

Factors Influencing Medication Adherence in Elderly with Hypertension: A Scoping Review

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Abstract

Background: Hypertension significantly impacts cardiovascular health globally, with a prevalence of 25.8% among adults in Indonesia, and 65.66% among those aged 55 and above. Managing hypertension in the elderly is challenging due to poor medication adherence influenced by various factors. **Objectives:** This study aims to identify factors affecting medication adherence in elderly hypertensive patients, explore barriers to adherence, and propose strategies to improve compliance. **Methods:** A scoping review using the PRISMA-ScR framework was conducted, analyzing literature from PubMed and Wiley databases published between 2018 and 2023. The review involved defining research questions, identifying relevant literature, selecting studies based on inclusion criteria, charting data, and summarizing results. **Results:** Key factors influencing medication adherence include demographic aspects like age and education, family support, and healthcare provider roles. Knowledge about hypertension and its treatment also plays a crucial role. Barriers include physical discomfort from medication side effects, misunderstanding medication instructions, and limited healthcare access. Strategies to improve adherence involve health education programs, social support initiatives, and better patient-provider communication. **Conclusions:** The study underscores the complexity of medication adherence in elderly hypertensive patients, highlighting the need for comprehensive approaches addressing both individual and systemic factors. Future research should focus on developing targeted interventions to support effective hypertension management in the elderly.

Keywords: *Hypertension; Elderly; Medication Adherence; Scoping Review; Southeast Asia.*

BACKGROUND

Hypertension, or high blood pressure, is one condition that can trigger cardiovascular disease. One billion people have been affected by hypertension worldwide, impacting stroke and heart attack. Hypertension is a disease that silently kills, is not immediately visible, and has few symptoms (Haldar, 2013).

Based on the Basic Health Research (Riskesdas) in 2013, the prevalence of hypertension among people aged 18 years and over in Indonesia was 25.8%, with the majority being elderly aged 55 years and above, at 65.66% (Kemenkes RI, 2018). Complications from hypertension cause 9.4 million deaths worldwide each year and are responsible for at least 45% of deaths due to heart disease (Haldar, 2013).

The characteristics of hypertensive patients in the elderly show inadequate control of antihypertensive medication consumption, usually due to treatment motivation, family support, and the role of healthcare providers in adherence to antihypertensive medication. Therefore, it is recommended to optimize these conditions so that hypertensive patients can be well managed (Kemenkes RI, 2018).

Elderly people have the highest prevalence of hypertension diagnosis, thus requiring nurse support to enhance the elderly's ability to actively participate and take responsibility for their own care (Irwan & Balabagno, 2014). Consequently, this will also motivate the elderly to control their antihypertensive medication.

METHODS

This research was designed using the Preferred Reporting Items for Systematic Reviews and Meta-Analyses Extension for Scoping Reviews (PRISMA-ScR) which is used to optimize reporting and increase accuracy. A checklist consisting of 27 checklist items was used (Tricco *et al.*, 2018).

The scoping review research method was chosen because chronic wound assessment instruments are considered very varied so it is necessary to determine the scope or extent of the collection of literature related to this matter. This scoping review was structured through 5 stages using scoping review frameworks guidelines (Arksey & O'Malley, 2007). The stages of this scoping review are:

1. Stage 1: Research Questions

1. What are the factors for compliance with taking medication
2. Barriers to taking hypertension medication in the elderly
3. What strategies are there to encourage the elderly to adhere to taking hypertension medication?

2. Stage 2: Study of Relevant Literature and Search Terms

This stage explores what types of factors can influence medication adherence in the elderly with hypertension, barriers and strategies for medication adherence in the elderly with hypertension. We used the Pubmed database, Google Scholar in the initial search to identify all terms of keywords. Table 1 shows a list of keywords for the database.

Table 1. Keywords

Factors that influence medication adherence in elderly people with hypertension		
Keywords	Medication Adherence	Medication Adherence Compliance with Medication
	Hypertension	Hypertension Blood Pressure High Blood Pressure
	Elderly	Elderly Older People Older Adult
	Southeast Asia	Indonesia South East Asia

