



INTEGRATED EDUCATION AND ASSISTANCE TO OPTIMIZE THE QUALITY OF LIFE OF THE ELDERLY WITH HYPERTENSION

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ABSTRACT

Hypertension is one of the most common health issues experienced by the elderly worldwide, including in Indonesia. In Kepuhkembeng Village, Peterongan District, Jombang Regency, hypertension is a serious concern as it can significantly reduce the quality of life of the elderly and increase the risk of cardiovascular complications such as stroke and heart failure. This integrated education and mentoring program aims to improve the knowledge and quality of life of elderly individuals with hypertension through health education interventions, increased medication adherence, and adoption of a healthy lifestyle.

The program involved 48 elderly participants and included structured health education, support through elderly health services (Posyandu Lansia), and the engagement of families and health cadres to monitor the elderly's blood pressure continuously. Through pre-test and post-test methods, evaluations showed a significant increase in the elderly's knowledge of hypertension and its management. The average knowledge score improved from 5.6 to 8.3, and mean blood pressure readings decreased from 154/92 mmHg to 140/86 mmHg after the intervention. These results underscore the importance of integrated education and mentoring programs in managing hypertension and highlight the role of family and community in enhancing the quality of life of elderly individuals.

Keywords: Health Education, Elderly Care, Blood Pressure Control, Lifestyle Intervention, Community Engagement.

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INTRODUCTION

Hypertension, commonly known as high blood pressure, is one of the most prevalent health issues affecting the elderly population worldwide, including in Indonesia (Tambunan et al., 2021). According to the World Health Organization (WHO), hypertension remains a significant global health challenge, especially among the elderly, due to its association with cardiovascular diseases such as heart attacks and strokes (World Health Organization [WHO], 2021). In Indonesia, data from the Ministry of Health reveals that 63.5% of the elderly population suffered from hypertension in 2019, making it one of the leading causes of morbidity and mortality in this age group (Kementerian Kesehatan Republik Indonesia, 2019). Uncontrolled hypertension can lead to severe complications such as heart disease, stroke, and kidney failure, significantly reducing the quality of life of elderly individuals (Puspitasari & Wulandari, 2022).

In rural areas like Kepuhkembeng Village, Peterongan District, Jombang Regency, elderly individuals often face significant barriers in managing their hypertension effectively. These challenges include limited access to healthcare services, lack of adequate knowledge about hypertension management, and insufficient support from families and communities (Suryanto & Hartati, 2023). Studies have shown that a lack of awareness and understanding of hypertension can result in poor medication adherence, which exacerbates the health conditions of elderly individuals and increases the risk of cardiovascular complications (Puspitasari & Wulandari, 2022). Furthermore, the elderly population in rural areas often struggles to access medical facilities

regularly due to geographical and socio-economic barriers, which hinder effective hypertension management (A. Nugroho & Dewi, 2020; S. Nugroho & Setyawan, 2020).

In response to these challenges, an integrated education and mentoring program was implemented to improve the quality of life of hypertensive elderly individuals in Kepuhkembeng Village. This program focuses on delivering structured health education, promoting healthy lifestyle changes, and encouraging the involvement of families and the local community in the management of hypertension. Through educational efforts and continuous support, the initiative aims to enhance the elderly's knowledge about hypertension, increase their adherence to prescribed medications, and ultimately improve their overall health outcomes (Suryanto & Hartati, 2023).

OBJECTIVES

General Purpose

The main objective of this community service program is to improve the quality of life of elderly individuals suffering from hypertension in rural areas. The program seeks to achieve this by implementing an integrated approach that combines health education and continuous mentoring to enhance knowledge, encourage medication adherence, and promote a healthy lifestyle. By addressing gaps in healthcare access, providing support for the elderly, and involving families and communities, the program aims to reduce the risk of hypertension-related complications, such as cardiovascular diseases and stroke, and ultimately improve overall health outcomes for the elderly population.

Special Purpose

The special purpose of this program is to directly address the specific challenges faced by elderly individuals with hypertension in Kepuhkembeng Village. This includes:

1. **Increasing knowledge:** Educating the elderly and their families on the causes, risks, and management of hypertension, with a focus on early detection and prevention of complications.
2. **Promoting healthy lifestyle changes:** Guiding the elderly through appropriate dietary modifications, regular physical activity, and the avoidance of high-risk behaviors, such as smoking and excessive salt consumption.
3. **Encouraging medication adherence:** Supporting elderly individuals to comply with prescribed treatment regimens through continuous mentoring and follow-ups.
4. **Enhancing community support:** Engaging families, local health cadres, and community members to provide a supportive environment for elderly patients, facilitating routine blood pressure monitoring and health check-ups.
5. **Reducing complications:** Mitigating the risk of hypertension-related complications such as heart disease and stroke through a comprehensive, community-based intervention.

