

Hypertension Education as An Effort to Increase Knowledge and Prevent Hypertension in The Elderly at Posyandu Mawar Merah, Labuh Baru Barat Sub-District, Payung Sekaki District, Pekanbaru

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ABSTRACT

Hypertension is a non-communicable disease that can attack the human body, whether it is a man or a woman. The proportion of the elderly population in Indonesia in 2025 will increase to approximately 11.8% of the total population. Elderly health is one of the government's programs. The public health problem facing the elderly currently is the increasing number of cases of non-communicable diseases (NCDs), one of which is hypertension. Most of the elderly who live and are assisted in the Madania elderly social home suffer from hypertension. In this institution there is no blood pressure monitoring program and education about hypertension. This activity aims to understand the blood pressure picture of the elderly and increase the knowledge of the elderly about hypertension, so that they can carry out prevention and treatment independently. Activities were carried out in June 2023, in the form of education about hypertension to the elderly and measuring blood pressure. The method used is lecture and discussion using leaflet media. The activity was attended by 38 elderly people. Participants looked enthusiastic in participating in the entire activity agenda. There is an increase in knowledge after being given counseling material.

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1. INTRODUCTION

Hypertension is one of the risk factors for disease, it is said to be hypertension if the results of systolic blood pressure measurements are >140 mmHg and diastolic >90 mmHg. (Guasti et al., 2022). The incidence of hypertension in the world is estimated at 1 billion people and almost 7.1 million die every year (13%) (Kemkes RI, 2019). Based on Riskesdas data, the incidence of hypertension shows an increase from 25.8% to 34.1%. The estimated number of hypertension cases in Indonesia is 63,309,620 people, while the death rate due to hypertension is 427,218 (Riskesdas, 2018).

Hypertension is a health problem that is often found in the elderly. The proportion of the elderly population in Indonesia in 2025 will increase to approximately 11.8% of the total population. The number of elderly in 2015 according to the Data and Information Center of the Indonesian Ministry of Health, Yogyakarta Special Region Province was ranked highest in the number of elderly, namely 33.44%. Elderly health is one of the government programs (Oliveros et al., 2020) (Riskesdas, 2018).

Regulation of the Minister of Health of the Republic of Indonesia Number 25 of 2016 states that the targets of the National Action Plan for Elderly Health are pre-elderly (45-59 years), elderly (60-69 years) and high-risk elderly (elderly >70 years or $\geq$ 60 years with health problems). Physiologically, elderly people experience various declines in the functions of organ systems in the body, so that elderly people are vulnerable to experiencing health problems. Based on data from the Central Statistics Agency, Population Projections for 2010 – 2035 show that the number of elderly people in Indonesia is increasing. It appears that the proportion of the elderly population in Indonesia in 2025 will increase to approximately 11.8% of the total population. The aging process is a change that is related to time, universal, natural, progressive and detrimental (Kemkes RI, 2019).

Many elderly people are thought to experience physical inactivity. This is thought to be due to the elderly's lack of knowledge about proper physical activity. It is very important for elderly people who suffer from certain diseases to adopt a healthy lifestyle according to the type of disease in their daily lives (Lee et al., 2019). In the elderly, conditions will occur where the ability to adapt to the environment and the ability to survive decreases. Decreased physical strength and endurance will disrupt the functional mechanisms of the body's organs and make the elderly vulnerable to disease. Hypertension is a health problem that is often found in the elderly and requires appropriate treatment such as carrying out physical exercise in the elderly and the role of the family to help the elderly overcome this problem. (Rita et al., 2020)(Ren et al., 2022).

The people of Labuh Baru sub-district are active in outreach activities and activities usually carried out at the local posyandu. On average, residents of Labuh Baru sub-district pay attention to their health and use community health centers and posyandu as the first place of service when they are sick. Blood pressure screening activities and physical activity in the elderly are a form of intervention for health problems, namely hypertension. Elderly people must be directed to take care of their own health. In the elderly, aging is also associated with degenerative changes in the skin, bones, heart, blood vessels, lungs, nerves and other body tissues. One of the degenerative diseases that is most often found in society, especially in the elderly, is gout, also known as gouty arthritis, which attacks the joints. (Hamidah et al., 2022) .

