

Improving Medication Adherence Among Patients with Hypertension: A Policy Brief

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Abstract

Hypertension remains a major public health challenge, and poor medication adherence continues to limit effective blood pressure control despite the widespread availability of antihypertensive medications. This policy brief draws on evidence from a qualitative content analysis of interviews with 29 purposively selected participants to identify the factors influencing medication adherence among patients with hypertension in Iran. The findings indicate that medication adherence is shaped by a complex interaction of patient-related, sociocultural, and health system factors rather than by individual behavior alone. They also demonstrate that strengthening primary healthcare services, improving health literacy, enhancing patient-provider communication, and ensuring continuity of care are critical for supporting long-term medication adherence. Based on these findings, this policy brief recommends integrating structured medication-adherence support into routine primary healthcare, alongside coordinated educational and patient-centered strategies, to improve hypertension control and reduce the long-term burden of cardiovascular disease in Iran.

Keywords: Health policy, Primary health care, Patient education, Iran

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Introduction

Hypertension remains one of the leading preventable causes of cardiovascular morbidity and premature mortality worldwide and represents a major public health challenge in low- and middle-income countries (1). Poor medication adherence is a major barrier to effective hypertension control, despite the availability of effective antihypertensive medications and evidence-based clinical guidelines (2). Inadequate adherence substantially increases the risk of cardiovascular complications, avoidable hospitalizations, disability, and healthcare expenditures (3).

In Iran, hypertension affects approximately 26.2% of adults, imposing a substantial burden on the health system (4). Evidence on medication adherence is also concerning. Adequate adherence to pharmacological treatment ranges from 22% to 63%, depending on the measurement method (5, 6). The growing burden of hypertension, population aging, and lifestyle changes underscores the need for effective strategies to improve long-term medication adherence within the primary healthcare system (7). Despite the integration of hypertension management into primary healthcare, adherence to prescribed medications

and lifestyle recommendations remains suboptimal (8). Although treatment adherence encompasses both medication use and lifestyle modification, this policy brief focuses specifically on medication adherence as an important component of hypertension management. Existing interventions have largely emphasized pharmacological management and clinical follow-up, with less attention to behavioral, cultural, and health-system factors affecting adherence (9).

This study examines individuals' experiences with medication adherence among patients with hypertension. The research findings are presented as practical policy recommendations for policymakers, health administrators, and primary healthcare providers. These recommendations aim to strengthen primary healthcare services through a culturally appropriate, patient-centered approach while improving long-term medication adherence and hypertension control.

Methods

This policy brief is based on a qualitative study conducted in Mahan, Iran, using conventional content analysis (10, 11). 29 participants comprising 25 patients with



hypertension, one family member, and three healthcare providers were selected through purposive maximum variation sampling until data saturation. Eligible patients were over 30 years of age, had a confirmed diagnosis of hypertension, a history of medication non-adherence, and were both able and willing to participate. Individuals unable to communicate effectively were excluded. Data were collected via in-depth, semi-structured interviews until saturation was reached. The interviews were then transcribed verbatim, coded, and organized into main and subcategories in Microsoft Word. Trustworthiness was addressed using Lincoln and Guba's criteria through member checking, audit trails, analytical procedures, prolonged engagement with participants, and the use of participant quotes (12).

Key Findings

- Medication adherence among patients with hypertension is influenced by interacting patient-, cultural-, and health system-level factors rather than individual behavior alone.
- Low health literacy, the asymptomatic nature of hypertension, concerns about lifelong medication use and adverse effects, and preference for traditional or herbal remedies were the main barriers to sustained adherence.
- Health system limitations, including heavy workload, short consultation time, and inadequate follow-up, reduced opportunities for effective patient education and adherence support.
- Continuous patient-centered education, strong provider-patient communication, family support, and accessible primary healthcare services were identified as the main facilitators of long-term medication adherence.
- Organizational factors influencing adherence to medication treatment included high treatment costs, difficulty accessing specialized services, and health insurance coverage.

