

Counseling on Hypertension in the Elderly in Lubuk Raya Village in 2024

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ABSTRACT

The elderly are an age group that is vulnerable to various health problems. Classification of the elderly According to WHO, an elderly person is someone who has reached the age of 60 years and above. Hypertension is a high blood pressure disease whose prevalence is still high in Indonesia. According to data from the Ministry of Health, the prevalence of hypertension in Indonesia itself reaches 34.11% of the population. Factors that influence the incidence of hypertension include genetics, race, regional, socio-culture which also relate to different lifestyles so that the incidence rates vary. The form of this activity is counseling to the community with lecture methods, discussions and demonstrations equipped with various media and snack distribution. Results: Based on the evaluation results, the elderly have understood what has been conveyed. It is expected that the community will control their blood pressure regularly every day.

Keywords: *Hypertension, Health Education, Elderly*

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INTRODUCTION

Elderly or seniors is a term for people who are 60 years old or older. The elderly are an age group that is prone to various health problems. Classification of the elderly. According to WHO, elderly is someone who has entered the age of 60 years and above. BPS groups the elderly into three age groups, namely young elderly (age group 60-69 years), middle elderly (age group 70-79 years), and old elderly (age group 80 years and above). As for p Significant changes in the elderly are in the respiratory system, hearing, vision, and the senses of taste, smell and touch. Disorders of the heart, urinary, endocrine/metabolic, digestive systems, decline of the skin and connective tissue system, Reproductive system and sexual activity decline. Therefore, it is very important for the elderly to prevent disease. People who have entered old age have a higher risk of certain diseases, one of which is hypertension, which often attacks the elderly.

Hypertension is a high blood pressure disease whose prevalence is still high in Indonesia. According to data from the Ministry of Health, the prevalence of hypertension in Indonesia itself reaches 34.11% of the population. This percentage makes Indonesia rank 5th with the most cases of hypertension in the world. According to WHO, Hypertension is a condition in which blood vessels have high blood pressure (systolic blood pressure ≥ 140 mmHg or diastolic blood pressure ≥ 90 mmHg) (Sunarwinadi, 2017). Hypertension is often dubbed as a silent killer because it can attack anyone suddenly and is one of the diseases that can cause death. Hypertension is also at risk of causing various other diseases such as heart failure, coronary heart disease, kidney disease and stroke, so that treatment must be carried out immediately before complications and other bad effects occur such as reducing the life expectancy of sufferers (Sulastri, Elmatris, and Ramadhani, 2012). Hypertension is one of the chronic diseases with a high prevalence. Data from WHO, hypertension attacks 22% of the world's population, in Southeast Asia itself the incidence of hypertension reaches 36% (WHO, 2018). In 2025, it is predicted that 29% of adults worldwide will experience hypertension (WHO, 2018). Based on data from the Ministry of Health in 2018, the incidence of hypertension in the elderly in Indonesia for ages 55-64 years was 45.9%, ages 65-74 years was 57.6% and 63.8% for ages over 75 years (Ministry of Health of the Republic of Indonesia, 2019).

The prevalence of hypertension in North Sumatra Province reached 6.7% of the population in North Sumatra, based on data from the Health Research and Development Agency of the Ministry of Health. This means that the number of people in North Sumatra who suffer from hypertension reached 12.42 million people spread across several regencies (Ministry of Health of the Republic of Indonesia, 2013). Karo Regency has one of the highest numbers of hypertension, followed by Deli Serdang Regency. In 2016, the number of hypertension sufferers in Karo Regency was 12,608 people, this prevalence was higher in women (52%) and men (48%), the largest in the 55-59 year age group (Simbolon, 2016). An initial survey in the coastal area of Percut Sei Tuan District, Deli Serdang Regency, November 2019 on 30 female respondents, obtained data that 60% suffered from hypertension, consumed high-salt foods and did not do regular sports activities (Aidha & Azhari, 2018). Based on these data, it is necessary to provide education and efforts to prevent complications of hypertension

that can threaten hypertension sufferers at any time so that early detection of hypertension can prevent complications of other diseases.

