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Primary care provider's barriers to effective management of apparently resistant hypertension in Malaysian public primary health care and strategies to overcome them: a qualitative study

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TITLE PAGE

Original Research Article

Primary Care Provider's Barriers to Effective Management of Apparently Resistant Hypertension in Malaysian Public Primary Health Care and Strategies to Overcome Them: A Qualitative Study

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ABSTRACT

Abstract

Background: Managing ARH in public PHC is challenging. This study provides the first in-depth qualitative exploration of barriers to effective ARH management among PCPs, including FMS and MO in Malaysian public PHCs, and of strategies to overcome them.

Methods: This qualitative study involved 7 IDIs with FMS and 7 FGDs with small groups of 3 MOs (total 21 MOs), purposively selected across 7 Malaysian public PHCs from March to July 2024. A reflexive thematic analysis grounded in a constructivist paradigm was conducted.

Results: PCPs (FMS and MO) identified barriers at three levels. Theme 1: Patient (Subthemes: poor adherence to medications and follow-up, limited health literacy, inability to afford home BP monitors, culturally driven high-salt diet, lack of family or caregiver support for dependent elderly). Theme 2: Provider (Subthemes: knowledge gaps, diagnostic uncertainty, workload pressures and time constraints, therapeutic hesitancy in complicated cases). Theme 3: Health system (Subthemes: limited diagnostic resources in public PHC, restricted access to FDC antihypertensive medications, vague referral process, limited team-based approach, fragmented care). PCPs (FMS and MO) have employed and proposed strategies to overcome these barriers. Theme 4: Strategies to overcome barriers (Subthemes: engaging family members and caregivers, simplifying out-of-office BP monitoring, optimising clinic appointment scheduling and virtual consultations, establishing multidisciplinary team-based care, professional capacity building, standardising referral algorithms, enhancing patient education materials and programmes, strengthening continuity of care, and improving access to FDC antihypertensive medications).

Conclusion: Addressing these barriers requires healthcare reform centred on multilevel, context-sensitive interventions. Key steps include standardising education and training for patients, caregivers, and PCPs (FMS and MO); standardising referral algorithms; establishing multidisciplinary team-based care; improving access to FDC antihypertensive medications; optimising clinic appointment scheduling and virtual consultations; and strengthening continuity of care.

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Keywords: apparently resistant hypertension, resistant hypertension, uncontrolled hypertension, barriers, challenges, primary health care

MAIN ARTICLE TEXT

BACKGROUND

Uncontrolled hypertension is BP that has not reached target levels despite ongoing management. RH is defined as BP that remains above target despite the concurrent use of three antihypertensive agents from different classes at optimal or maximally tolerated doses, including a diuretic. The definition requires adequate patient adherence and accurate BP measurement (1). tRH indicates that the elevated BP reflects true biological and pathophysiological resistance to therapy, not artefactual or modifiable causes.

In contrast, ARH refers to patients with uncontrolled BP despite at least three antihypertensive medications. This occurs without confirmed medication adherence, accurate measurement, or exclusion of WCH, and without necessarily verifying optimal pharmacotherapy (2). These patients appear to have RH based on routine clinical data but may not meet strict diagnostic