



RESEARCH ARTICLE

Behavior to Prevent Hypertension in the Elderly in the Working Area of the Cendana Putih Health Center Mappedeceng Sub-District North Luwu District

Vanny Adyani^{1*}, Muhammad Arsyad², Ridwan M. Thaha³

¹ Department Health Promotion And Behavioral Science, Hasanuddin University, Makassar City, Indonesia

² Department Lecturer Health Promotion And Behavioral Science, Hasanuddin University, Makassar City, Indonesia

³ Department Lecturer Health Promotion And Behavioral Science, Hasanuddin University, Makassar City, Indonesia

ARTICLE INFO

Received: Aug 22, 2024

Accepted: Oct 25, 2024

Keywords

Elderly

Hypertension

Physical Activity

Consumption of
Hypertension Medication

Blood Pressure Check

Family Support

ABSTRACT

Hypertension is often referred to as a silent killer disease where this disease does not cause significant complaints for sufferers. Hypertension is a cardiovascular risk factor and death in the elderly. Where hypertension attacks 22% of the population or around 1.28 billion adults aged 30-79 years. This study aims to explore the behavior of hypertension prevention carried out by the elderly in the working area of the Cendana Putih Health Center, Mappedeceng District, North Luwu Regency. The research used is a descriptive qualitative study. The informants in this study were 11 people consisting of 7 elderly people, 2 health workers, and 2 family informants. data collection through in-depth interviews, observations, and documentation using interview guidelines. This study found that the prevention behavior carried out by the elderly has become a routine habit in everyday life. The elderly do activities that can support physical fitness such as gardening, walking, and gymnastics. Taking hypertension medication regularly, and checking blood pressure at the integrated health post are also routine activities for the elderly and of course with family support in carrying out all elderly activities. Hypertension prevention behavior must be routinely carried out by the elderly so that it becomes a disease prevention behavior that has a good impact on the health of the elderly.

***Corresponding Author**

vanny936935@gmail.com

INTRODUCTION

Hypertension is often referred to as a silent killer where this disease does not cause complaints, so sufferers do not know that they have hypertension (Berliana and Listiawaty, 2020). Hypertension is a major risk factor for cardiovascular events and death in the elderly. In 77% of people with first stroke, in 74% of people with congestive heart failure and in 60% of elderly people with peripheral artery disease. Based on data from the North Luwu Health Office in 2021, hypertension or high blood pressure was found in the elderly who were screened at posbindu and other health service facilities amounting to 12,836 people or 18.19%. Overall, the target for hypertension in North Luwu Regency is 70,551 people (North Luwu Health Office, 2021). In data from the Cendana Putih Health Center in 2022, hypertension was at the third highest level after ARI and Gastritis with the number of

hypertension sufferers as many as 831 people with a percentage of 16.11% (SP2TP Cendana Putih Health Center in 2022). According to the World Health Organization (WHO), hypertension attacks 22% of the world's population, an estimated 1.28 billion adults aged 30-79 years worldwide suffer from hypertension (WHO, 2021).

Elderly is the final process in human development which is characterized by a decrease in the body's immune function including the cardiovascular system. Hypertension in the elderly is a natural process characterized by physical decline. Minimal treatment is carried out by the elderly because hypertension does not show typical symptoms that can be used as an early warning that can be directly recognized by hypertension sufferers (Sani et al., 2020).

Hypertension in the elderly is caused by changes in the structure of blood vessels such as narrowing of the lumen, stiffening of blood vessel walls, and reduced elasticity so that it can increase blood pressure in the elderly (Fadhilah Tiara et al., 2023). Minimal treatment is carried out by the elderly because hypertension does not show typical symptoms that can be used as an early warning that can be directly recognized by hypertension sufferers (Sani, Yusuf, and Hatta 2020). Efforts to prevent hypertension sufferers can be done by carrying out primordial prevention, namely, avoiding hypertension by doing physical activity and not smoking. Primary prevention by following counseling related to hypertension, secondary prevention in the form of routine treatment for hypertension sufferers who have been diagnosed with hypertension, and carrying out tertiary prevention by carrying out behaviors that prevent complications in hypertension sufferers (Andala et al., 2022). Regular physical activity can prevent the adverse effects of aging and can also inhibit oxidative stress and can also provide additional antioxidant and anti-inflammatory actions for the body (Ruangthai and Phoemsaphawee, 2019).