Factors that influence the incidence of hypertension include genetics, race, regional, socio-cultural factors that also involve different lifestyles so that the incidence rates vary (Nursakinah, Y., & Handayani, 2021). Elderly age is a phase marked by the onset of weakness in the body and susceptibility to disease, changing environments, loss of dexterity and reduced mobility and physiological changes. In the elderly, there is a decline in physical health, especially related to energy, activity, work capacity, pain and dependence on medical care (Murwani, 2020).

Hypertension sufferers who modify their lifestyle in controlling their blood pressure are only 30% of the total number of hypertension sufferers (Surayitno et al., 2020). In hypertensive patients who do not maintain a diet and an unhealthy lifestyle, there will be a risk of recurrence of hypertension, recurrence in old age is influenced by several factors both from within and from outside.

Types of hypertension, when viewed based on the cause, are grouped into 2 groups (Artiyaningrum, 2016), namely:

- a. Essential Hypertension Essential Hypertension is often also called primary hypertension, is hypertension whose cause is unclear. Essential hypertension is usually characterized by increased heart work due to narrowing of the blood vessels.
- b. Secondary Hypertension Secondary hypertension is hypertension whose causes can be determined including kidney blood vessel disorders, thyroid gland disorders (hyperthyroidism), adrenal gland disease (hyperaldosteronism).

The factors that cause hypertension are:

1. demographic factors such as age, gender, ancestry and ethnicity,
2. behavioral factors such as obesity, stress, smoking and alcohol consumption, and incorrect intake.

a. Demographic Factors

- 1) Age Age is one of the factors that influence the occurrence of hypertension. Blood pressure will increase with age, especially after the age of 40 years. This is caused by changes in the structure of large blood vessels, so that the lumen becomes narrower and the walls of blood vessels become stiffer, as a result of increased systolic blood pressure (Anggi K, 2008).
- 2) Gender Gender greatly influences the occurrence of hypertension. In general, men are more susceptible to hypertension than women. An expert said that men suffer more from hypertension than women with a ratio of 2.29 mmHg for increased systolic blood. This is influenced by the hormone estrogen in women which increases HDL levels thereby protecting women from hypertension (Kartikasari, 2012). However, when women enter menopause, the risk of hypertension increases so that its prevalence is higher than that of men. This is caused by decreased production of the hormone estrogen during menopause, causing increased blood pressure (Artiyaningrum, 2016).
- 3) Heredity (Genetics) One of the factors of hypertension is the high role of hereditary factors that influence it. Genetic factors are related to the metabolism of salt regulation and renin in cell membranes. According to Davidson, if both parents

suffer from hypertension, about 45% will be passed on to their children and if one parent suffers from hypertension, about 30% will be passed on to their children (Artiyaningrum, 2016).

- 4) **Ethnicity** The prevalence of hypertension is said to be more common in black people than white people. Based on The ARIC study which examined two ethnic populations in America, it was stated that the prevalence of hypertension was higher in Africans than whites (55% African American men compared to 29% white men, 56% African American women compared to 26% white women) (Sulastri, Elmatris, and Ramadhani, 2012).

