

HOW TO TREAT AND PREVENTION OF HYPERTENSION WITH COMPLEMENTARY THERAPY IN THE ELDERLY

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ABSTRACT

Hypertension is one of the main causes of mortality and morbidity in Indonesia, so the management of this disease is a very common intervention carried out at various levels of health facilities, Hypertension is also one of the most frequent risk factors affecting the incidence of heart and blood vessel disease. The prevalence of hypertension in Indonesia continues to increase based on the Riskesdas comparison, which was around 25.8% in 2013 and increased by 34.1% in 2018. Management of hypertension is carried out as an effort to reduce the risk of rising blood pressure and its treatment. The efforts are made in the form of nonpharmacological efforts by improving health promotion and community empowerment through community-based prevention and control of hypertension. Healthy cardiac exercise besides being recommended for the elderly can also increase muscle and joint strength. The purpose of this activity is how to treat and prevention of hypertension with complementary therapy in the elderly with healthy cardiac exercise. The activity will be carried out for Elderly Women in the BPM Ermiyati, Sawangan District, Depok. The materials and tools in this community service use tools for extentions (LCD and turning sheet), Sphygmomanometer, Stethoscope, Juicer and Ingredients. This community service activity is by conducting counseling, examination, demonstration and giving star fruit juice. The stage of community service is Stages in community service; Stage of implementation of community service activities; and evaluation stage. So that, the healthy heart exercise can be given as an alternative to prevention of hypertension for elderly.

Keywords : Community Service, Elderly, Healthy Cardiac Exercise, Hypertension.

INTRODUCTION

A person is said to be elderly when he is 60 years old or older because certain factors can not meet his basic needs both physically, spiritually, and socially.¹ The proportion of elderly women who experience health complaints is higher than that of elderly men in all age groups. Deterioration of organ function, especially in the elderly, causes this group to be prone to attacks of various chronic diseases, such as diabetes mellitus, stroke, kidney failure, cancer, hypertension, and heart. The types of health complaints most experienced by the elderly are other complaints, namely the types of health complaints that are specifically suffered by the elderly such as gout, high blood pressure, low blood pressure, rheumatism, diabetes, and various other types of chronic diseases.²

Hypertension is one of the main causes of mortality and morbidity in Indonesia, so the management of this disease is a very common intervention carried out at various levels of health facilities. Hypertension is a condition in which a person experiences an increase in blood pressure above normal as indicated by the systolic number (top) and diastole number (bottom) on blood pressure examination using a blood pressure measuring device either in the form of a mercury cuff or other digital.³ Hypertension is also one of the most frequent risk factors affecting the incidence of heart and blood vessel disease. Hypertension often does not cause symptoms in its initial phase and is felt when hypertension has spread and interferes with heart function or stroke.⁴

WHO has estimated that by 2025, 1.5 billion people in the world will suffer from hypertension every year. The hypertensive disease is a *silent disease* (a disease that has mild symptoms) because people do not know they are affected by hypertension before checking their blood pressure.⁵ According to records (WHO, 2013) one billion people in the world suffer from hypertension, two-thirds of whom are in low-to-medium-income developing countries. The prevalence of hypertension in Indonesia continues to increase based on the Riskesdas comparison, which was around 25.8% in 2013 and increased by 34.1% in 2018.

The growth of the elderly population in developed countries is also followed by developing countries, including Indonesia. In Indonesia, the number of elderly population is increasing rapidly every year.⁶ Experts project that in 2020 the life

expectancy of the elderly in Indonesia will be 71.7 years with an estimated number of elderly to 28.8 million people or 11.34% (Utomo, 2004). The most common disease in the elderly based on Basic Health Research in 2013 is hypertension. with a prevalence of 45.9% at the age of 55-64 years, 57.6% at the age of 65.74%, and 63.8% at the age of ≥ 75 years.⁷

Data from the Central Statistics Agency (BPS) states that the number of elderly people increased from 18 million people (7.6% in 2010 to 27 million people (10%) in 2020, and will continue to increase to 40 million people (13.8% in 2035. This projection has the potential to be a problem for countries that also expect a demographic bonus in 2030 when the population of productive age (15-64 years) is more than the non-productive age. In line with WHO's prediction regarding the trend of increasing the number of elderly in various countries in the world, Indonesia is one of the countries facing this trend, In Indonesia there were 22,630,882 people in 2016.⁸

Management of hypertension is carried out as an effort to reduce the risk of rising blood pressure and its treatment. In the management of hypertension, efforts are made in the form of nonpharmacological efforts by improving health promotion and community empowerment through community-based prevention and control of hypertension. The high incidence of hypertension in the world is influenced by two types of factors, namely those that cannot be changed such as age, gender, and race. Factors that are commonly changed include obesity, alcohol consumption, lack of exercise, excessive salt consumption, and smoking habits.⁹

Treatment of high blood pressure by pharmacological means by giving hypertension drugs, There are five main groups of antihypertensive drugs, namely *thiazide diuretics*, *beta-blockers*, *ace inhibitors*, *alpha-blockers*, and *calcium channel blockers*. The drug has a direct vasodilating effect on the arterioles causing a sustained hypotensive effect.¹⁰ Non-pharmacological handling is to get used to a healthy lifestyle such as not smoking, not drinking alcohol, diligent exercise, and diet management. The diet given to people with hypertension can be tomatoes, watermelons, bananas, avocados, star fruit, cucumbers, and dragon fruit.¹¹

