

Multilevel Multi-ethnic Strategies to Improve Hypertension Control: a Systematic Review



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Background

Hypertension (HTN) affects 45% of U.S. adults, with wide racial/ethnic differences in prevalence & control.

As the U.S. becomes more diverse, understanding and intervening on HTN disparities in multiple ethnicities becomes increasingly important and may require targeted strategies.

Barriers to blood pressure (BP) control include:

- Health literacy disparities
- Health care access disparities
- Culturally appropriate treatments/resources

Medication management has proven effective in controlling BP but its utility in minority populations remains unclear

Objective

To assess whether medication management strategies applied to racial/ethnic minorities successfully improve BP

Methods

Study Design: a systematic review

Data Sources: PubMed, Google Scholar

Eligibility Criteria:

- Randomized clinical trials
- English-language U.S studies published 2000-2021
- Includes more than one racial/ethnic minority patient population
- Intervention includes medication management
- Systolic blood pressure (SBP) change as primary or secondary outcome

Keywords:

- **Racial/ethnic minorities in the U.S.** (e.g. race, ethnicity, low-income, uninsured)
- **Hypertension** (e.g. blood pressure), and **interventions involving medication management with possible cultural tailoring** (e.g. care management, medication adherence, telemonitoring, home blood pressure monitoring, community health worker)

Results

Literature Review

- 195 studies retrieved → 130 studies excluded after reviewing abstracts and titles → 65 full articles reviewed → **12** studies with data eligible for inclusion

Key Findings

- Improved BP control was seen in interventions incorporating ***nurse-led home blood pressure monitoring (HBPM) and pharmacist-administered care***
- The impact of cultural tailoring remains unclear

Discussion / Implications

Conclusions:

- This study sets the stage for future work to incorporate effective, patient-centered, and culturally sensitive multilevel (patient/caregiver, provider, health system, community, policy) strategies into hypertension interventions to improve blood pressure control and reduce cardiovascular disparities in the Los Angeles County Department of Health Services (LAC-DHS).

Limitations:

- Limited databases, qualitative selection criteria, small sample

Figure: Multilevel Multi-ethnic Interventions to Improve BP Control: Characteristics and SBP Intervention Effects of Selected Studies

