

BACKGROUND

Despite the many medical advancements available today, cardiovascular disease remains the leading cause of death in the African American community. Hypertension is considered the most modifiable cardiovascular disease, and African Americans are disproportionately affected by this disease – 43% compared to 28% of White Americans.

STUDY AIM

To determine if the knowledge, attitudes, and practices (KAP) of African Americans towards hypertension self-management and active engagement in the healthcare process improved with the use of a mobile health application to monitor their condition.

METHODS

Study participants were recruited from community-based resources. Participants first completed a pre-survey to determine their baseline KAP. Next, they downloaded the AVAX Blood Pressure Diary to daily monitor their blood pressure. Lastly, participants completed the post-survey and system user satisfaction (SUS) survey on the blood pressure application.



Example Pre-Survey Questions	Example Post-Survey Questions
What is your age? (short answer)	I learned how to self-manage my hypertension after using the mobile health application. (multiple choice)
What is your race? (multiple choice)	After using the mobile health application, I know that it is important for self-management and self-care of your high blood pressure to check (monitor) your blood pressure daily. (multiple choice)
Have you been diagnosed with high blood pressure? (multiple choice)	After using the mobile health application, I know that there are health apps for monitoring blood pressure found in smartphone app stores. (multiple choice)
Are you currently on medications to control your high blood pressure? (multiple choice)	After using the mobile health application, I know that I have the ability to play a large role in controlling/managing my high blood pressure. (multiple choice)
Cardiovascular disease is the number one cause of death in African Americans. (multiple choice)	After using the mobile health application, on a scale from 1-10 (1 being very uncomfortable and 10 being very comfortable), how comfortable are you with using smartphones and smartphone applications? (linear scale)
Hypertension is the medical term for hypertension. (multiple choice)	After using the mobile health application, do you believe that your high blood pressure (hypertension) is controlled/managed? (multiple choice)
High blood pressure can be managed with following a healthy diet and getting proper exercise, especially cardio such as walking. (multiple choice)	Why do you feel that your blood pressure is controlled/managed? Why or why not? (short answer)
What is your age? (short answer)	Did using the mobile health application change what methods you are currently using to self-manage your high blood pressure? (multiple choice)

Table 1: Sample Pre-Survey and Post-Survey Questions

RESULTS

Majority of the participants were women (70%) with 50% on medication for their hypertension. Most of the participants (87.5%) believed that their hypertension was better managed after using the health app. The average SUS score for the hypertension mobile health application was 89.75.

What is your gender?
10 responses

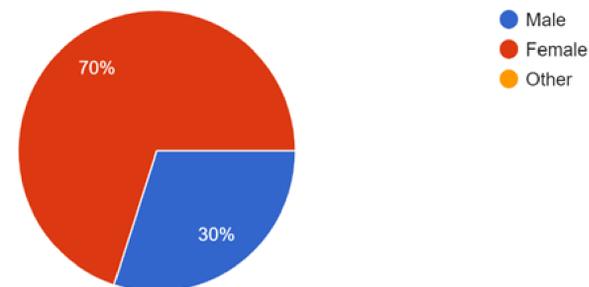


Figure 1: Participant Gender

Are you currently on medications to control your high blood pressure? *If you answered yes to the previous question.*
10 responses

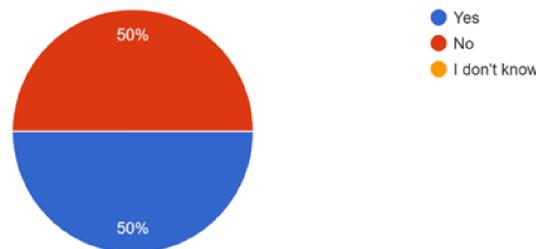


Figure 2: Participant Hypertension Medication Usage

RESULTS

I learned how to self-manage my hypertension after using the mobile health application (or better manage).
8 responses

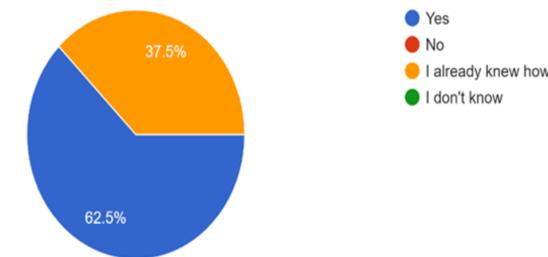


Figure 3: Participants Learning how to Self-Manage BP Using Health App

After using the mobile health application, do you believe that your high blood pressure (hypertension) is controlled/managed?
3 responses

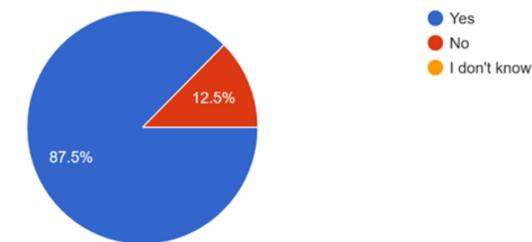


Figure 4: Participants Belief in Their Hypertension Management After Using Health App

CONCLUSIONS

It appears that the mobile health application assisted participants with monitoring their blood pressure daily and being aware of changes that needed to be made to improve their self-management.

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Contact: Jacquetta Lindsey

Email: Jacquetta.Lindsey@live.mercer.edu