Identifying Hypertension Interventions for Vulnerable, Urban African American Primary Care Patients: Literature Review and Patient Perspectives

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INTRODUCTION/BACKGROUND

Hypertension (HTN) Prevalence in African Americans (AA)
- HTN is more prevalent in AA (51.7%) than white individuals (43.6%)¹
  - AA are more likely to suffer adverse HTN consequences including cardiovascular disease and death²
  - Among young AA (18-44 yo), 30% have HTN³
- Increased prevalence is attributable to many factors, including structural racism, distrust of the health care system, and lacking access to care³,⁴
- In our urban primary care residency clinic, a 10% disparity in HTN control between young African American patients and young white patients was found

PURPOSE
- Identify interventions associated with improved HTN control in urban, vulnerable⁵, young (18-50 yo) AA patients in a primary care (PC) residency program

METHODS

LITERATURE SEARCH
- Conducted in collaboration with a medical librarian to identify interventions applicable to vulnerable urban AA populations
- Articles coded by publication year, article type, population studied, intervention, results, and barriers via spreadsheet

PATIENT DISCUSSIONS – QUALITY IMPROVEMENT (QI)
- Random sample of AA patients (18-50 yo) with uncontrolled HTN in urban primary care clinic
- Vetted by clinic staff as likely responsive to discussion with med student
- Contacted via phone to explore interventions most applicable to their care
- Open-ended and Likert scale items focused on:
  - Long-term effects of HTN
  - Barriers to HTN control
  - Interest in working with a PC physician to address their HTN including use of home blood pressure monitoring (HBPM)⁵
- After 3 unsuccessful contact attempts, a different patient from the random sample was contacted for this QI effort

RESULTS

LITERATURE SEARCH
- 49 articles identified spanning 1998-2021
- Interventions focused on HBPM coupled with education and/or lifestyle changes
  - Interventions typically multi-faceted - difficult to determine effect of any one intervention⁶
  - Populations were rarely young adults under 50

PATIENT DISCUSSIONS
- 9 patients responded
  - Knowledge of physiology and long-term consequences of uncontrolled HTN varied but was generally limited
  - Patients were asked about access to safe housing, safe exercise space, healthy, affordable food, and medication; Most respondents did not view these factors as barriers to controlling their HTN
  - Patients largely viewed HTN as a problem to work on independently through diet, exercise, and medication
  - Likert Scale responses with scale of 1-4 (1 not really concerned, 4 very concerned)
    - Patients were relatively concerned about their BP (mean 2.9, range 1.5-4.0)
    - Patients were very interested in working to lower their BP (mean 3.4, range 2-4)
    - 44.4% had monitors, but 50% were wrist cuffs; 100% deemed HBPM a viable intervention

CONCLUSIONS
- Patients’ HTN knowledge is limited
- Patient self-reported barriers were discordant with literature yet their stated need to “work on” independently can guide our HTN QI intervention
- Must consider that “barrier” to HTN control could have been better defined to patients
- HBPM was identified in literature as tool to improve HTN control; 100% patient interest
- When paired with pt educ on HTN, may be a viable intervention if HBPM available to this urban, vulnerable AA group in a PC residency clinic

Statements from clinic patients, when asked about what having high BP does to their health over time.

“I didn’t have high blood pressure until I had a heart attack at age 37…I have high blood pressure due to chronic pain.”

“Not sure.”

“I can’t run like I used to. I used to be able to run four blocks, now I’m lucky if I can run two blocks or even walk around the block.”

“I don’t know.”

Selected Terms & References
6. Vissing S. Vulnerable patient. Patient education intervention in primary care. J Hum Hypertens. Replace “underserved” as it brings questions on who gets labeled as underserved. Who “serves” them. Vulnerable describes patients with historically limited health literacy access to care, etc.