Hypertension requires drug therapy that functions to control blood pressure so that it remains within normal limits (Yusmaniar 2020). According to Maria et al (2022), social support from those closest to you, especially family, is one of the motivations or encouragement to carry out hypertension prevention activities in (Surani, et al 2022). This preventive behavior can be seen from Lawrence Green's theory which states that behavioral factors (behavior causes) are influenced by three factors, namely predisposing factors which include age, occupation, education, knowledge, and attitude, enabling factors (Enabling Factors) which are manifested in the physical environment, distance to health facilities, and sources of information, and reinforcing factors (Reinforcing Factors) which are manifested in the form of support from family and community leaders (Notoatmodjo, 2014).

METHODS:

The research used is descriptive qualitative research. The informants in this study were 11 people consisting of 7 elderly people, 2 health workers, and 2 family informants. Data collection through in-depth interviews, observations, and documentation using interview guidelines. The informant selection technique was through purposive sampling technique with the determination of informants based on certain considerations. Data collection techniques were also obtained from primary data through field observations after conducting observations and then conducting in-depth interviews. Secondary data were obtained through data from statistical sources, namely hypertension data through World Health Organization (WHO) data, Riskesdas (Basic Health Research) data, North Luwu Health Office hypertension data, and Cendana Putih Health Center data regarding hypertension. In this study, data processing used a content analysis approach.

RESULTS :

1. Physical Activity

Preventive behaviors carried out by the elderly in everyday life and carried out routinely are activities such as gardening, gymnastics, and walking in the morning. Gardening activities are still one of the activities that are considered to be beneficial for health. Here is the informant's statement:

"...Because I like gardening, so I consider gardening as my activity to sweat, my son and most of the time I am in the garden because I feel I am still strong and I like gardening, so I consider it as a regular exercise..." (*M, 65 years old*)

"...usually I do exercise at the integrated health post, I usually go to the garden to sweat, but I go to the garden more often because it is a job while being able to exercise..." (*KR, 62 years old*)

"...my father considers gardening as exercise, so that is his activity every day, he said if he doesn't go to the garden, he gets a headache..." **(IS, 20 years old)**

Other activities in the form of exercise that are usually done through activities at the integrated health post or at the health center, here is the informant's statement:

"...I like exercise, so that is my activity, I do exercise every week at the health center, other mothers maybe only do it at the integrated health post..." **(S, 64 years old)**

"...if it is regular exercise, if it is at the integrated health post..." **(U, 65 years old)**

Walking in the morning is also a routine activity for the elderly, according to the elderly, walking in the morning can provide a fitness effect. The following is a statement from the elderly who do physical activities by walking in the morning:

"... often do activities by walking in the morning before cooking because I feel comfortable after walking and my muscles feel relaxed, especially my knees ..." **(WM, 65 years old)**

"... walking in the morning on gravel, I like it, but sometimes I do it, sometimes I don't, but almost every week I definitely walk ..." **(WS, 62 years old)**

Regarding the physical activity carried out by the elderly, it is in line with what was stated by the key informant regarding the importance of physical activity carried out by the elderly to maintain the health of the elderly's body. The following is a statement from the informant:

"... considering that the elderly need physical activity for the fitness and health of the elderly, so the elderly can take part in gymnastics carried out by health workers at every posyandu schedule in each village in addition, the elderly can also walk in the morning to provide a fitness effect for the elderly's body by walking for a few minutes in the morning. Also with several other activities such as gardening and farming considering that the majority of people's work in Mappedeceng sub-district is gardening and farming..." **(SS, 37 years old)**

2. Blood Pressure Checks

Blood pressure checks are included in the routine health checks carried out in every village in the Cendana Putih Health Center working area. The following are statements regarding blood pressure checks carried out by the elderly:

