



Patient Experience in Hypertension Treatment in Bengkol Village, Manado City

Inri Tukka¹, Arius Togodly², Sarce Makaba^{3*}, Dolfinus Yufu Bouway⁴, Rosmin M. Tingginehe⁵, Muhammad Akbar Nurdin⁶

Department of Public Health Sciences, Faculty of Public Health, Cenderawasih University

Corresponding Author: Sarce Makaba, sarcemakaba@gmail.com

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ABSTRACT

Hypertension is a non-communicable disease with a high prevalence that requires comprehensive management. This study aims to explore the experiences of hypertensive patients in undergoing treatment in Bengkol Village, Manado City. Using a descriptive phenomenological qualitative design, this study involved 15 participants aged 30-70 years who were selected through snowball sampling technique. Data were collected through in-depth interviews and analyzed using triangulation techniques. The results showed four main themes: treatment efforts through a combination of medical and traditional therapies, lifestyle adjustments with hypertension diet and physical activity, control compliance influenced by knowledge and family support, and prevention barriers including limited health services and economic factors. The study concluded that the experience of hypertensive patients reflects a holistic adaptation to chronic disease with social support as a key factor for successful therapy.

INTRODUCTION

Hypertension or high blood pressure has become a global health challenge that requires serious attention from all health stakeholders. This medical condition characterized by an increase in systolic pressure >140 mmHg and diastolic pressure >90 mmHg not only threatens the individuals who experience it, but also burdens the health system as a whole (World Health Organization, 2024). The often asymptomatic characteristics of hypertension make it a "silent killer" that can lead to serious complications such as kidney failure, stroke, diabetes mellitus, and other cardiovascular diseases. Global epidemiological data shows the increasing prevalence of hypertension in various parts of the world. The World Health Organization (2024) reports that there are approximately 1.13 billion people in the world suffering from hypertension, which means that one in three people are diagnosed with this condition. Projections suggest that by 2025 there will be 1.5 billion people affected by hypertension, with an estimated 9.4 million annual deaths from hypertension and its complications (Mayasari, 2019; Scientific, 2023).

The Indonesian context illustrates the complexity of hypertension problems that are no less challenging. Based on the Basic Health Research in 2023, the prevalence of hypertension in Indonesia reached 30.8%, a decrease from 2018 of 34.1% but still leaving around 78% of cases uncontrolled (Riskesdas, 2023). North Sulawesi Province recorded a 10% prevalence of hypertension according to physician diagnosis, with unique demographic and geographic characteristics influencing disease patterns and access to health services.

At the micro level, Bengkol Village as one of the urban areas in Manado City shows the phenomenon of hypertension that is interesting to study more deeply. Data from the Bengkol integrated surveillance center in 2024 recorded that hypertension ranked third in the list of the top 10 diseases with 442 cases, consisting of 158 men and 284 women (E-Pus Bengkol Dashboard, 2024). This condition reflects a gender distribution that is consistent with global patterns, where women have a higher risk of hypertension, especially at menopausal age. An aspect of particular concern is that most hypertensive patients who come for treatment to the Bengkol Health Center are already in an uncontrolled condition, requiring referral to the hospital. This phenomenon indicates a gap in early detection, initial management, and continuity of care that requires an in-depth understanding of the patient's experience of treatment.

The patient experience in the context of hypertension involves not only biomedical aspects, but also psychosocial, cultural, and economic dimensions that influence health decisions and behaviors. The community of Kelurahan Bengkol with its multicultural characteristics and deep-rooted social habit of "picnic" or food gathering, creates unique challenges in hypertension management that require a holistic and contextual approach.

THEORETICAL REVIEW

Hypertension Concept and Classification

Hypertension is defined as a chronic condition where arterial blood pressure increases, requiring the heart to work harder than normal to maintain circulation in the blood vessels (Pernefri, 2013). The classification of hypertension

based on Joint National Committee 7 (JNC 7) divides blood pressure into the categories of normal (<120/80 mmHg), prehypertension (120-139/80-89 mmHg), stage 1 hypertension (140-159/90-99 mmHg), and stage 2 hypertension ($\geq 160/\geq 100$ mmHg). The complexity of hypertension lies in its multifactorial etiology involving modifiable and non-modifiable risk factors. The Indonesian Society of Hypertension identifies non-modifiable risk factors as genetics, age, gender, and race, while controllable factors include obesity, physical inactivity, stress, and consumption of foods high in sodium, sugar, and fat (InaSH, 2020).

