human development, but stressful conditions can certainly occur at any time throughout life. Sources of stress can come from within oneself, family, or society. The process of coping mechanisms in a person can be adaptive and maladaptive because it is influenced by various factors such as gender, age and education, so that it can influence a person in making efforts to recover from his condition.

Based on the explanation above, the researchers concluded that the high value of good stress management in the elderly can occur because the elderly have adaptive coping mechanisms and the elderly are still in a comfortable environment and have a good support system.

## CONCLUSION

Based on the research results that has been described, it can be concluded that the classification of hypertension in most respondents is grade 1 hypertension of 8 (40%). CERDIK behavior includes: Most routine health checks are not good as many as 12 (60%) of respondents; Get rid of most of the bad cigarette smoke as many as 19 (95%) respondents; physical activity is mostly good as many as 18 (90%) respondents; Healthy eating patterns (dietary health) are mostly good as many as 18 (90%) of respondents; Most of the rest is quite good as many as 18 (90%) respondents; Manage stress, the majority of hypertension sufferers are good as many as 16 (80%) of respondents

One of the things that needs to be done to increase the awareness of the elderly about the importance of routine

health checks, staying away from smoking, diligent exercise, healthy eating patterns, adequate rest, and stress management is through health education. The nursing profession can be responsible for the implementation of these activities so that the incidence of hypertension in the community can be prevented or reduced.

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