"... I diligently come to check my blood pressure regularly, if I go to the integrated health post, I only check my blood pressure..." **(M, 65 years old)**

"... diligently if my blood pressure is normal, if I'm not at the integrated health post, I go to the midwife, if it's something else, I think I'll go to the midwife quickly..." **(U, 65 years old)**

"... my grandmother always checks my blood pressure, I never fail to check it..." **(WM, 65 years old)**

"... I often go to the integrated health post to check my blood pressure because I also want to know how much my blood pressure usually is every month so I can see if it goes up or down this month..." **(KR, 62 years old)**

Information regarding the elderly who routinely have blood pressure checks was also obtained through supporting informants such as one of the families who lives with the elderly at home. The following is the informant's statement:

"...as far as I know, blood pressure checks are done at the integrated health post (posyandu), I usually see them, my father also said that in every village there are always routine checks..." **(IS, 20 years old)**

Routine blood pressure checks are carried out through the integrated health post (posyandu) program in every village. In addition, there are also other checks. The following is a statement from a health worker regarding blood pressure checks at the integrated health post (posyandu):

"...I think every integrated health post (posyandu) or integrated health post (posbindu) always has blood pressure checks. In addition to blood pressure checks, there are also uric acid, cholesterol, and

diabetes checks. It is hoped that this integrated health post (posyandu) or integrated health post (posbindu) can be utilized well by the elderly to carry out health checks..." **(T, 56 years old)**

3. Consumption Of Hypertension Medication

Prevention of the elderly through regular consumption of hypertension medication is one activity that cannot be missed by sufferers. This hypertension medication is obtained through health centers, hospitals, and clinics where the elderly undergo examinations or treatment. The following is a statement from the elderly:

"... I take blood pressure medication. I get the medication from the health center, I usually ask for it from the health center and bring it to the health center..." **(U, 65 years old)**

"... I used to drink it, I often take blood pressure medication, I get it from the health center with the doctor..." **(S, 64 years old)**

"... I take medication regularly, son, be diligent when I take my blood pressure medication. I get the blood pressure medication at the health center..." **(WS, 62 years old)**

"... yes I take medication, if I am sick like this the doctor tells me to take medication. I take my blood pressure medication from the doctor at the clinic there and then I take the medicine when it runs out..." **(KR, 62 Years)**

In addition, the elderly also undergo traditional treatment by consuming herbal medicine and they feel that their health condition improves after consuming hypertension medication from the doctor or the herbal medicine. The following is a statement from the elderly:

"... I drink the one with sop leaves. I was asked by a friend if it could be drunk for those who have pressure so I drink it because my body condition is also good. I think if I drink it, so I drink it..." **(S, 64 Years)**

"... before, if I didn't take my blood pressure medication, my blood pressure would rise very quickly for a few days, but since I routinely drink the medicine, I feel good.... My wife once made me a herbal medicine, she said boiled sop leaves or boiled bay leaves but how many times have I drunk it..." **(WS, 62 Years)**

Consuming hypertension medication is a very important recommendation for the elderly who suffer from hypertension. By consuming hypertension medication, the elderly can control blood pressure in the body and prevent complications of other diseases. In line with the following informant's statement:

"... often provide education for people who suffer from hypertension to routinely consume their medication. Because if the elderly already have hypertension, it will be difficult to cure and it could be that several diseases can also infect or complications occur if treatment is slow, therefore it is very much needed..." **(T, 56 Years)**

4. Family Support

Family support is very necessary for the elderly in living their lives by providing motivation for the elderly to recover and providing attention to the elderly such as helping to remind the elderly to take medication regularly, accompanying the elderly in undergoing health checks. The following are statements from the elderly regarding family support given to the elderly:

"... there are children who accompany me there when I go to check ups, usually at the health center I am taken because I still often go to get medicine there..." **(M, 65 Years)**

"... my children and grandchildren know that I have high blood pressure, and when I am sick, my parents are always accompanied by my children or grandchildren..." **(U, 65 Years)**

"... The one who diligently takes grandmother is a grandson, usually he is waited for by the grandson when checking ups at the health center and if suddenly sick, the grandson also takes me. If I am sick, the grandson also makes porridge..." **(MJ, 66 Years)**

Family support is very beneficial for the elderly, especially the elderly who are in the healing period, the accompaniment of those closest to me motivates the elderly to recover quickly and gather or do activities with their families as usual. As stated by the following informant:

“...there are several families who participate in the integrated health post because they are usually busy so that the family cannot take the elderly to come for check-ups at the integrated health post...”
(SS, 37 years old)

A form of attention from one of the family members to the elderly.