Based on the background description above, the service wants to carry out blood pressure examinations/screenings in the elderly with the aim of knowing the risk of hypertension in the elderly at the red rose posyandu so that supporting examinations can be carried out and implementing a healthy lifestyle to avoid hypertension and can improve the quality of life of the elderly and Hypertension can be prevented.

2. METHOD

In the community service activity focused on addressing hypertension among the elderly, a series of integrated methods were employed to enhance awareness and knowledge about the importance of managing and preventing hypertension in this demographic.

The initiative commenced with the delivery of material, where participants, particularly the elderly, were provided with comprehensive information about hypertension. This included explanations on the nature of hypertension, risk factors, potential health implications, and actionable steps for management and prevention. The aim of this session was to ensure that each participant received accurate and reliable information regarding hypertension in the elderly, facilitating a foundational understanding of the condition.

Recognizing the critical role of two-way interaction in the learning process, the activity progressed to a lecture and discussion session. This segment was designed to foster dialogue between the

organizers and participants, offering an opportunity for those who may not fully understand the condition to ask questions and gain deeper insights into hypertension. The discussion also aimed to address and dispel any concerns or myths participants might have regarding hypertension. Through this exchange of information, the goal was to empower each individual in the community to enhance their knowledge and be inspired to adopt a healthier lifestyle.

The culmination of the community service activity was the conducting of blood pressure screenings. This was targeted at all elderly participants, with the objective of identifying those at high risk for hypertension. The screening process is crucial as many individuals may be unaware of their high blood pressure status. By identifying their blood pressure levels, the elderly can take preliminary steps in managing their blood pressure, whether through lifestyle modifications or medical intervention, as necessary.

Overall, this community service methodology created a comprehensive educational program that not only raised awareness about hypertension among the elderly but also strengthened the community's capacity to support its members in addressing this health challenge.

3. RESULT AND DISCUSSION

Outreach activities about hypertension in the elderly and exercise training for the elderly were held on Monday / 16 December 2023. The implementation of community service activities went smoothly. The activity participants were quite enthusiastic and cooperative. The activity was attended by 20 elderly people. The characteristics of the respondents are as follows:

Tables and Figure

No	Category	Frekuensi (f)	Persentase (%)
1	Gender		
	Man	6	30
	Woman	14	70
2	Age		
	60-69 year	16	80
	70-79 year	3	15
	≥80 tahun	1	
TOTAL		20	100

Table 1. respondent characteristics

From table 1 it can be seen that the majority of participants in this community service activity are women (55%), and most are aged 60 – 69 years (70%)

No	Category	Frekuensi (f)	Persentase (%)
1	high(≥140/90 mmhg)	13	65
2	Normal (120/80)	6	30
3	low (<120-80 mmhg)	1	5
TOTAL		20	100

Table 2. Image of lens blood pressure

The results of measuring the blood pressure of the elderly show that the majority of the elderly suffer from high blood pressure, characterized by blood pressure measurement results of more than the same as 140/90 mmHg.

No	kategori	Pretest	posttest
1	Baik (menjawab benar 7-10 soal)	8	17
2	Kurang (menjawab benar <7 soal)	12	3

Table 3. Pre-test and post-test results for hypertension education

There was an increase in knowledge because the audience seemed to pay attention to the counseling material and were quite enthusiastic about asking questions. Some respondents stated that they had already been treated at a health service and had also received information about hypertension, so the health education currently being carried out was in the nature of a review/recall. This is in accordance with the results of previous research where after the counseling was carried out, 100% of respondents had good knowledge because most of the respondents had been exposed to the material so the counseling was in the nature of a review. (Septa Decelita, Wahyuni, Najlah Amalia, 2023)

Activities to increase knowledge about the prevention and treatment of hypertension are running smoothly. The results of the activity showed an increase in the elderly's knowledge and understanding of the material provided, namely that the majority of participants were able to answer correctly the evaluation questions given and were able to explain again the material that had been presented even in their own language and understanding. Implementation of counseling using media in the form of leaflets providing information only without using media (figure.1)



Blood pressure measurement activities carried out using a digital sphygmomanometer can provide an overview of the blood pressure of the elderly at the Madania Bantul elderly home. This description is used to motivate elderly people to pay more attention to their diet and to do physical activity according to the content of the counseling material that has been delivered. The public seemed enthusiastic in participating in blood pressure measurement activities and hypertension education (Lee et al., 2019).

