

# PERCEIVED BARRIERS TO AND FACILITATORS OF HYPERTENSION MANAGEMENT AMONG UNDERSERVED AFRICAN AMERICAN OLDER ADULTS

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**Objective:** To understand the perceived barriers to and facilitators of hypertension self-management among underserved African American older adults in a southeastern clinic.

**Design:** Qualitative descriptive.

**Setting:** Urban cardiovascular health clinic in a southeastern state.

**Participants:** 28 African Americans diagnosed with hypertension.

**Methods:** Interview questions were focused on knowledge of hypertension management and barriers and facilitators to hypertension self-management. Thematic content analysis was applied.

**Results:** Patients reported increased hypertension knowledge after attending the clinic. All patients reported knowledge of the severe consequences of uncontrolled hypertension. Perceived barriers to hypertension management included lack of money, lack of motivation to exercise, and fear of injury from exercising. Perceived facilitators of hypertension management included weight loss, unexpected diagnosis of hypertension, family members with hypertension and diabetes, and social support.

**Conclusions:** Findings suggest that perceived barriers and facilitators influence a patient's decision to manage hypertension. Findings suggest the importance of health literacy and patient-provider communication at this particular clinic. Possible factors in the social environment may influence hypertension management. This study adds to the literature by understanding the perceived barriers to and facilitators of hypertension management of an underserved sample in a southeastern clinic. The results suggest a need for the redesign and trans-

## INTRODUCTION

Disparities in hypertension (HTN) prevalence, awareness, and management exist among African American adults. African Americans had a higher prevalence, higher awareness, and poorer management of HTN than non-Hispanic Whites.<sup>1</sup> From 1993 to 2008, HTN management improved at a higher rate among non-Hispanic Whites than among African Americans.<sup>1</sup> There is an important need to better understand African American adults' HTN self-management, in terms of taking prescribed medications as directed, managing daily stress, eating a balanced diet, and performing regular physical activity.

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formation of future hypertension education strategies aimed at this clinic sample. *Ethn Dis.* 2015;25(3):329-336.

**Key Words:** Hypertension Management, African Americans, Underserved, Older Adults, Patient Education

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Researchers identified African Americans' perceived barriers to and facilitators of HTN self-management in previous studies.<sup>2-4</sup> Patients reported barriers to HTN self-management such as not accepting their diagnosis, lack of knowledge about the symptoms, poor communication with providers, difficulty adhering to HTN medications, managing other co-morbidities such as type 2 diabetes, and confusion with taking other medications as prescribed.<sup>2,4-5</sup> These studies included samples of Caucasians and African Americans, ranging from adults aged 18 years through older adults living in the northeast United States, Nigeria, and Mexico. Researchers applied conceptual models (eg, Transtheoretical Model and Explanatory Models) to understand perceived barriers to hypertension and diabetes management.<sup>4-6</sup>

In addition, patients reported perceived facilitators of HTN self-management in previous research. Examples of patients' facilitators of HTN self-management included a sense of urgency, accessible health services, guidance from physicians, inclusive communication with providers, and family and community support.<sup>3</sup> These studies included samples of African Americans,

ranging from adults aged 18 years through older adults living in the northeast United States, Texas, and Mexico. Family and societal contexts were important facilitators of disease management.<sup>4</sup> However, fewer researchers studied patients' perceived facilitators of HTN management.<sup>3-4</sup>

Despite these previous findings, limited research exists on understanding perceived barriers to and

applying qualitative interviewing to a sample of underserved African Americans attending a southeastern hypertension clinic. The purpose of the study is to understand the perceived barriers to and facilitators of HTN management among low-income, medically underserved African American adults in a southeastern clinic.

## **METHODS**

### **Research Design**

A qualitative descriptive design was used to describe the influencing factors of HTN self-management and provides a more basic, descriptive understanding of participants than grounded theory or ethnographic approaches.<sup>9,11</sup> The research question was: What are the factors influencing HTN self-management of older African Americans? The following interview questions were asked: 1) Tell me what you know about high blood pressure; 2) Tell me what keeps you from managing your blood pressure. Tell me what keeps you from following your diet. Tell me what keeps you from exercising; 3) Tell me about the changes you made to manage your blood pressure after your diagnosis; and 4) Tell me what helps you manage your blood pressure. Tell me who in your everyday life helps you manage your blood pressure.

