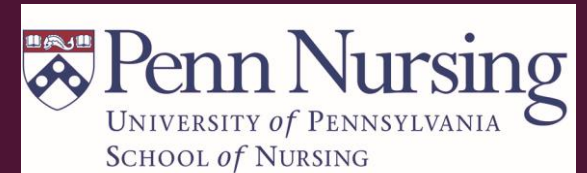


HYPERTENSION IN MEN WHO ARE BLACK, A MOBILE HEALTH FEASIBILITY STUDY (HIMB mHealth)

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Overview

**The
Problem**

Our Study

Experience

**Recogniti
on**



The Problem



Background

- **34%** of U.S. adults suffer from hypertension
- Black men and women have the highest prevalence of hypertension in the world at **45%** and **46%**
- Black males have the lowest blood pressure control rates at **30%**
- Death rates for hypertensive black men are **2x** higher than death rates for hypertensive white men

Background

Barriers to Blood Pressure Control in Black Males

- Psychosocial and clinical conditions
 - Depression
 - Self-efficacy
 - Perceptions of masculinity
 - Fear of admitting illness

Facilitators in Blood Pressure Control in Black Males

- Social networks
 - Support and incentives to maintain health

Background

Successful Past Interventions for Blood Pressure Control

- Individualized self-management coaching
 - Frequent one-on-one sessions
 - Using a coach who helps patients develop the knowledge, skills, and the self-confidence to contribute to their health
 - **Cons: Sessions may conflict with a busy schedule**

Mobile Health (mHealth) Interventions

- The application of wireless technology to healthcare
- Another method of self-management coaching
- More convenient timing



Our Study



Aims

Primary Aim:

To determine the *feasibility* and *acceptability* of an mHealth hypertension self-management intervention for Black men of ages 18 years or older with uncontrolled hypertension

Secondary Aim:

To determine the *potential efficacy* of the three-month mHealth intervention for blood pressure control

Intervention and Study Overview

3-month self-management intervention that targets black men's hypertension beliefs and knowledge

- Tailored text messages to support home blood pressure monitoring and antihypertensive medication adherence
- Hypertension self-management using educational materials from the NHLBI
 - *“Your Guide to Lowering Blood Pressure”*
 - *“Facts about the DASH Eating Plan”*

Intervention and Study Overview

Eligibility Screening

```
graph TD; A[Eligibility Screening] --> B[Yes]; A --> C[No]; B --> D["Visit 1:  
Obtain Informed Consent  
Collect BP Data  
Distribute, Instruct and Initiate Study Equipment  
Distribute Reimbursement"]; D --> E["Visit 2: 3 month post visit 1  
Final Collection of BP Data  
Administer Acceptability Survey  
Collect EM Diary  
Distribute Reimbursement"]; C --> F["Thank participant for their time and let them know  
they are not eligible"];
```

Yes

Visit 1:
Obtain Informed Consent
Collect BP Data
Distribute, Instruct and Initiate Study Equipment
Distribute Reimbursement

Visit 2: 3 month post visit 1
Final Collection of BP Data
Administer Acceptability Survey
Collect EM Diary
Distribute Reimbursement

No

Thank participant for their time and let them know
they are not eligible

Participant Characteristics

Inclusion Criteria

- Meet the JNC-VIII criteria for uncontrolled HTN
- Taking at least one antihypertensive medication
- Self-identify as Black or African-American
- Self-identify as male
- At least 18 years of age

Exclusion Criteria

- Participating in other HTN studies
- Unable to measure own BP
- Unable to speak, hear, or understand English
- Cognitively impaired individuals as defined by a score of <24 for the college/graduate school educated or <23 for the high school educated on the Mini-Mental State Examination (MMSE)

Intervention Goal

Men enrolled in the study will participate in hypertension self-management strategies:

- Home blood pressure monitoring weekly
- Anti hypertensive medication adherence
- Low-sodium DASH diet
- 150 minutes of physical activity per week
- Weekly weight measurements