“...we just watch mom’s food consumption now by reminding her to take her medicine regularly and if we want to buy food that mom likes, we also buy it so that it helps mom to continue to enjoy eating food that mom likes...” **(KS, 37 years old)**

DISCUSSION:

1. Physical Activity

Physical activity is also an effort to improve physical fitness and physical condition of the elderly. In line with research conducted by (Erwin Wiksuarini et al., 2023) with the results of the study that there is a relationship between physical activity and changes in blood pressure in the elderly with hypertension in the work area of the Posbindu Babakan Asem Village, Tangerang Regency, therefore physical activity needs to be done by the elderly as a promotive and preventive effort to prevent hypertension (Wiksuarini et al. 2023). In addition, there are gymnastics activities carried out by the elderly. Research conducted by (Wahyuni, Majid, and Pujiana 2023) found that there was an effect of hypertension gymnastics on blood pressure in elderly hypertension sufferers at the Melati Posyandu, South Pemulutan in 2022 where this hypertension gymnastics was effective in hypertension patients.

2. Blood Pressure Checks

Blood pressure checks are included in the routine health checks carried out at the Posyandu located in the Cendana Putih Health Center work area. In line with research conducted by (Andri Nur Sholihah et al., 2024) which shows that health check-up programs provide better access to health services for the elderly and increase early detection of hypertension. In addition to blood pressure checks, there are other health checks such as blood sugar, cholesterol, and uric acid checks. In addition, this examination activity also includes other activities such as health education. Prevention efforts to reduce hypertension sufferers are also through health promotion. Where health promotion can reduce the impact of risk factors related to broad health determinants that lead to disease and improve the quality of life of individuals and society (Asih 2021).

3. Consumption Of Hypertension Medication

One of the preventions of hypertension carried out by the elderly is to routinely take hypertension medication. Research conducted by (Kartini and Leni., 2021) concluded that compliance with taking hypertension medication greatly affects blood pressure control in the elderly (Massa 2021). The use of herbal plants is also one of the preventive measures taken by the elderly where the purpose of using these herbal plants is an effort to improve public health. With alternative medicine, especially herbal medicine, it is one way to treat disorders experienced by the community (Kasfarina et al. 2023). The use of alternative medicine with plants around such as celery leaf decoction has an effect on reducing blood pressure in the elderly at the Ma'rif Muslimin Nursing Home in Padangsidempuan City (Sari et al., 2023).

4. Family Support

Prevention of hypertension requires family support. This family support is what provides assistance to other family members both in the form of moral and material support. The family as the main social agent and the family that plays a role in aspects of hypertension management including medication compliance, lifestyle modification, and follow-up visits to health services. Research conducted by (Nadiya, Joni, and Kristiawati., 2024) family support tends to make the elderly better able to manage their hypertension condition well. According to research conducted by (Maya Handayani, Achmad Kusyairi, and Suhari., 2023) involving family support is one of the health

promotion strategies that can be an effective step in improving the quality of life of hypertension patients (Maya Handayani et al., 2023). One of the studies on the use of posbindu with family as a motivator for the elderly in participating in posbindu activities is a study conducted by (Febriani, Perdana, and Sari 2021) where the family motivates the elderly to take health checks at the posyandu by providing assistance, escorting, or reminding the posyandu schedule.