### **Participants**

A hypertension clinic in the Southeast served as the site of data collection. The researcher recruited and interviewed 28 African American males and females for the study. A

trained nurse assisted the researcher in recruitment by introducing the study to a prospective patient after the clinic visit. If the patient expressed interest, the nurse introduced the patient to the researcher in another room in the clinic. The researcher greeted the patient and asked if he or she was interested in participating in the study.

Inclusion criteria were African Americans aged >55 years, with either controlled or uncontrolled high blood pressure, and actively attending the clinic. The researcher excluded patients not fluent in English, with multiple chronic diseases other than diabetes, and races other than African American. No patients met the exclusion criteria. After signing the informed consent forms, the researcher provided each patient with a \$20 gift card before the interview. A university Institutional Review Board (IRB) approved the study prior to data collection.

### **Interview Guide**

Face-to-face semi-structured interviews were conducted for data collection.<sup>11</sup> Questions were initially asked as prepared in the interview guide. During the interview, patients were asked probing questions to provide further detail on their responses to the prepared interview questions. Follow-up questions were asked to provide clarification. Answers in the interviews were verified with patients to ensure accuracy.

Interview questions focused on various aspects of HTN self-management, including knowledge, nutrition, exercise, stress management, and barriers to and facilitators of HTN management. Interview questions on

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facilitators of HTN self-management among underserved African American adults in the Southeast.<sup>7</sup> Understanding African American patients' unique barriers and facilitators to HTN self-management supports a patient-centered focus in HTN management education.<sup>3,6,8</sup> Qualitative interviewing is appropriate for this study because it assists in understanding patients' perceptions of HTN self-management behaviors.<sup>2,4,9-10</sup> This study contributes to the literature by

**Table 1. Demographics of African American patients at a southeastern hypertension clinic**

Characteristic	n	%
Age		
55-59	11	39.29
60-64	8	28.57
65-69	4	14.29
70-74	4	14.29
>75	1	3.57
Sex		
Male	6	21.43
Female	22	78.57
Education level		
<High school	3	10.71
Some high school	7	25.00
High school graduate	13	46.43
Some college	5	17.86
Employment status		
Unemployed	13	46.43
Employed	11	39.29
Retired	4	14.29
Insurance status		
Insured	7	25.00
Uninsured	21	75.00
HTN control		
Controlled	24	85.71
Uncontrolled	4	14.29
Type 2 diabetes diagnosis	3	10.71

HTN medication compliance were addressed in a previous article.<sup>12</sup> The researcher conducted practice interviews with other researchers and colleagues before data collection. The readability of the interview questions was at a 7th grade Flesch-Kincaid level according to readability statis-

tics on Microsoft Word. A board-certified internal medicine physician experienced in HTN treatment and two doctoral-trained qualitative researchers with semi-structured interviewing expertise provided suggestions and comments during the creation of the interview guide.

### Data Analysis

Qualitative content analysis, a descriptive presentation of qualitative data, is an appropriate choice of analysis for a qualitative descriptive study.<sup>12</sup> Content analysis portrays the thematic content of interview transcripts by identifying common themes

**Table 2. Summary of themes and patient examples**

Themes	Patient example
Perceived barriers	
Lack of money	Financial struggle to pay for blood pressure medicines
Missing clinic appointment	Unexpected car accident before appointment
Lack of motivation to exercise	Lack of motivation to walk outside in the neighborhood
Fear of injury from exercising	Fear of injuring knee from walking outside
Perceived facilitators	
Weight loss	Losing weight assisted in lowering blood pressure
HTN diagnosis	HTN diagnosis was motivation to self-manage HTN
HTN knowledge	Increased knowledge of uncontrolled HTN from nurse assisted in lowering blood pressure
Family members	Social support of family members with HTN and type 2 diabetes

in the text. Themes were grouped in a manner that reflected the text as a whole on HTN management. Long interview statements were reduced to a few, defined categories.<sup>13</sup> The categories of perceived barriers and perceived facilitators were defined after the interviews and during the reading of the transcripts. Categorizing these interviews provided an overview of large amounts of interview data and facilitated our understanding of the perceived barriers to and facilitators of HTN management.