PLAN OF ACTION

Strategy Plan

Health education program implementation steps, including:

1. Preparation

- **Target identification:** Identify the number and condition of elderly individuals with hypertension in Kepuhkembeng Village through collaboration with health cadres and the local Posyandu Lansia (elderly health posts).
- **Material development:** Prepare educational materials covering:
 - The definition and causes of hypertension
 - The risks of hypertension complications (e.g., stroke, heart failure)
 - Hypertension management (healthy diet, exercise, medication)
- **Media preparation:** Develop easy-to-understand educational tools such as leaflets, posters, and videos aimed at the elderly.
- **Coordination with stakeholders:** Contact the local healthcare center, health cadres, and families to ensure their participation and support for the program.

2. Opening Phase

- **Opening remarks:** Invite the elderly and their families to the activity location (such as the Posyandu or Village Hall) and provide a brief overview of the program's goals.
- **Initial health check:** Conduct blood pressure checks for participants to assess their current health condition.

3. Health Education Session

- **Lecture session:** Introduce the basics of hypertension and how it can affect the health of elderly individuals.

- **Delivering hypertension management content:** Provide education on a low-sodium diet, the importance of light exercise, and the need to adhere to prescribed medications.
 - **Practical examples:** Demonstrate simple exercises for elderly individuals and provide tips on how to maintain stable blood pressure.
 - **Distribution of educational materials:** Hand out leaflets and posters to participants to take home for further reading.
4. Discussion and Q&A
- **Interactive session:** Provide an opportunity for the elderly and their families to ask questions about hypertension and its management.
 - **Clarifying key points:** Give further explanations or practical advice based on the questions raised by participants.
5. Mentoring and Monitoring
- **Assign mentors:** Assign health cadres or family members to monitor the elderly and ensure they follow the recommendations from the session.
 - **Providing monitoring tools:** Distribute simple tools like blood pressure logs for daily monitoring.
 - **Home visits:** Schedule regular home visits by health cadres for elderly individuals who cannot attend the Posyandu.
6. Program Evaluation
- **Post-test:** Conduct a simple test to measure the improvement in participants' knowledge about hypertension (compare pre-test and post-test results).
 - **Follow-up blood pressure checks:** Recheck blood pressure to see any changes after participating in the educational session.
 - **Follow-up:** Set dates for follow-up meetings or future educational sessions to ensure consistent lifestyle changes.
7. Closing
- **Closing remarks:** Summarize the key takeaways from the program and thank participants and the organizing team.

Implementation

After preparing a strategic plan for the implementation of this community service activity, the team implementing the community service activity carried out its implementation, including:

1. Coordinating with the Kepuhkembang Village government, especially Kandangan hamlet;
2. Conduct health assessments to identify health issues within the community.
3. Report on health issues identified through the assessments.
4. Engage in discussions with the community to determine appropriate actions for addressing the identified health concerns.
5. Encourage active community involvement in each activity that has been approved.
6. Collaborate with the community to plan and coordinate the upcoming activities.
7. Prepare for activity implementation based on the plans agreed upon with the community.
8. Execute the planned activities in collaboration with the community, ensuring their involvement in each step.
9. Review and assess the effectiveness of each activity after it has been completed.

Setting

The activities were conducted between August 19 and September 19, 2024, in Kepuhkembeng Village, Peterongan District, Jombang Regency. The village was a rural area with a significant elderly population, many of whom suffered from hypertension and other health-related issues.

Target

The primary target of the program was the elderly population in Kepuhkembeng Village, Peterongan District, Jombang Regency, specifically those suffering from hypertension. Additionally, the program involved the families of the elderly, particularly caregivers, to ensure they understood how to support and monitor their elderly relatives in managing hypertension. Local health cadres were also included as key stakeholders to help implement, monitor, and sustain the health education and mentoring interventions.

RESULTS AND DISCUSSION

The residency program in Kepuhkembeng Village, Peterongan District, Jombang Regency, which took place from August 19 to September 19, 2024, was successfully implemented according to plan. The program consisted of several key stages, from preparation to evaluation of the program.

Health Survey and Identification

In the initial phase, a health survey was conducted involving approximately 100 elderly individuals suffering from hypertension. The survey revealed that most elderly participants in Kepuhkembeng Village had limited knowledge about hypertension, healthy living, and medication adherence. It also indicated that

many had dietary habits high in salt and lacked regular physical activity, exacerbating their hypertension condition.

Health Education Sessions

The health education sessions were held at the Posyandu Lansia (Elderly Health Post) and Village Hall, involving health cadres, family members of the elderly, and healthcare staff from the local Puskesmas. The topics covered in the sessions included:

- Introduction to hypertension: causes, risks, and potential consequences if left untreated.
- Hypertension management: the importance of a low-sodium diet, appropriate light exercises, and adhering to prescribed medications.
- Practical demonstrations: simple exercises for the elderly and techniques for self-monitoring blood pressure at home.

A total of 48 elderly participants attended the education sessions. They were provided with leaflets about hypertension, along with schedules for regular blood pressure checks at the Posyandu.