Management of Hypertension: Pharmacologic and Non-Pharmacologic Approaches

Modern hypertension management adopts a dual approach that integrates pharmacological and non-pharmacological therapies. Pharmacological strategies focus on achieving blood pressure targets through the use of antihypertensive drugs, with a preference for combination therapy for optimization of effectiveness (Zaini, 2022). Research shows that 80% adherence to antihypertensive drug regimens can reduce blood pressure to normal levels, while $\leq 50\%$ adherence is not effective in controlling blood pressure (Safitri et al., 2023). Non-pharmacological approaches emphasize lifestyle modification as the foundation of hypertension management. JNC 7 recommendations include limiting sodium consumption (<2 grams/day), adopting the DASH (Dietary Approaches to Stop Hypertension) diet, weight loss, regular physical activity, and smoking cessation (Lukito, 2021). Lifestyle interventions are proven to not only lower blood pressure, but also significantly reduce the risk of cardiovascular complications.

Medication Adherence and Influencing Factors

Adherence to hypertension treatment is a crucial determinant of long-term therapeutic success. The literature shows that patient non-compliance in taking antihypertensive drugs is one of the main factors for therapy failure (Sinuraya et al., 2018). Factors that influence adherence include patient characteristics, social support, accessibility of health services, and perception of the disease. The role of family support has been shown to be significant in improving treatment adherence. Research by Andika et al. (2023) demonstrated that family support in reminding taking medication can change non-adherent behavior into adherence. Social support provides essential psychological and practical motivation in the management of chronic diseases such as hypertension.

Theoretical Framework: Health Belief Model

The Health Belief Model (HBM) developed by Rosenstock (1974) provides a theoretical framework for understanding individual health behavior based on beliefs and perceptions of illness. HBM components include perceived susceptibility, perceived severity, perceived benefits, perceived barriers, cues to action, and self-efficacy. In the context of hypertension, HBM explains variations in patient behavior in adopting and maintaining treatment regimens. Patients who have high perceived risk of hypertension complications tend to be more adherent to treatment, while high perceived barriers may hinder adherence to therapy.

Patient Experience in Hypertension Management

Qualitative studies on the experiences of patients with hypertension reveal the complexity of the patient journey from diagnosis to long-term management. Previous research has shown that patients develop a variety of coping strategies, including a combination of medical and traditional treatments, dietary adaptations, and seeking social support (Kinasih, 2023). Cultural dimensions play a significant role in shaping the patient experience. In Indonesia, the use of herbal medicine as a complementary medical therapy reflects traditional beliefs integrated with modern medicine. This phenomenon demands a holistic understanding from health providers to optimize therapy outcomes.

METHODOLOGY

Research Design

This study uses a qualitative design with a descriptive phenomenological approach to explore the essence of the daily life experiences of people with hypertension in undergoing treatment. The phenomenological approach was chosen because of its ability to reveal the deep meaning of individual experiences that cannot be accessed through quantitative methods (Afiyanti & Rachmawati, 2014). The phenomenological paradigm allows researchers to understand how participants interpret and interpret their experiences in a specific socio-cultural context. The focus on lived experience provides valuable insight into the subjective dimensions of hypertension management that are often overlooked in traditional biomedical approaches.

The study was conducted in Bengkol Village, Bengkol Health Center working area, Manado City in April-May 2025. The location was chosen based on the high prevalence of hypertension and demographic characteristics that are representative of the Indonesian urban population. The study participants totaled 15 people, consisting of 13 patients with hypertension, 1 patient's family member, and 1 health worker. Gender composition included 9 women and 6 men with an age range of 30-70 years. Inclusion criteria included: (1) diagnosed with hypertension and undergoing outpatient care at Bengkol Health Center, (2) able to communicate in Indonesian language well, (3) not having significant cognitive impairment, and (4) willing to participate in the study with informed consent.

Data Collection

Data were collected through in-depth interviews using unstructured interview techniques to provide maximum flexibility for participants to express their experiences. Interview guidelines were developed based on the research objectives but maintained an open-ended nature to accommodate emergence themes. Interviews were conducted in settings that were comfortable for participants, including when they were waiting for services at Puskesmas Bengkol or at their homes. The duration of the interviews ranged from 30-60 minutes, depending on participants' readiness and ability to share their experiences. All interviews were documented through field notes and participant consent to ensure accuracy and completeness of data.

