

ORIGINAL

Understanding the Challenges of Hypertension Treatment among Elderly: A Qualitative Study from Indonesia

Comprender los desafíos del tratamiento de la hipertensión en personas mayores: un estudio cualitativo en Indonesia

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ABSTRACT

Introduction: hypertension is highly prevalent among older adults, whose cognitive and physiological decline often complicates consistent adherence to treatment. In Indonesia, these challenges are further shaped by sociocultural norms, limited access to healthcare, and varying levels of family and community support. This study aimed to gain an in-depth understanding of the challenges and contextual factors influencing hypertension treatment among elderly in Indonesia.

Method: a qualitative design with a phenomenological approach was used in this study, involving in-depth interviews conducted in Tanjung Pinang, Indonesia, in January to February 2025. Fourteen participants were selected through purposive sampling. Data analysis followed the stages of data reduction, data display, and conclusion drawing.

Results: this study identified five categories related to the theme of the challenges in hypertension treatment among the elderly in Tanjung Pinang, Indonesia, including: time management, limited health knowledge and awareness, physical limitation, perceptions toward treatment, and inadequate medication availability.

Conclusion: medication adherence among elderly with hypertension in Tanjung Pinang, Indonesia, remains a challenge, influenced by physical and psychological limitations, perceptions of being healthy, preference for herbal remedies, and difficulties in accessing health services.

Keywords: Hypertension; Elderly; Medication; Challenges; Qualitative Research.

RESUMEN

Introducción: la hipertensión es altamente prevalente entre los adultos mayores, cuyo deterioro cognitivo y fisiológico a menudo complica la adherencia constante al tratamiento. En Indonesia, estos desafíos están además determinados por normas socioculturales, el acceso limitado a los servicios de salud y los diversos niveles de apoyo familiar y comunitario. Este estudio tuvo como objetivo obtener una comprensión profunda de los desafíos y factores contextuales que influyen en el tratamiento de la hipertensión entre las personas mayores en Indonesia.

Método: se utilizó un diseño cualitativo con un enfoque fenomenológico, que incluyó entrevistas en profundidad realizadas en Tanjung Pinang, Indonesia, entre enero y febrero de 2025. Catorce participantes fueron seleccionados mediante muestreo intencional. El análisis de datos siguió las etapas de reducción de

datos, presentación de datos y elaboración de conclusiones.

Resultados: el estudio identificó cinco categorías relacionadas con el tema de los desafíos en el tratamiento de la hipertensión entre los adultos mayores en Tanjung Pinang, Indonesia, que incluyen: gestión del tiempo, conocimientos y conciencia limitados sobre la salud, limitaciones físicas, percepciones respecto al tratamiento y disponibilidad insuficiente de medicamentos.

Conclusión: la adherencia al tratamiento entre los adultos mayores con hipertensión en Tanjung Pinang, Indonesia, sigue siendo un desafío, influenciada por limitaciones físicas y psicológicas, percepciones de sentirse saludables, preferencia por los remedios herbales y dificultades para acceder a los servicios de salud.

Palabras clave: Hipertensión; Adultos Mayores; Medicación; Desafíos; Investigación Cualitativa.

INTRODUCTION

The proportion of the population aged 60 and over increased from 10 % in the early 21st century to approximately 13,7 % in 2021, and it is projected to reach 19-21 % by 2040-2050^(1,2) or reach 2,1 billion by 2050.

⁽³⁾ Around 80 % of the world's older adults are expected to live in low- and middle-income countries by 2050.^(1,4,5) Indonesia reflects this trend, with older adults expected to make up nearly 20-28,7 percent of the population by 2045.^(6,7,8,9) Older adults experience cognitive, psychological, and it's decline, making them more vulnerable to chronic health problems such as hypertension.^(10,11)

Hypertension is a significant cause of premature death worldwide and affects over 1,28 billion people, primarily in low- and middle-income countries. Globally, only 21 percent of individuals with hypertension receive adequate healthcare and achieve blood pressure control.⁽¹²⁾ In Indonesia, the national prevalence of hypertension is 34,11 percent, with South Kalimantan having the highest rate at 44,13 percent. The Riau Islands also report a significant prevalence of 25,84 percent, with increasing rates observed among older adults.⁽¹³⁾

In the Riau Islands, especially Tanjung Pinang, access to elderly-friendly healthcare services remains limited. Geriatric-specific referral services are not yet available, and care for older adults is still integrated into general services, which affects access and quality. Statistical data in 2021 showed that 4,70 percent of the population in the Riau Islands were classified as older adults, with 54,36 percent being widowed women, and 8,37 percent living in rural areas with limited access to health services.⁽¹⁴⁾ These barriers, combined with physical limitations, a sense of wellness, or a reliance on herbal medicine, contribute to challenges in treatment adherence.⁽¹⁵⁾ Therefore, this study explored the challenges and contextual factors affecting hypertension management among elderly in Tanjung Pinang, Indonesia.