b. Behavioral Factors

- 1) **Obesity** Obesity is one of the factors causing hypertension. Obesity will increase the work of the heart, this condition increases the risk of high blood pressure and cholesterol (Anggi K, 2008). Obesity can trigger hypertension through various mechanisms both directly and indirectly. Directly obesity can cause an increase in cardiac output because the greater the body mass, the more blood is circulating so that cardiac output also increases. And indirectly through stimulation of the activity of the sympathetic nervous system and the Renin Angiotensin Aldosterone System (RAAS) by mediators such as the hormone aldosterone which is closely related to water and sodium retention so that blood volume increases (Sulastri, Elmatris, and Ramadhani, 2012)
- 2) **Stress** Stress can trigger increased blood pressure because stress can stimulate the adrenal glands to release adrenaline and trigger the heart to beat faster, causing blood pressure to rise. According to Sutanto (2010), if stress lasts for a long time, it can cause persistent high blood pressure (Artiyaningrum, 2016).
- 3) **Smoking** Cigarettes contain various chemicals that can harm the body, including nicotine, carbon monoxide, and other substances. The chemical content in cigarettes can cause hypertension and other diseases such as heart attacks and cancer (Intan, 2012).
- 4) **Alcohol Consumption** Consuming alcohol can cause various diseases, one of which is hypertension, because the substances contained in alcohol are very dangerous for the body and can trigger various diseases (Intan, 2012).

c. **Intake** Wrong intake can cause hypertension. The following are examples of intake that can cause hypertension.

- 1) **Excessive Salt Consumption** Salt is actually needed by the body, if consumed within normal limits. Consuming a lot of salt will cause a lot of body fluids to be retained, this can increase a person's blood volume. This is what causes blood vessels to work extra hard because of the increase in blood pressure in the walls of blood vessels, causing high blood pressure (Intan, 2012).
- 2) **Consumption of Fat and Cholesterol** Consumption of fat and cholesterol can cause fat accumulation in the body, especially if a person's activity is lacking, it will result in the risk of obesity. Obesity is one of the risk factors for hypertension. In addition, cholesterol consumption can increase cholesterol levels in the body. Because the higher the total cholesterol level, the higher the possibility of hypertension (Maryati, 2017).
- 3) **Lack of Fiber Consumption** Fiber is a type of insoluble carbohydrate. Fiber is related to the prevention of high blood pressure, especially the type of crude fiber. Fiber has

a function that cannot be replaced by other substances in triggering physiological and metabolic conditions that can provide protection for the health of the digestive tract, especially the small intestine and colon. Various studies and literature reviews provide data that support the role of dietary fiber in triggering the growth of lactic acid bacteria (*Lactobacillus*) which have metabolic properties such as bifidobacteria in producing short-chain fatty acids (ALRP) and improving the immune system. Dietary fiber is a substance that not only improves intestinal flora through the growth of *Lactobacillus* bacteria, but also has a positive impact on other health elements such as preventing degenerative diseases. Probiotic bacteria that live in the digestive tract after consumption help overcome lactose intolerance, prevent diarrhea, constipation, cancer, hypertension, lower cholesterol, normalize the composition of digestive tract bacteria after antibiotic treatment, and improve the immune system (M. Kusharto, 2006). Consuming fiber is very beneficial because it can reduce energy intake, this is because the fiber consumed will form a gel so that the stomach contents are full and can make the volume of food high which can provide a feeling of fullness faster so that a person no longer consumes other foods excessively (Ratnaningrum, 2015).

Hypertension Characteristics are often referred to as a silent killer, this is because hypertension can attack anyone and can cause death. The characteristics of hypertension (Intan, 2012), namely:

- a. Headache One of the characteristics of hypertension is headache. This is because the blood flow produced by the heart throughout the body increases, causing pain in the head area.
- b. Shortness of breath: In people with hypertension, shortness of breath can occur, this is because the breathing is not smooth, making people with hypertension feel short of breath.
- c. Bleeding from the Nose (nosebleed) Nosebleed is one of the signs of hypertension. This is because it will cause the rupture of blood vessels in the back (posterior epistaxis) which causes nosebleeds.
- d. Restlessness Restlessness occurs due to various things, including excessive emotional factors.
- e. Heartbeat Increases When the heart rate increases, the heart feels like it is pounding. This happens because of emotional factors so it is still one of the characteristics of high blood pressure (hypertension).