Data Analysis

Data analysis used a qualitative approach with triangulation techniques to increase the credibility and validity of the findings. The analysis process included the stages of: (1) verbatim transcription of field notes, (2) open coding to identify initial concepts, (3) axial coding to develop categories and sub-categories, and (4) selective coding to integrate main themes. Triangulation was conducted through multiple perspectives by comparing data from various sources (patients, families, health workers) and cross-checking the consistency of information. Member checking was done by having participants verify the transcripts and the researcher's interpretations to ensure the accuracy of the representation of their experiences.

Data Validity

Trustworthiness of qualitative research is ensured through four criteria: credibility, transferability, dependability, and confirmability (Afiyanti & Rachmawati, 2014). Credibility is maintained through prolonged engagement, persistent observation, and member checking. Transferability is facilitated through thick description that allows readers to assess the applicability of findings to other contexts. Dependability and confirmability are ensured through an audit trail that documents the entire research process, from conceptualization to interpretation. External auditing is conducted by experts in qualitative research to validate the research process and findings.

RESEARCH RESULTS

Symptom-responsive Medication Use Patterns

All participants in this study reported experiencing significant physical discomfort due to the manifestation of hypertension symptoms. These unpleasant conditions created a strong urge to seek solutions that could eliminate or reduce the intensity of the symptoms felt. Six of the fifteen participants showed a reactive pattern of antihypertensive medication use, where medication was only taken when they felt certain symptom manifestations such as dizziness, headache, or neck tension. The first participant described a treatment approach that relies heavily on the presence of symptoms, where medication is taken only when feeling complaints and stopped when symptoms subside. A similar pattern was also shown by the second participant who described a gradual strategy in symptom management, starting from using paracetamol as initial therapy before deciding to visit a health facility. Several other participants revealed that they adopted a minimalist approach to the use of antihypertensive drugs, only taking them when the intensity of dizziness reached a level that interfered with daily activities. This approach reflects the limited understanding of the asymptomatic nature of hypertension and the importance of continuous therapy for the prevention of long-term complications.

Despite variations in drug use patterns, the majority of participants reported positive experiences with the effectiveness of antihypertensive drugs. They described rapid and significant relief from bothersome symptoms after taking the medication prescribed by the health facility. The seventh participant

described an almost instant therapeutic effect in reducing the intensity of headaches, while the eighth participant expressed satisfaction with the tolerability of the drug, which did not cause annoying side effects. Other positive experiences were reported by participants who observed the disappearance of dizziness and headache symptoms after taking the drug, as well as confidence in the drug's effectiveness in reducing blood pressure. The eleventh participant expressed high confidence in the antihypertensive drug by stating the consistent availability of the drug and the immediate beneficial effects.

An interesting finding in this study was the universality of complementary and alternative medicine use among all participants. They did not rely exclusively on conventional medical therapies, but actively integrated various traditional treatment modalities that were believed to reduce or eliminate hypertension symptoms. Two participants specifically mentioned their preference for the use of kersen and sambiloto leaf decoction as an alternative therapy when hypertension symptoms appear. The twelfth participant described the practice of boiling certain leaves for consumption as a therapeutic drink, mentioning that the sambiloto plant is even cultivated in the backyard area to ensure continuous availability. The use of garlic as a natural antihypertensive agent was also reported by some participants. They described the practice of consuming raw garlic by chewing it directly when experiencing an acute episode of hypertension symptoms. A similar strategy is also applied with cucumber consumption, especially after consuming foods that have the potential to increase blood pressure such as meat.

The dimension of social support, particularly from immediate family members, emerged as a crucial element in hypertension management. Participants consistently reported the vital role of family in facilitating adherence to medication regimens through various forms of practical and emotional support. The second participant described the role of children in providing regular reminders for medication consumption, while the eleventh participant revealed how his wife proactively reminded him of his medication schedule. Family support also included logistical aspects, where family members assisted in collecting medication from health facilities and ensuring the availability of medication at home.

The fourteenth participant described how the daughter-in-law took the initiative to assist the grandfather in taking chronic medication at the health center while consistently providing reminders to take the medication on schedule. This pattern of support reflects a collective and mutually supportive family structure in dealing with chronic health challenges.

