

EVALUATION OF A SMS MEDICATION REMINDER SYSTEM TO IMPROVE MEDICATION ADHERENCE IN AFRICAN AMERICANS WITH UNCONTROLLED HYPERTENSION

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ABSTRACT

African Americans are disproportionately more susceptible to Hypertension (HTN) than non-Hispanic Whites, which is a leading cause of cardiovascular disease. Poor adherence to prescribed medication regimens is a major contributor to HTN, as only about half of patients are adherent. Moreover, while the majority of HTN treatment is delivered in primary care settings, a sizable proportion of care is provided in the emergency department (ED), particularly within low income communities. Short Message Service (SMS) text messaging may offer a simple, non-labor intensive strategy for improving medication adherence among African Americans in both primary care and ED settings, as text message use within this population is widely integrated into everyday life, even among the lowest income levels. The goal of this evaluation is to determine intervention efficacy, as well as to establish the feasibility and acceptability of using an automated SMS intervention to improve medication adherence in African Americans with uncontrolled HTN in these settings.

We recently launched two randomized controlled trials (RCTs) of uncontrolled hypertensive African Americans in Detroit, MI; one with participants from primary care clinics, and one with participants from an ED. The primary outcome measure is change in medication adherence from baseline to one-month follow-up. Secondary outcome measures include changes in blood pressure and medication self-efficacy, participant satisfaction and acceptability, and feasibility of use in our target population. We have currently enrolled 9 participants in the primary care RCT and 7 participants in the ED RCT (target n=70 in each RCT) and preliminary evaluation results are forthcoming. Although the evaluation is ongoing, several lessons regarding the conduct of mHealth research within limited resource settings have been learned including overcoming recruitment and enrollment barriers, challenges associated with utilizing SMS-based interventions with low-income targeted mobile phone carriers, and strategies for retaining participants from baseline to one-month follow-up.