METHOD

Implementation of counseling is one of the duties of a lecturer in carrying out the tri dharma of higher education to become a professional health worker, and can apply health knowledge and skills in the field. Before conducting this counseling, we and students first conducted a free health check. Consisting of temperature, pulse and blood pressure checks. After conducting a free health check, many elderly people experience unstable blood pressure. Therefore, we conducted counseling on hypertension in the elderly to prevent hypertension. For parents who are already

elderly, it is very important to provide health counseling in an effort to prevent hypertension.

This outreach activity was carried out on a date 01 March 2024, 09.00 WIB until finished. This counseling took place very conducive and all participants complied with health protocols. This counseling was carried out in Lubuk Raya Village, Padangsidempuan Hutaim Baru District. The purpose of this counseling is to provide information to the elderly. Those who played a role in this counseling were counselors/presenters Novita Sari Batubara, S.Keb, M.Kes, Rya Anastasya Siregar, SST, M.Kes and Arisa Harfa Said, S.Keb. M.KM counseling in the form of presentations and lectures and distributing leaflets. The number of participants in the activity was 25 elderly people.

Counseling was conducted for the elderly in Lubuk Raya Village, Padangsidempuan Hutaim Baru District. It began with an opening by the moderator for 8 minutes by delivering the opening greeting of the event and was filled with material delivered directly by the speaker for 30 minutes. After the material was delivered, a question and answer session was held with the participants present. The elderly were given the opportunity to ask questions to the speaker and provide feedback. The elderly participants looked enthusiastic in participating in the counseling.

Counseling begins according to a predetermined schedule. The elderly are ready to listen to the counseling material until it is finished. The elderly are also able to understand the material given by the speaker about hypertension.

The tools used in the counseling are laptops, LCDs, projectors. These tools can be used well. The media used such as slides and leaflets can also function well.

RESULTS AND DISCUSSION

Results of the counseling continued by providing an evaluation to the audience, namely the elderly. There were three questions given to the audience and the audience was enthusiastic and excited in answering the questions given by the speaker. This can be seen from the number of audiences who raised their hands to try to answer the speaker's questions. Counseling was carried out by gathering all respondents in the village hall in Lubuk Raya Village, Padangsidempuan District, New Hutaim which is quite large, where usually the village hall is used for health socialization and other activities in the village.

The moderator gave a welcoming speech and explained the material that would be given to the elderly. Then it was immediately continued with the delivery of the material by the speaker. All the elderly who participated in the counseling activity looked orderly and in accordance with the speaker's instructions. After the delivery of the material, the speaker gave time for a question and answer session regarding the material given and provided snacks to the elderly. The counseling was closed by the distribution of leaflets and ended with a closing greeting by the moderator.

CONCLUSION

The extension activities carried out went well. The elderly in Lubuk Raya Village, Padangsidempuan Hutaim Baru District, followed the activities enthusiastically in the outreach activities about Hypertension disease. This is proven by the enthusiasm of the elderly in the Q&A session during the activity. Elderly participants listened and listened to the material presented by the speaker very well. After this counseling, it is recommended that the elderly pay more attention to their health by controlling their blood pressure and checking it with health workers in the environment or at the health center to prevent hypertension.

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Ethical Compliance

This study was conducted in accordance with ethical standards set by the relevant institutional review board. Informed consent was obtained from all participants prior to their involvement in the counseling sessions. Participants were assured of the confidentiality of their personal information and the right to withdraw from the study at any time without consequence. The research adhered to all ethical guidelines concerning research with human subjects.

Data Access Statement

The data used in this study are available upon reasonable request from the corresponding author. Data are not publicly available due to privacy and ethical considerations related to the participants involved in the counseling sessions. Requests for access to the data will be reviewed to ensure compliance with ethical standards and the confidentiality of participant information.

Conflict of Interest declaration

The authors declare that there are no conflicts of interest regarding the publication of this article. No financial support was received from any organization for this research, and the authors have disclosed any potential conflicts of interest that could influence the results or interpretation of the study.

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public's knowledge of the importance of controlling blood pressure regularly can prevent hypertension and other diseases from occurring.

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