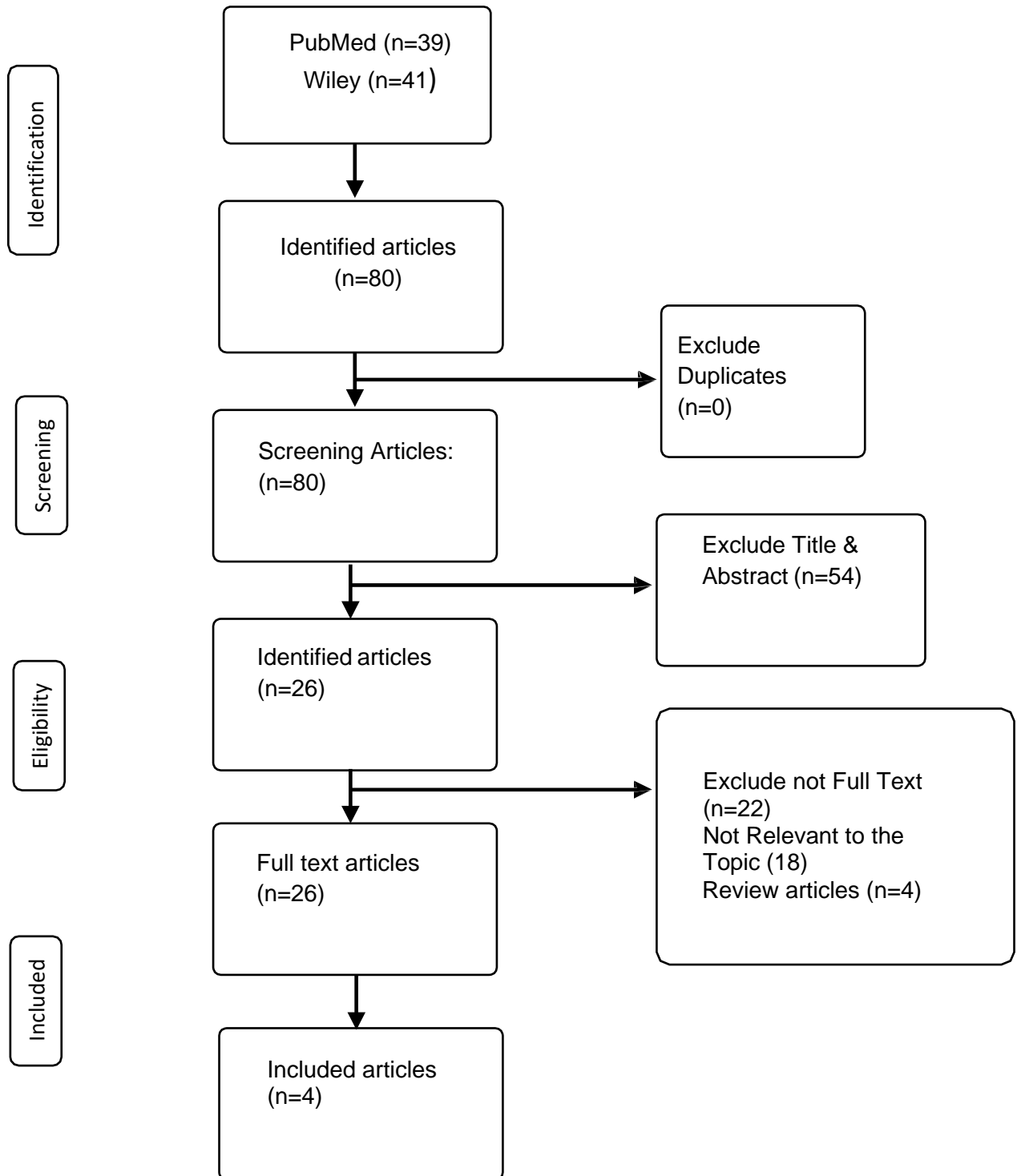
Keywords and phrases used in searches. Inclusion and exclusion criteria for the scoping review were based on the Population Conceptual Context (PCC) model and are listed in Table 3. Definitions of hypertension were as defined by the study authors. This review includes both qualitative and quantitative primary data studies. Reviews, interventions, research protocol papers, and pregnancy-induced hypertension populations were excluded. The search was limited to full text articles published in English and Bahasa Indonesia from 2018 to 2023. Ten years was chosen as the search time range.

Table 3. PCC

Criteria	Inclusion
Population	Elderly with hypertension
Concept	Factors affecting medication adherence
Context	Southeast Asia

Stage 3: Study Selection

Searches identified a total of 80. There were no duplicate articles. Selection of abstracts and titles by excluding 54 articles and leaving 26 identified articles.