CONCLUSION:

Hypertension prevention behavior carried out by the elderly in their daily lives that are routinely carried out are doing physical activities such as gardening, gymnastics, and walking in the morning. Routine blood pressure checks carried out by the elderly are part of the prevention carried out by utilizing health facilities such as integrated health posts. The elderly also routinely consume hypertension medication obtained through health centers, hospitals or clinics where the elderly undergo examinations, in addition to medication from doctors, some elderly also undergo traditional treatments such as celery leaf decoction. All of these preventive behaviors must receive support from the elderly's family in the form of attention such as accompanying the elderly to undergo health checks and helping to remind the elderly to take hypertension medication.

REFERENCES:

- Andala, Sri et al. 2022. "Family Duties to Prevent Hypertension." 0966(3): 85–93.
- Andri Nur Sholihah, et al. 2024. "Hypertension Exercise Program, Examination And." : 6–11.
- Asih, Mamlu Atur Rohimah and Susi Wahyuning. 2021. "Efforts To Improve Elderly Knowledge About Hypertension Through Health Education Program 'Cerdik' In The Work Area Of Patrang Puskesmas, Jember)." 10(1): 90–97.
- Berliana, Novi, and Renny Listiawaty. 2020. "Behavioral Risk Factors in Prevention of Hypertension Among Adolescents." *Journal of Global Research in Public Health* ISSN 5(2): 210–16. <https://doi.org/10.30994/jgrph.v5i2.282> Website: <https://jgrph.org/index.php/JGRPH>.
- Fadhilah Tiara Putri, Rani Ardina, Tri Wijayanto. 2023. "The Relationship Between Family Support and Primary Hypertension Prevention Behavior in the Elderly in the Wates Health Center Work Area." *Journal of Health System Research*: 20–34.
- Febriani, Christin Angelina, Agung Aji Perdana, and Tati Diana Sari. 2021. "Factors Related to the Utilization of Integrated Non-Communicable Disease Development Posts." *Journal of Professional Nurse Research* 3(1): 165–78.
- Kasfarina, Dwi et al. 2023. "THE RELATIONSHIP BETWEEN KNOWLEDGE OF HERBAL PLANTS USE AND HERBAL PLANTS USE BEHAVIOR." 18(2): 58–64.
- Massa, Kartini, and Leni Arini M. 2021. "Sam Ratulangi." 2(September): 46–52.
- Maya Handayani, Achmad Kusyairi, and Suhari. 2023. "The Relationship Between Family Support and Self-Care with Quality of Life of Hypertension Patients." 4: 1871–81.
- Ruangthai, Ratre, and Jatuporn Phoemsapthawee. 2019. "Combined Exercise Training Improves Blood Pressure and Antioxidant Capacity in Elderly Individuals with Hypertension." *Journal of Exercise Science and Fitness* 17(2): 67–76. <http://dx.doi.org/10.1016/j.jesf.2019.03.001>.
- Sani, Andi, Rezky Aulia Yusuf, and Nyla Hatta. 2020. "The Effect of Morning Walking Activity on Blood Pressure in Hypertension Patients at the Elderly Social Service Center." 1(2).
- Sari, Elpiana et al. 2023. "The Effect of Giving Celery Leaf Boiled Water to Elderly People on Lowering Blood Pressure." : 29–33.
- Surani, Vincencius, Lilik Pranata, and Teresia Erina Sestiyowati. 2022. "Relationship between Family Support and Self-Care in Hypertension Patients." 1(7): 1447–58.
- Wahyuni, Yudi Abdul Majid, and Dewi Pujiana. 2023. "The Effect of Hypertension Gymnastics on Blood Pressure in Elderly People with Hypertension." *Jurnal Inspirasi Kesehatan* 1(1): 65–71.
- Wiksuarini, Erwin et al. 2023. "The Relationship of Physical Activity to Changes in Blood Pressure in the Elderly with Hypertension in the Posbindu Work Area of Babakan Asem Village, Tangerang Regency." *Qamarul Huda Health Journal* 11(2): 445–51.
- Yusmaniar, et al. 2020. "The Effect of Medication Alarm (Amino) to Increase Medication Compliance in Hypertensive Patients." *Ibnu Sina Scientific Journal (JIS): Pharmaceutical and Health Sciences* 5(1): 96–107.