Limitations

The small, purposively selected sample from a single city may limit the generalizability and transferability of the findings to other populations and healthcare settings. Participants may also not have disclosed all their experiences despite efforts to create a comfortable interview environment.

Policy Recommendations

Based on the findings of the qualitative study, the following policy recommendations are presented to guide implementation and improve medication adherence among patients with hypertension.

High Priority

Integrate Structured Medication Adherence Support into Primary Health Care

Integrating structured medication adherence support

into primary healthcare can improve hypertension management. Routine care should include standardized adherence assessment, identification of adherence barriers, and regular follow-up of patients' medication adherence. Health workers can assess patients' adherence, identify factors that interfere with medication use, and monitor adherence over time.

Implementation level and responsible actors: Local and provincial levels; primary healthcare managers and health workers.

Enhance Health Literacy Through Culturally Appropriate Community Education

Culturally appropriate education can improve public understanding of hypertension and its treatment. It should explain the often-asymptomatic nature of hypertension and the importance of long-term medication use. It should also address misconceptions about antihypertensive medications, side effects, and medication dependence. Healthy lifestyle practices can be included in this education. Coordinated programs and simple, evidence-based materials can be delivered through primary healthcare centers, community organizations, schools, mass media, and digital platforms. These efforts can increase awareness, support informed decisions, and promote healthy behaviors.

Implementation level and responsible actors: Local, provincial, and national levels; health education units, primary healthcare managers, and relevant health communication authorities.

Improve Patient-Provider Communication and Shared Decision-Making

Strengthening patient-provider communication and shared decision-making can improve the quality of hypertension care. Communication skills and shared decision-making should be incorporated into continuing professional development programs for healthcare providers. Providers should be supported in listening to patients' concerns, discussing treatment options, and involving patients in decisions about their care. These approaches can strengthen trust, address patient concerns, and support sustained medication adherence.

Implementation levels and responsible actors: Provincial and national levels; medical universities and health authorities.

Medium Priority

Reduce Barriers to Access to Antihypertensive Treatment and Specialized Care

Reducing economic and healthcare-access barriers can facilitate continued hypertension treatment. Policies should consider the financial burden of antihypertensive medications and difficulties in accessing specialized healthcare services. Strengthening mechanisms that facilitate affordable treatment and timely access to needed services can reduce care interruptions and support sustained hypertension management.

Implementation level and responsible actors: Provincial and national levels; health authorities, healthcare managers, and relevant insurance and financing authorities.

Strengthen Coordination and Information Exchange Across Levels of Care

Strengthening coordination across different levels of hypertension care can support more consistent long-term management. Existing care structures should be used to facilitate timely communication and exchange of relevant patient information between healthcare providers and across levels of care. These measures can reduce fragmentation of care, support coordinated blood pressure monitoring, and promote sustained medication adherence.

Implementation level and responsible actors: Local and provincial levels; healthcare managers, providers, and referral-system coordinators.

Conclusion

Improving medication adherence among people with hypertension requires a shift from isolated clinical interventions to a more comprehensive approach embedded within routine primary healthcare. Although medication adherence is one component of overall treatment adherence, it is an important part of effective hypertension management. The findings show that sustained medication use depends not only on access to medicines but also on patients' beliefs, knowledge, and experiences of care. Policies should therefore promote patient-centered care, continuity, and responsive provider support. Prioritizing these actions in Iran's primary healthcare system could improve medication adherence, strengthen hypertension control, and reduce the long-term burden of cardiovascular disease.

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Competing Interests

The authors declare no conflict of interest.

Ethical Approval

This study was approved by the Ethics Committee of Kerman

University of Medical Sciences (Ethics Code: IR.KMU.REC.1401.237). Written and verbal informed consent was obtained from all participants before data collection. Participation was voluntary, confidentiality and anonymity were maintained throughout the study.

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