All descriptions relevant to HTN management were highlighted. From these highlighted areas, I marked each distinct unit of meaning in the transcript. Similar units of meanings were extracted and pasted onto another Word document. The entire interview transcripts were read to identify distinct units, group similar units, and re-label categories. Categories were relabeled and collapsed when appropriate. These steps were repeated for the other interview transcripts. The categories were re-read as a whole to make overall sense of the interview transcripts related to HTN management. Once the categories reflected the topic of HTN management as a whole, the categories were the themes and the analysis was complete. Also, an audit trail was recorded in a notebook during data collection and analysis. Answers were verified with each patient after the interview to ensure the accuracy of their answers.

## RESULTS

Twenty-eight African American patients participated in the study

and had an average age of 62, ranging from 55 to 75. On average, patients received HTN treatment for 18 years and attended the clinic for 10 years. Patients were mostly high school educated, married, low-income or uninsured, and either employed or unemployed. Twenty-four patients (86%) reported they self-managed their high blood pressure and four patients (14%) reported they could not self-manage their high blood pressure. (Table 1)

Themes and selected quotations were organized by the following: 1) barriers to HTN self-management and 2) facilitators of HTN self-management, including HTN knowledge, weight loss, and cues to action (Table 2).

### Theme 1: Barriers to Hypertension Self-management

Patients perceived their barriers to HTN self-management as: lack of money, missing clinic appointments, lack of motivation to exercise, and fear of injury or pain from exercising. Each barrier is presented with a supporting example from a patient.

#### *Lack of Money*

Nine patients reported the challenge of living on a low-income and struggling to pay for the cost of blood pressure medicines. Three patients with both type 2 diabetes and HTN mentioned "it was hard to pay for the cost of insulin and diabetic strips not given at the clinic." All patients reported great appreciation for the low cost of blood pressure medicines at \$30 for a 6-month

supply provided at the clinic. However, 19 of 28 patients did not report any financial difficulties to pay for their blood pressure medicines.

#### *Missing Clinic Appointments*

Eight patients reported missing their follow-up clinic appointments as a barrier to managing their blood pressure. Patients expressed "embarrassment because they couldn't pay the \$30 fee for their clinic visit and blood pressure medicines." One patient reported missing an appointment due to an unexpected car accident and not clearly communicating with the clinic staff about rescheduling the appointment. However, 20 of 28 patients followed every appointment at the clinic.

#### *Lack of Motivation to Exercise*

Fifteen of 28 patients reported feelings of loneliness and lack of motivation to leave their house to exercise. These patients described "exercise as walking outside or playing in the park with their children or grandchildren." Patients reported living alone and not having grandchildren or other family members to help them exercise. They noted their "laziness" and sedentary lifestyle as "staying in their home all day watching tv" were barriers to exercising.

#### *Fear of Injury or Pain from Exercising*

Six of 28 patients discussed having arthritis, previous injuries, or pain in knees or legs as barriers preventing them from exercising. Although they recognized the importance of exercise for their HTN management, patients feared further injury or falling after starting an exercise routine. One

patient described “I used to exercise, but now I hadn’t gotten back into exercising. Well I started problems with my knee. I think my cartilage in my knee...I get weak in my knees and sometimes I can’t go for a long walk. I’m scared that I might fall.”

## Theme 2: Facilitators to Hypertension Self-management

### *Knowledge of Hypertension*

All patients reported they learned about how to manage their hypertension from attending the cardiovascular health clinic. During the clinic visit, they reported they received “helpful health information from the clinic nurse to help lower their pressure.” They perceived their “high blood” was due to genetics since “[hypertension and diabetes] runs in their family.” All patients also reported “eating a diet high in saturated fat, salt and fried foods, and lack of regular exercise contributed to their likelihood of having hypertension.” In addition, patients believed physicians did not educate them on how to lower their risk of HTN. Of those attending the clinic, eight patients believed having HTN was inevitable and there was “nothing they could do to prevent it from happening.”