Community service activities in the form of measuring blood pressure have also been carried out by (Umah et al., 2023) at the Posyandu in Suci Village, Manyar Gresik District. Where in this activity blood pressure monitoring is carried out followed by counseling using lecture and discussion methods. The implementation of this series of community service activities ran smoothly because of support from various parties, especially the management of the Madania elderly home who gave the service team free time to carry out the activities. The enthusiasm of the elderly also supports the success of this activity, as can be seen from the many questions asked by the elderly in the question and answer session showing the curiosity of the elderly in this activity. Education about hypertension and complications of hypertension has also been carried out for patients at the Dadok Tumbung Hitam Health Center. Increasing knowledge about hypertension is important to provide to the public in order to prevent

complications from uncontrolled hypertension. By implementing blood pressure monitoring, it is hoped that elderly people will be more aware of themselves and ultimately improve their health status.

4. CONCLUSION

Community service activities carried out at Posyandu Labuh Baru, Tampan sub-district, were carried out in accordance with the plans that had been prepared, including providing counseling using lecture and discussion methods to the elderly. Health education for the elderly discussing the importance of preventing hypertension shows an increase in the understanding of the elderly regarding hypertension in the elderly, this includes how to make efforts to prevent and control hypertension, especially in the elderly. The advice that the author can give is that health workers are expected to play a role in providing information or counseling about hypertension in the elderly or elderly families because most of the elderly in the village suffer from hypertension. For the elderly and elderly families, it is hoped that they can maintain a healthy lifestyle so that their health status can improve.

REFERENCES

- Guasti, L., Ambrosetti, M., Ferrari, M., Marino, F., Ferrini, M., Sudano, I., Tanda, M. L., Parrini, I., Asteggiano, R., & Cosentino, M. (2022). Management of Hypertension in the Elderly and Frail Patient. *Drugs and Aging*, 39(10), 763–772. <https://doi.org/10.1007/s40266-022-00966-7>
- Lee, J. H., Kim, K. Il, & Cho, M. C. (2019). Current status and therapeutic considerations of hypertension in the elderly. *Korean Journal of Internal Medicine*, 34(4), 687–695. <https://doi.org/10.3904/kjim.2019.196>
- Oliveros, E., Patel, H., Kyung, S., Fugar, S., Goldberg, A., Madan, N., & Williams, K. A. (2020). Hypertension in older adults: Assessment, management, and challenges. *Clinical Cardiology*, 43(2), 99–107. <https://doi.org/10.1002/clc.23303>
- Ren, Y., Shi, J., Qiao, Y., Gu, Y., Li, Y., Liu, Y., Cheng, Y., & Liu, Y. (2022). Epidemiological status quo of hypertension in elderly population in Changchun, China: a cross-sectional study. *BMJ Open*, 12(3), e053086. <https://doi.org/10.1136/bmjopen-2021-053086>
- Rita, D. P., Dobre, M., Pagliacci, S., & Ferri, C. (2020). Impact of Guidelines on Hypertension Control in the Elderly. *Current Pharmaceutical Design*, 27(16), 1952–1959. <https://doi.org/10.2174/1381612826666201207230956>
- Septa Decelita, Wahyuni, Najlah Amalia, B. M. (2023). *View of Penyuluhan Hipertensi Dan Diabetes Melitus Pada Lansia Di Rw 12 Jebres, Surakarta.pdf*. 02(02).
- Umah, K., Zahroh, R., & Kinarti, Y. M. (2023). Penyuluhan Hipertensi Pada Lansia Sebagai Upaya Mencegah Dan Pengendalian Hipertensi Di Posyandu Lansia Di Desa Suci Kecamatan Manyar Kabupaten Gresik. *Jurnal Pemberdayaan Masyarakat Nusantara*, 1(2), 2986–3163. <https://nafatimahpustaka.org/pengmas/>
- Kementerian Kesehatan Republik Indonesia.(2017). Profil Kesehatan Indonesia.Jakarta
- Tim Riskesdas. (2019). Laporan Provinsi Sumatera Selatan Riskesdas 2018. Jakarta : Lembaga Penerbit Badan Penelitian dan Pengembangan Kesehatan