Comprehensive Dietary Modification

Participants demonstrated a high awareness of the relationship between diet and blood pressure control, which was reflected in the implementation of comprehensive dietary modifications. They identified and actively avoided certain food categories that were perceived to aggravate the condition of hypertension, including foods high in cholesterol, red meat, foods with high salt content, and coconut milk foods. The fifth participant described a radical dietary transformation that occurred soon after her hypertension diagnosis, where she

immediately eliminated meat and high-salt foods from her daily diet. This change was driven by an understanding of the obligation to take antihypertensive medication for life and a desire to reduce dependency on medication through lifestyle modification. A third participant reported a more moderate approach by reducing consumption of fried foods and avoiding the use of flavorings such as MSG in food preparation. Some participants adopted a total elimination strategy, where they completely eliminated the use of excess salt in cooking and avoided the use of MSG as a food flavoring.

The physical activity aspect of lifestyle modification showed a pragmatic approach and was integrated into participants' daily routines. They developed realistic and sustainable physical activity strategies in the context of limited time, resources, and personal preferences. The eleventh participant described a structured jogging routine with a frequency of twice per week, demonstrating a commitment to formal and scheduled exercise. However, the majority of female participants adopted a more integrated approach, relying on household activities as a form of functional exercise. The sixth participant explained how sweeping the yard and general cleaning activities were used as substitutes for formal exercise. A similar approach was demonstrated by the second participant who integrated household chores and gardening activities as a form of physical activity that provides dual benefits, namely domestic productivity and cardiovascular health maintenance.

The male participants in this study showed high awareness of the contribution of smoking in the pathogenesis of hypertension and developed various strategies for modification or elimination of smoking. They recognized that smoking is one of the significant risk factors contributing to their hypertensive condition. The fourteenth participant reported a gradual reduction in cigarette consumption rather than abrupt cessation, indicating an understanding of the challenges associated with nicotine dependence. The thirteenth participant reported achieving successful cessation over a two-year period, demonstrating the possibility of sustainable behavioral change with the right motivation and commitment.

The stepwise approach to smoking cessation reflects realistic expectations and recognition of the complexity of addiction, while maintaining the long-term goal of complete elimination of smoking as part of comprehensive lifestyle modification.

Dynamics of Adherence in Health Control

Participants demonstrated a sophisticated ability to recognize and interpret the various manifestations of hypertension symptoms they experienced. They reported a spectrum of symptoms consistent with the medical literature, including cephalgia, cervical tension, and facial vascular manifestations that could be reliably identified. The fourteenth participant provided a detailed description of the progression of hypertension symptoms, starting with tension in the cervical area, followed by cephalgia, and then visible facial redness manifestations. The fifth participant reported a symptom pattern that included frequent episodes of dizziness and tension in the posterior cervical

area, while the twelfth participant described intense cephalgia sensations with specific characteristics. This developed symptom recognition ability allowed participants to perform effective self-monitoring and take appropriate action when experiencing symptom exacerbation. However, excessive reliance on symptom-based management can be problematic given the often asymptomatic nature of hypertension.

Participants demonstrated varying levels of knowledge about the potential complications of uncontrolled hypertension, with some individuals showing a sophisticated understanding of the risk of stroke, cardiovascular events, and mortality. Knowledge of these complications creates legitimate fear that serves as a powerful motivator for healthcare seeking behavior and adherence to treatment regimens. The ninth participant expressed profound concerns about life continuity and the potential for sudden death, while the tenth participant described specific anxiety about the risk of stroke that can occur at any time without warning. The eighth participant directly expressed fear of mortality associated with hypertension complications. This fear-based motivation, although effective in driving compliance, also created significant psychological burden for participants. The balance between appropriate health concern and excessive anxiety is important in the context of long-term chronic disease management.

Systemic and Individual Barriers to Prevention

Participants expressed various concerns about the quality and comprehensiveness of healthcare services they received at primary healthcare facilities. They reported experiences that showed gaps in patient education, limited consultation time, and standardized approaches that did not adequately address individual needs and concerns. The fifth participant expressed frustration with superficial consultation processes, where interactions with providers were limited to prescription writing and basic vital signs monitoring without comprehensive patient education or individualized counseling. Absence of physician consultation in some visits created a sense of inadequate care and missed opportunities for patient education. The first participant reported a complete absence of detailed explanations about the nature of hypertension, its complications, and the rationale behind treatment recommendations, leaving patients with limited understanding of their condition. The twelfth participant expressed disappointment with the lack of structured health education programs during the five-year treatment period, indicating systematic gaps in patient education initiatives.