The implementation of healthy cardiac exercise follows several procedures such as a) frequency of regular exercise (at least 2-3x / week); b) the duration of exercise is 45–90 minutes interspersed with rest periods; c) sufficient hose; and d) a variety of high,

medium and low intensity. Heart-healthy gymnastics is an aerobic exercise recommended by experts and carried out by certified instructors and undergoing training.¹² Exercise increases cell oxygen levels for energy production. The mechanism of lowering blood pressure after exercise occurs when there is a stretching of blood vessels then blood pressure decreases.¹³ Regular lowering of blood pressure (5 –10 mmHg) is a non-pharmacological therapy in patients with hypertension that can improve blood circulation, stabilize heart valves, and thicken so that there is no increase in pressure.¹⁴ Healthy cardiac exercise besides being recommended for the elderly can also increase muscle and joint strength.¹⁵

METHOD

The activity will be carried out for Elderly Women in the BPM Ermiyati, Sawangan District, Depok. The materials and tools in this community service use tools for extentions (LCD and turning sheet), Sphygmomanometer, Stethoscope, Juicer and Ingredients. This community service activity is by conducting counseling, examination, demonstration and healthy cardiac exercise. The stage of community service is Stages in community service (planning stage, starting with permits to public health center and villages) and Stage of implementation of community service activities and then evaluation stage.

RESULTS

Planning Phase

The planning stage begins with submitting a proposal. Next, the preparation of an activity permit. Before starting the activity, the community service implementation team made an initial visit to the location of the activity site and carried out licensing and equalization of perceptions with the community service team and cadres.

Implementation Phase

Cadres gathered participants in community service activities at TPMB to get health counseling on hypertension prevention with complementary therapies in the elderly. The participants of this activity were followed by 15 participants who had a history of hypertension. At the time of registration, participants were asked several questions at

the same time to get an idea of the extent to which they knew about hypertension that occurs in the elderly. Next, the service team distributed the return sheet and carried out blood pressure checks. Then the core activities of the service were carried out by conducting counseling in the form of material presentation using PPT, giving time for discussion sessions, and questions and answers about hypertension. The return sheet given to participants contains material on hazards, handling, and prevention that can be done by the elderly related to hypertension. After counseling, the next activity was to do Healthy cardiac exercise led by gymnastics instructors with the participants as a form of complementary therapy that can be done by the community to reduce the increase in blood pressure in the elderly.



Figure 1. Blood Pressure Check and Counseling



Figure 2 Implementation of Healthy cardiac exercise

Evaluation Phase

After the implementation phase is complete, an evaluation is carried out to assess how much impact the results of the implementation of community service are. Evaluation is done by discussion or question and answer. Based on the results of the community service counseling, 15 participants followed until the end of the activity. This activity is carried out together with the team. The participants were very active during the activity with a question and answer session. The participants were checked blood pressure again after resting for 30 minutes, and obtained an average normal blood pressure and based on the history of participants said the body felt lighter and fresher. This community service activity has been carried out well and runs smoothly according to the activity plan that has been prepared.

The results of this community service activity prove that the provision of health counseling on hypertension and the implementation of Healthy cardiac exercise for the elderly are beneficial for participants in community service activities. As a form of education in promotive and preventive efforts and achieving an optimal degree of public health.

Understanding knowledge includes all activities in the ways and means used and all the results obtained. In essence, knowledge is all the results of knowing activities related to an object (can be a thing or event experienced by the subject).¹⁶ (Siswati, 2017). According to Tyson (1999); and Green (1980 in Notoatmodjo, 2007), knowledge is one of the factors that influence the formation of elderly behavior, in addition to the factor of elderly acceptance of their health condition.¹⁷

Based on the results of research conducted by Diyanah (2021), it was found that out of 50 respondents classified into 2 groups, namely hypertension and non-hypertension. The well-informed hypertensive group was 7 respondents (23.3%), who had sufficient knowledge as many as 13 respondents (43.3%), and those with less knowledge as many as 10 respondents (33.3%). Based on the results of the chi-square test obtained a P value of 0.000 ($= < 0.05$), from these results it can be concluded that there is a relationship between knowledge and the incidence of hypertension.¹⁸

According to Soeleiman (2003), nonpharmacological treatment in hypertensive elderly is equivalent to monotherapy (one type of drug) antihypertensive. Nonpharmacological treatment is a treatment by improving unhealthy patterns or lifestyles, such as: doing

some exercise or exercise programs, a healthy diet to lose weight for the obese elderly, limiting salt, fat, or cholesterol intake, stopping smoking, avoiding alcoholic beverages, increasing calcium supplements, avoiding emotional stress, and controlling blood pressure regularly.¹⁹

Lowering blood pressure due to regular exercise (5-10 mmHg) is one of the effects of non-pharmacological therapies in patients with hypertension because it can improve blood circulation, and heart valves and stabilize the thickening of blood vessels so that they are not at risk of increased pressure.¹⁴ Related to confounding factors in the form of disease complications that have been excluded during sample selection to minimize bias. The mechanism of Healthy cardiac exercise activities can also relax blood vessels so that with dilation of blood vessels, blood pressure will decrease. Healthy cardiac exercise is a sport that always prioritizes heart ability, large muscle movements, and joint flexibility.²⁰

CONCLUSION

Based on the results of community service activities that have been carried out, it can be concluded that counseling and implementation of Healthy cardiac exercise in the elderly is very effective in reducing systolic and diastolic blood pressure in hypertensive elderly. So that, the healthy heart exercise can be given as an alternative to prevention of hypertension for elderly.

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