Study Equipment

Home Blood Pressure Monitoring

Withings BP-800 device

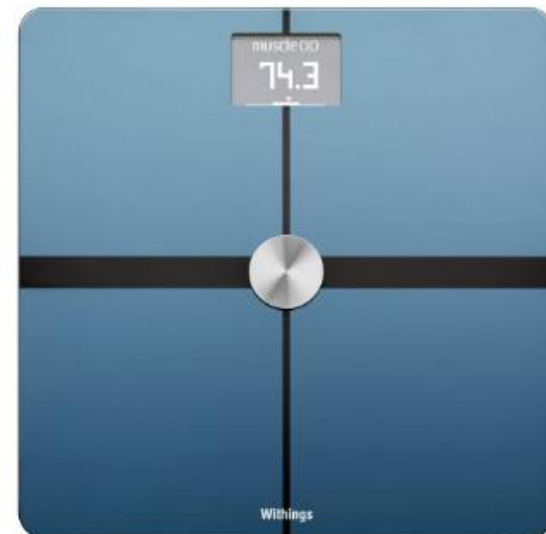


Anti Hypertensive Medication Adherence Monitoring

Wisepill wireless EM system



Weight Monitoring Withings Body Scale



Way to Health Text Messages
Mobile Phone



Intervention Description

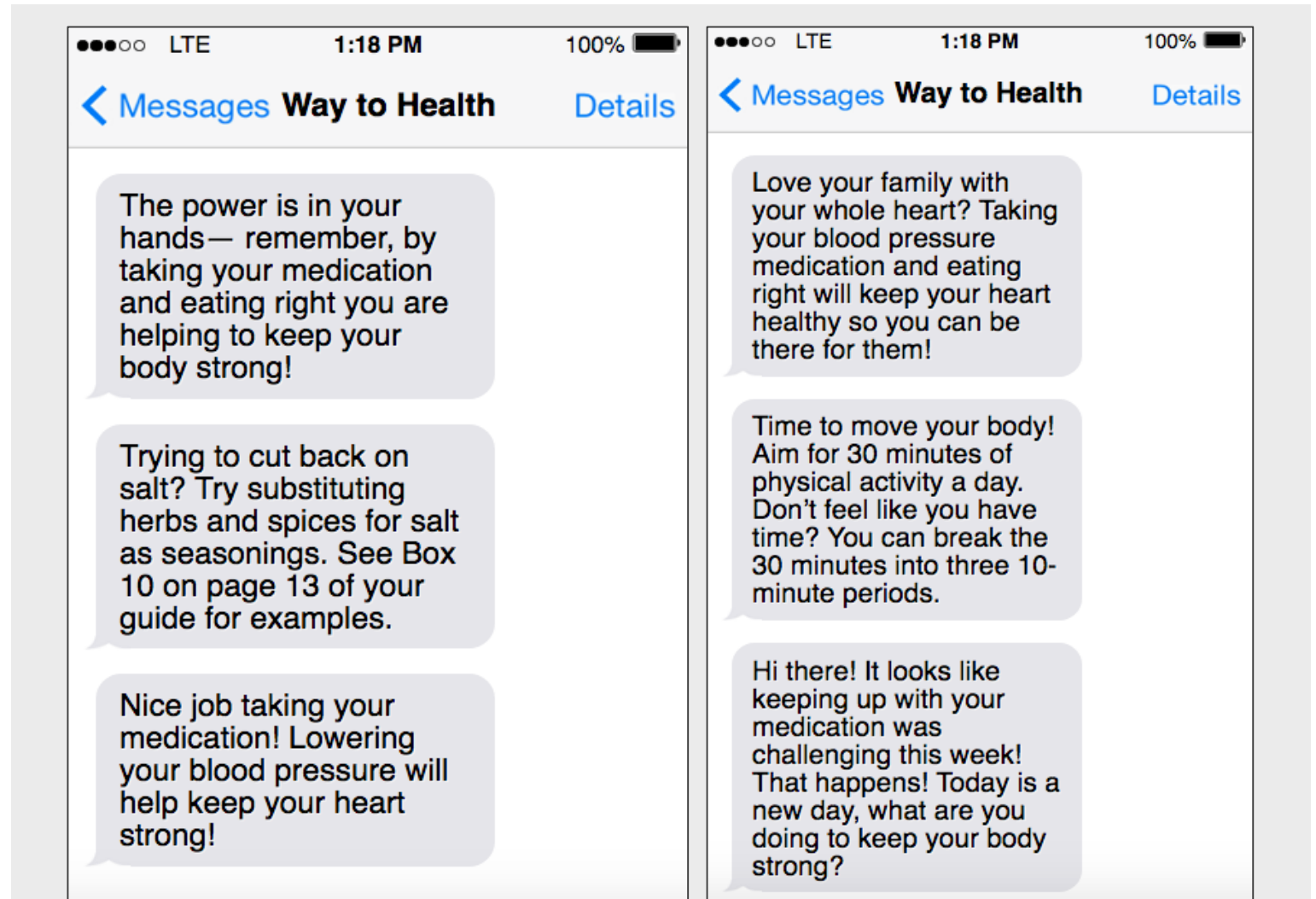
How will the text messages work?

- Participants will receive three text messages per week
- We will deliver the text messages for six weeks

Intervention Description: Text Message Examples

Types of Messages

- Motivational
- Educational
- Feedback



Study Outcomes

Primary Outcomes: **Feasibility**

Documented recruitment, consent, enrollment and retention rates

90% of the hypertensive black men who are eligible agree to participate in study

85% of the participants provide consent to take part in study

75% of participants remain in study

85% of study participants report high overall satisfaction with the intervention

Study Outcomes

Primary Outcomes: **Acceptability**

4-item 5 point Likert scale questionnaire

I am satisfied with the HIMB mHealth self-management system

I found the HIMB mHealth system easy to learn

I found the HIMB mHealth system easy to use

I found the HIMB mHealth system useful for managing my blood pressure

Study Outcomes

Secondary Outcomes: Efficacy

Efficacy of HIMB mHealth in reducing blood pressure

Change in blood pressure at baseline and **3 months** post baseline



Experience



My Role

- Literature Review on the effects of masculine identity on black men's health
 - Social constructs
- Manuscript for our 3-month feasibility study
 - **Currently in Review:
Contemporary Clinical
Trials**
- Drafting the recruitment script

Rationale and Design for the Hypertension in Men Who are Black, A Mobile Health (HIMB mHealth) Feasibility Study

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Lessons Learned

Knowledge

An understanding of:

- The effects of hypertension on the black male population
- Factors that influence health management in black men

Skills

- Experience writing a manuscript

Takeaways

- Setting a deadline to submit a paper
- Publishing at least two papers for every study
- Expecting the unexpected delays



Recognition



A Special Thanks to...

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Stacey Brown, MSW

... for allowing me to work on their study and for being such great mentors

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Questions

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