

Title of Intervention: Disease Management to Promote Blood Pressure Control Among African Americans

Intervention Strategies: Individual Education, Supportive Relationships

Purpose of the Intervention: To reduce racial and ethnic disparities in hypertension control

Population: Self-identified African Americans age 23 and older with hypertension in health maintenance organization plans

Setting: At home telephonic nurse Diabetes Management (intervention group) including educational materials, lifestyle and diet counseling, and home blood pressure monitor vs. home blood pressure monitor alone (control group).

Partners: Nurses and physicians

Intervention Description:

- As part of an ongoing effort to reduce racial and ethnic disparities in hypertension control, Aetna tested a disease management program targeting African Americans that combines home blood pressure monitoring with culturally appropriate counseling and education over a 12-month period. Compared with home monitoring alone, the program significantly improved self-monitoring and blood pressure control. The project ran from March 2006 to December 2007. A total of 5,932 health plan members were randomly selected from the population of self-identified African Americans, age 23 and older, in health maintenance organization plans, with hypertension; 954 accepted, 638 completed initial assessment, and 485 completed follow-up assessment.

Theory: Not mentioned

Resources Required:

- Staffing: Existing staff received training in cross-cultural communication and competency. No additional staff was hired for the program.
- Costs: Sanofi-Aventis; Aetna. Although specific cost data are not available, major expenses included blood pressure cuffs, incentive payments and reproduction and mailing of educational materials. Training costs were minimal because Aetna already had the Quality Interactions program in place.

Evaluation:

- Design: Random Controlled Trial (RCT)
- Methods and Measures:
 - Each patient received an automatic arm cuff blood pressure monitor and tracking tool to encourage regular home monitoring. Patients received instruction in the use of the equipment from an Aetna disease management nurse via telephone. Nurses assessed patient knowledge of hypertension risk factors and consequences as well as target blood pressure (as determined by personal physician), healthy lifestyle, and use of anti-hypertension medications. Nurse and patient reviewed technique and patient reported blood pressure at the beginning and end of call. Patients received instructions to monitor their blood pressure weekly and record their readings with the tracking tool.
 - Patients received by mail a packet of educational materials developed specifically for African Americans with hypertension.
 - Nurses attempted to reach participants once a month by phone. During the 12-month trial, the average participant spoke with the nurse three times. During these 15- to 20-minute calls, the nurse reviewed monitoring techniques and the latest blood pressure readings, provided additional education on hypertension and treatment, and encouraged and

supported lifestyle changes, such as quitting smoking, eating more healthfully, and exercising more regularly.

- Physicians received notification of their patients' involvement in the program and patients were instructed to contact their physician in the event of an abnormal reading and to share their recent readings at appointments. Each quarter, nurses prepared and sent patient-specific progress reports for the primary care physicians covering blood pressure readings and relevant information from the phone counseling sessions.
- During the RCT, patients received gifts worth between \$15 and \$55 depending on their degree of participation.

Outcomes:

- Short term Impact: Results revealed that systolic blood pressure was lower in the intervention group; there was no difference for diastolic blood pressure. The intervention group was 50 percent more likely to have blood pressure in control and 46 percent more likely to monitor blood pressure at least weekly than the control group. A nurse Diabetes Management program tailored for African Americans was effective at decreasing systolic blood pressure and increasing the frequency of self-monitoring of blood pressure to a greater extent than home monitoring alone.
- Long Term Impact: Not mentioned.

Maintenance: Not mentioned.

Lessons Learned: Recruitment and program completion rates could be improved for maximal impact.

Citation(s):

Brennan T, Spettell C, Villagra V, et al. Disease Management to Promote Blood Pressure Control Among African Americans. *Popul Health Manag.* 2010; 13(2):65-72. [PubMed]

Centers for Disease Control and Prevention. A Closer Look at African American Men and High Blood Pressure Control: A Review of Psychosocial Factors and Systems-Level Interventions. Atlanta: U.S. Department of Health and Human Services; 2010.