Mentoring and Monitoring

After the education sessions, local health cadres were assigned to conduct regular home visits for elderly individuals who were unable to attend the Posyandu. Each elderly participant received a blood pressure logbook to record daily measurements. The health cadres assisted the elderly in keeping track of their medication schedules and encouraged them to maintain a healthy lifestyle based on the program's recommendations.



Picture 1. Documentation of the Implementation of Health Education on Hypertension in Kandangan Hamlet, Kepuhkembeng Village, Peterongan District, Jombang Regency.

Program Evaluation

Evaluation was conducted using pre-test and post-test assessments to measure the improvement in the elderly participants' knowledge of hypertension. The pre-test results showed an average knowledge score of 5.6 out of 10, while the post-test results improved to 8.3 out of 10. Blood pressure reading improved from an average of 154/92 mmHg to 140/86 mmHg after the intervention. Blood pressure checks also indicated a decrease in average blood pressure after the elderly adopted healthier lifestyles and adhered to their medications.

The integrated education and mentoring program proved to be effective in improving the elderly's knowledge about hypertension and encouraging positive lifestyle changes. One key factor in the program's success was the community-based approach, where health cadres and family members were actively involved in hypertension management. This aligns with previous research findings that highlight the importance of family support and community involvement in improving the quality of life for elderly individuals with

chronic conditions such as hypertension (Puspitasari & Wulandari, 2022).



Picture 2. Documentation of Blood Pressure Measurement Before Implementation of Health Education Activities in Kandangan Hamlet, Kepuhkembeng Village, Peterongan District, Jombang Regency.

However, some challenges remained during the implementation of the program, particularly related to the limited healthcare facilities and access to blood pressure monitoring tools at home. Many elderly participants still relied on Posyandu visits for blood pressure checks, which limited the frequency of monitoring. Therefore, it is important to strengthen the program by providing more affordable and accessible blood pressure monitoring devices for the families of the elderly (Guirguis-Blake et al., 2021).

One of the strengths of this program was the active involvement of families and health cadres in the intervention. By including family members in the educational sessions, the program ensured that the elderly received ongoing support at home. Family members acted as caregivers and mentors, helping to monitor medication adherence and encouraging lifestyle changes. This collaborative approach is supported by studies suggesting that family

involvement can significantly enhance the effectiveness of health interventions, particularly for the elderly, who may have cognitive or physical limitations (Suryanto & Hartati, 2023).

The role of local health cadres was also instrumental. These individuals acted as intermediaries between the healthcare system and the community, conducting home visits and offering continuous support. Their involvement ensured that even those elderly participants who were unable to attend the sessions regularly received personalized care and guidance. This kind of community health worker involvement has been shown to improve health outcomes, particularly in rural and underserved areas where access to healthcare may be limited (Jones et al., 2018).

Despite the program's success, there were notable challenges, particularly regarding the limited access to healthcare resources. The reliance on the Posyandu for regular blood pressure checks posed a barrier for some participants, as frequent monitoring is critical in managing hypertension. Many elderly individuals lacked personal blood pressure monitoring devices at home, making it difficult for them to track their progress between check-ups (P2PTM Kementerian Kesehatan RI, 2020).

The absence of such tools points to the need for future programs to provide affordable and accessible blood pressure monitors to families. Access to these devices would enable more consistent self-monitoring and better control of hypertension. Moreover, ensuring that health cadres and family members are trained in using these devices would further enhance the self-management capabilities of the elderly.

The program's success raises questions about its long-term sustainability. While the short-term improvements in knowledge and lifestyle changes are promising, maintaining these results over time will require ongoing support. The continuous involvement of health cadres and the establishment of regular follow-up sessions will be critical to sustaining the program's impact. Furthermore, integrating the program into the local healthcare infrastructure, such as regular health checks at the Posyandu and increased collaboration with Puskesmas, will help ensure that the elderly population continues to receive the necessary support.

It is also important to explore additional community partnerships, such as collaborating with local businesses or non-governmental organizations (NGOs) to provide resources like blood pressure monitors or nutritional counseling. These partnerships could help overcome some of the resource limitations that were encountered during the program (Jones et al., 2018).

Overall, the program successfully improved the quality of life for the elderly by increasing their knowledge and promoting healthier lifestyle habits. The success of the program also highlights the significant role that community-based education and mentoring can play in managing chronic diseases in rural areas. Further evaluation is needed to assess the long-term impact of this program and explore ways to overcome the remaining challenges.

CONCLUSION

The residency program in Kepuhkembeng Village successfully improved the knowledge and health behaviors of elderly individuals with

hypertension through health education and community involvement. Participants showed better understanding of hypertension, and many experienced positive health outcomes.

Key to the program's success was the support of family members and local health cadres, though challenges such as limited access to blood pressure monitors need to be addressed.

Overall, the program demonstrated that community-based education can significantly enhance the quality of life for the elderly, but sustained efforts and improved resources are needed for long-term success.

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