Despite awareness of dietary recommendations, some participants reported ongoing challenges in maintaining consistent adherence to dietary modifications, particularly in social contexts involving traditional food practices and community eating behaviors. The eleventh and seventh participants acknowledged difficulties in avoiding meat consumption, particularly when other family members consume the same food or during social gatherings where traditional foods are central in social interactions. Cultural pressures and social expectations create conflicts between individual health needs and communal social practices. The thirteenth participant reported ongoing struggles with

alcohol consumption and smoking cessation, indicating addictive behaviors that require specialized intervention and sustained support. Persistence of these risk behaviors despite knowledge of their health implications demonstrates the complexity of behavioral change in the context of established habits and potential dependencies.

In addition, financial constraints emerge as significant barriers in accessing consistent healthcare and implementing recommended lifestyle modifications. The sixth and eighth participants reported transportation costs as limiting factors in regular healthcare utilization, particularly for specialized care that requires travel to urban healthcare facilities. Motivational barriers also significantly impact treatment adherence, with participants reporting periods of decreased motivation for continuing medication regimens or regular monitoring. The fifth participant reported symptom-dependent medication use, where medication was only taken when experiencing symptoms, indicating inadequate understanding of the prophylactic nature of antihypertensive therapy. The thirteenth participant identified competing priorities such as work obligations that interfere with medication adherence and regular healthcare appointments. The combination of forgetfulness, competing priorities, and decreased motivation creates complex barriers that require multifaceted approaches for effective management.

DISCUSSION

Integration of Modern and Traditional Medicine

The research findings revealed a significant phenomenon of healthcare pluralism in hypertension management in Bengkol Village. Participants demonstrated agency in integrating biomedical treatments with traditional remedies, reflecting a worldview that does not see the two systems as mutually exclusive but as complementary approaches (Kinasih, 2023). The use of herbal medicines such as kersen leaves, sambiloto, garlic, and cucumber shows the persistence of indigenous knowledge systems integrated with modern healthcare. This pattern is consistent with literature that shows that patients often use multiple therapeutic modalities for optimizing health outcomes (Safitri et al., 2023). Healthcare providers need to adopt culturally sensitive approaches that acknowledge and work with traditional beliefs rather than dismissing them. Symptom-driven medication use that was dominant among participants reflects a fundamental misunderstanding of the asymptomatic nature of hypertension. This pattern is problematic because hypertension damage occurs progressively regardless of the presence of symptoms. Educational interventions need to emphasize the concept of "silent killer" and the importance of continuous medication even during asymptomatic periods.

Lifestyle Modification in Cultural Context

The lifestyle modifications reported by participants showed successful adaptation of standard hypertension management recommendations in a specific cultural context. Dietary changes were particularly impressive, with the majority of participants successfully reducing sodium intake, eliminating MSG, and

moderating meat consumption. However, challenges arose in social contexts, particularly during communal eating occasions integral to Minahasan culture. The "picnic" tradition in Manado creates social pressure to participate in food consumption that may contradict dietary recommendations. This highlights the tension between individual health needs and social obligations that require community-level interventions (Andika et al., 2023). Physical activity adaptations show pragmatic wisdom in incorporating exercise within existing lifestyle constraints. Integration of household and agricultural activities as forms of exercise demonstrates sustainability and cultural appropriateness. This approach may be more effective than prescriptive exercise recommendations that may be culturally alien or economically unfeasible.

Social Support as a Determinant of Health

Family support emerged as a critical factor in medication adherence and overall disease management, consistent with the literature on social determinants of health (Andika et al., 2023). Support manifestations include medication reminders, accompaniment to healthcare visits, dietary assistance, and emotional encouragement. The collectivist nature of Indonesian culture creates opportunities for leveraging family systems in chronic disease management. However, this also creates vulnerabilities when family support is absent or inadequate. Health interventions should explicitly incorporate family members in treatment planning and education for optimizing support systems. Gender dynamics in family support patterns show interesting insights. Female family members (wives, daughters-in-law) often take primary responsibility for the health management of male patients, while male patients provide less consistent support for female family members. This pattern reflects broader gender roles and may require targeted interventions to ensure equitable support across genders.

The multi-level barriers identified in this study require comprehensive health system responses. Provider-level barriers including time constraints, inadequate patient education, and absence of structured health promotion programs reflect broader primary healthcare challenges in resource-constrained settings. Furthermore, high patient volume (75 patients/day) with limited operational hours creates impossible trade-offs between quantity and quality of care. This structural constraint requires systemic solutions including expanded hours, additional staff, or innovative care delivery models such as community health worker programs. In addition, economic barriers highlight the importance of financial protection schemes and community-based interventions. While KIS provides coverage for basic services, indirect costs such as transportation and opportunity costs remain significant barriers for low-income patients. Community-based hypertension management programs could reduce these barriers while improving accessibility.