No	Author, Year	Objective	Sampel (n, age)and settings	Findings	Treatment
1	(Tuot et al., 2023) Cambodia	To highlight the importance of public education in combating AIDS-related stigma and discrimination, as well as emphasize the need for targeted efforts to promote adherence to antiretroviral therapy (ART)	n=4101 Age= 78 % ≥ 40 years Rural and urban areas in 10 provinces	86.5% of 4101 participants were adherent to internal antiretroviral therapy in the last 2 months, factors that influence compliance include older age groups, high cholesterol and strong self-efficacy, discrimination and stigma, low scores. mental and high quality of life.	Bringing ART closer to people living with HIV and increasing social support in the community. Medications are distributed during monthly community meetings, where community ART group members interact with peers them for medical, social, and emotional support.
2	(Mitchell et al., 2023) Virginia, USA	Exploring factors associated with non-adherence to adjuvant chemotherapy (AC) guidelines in elderly breast and colon cancer patients.	n=577 Age= 75-77 Years	There is a high rate of non-adherence to adjuvant chemotherapy (AC) guidelines in breast and colon cancer patients. There are related demographic factors, disease, treatment, and patient experience significantly with patient-centered communication.	Adjuvant chemotherapy was measured in terms of non-adherence to adjuvant chemotherapy guidelines. including primary noncompliance and persistent noncompliance at 3 months and 6 months after tumor surgery.
3	(Wong et al., 2021) Malaysia	Identify sociodemographic and knowledge factors associated with inappropriate antibiotic use.	n=864 Age= 18 Years Urban area (46.9%), Rural/Suburban (53.1)	Lack of knowledge and appropriate practices related to antibiotic use and antibiotic resistance among the Malaysian general public.	In educational interventions to improve knowledge and practice regarding antibiotic use.
4	(Alfian et al., 2020) Indonesia	identify factors of non-compliance in use of antihypertensive and antihyperlipidemia drugs in type 2 diabetes patients in Indonesia.	n=571 Age= 18-74 Years Peurban	Factors associated with non-compliance in use antihypertensive drugs in type 2 diabetes patients in Indonesia include older age and lower belief in need.	Identify factors associated with non-compliance in the use of antihypertensive and antihyperlipidemic drugs.

RESULTS AND DISCUSSION

1. **Prevalence of Hypertension in the Elderly:** Hypertension is a significant health problem in Indonesia, with a prevalence reaching 25.8% in the adult population, and higher in the elderly (65.66% aged 55 years and over). This shows that the elderly are the group most vulnerable to hypertension and its complications.
2. **Factors Affecting Compliance:**
 - a. **Demographic and Social:** Age, education, and social support from the family play an important role in medication adherence. Elderly people who have emotional and practical support from their families tend to be more compliant in undergoing treatment.
 - b. **Knowledge and Awareness:** Knowledge about the disease and the importance of treatment also has an influence. Seniors who understand the risks of hypertension and the benefits of treatment are more likely to adhere to their treatment regimen.
 - c. **Role of Health Workers:** Good interaction between patients and health workers can increase the elderly's motivation to comply with treatment. Education provided by health workers regarding the use of antihypertensive drugs is very important
3. **Barriers to Compliance:** Some of the obstacles that elderly people face in complying with treatment include:
 - a. Physical discomfort or side effects from medication.
 - b. Lack of understanding about how to use medication correctly.
 - c. Lack of access to health services and medicines.

4. Strategies to Improve Compliance:

- a. Improving health education for the elderly and their families.
- b. Develop social support programs that involve the community.
- c. Facilitate better communication between patients and health workers.

CONCLUSION

This study underscores the complexity of managing hypertension among the elderly, highlighting that medication adherence is influenced by a variety of factors, including demographic characteristics, social support, and healthcare provider involvement. The findings reveal that inadequate adherence to antihypertensive medication in elderly patients often results from factors such as low motivation, insufficient family support, and ineffective communication with healthcare providers. Effective management of hypertension in this demographic requires a multifaceted approach that incorporates comprehensive health education, enhanced social support, and improved patient-provider interactions. The study suggests that targeted interventions focusing on these areas could significantly improve medication adherence and health outcomes for elderly patients with hypertension. Further research should aim to develop and implement strategies that address these identified barriers to optimize hypertension management in the elderly population.

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The 2nd Nani Hasanuddin International Health Conference (NHIHC)
“Navigation The Future of Health Care Addressing Challenges and Embracing Innovation in
Nursing, Midwifery, Nutrition and Pharmaceutical Profesion”
The STIKES Nani Hasanuddin, Makassar, August 10-11, 2024

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