METHOD

Study Design

This study employed a qualitative design with a phenomenological approach to explore the challenges and contextual factors affecting hypertension management among the elderly with hypertension.

Participants and Sampling

The study population consisted of family members of the elderly with hypertension who were receiving treatment at seven public primary health centers (Puskesmas) in Tanjung Pinang, Riau Island, Indonesia. Participants were recruited using purposive sampling based on the following inclusion criteria: 1) families caring for older adults with hypertension registered at the community health center, 2) without cognitive impairments, 3) able to communicate verbally, and 4) willing to participate by providing informed consent.

Interviews were conducted in January to February 2025 through door-to-door visits to the homes of elderly patients with hypertension. Sampling followed the principle of data saturation, with recruitment continuing until no new themes or information emerged during interviews and redundancy was reached, resulting in a total of 14 participants. In descriptive phenomenology, the goal is to uncover the essence of shared experiences among a small group of individuals who have lived through the phenomenon of interest.

Data Collection

Potential participants were identified through collaboration with healthcare providers at the selected health centers. After confirming eligibility and obtaining informed consent, the researcher conducted in-depth interviews using a semi-structured interview guide. Interviews were conducted by the first author (a gerontic nurse) in Bahasa Indonesia and lasted approximately 60 to 90 minutes. The interview setting was determined collaboratively with participants to ensure privacy, comfort, and cultural appropriateness.

In addition to audio-recorded interviews, detailed field notes were taken to capture contextual and non-verbal data. Interviews continued until thematic saturation was reached, ensuring data richness and depth.

Researcher Reflexivity

Throughout the research process, the researcher maintained reflexivity by documenting personal reflections, potential biases, and assumptions in a reflective journal. This procedure aimed to reduce researcher bias in data interpretation and maintain the integrity of participants' viewpoints. Regular discussions with academic supervisors and peers further supported objectivity in the analytic process.

Data Analysis

Data were analyzed using thematic analysis techniques. The process included familiarization with the data, coding significant statements, identifying emerging themes, and organizing them into broader categories. Data analysis involved three main steps manually using excel: data reduction, data display, and conclusion drawing. Trustworthiness was ensured through strategies such as member checking, peer debriefing, and maintaining an audit trail. Themes were validated by comparing across interviews for consistency and resonance with participants' narratives.

Ethical Considerations

Ethical approval for the study was obtained from the institutional review board, and official research permits were secured prior to data collection. This study received ethical approval from the Nursing Science Research Ethics Committee, Faculty of Nursing Science, Universitas Indonesia, with the number: KET-173/UN2.F12.D1.2.1/PPM.00.02/2024. Informed consent was obtained from all participants after a clear explanation of the study's objectives, procedures, and their rights to withdraw at any time without consequences. Confidentiality was maintained by anonymizing data and securely storing all research materials.

RESULTS

The study included 14 caregivers aged 23-57 years (mean = 38,6 years). The majority were female (57 %). Educational backgrounds varied, with most having junior high school (36 %) or senior/vocational high school education (29 %), while 21 % held bachelor's degrees and 14 % held master's degrees. Participants represented diverse occupations, including housewives (n = 3), private employees (n = 2), teachers (n = 2), and others such as driver, lecturer, security guard, trader, vendor, and ironworker. Most participants were children of the hypertensive patient (71 %), with the remainder being sons- or daughters-in-law (29 %). The duration of caregiving ranged from 3 to 15 years, with an average of approximately 8,2 years, indicating predominantly long-term caregiving roles. The characteristics of the participants are presented in table 1.