Analysis through Health Belief Model lens reveals important insights about patient behavior patterns. High perceived severity of hypertension complications motivates healthcare seeking among some patients, but inconsistent perceived susceptibility during asymptomatic periods contributes to medication non-adherence. In addition, the perceived benefits of traditional

remedies often outweigh the perceived benefits of continuous medication, particularly when medications are associated with side effects or costs. This suggests the need for more effective communication about the long-term benefits of consistent medication use. Cues to action primarily originate from symptoms or family prompting rather than health system reminders. Strengthening cues to action through community-based interventions, peer support programs, or technology-enabled reminders could improve adherence patterns. Self-efficacy varies significantly among participants, with some demonstrating strong confidence in managing their condition while others feel overwhelmed. Interventions should be tailored to individual self-efficacy levels, providing additional support for those with low confidence while empowering those demonstrating strong self-management capabilities.

CONCLUSIONS AND RECOMMENDATIONS

This study reveals the complexity of hypertension patients' experiences of treatment in an urban Indonesian setting, specifically in Bengkol Village, Manado City. Four main themes emerged-holistic treatment, lifestyle adjustment as adaptation, dynamic control adherence, and systemic and individual barriers-describing the multi-dimensional nature of chronic disease management in a specific cultural context. Healthcare pluralism emerged as a characteristic feature where patients seamlessly integrate biomedical treatments with traditional remedies, reflecting sophisticated health-seeking behaviors that acknowledge multiple sources of healing. Lifestyle modifications demonstrate remarkable adaptation capabilities, despite being challenged by social and cultural pressures inherent in communal eating practices. Family support systems emerge as critical enablers of successful disease management, functioning as medication reminders, practical assistance providers, and emotional support sources. However, the effectiveness of support varies considerably, highlighting the need for strengthening family-centered approaches in hypertension care. Multi-level barriers spanning individual, family, community, and health system levels create complex challenges that require comprehensive, culturally-informed interventions. Economic constraints, service delivery limitations, and knowledge gaps contribute to suboptimal disease control, despite general awareness of hypertension risks and complications.

Based on the findings in this study, it can be recommended that Puskesmas Bengkol needs to develop a comprehensive hypertension management program that addresses multiple dimensions of patient experience. This should include structured patient education sessions, family involvement programs, and regular follow-up mechanisms to ensure continuity of care. This can be done through provider training should emphasize patient-centered communication skills, cultural sensitivity, and time-efficient educational strategies. Given time constraints, providers need to develop standardized educational materials and brief intervention protocols that can be delivered consistently across patients. In addition, the development of community health worker programs could address accessibility barriers while providing culturally-appropriate health education and support. Community health workers can facilitate medication adherence

monitoring, basic health screenings, and connection between patients and formal healthcare services. Finally, health promotion interventions should adopt community-based approaches that work with existing social structures and cultural practices. This might include integrating hypertension education in community events, religious gatherings, or social organizations to reach broader population segments.

FURTHER STUDY

This study has several important limitations that need to be acknowledged in interpreting and applying findings. First, the geographic limitation to a single kelurahan in Manado city may limit the generalizability of findings to the broader Indonesian population or other cultural contexts. While Kelurahan Bengkol provides valuable insights into urban hypertension management, rural settings or other ethnic groups may demonstrate different patterns. Second, the limited inclusion of healthcare provider perspectives may provide an incomplete picture of health system constraints and opportunities. While one healthcare provider was included, broader provider perspectives could illuminate additional systemic factors affecting patient experiences.

Third, this study focused primarily on patient experiences without extensive exploration of community-level factors, policy environment, or broader social determinants that may influence hypertension management. These macro-level factors could significantly impact individual experiences and intervention effectiveness. Thus, future research should address the limitations identified in the current study while extending understanding of hypertension management in diverse Indonesian contexts.

Several research directions warrant priority attention. First, intervention research related to the development and testing of culturally-informed interventions based on findings from the current study represents an important next step. This might include family-centered education programs, community health worker initiatives, or technology-enabled support systems designed specifically for Indonesian contexts. In addition, health systems research needs to be conducted to analyze how organizational factors, resource allocation, and policy environment affect patient experiences would complement current individual-level findings. This could inform system-level interventions for improving hypertension care quality.

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