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B44

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BP Basics: Enhancing Hypertension Control Through Population Health Outreach in a Resident Primary Care Practice

Introduction: Hypertension (HTN) is a leading cause of stroke and heart disease. 30% of New Yorkers live with HTN; 44% are Black. Common treatment includes lifestyle modifications and medications. Yet 21% of patients living with HTN in our resident-run safety-net primary care practice in Central Brooklyn have uncontrolled blood pressure (BP).

Methods: 24 patients with HTN completed a telephone survey. 83.3% of patients believe they are managing their BP "well" or "very well." The most common barriers to BP control were too many medications (n=3, 13.6%), side effects (n=6, 27%), and difficulty picking up medications (n=4, 18.2%). A standardized phone script focused on assessing and improving patient understanding of HTN was developed. Patient beliefs and behaviors were measured using a Likert scale and compared pre- and post-intervention. BP readings were compared before and 3 months after the educational intervention.

Results: 45 patients were contacted (60% women, mean age 59.2 years). Knowledge of end organ damage (t(44)=-8.438, p<0.001), and complications (t(44) = -3.330, p<0.002) improved post-educational intervention. Wilcoxon signed-ranks test demonstrated a significant increase in patients' perception of the importance of BP control and medication adherence (Z = -5.142, p<.001 and Z = -5.475, p<.001, respectively). BP was evaluated at 3 months post-intervention in 31 patients. An exact McNemar's test determined that there was a statistically significant difference in the proportion of patients with controlled BP pre- and post-intervention, p<0.001.

Discussion: In our primarily Afro-Caribbean safety-net practice, barriers to BP control include gaps in knowledge, beliefs, and behaviors around potential complications, access to healthcare, cost of medications, and concerns about side effects. Our data shows that patients' knowledge of HTN and motivation for medication adherence can be effectively improved through cost-effective 5-minute teaching sessions.