Table 1. Characteristics of study participants (N = 14)

No.	Participant	Age (Years)	Gender	Education	Occupation	Relationship to the hypertensive patient	Duration of caregiving
1.	P1	30	Male	Diploma	Security guard	Son	5 years
2.	P2	33	Female	Bachelor	Elementary teacher	Daughter	7 years
3.	P3	38	Female	Bachelor	Islamic teacher	Daughter	12 years
4.	P4	35	Female	Junior HS	Housewife	Daughter	3 years
5.	P5	39	Male	Senior HS	Private employee	Son	7 years
6.	P6	57	Male	Junior HS	Private employee	Son-in-law	3 years
7.	P7	23	Male	Undergraduate	Driver	Son	10 years
8.	P8	39	Female	Vocational HS	Housewife	Daughter-in-law	15 years
9.	P9	39	Male	Master	High school teacher	Son	10 years
10.	P10	39	Female	Junior HS	Trader	Daughter	5 years
11.	P11	41	Female	Junior HS	Street vendor	Daughter	5 years
12.	P12	39	Female	Master	Lecturer	Daughter-in-law	15 years
13.	P13	50	Male	Junior HS	Ironworker	Son	10 years
14.	P14	45	Female	Senior HS	Housewife	Daughter	4 years

This qualitative study identified five categories of challenges related to hypertension treatment among older adults in Tanjung Pinang, Indonesia, namely time management difficulties, limited health knowledge and awareness, physical limitations, perceptions toward treatment, and inadequate medication availability (figure 1).

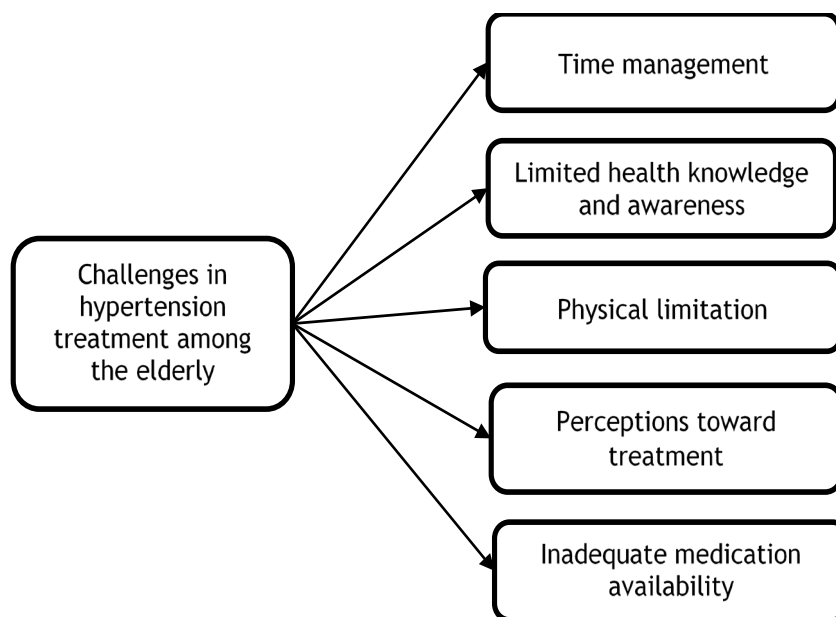


Figure 1. Thematic analysis result

Time management

Time limitation within families was a major challenge that affected the elderly's ability to access treatment. Some family members found it difficult to accompany older adults to healthcare facilities due to work or daily activities that could not be postponed.

"It might be because of activities that cannot be left behind." (P1)

"We have to adjust our (work) schedule, for example, when to take them to the health center." (P8)

"No, I don't accompany them to treatment." (P11)

"The obstacle is my working hours, so I can't take my parents for treatment." (P14)

These statements illustrate that competing responsibilities and the limited availability of family members constrained the elderly's access to routine hypertension care.

Limited health knowledge and awareness

Several family members indicated that elderly individuals often had low awareness or motivation to seek treatment. Some refused to visit health facilities or only did so when they felt symptoms.

"Sometimes they just don't want to go for treatment." (P2)

"They don't want to be taken there." (P6)

"We do take them for treatment, but sometimes they just refuse to go." (P9)

"Sometimes they want to go, sometimes they don't." (P10)

"They are too lazy to go to the health center." (P11)

"We can't take them because they are stubborn and just ask us to buy them medicine." (P10)

Some family members also mentioned a limited understanding of blood pressure monitoring or disease conditions.

"The problem is that we don't know what my father's blood pressure is." (P8)

Certain elderly participants believed they did not need to seek treatment because they felt fine or underestimated the disease.

"They say, 'I'm fine, I'll just stay at home, I'm okay.'" (P6)

"When they feel their body is fine, they say they forgot." (P12)

Some elderly individuals also expressed reluctance or fatigue related to treatment routines.

"When we tell them to go for treatment, they refuse, saying, 'I'll be waiting too long there.'" (P9)

"We still take them to the health center, but we have to persuade them first." (P2)

"Sometimes they're busy selling things." (P9)

These findings show that inadequate knowledge, perceived wellness, and resistance to treatment contributed

to poor adherence among elderly patients.

Physical limitation

Physical limitations were frequently mentioned as barriers to accessing treatment facilities.

"Their body is rather weak." (P5)

Dizziness or physical discomfort while traveling also restricted access.

"They often feel dizzy when riding a motorbike." (P4)

These conditions reflect the impact of age-related physical decline on treatment adherence and mobility.

Perceptions toward treatment

Some participants reported misconceptions or fears about the adverse effects of antihypertensive drugs, particularly regarding kidney function.

"My father believes that if he takes the medicine regularly, it will damage his kidneys." (P1)

"They get bored, and also feel that taking the medicine makes their kidneys worse." (P7)

Such perceptions contribute to non-adherence and reinforce negative attitudes toward long-term medication use.

Inadequate medication availability

A recurrent challenge involved limited or inconsistent availability of medicines at local health facilities.

"The problem now is that the medicine is not available." (P12)

"Nowadays, the community health post doesn't have any medicine." (P13)

These shortages highlight systemic barriers that can undermine continuity of care and medication adherence among the elderly.

DISCUSSION

This study identified five categories related to the challenges faced by elderly individuals in undergoing hypertension treatment in Tanjung Pinang, Indonesia. The findings demonstrated that treatment adherence in hypertension management among older adults was shaped by a complex interplay of personal beliefs, daily life demands, physical limitations, and systemic barriers within the healthcare delivery structure. It is consistent with previous studies indicating that non-adherence often arises from a combination of perceived absence of symptoms,^(16,17) medication fatigue,^(17,18) and concerns about side effects.^(16,17,18) Addressing these multidimensional challenges requires patient-centered strategies such as culturally appropriate education, motivational interviewing, and individualized care planning, alongside structural health system improvements to ensure consistent medicine supply and reliable follow-up systems.

Within this context, family support emerged as a pivotal factor in promoting adherence. Its support encompassed direct caregiving (including accompaniment to health facilities, medication reminders, and health monitoring) and indirect strategies to shape health behaviors. Previous studies highlighted that family involvement can play a crucial role in improving treatment adherence, particularly in chronic conditions that require lifelong management.^(19,20) Nevertheless, our findings suggest that this role necessitates a balance between respecting older adults' autonomy and promoting adherence, a dynamic similarly observed in previous gerontological care studies.^(21,22,23) Empowering families through skills training, communication support, and access to healthcare workers may help optimize this supportive role.

Furthermore, this study highlights that families' expectations go beyond ensuring medication compliance. Many participants expressed a desire for system-level enhancements, including the regular availability of antihypertensive medicines at community health posts (Posyandu) and primary healthcare centers (Puskesmas), routine home visits for older adults with mobility challenges, and systematic data collection of hypertension cases in the community. Similar expectations have been reported in various countries have shown that families and patients desire consistent availability of services and medicines at primary care facilities, home visits for patients with mobility limitations, active involvement in decision-making with adequate access to information, and a systematic case recording and reporting system.^(24,25,26,27) Meeting these expectations requires coordinated efforts between families, community health programs, and broader healthcare systems, with a focus on service accessibility, continuity, and patient-centeredness.

Overall, these findings reinforce the view that effective hypertension management in older adults is not solely an individual responsibility but a shared process involving family, community, and health system actors. Strengthening this triad of support by addressing misconceptions, reducing structural barriers, and leveraging

family involvement could lead to improved long-term control of hypertension in aging populations, particularly in resource-constrained settings.

A limitation of this study is its focus on a single geographic location with a relatively small sample size, which may limit the transferability of findings to other settings. A key strength of this study lies in its phenomenological approach and the use of rich, in-depth data, which provide nuanced insights into the challenges experienced by elderly individuals in managing hypertension.

CONCLUSION

This study demonstrates that hypertension management among older adults in Tanjung Pinang is shaped by the interplay of personal, familial, and health system factors. Limited family time, insufficient knowledge, declining physical condition, negative perceptions of medication, and inadequate drug supply collectively hinder consistent treatment adherence and blood pressure control. Within the Malay cultural context of the Riau Islands, traditional values and modernization interact in ways that influence health behaviors and decision-making among the elderly. Future research should focus on developing and evaluating culturally sensitive, family-centered interventions that promote long-term adherence and improve the overall quality of life for older adults with hypertension.

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CONFLICT OF INTERESTS

None.

AUTHOR CONTRIBUTION

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