All patients reported knowledge of the severe consequences of uncontrolled HTN after attending the clinic. They knew “they could have a stroke, heart attack, or die if they did not take their medicines or self-manage their blood pressure.” Since they viewed the threat of HTN as serious, patients reported they were likely to take their prescribed medi-

cines and make necessary lifestyle changes. Patients acknowledged their unawareness of the severe consequences of unmanaged HTN prior to attending the clinic. They reported their “doctor just wrote me a prescription and didn’t tell me about managing my blood pressure during the visit.” Physicians did not explain the consequences of unmanaged HTN in a simple language understood by patients. Thus, patients did not feel comfortable questioning their physician on how to manage their HTN during the clinic visit and discussing their concerns about their condition with their physician.

### *Weight Loss*

Patients reported successful stories of weight loss including improving their frequency of their physical activity and daily nutrition behaviors. They learned recipes on how to cook healthy meals at home. As a result of the weight loss, they felt happier, energetic, and lower stress during daily activities. Their weight loss contributed to an improved overall quality of life.

### *Cues to Action*

Patients noted several examples of cues to action to manage their blood pressure. Thirteen patients reported hearing about their unexpected diagnosis of HTN from their health care provider was a signal to action to manage their blood pressure. Other family members who managed their blood pressure and diabetes served as additional cues to action for 20 female and male patients. Fifteen patients believed their “grandchildren and great-grandchildren served as motivation to take their medicines, eat a bal-

anced diet, and continue regular exercise.” They could spend more time with their children and grandchildren in the park or playing outdoors. They would be able to live a longer life to see their children and grandchildren graduate from high school, get married, and grow into adults. All pa-

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tients noted emotional support from clinic staff, co-workers, and family members also served as cues to manage their hypertension. One married male patient noted “his wife reminded him to take their blood pressure medicines as prescribed.” One male and five female patients discussed using a “pill organizer as a reminder to take medicines as prescribed.”

## DISCUSSION

This article contributes to the literature by applying a qualitative descriptive design to better understand the perceptions of HTN self-management among medically underserved African American pa-

tients in a southeastern cardiovascular health clinic. Findings suggest numerous factors influence a patient's decision to manage HTN including perceived barriers and perceived facilitators to HTN self-management. These findings encompass varying levels including individual perceptions and health behaviors, interpersonal interactions with their health care provider, and patients' interactions with their social environment.

### Theme 1: Barriers to HTN Self-management

Similar to previous studies, patients noted that numerous perceived barriers may influence their decision and ability to self-manage their HTN.<sup>14</sup> Other researchers also reported African Americans' perceived barriers of lack of motivation to exercise and fear of injury or pain from exercising.<sup>15</sup> However, patients at this clinic were medically underserved, resided in one southeastern state, and participated in a state-funded HTN program. Patients may have uncontrolled HTN due to numerous individual, health care system, and social influences, including health insurance status, cost of medications, family issues, or personal embarrassment, as consistent with previous research.<sup>16-17</sup> It is possible that the clinic nurse may have shown empathy for patients' perceived barriers at this clinic; this understanding may have improved the quality of patient-provider communication and increased patients' self-confidence to manage HTN. It is important for health care providers to acknowledge and understand these perceived barriers of HTN patients during a clinic visit.

### Theme 2: Facilitators to HTN Self-management

In addition to these perceived barriers, patients' increased knowledge of HTN and the consequences of uncontrolled HTN facilitated their self-management while attending this Southeastern clinic. These findings paralleled findings of a study on Nigerian patients at a university teaching hospital.<sup>6</sup> Prior to attending the clinic, patients were unable to manage their HTN and acknowledged that lack of education by physicians, not understanding the medical terminology, and poor rapport with previous physicians contributed to their uncontrolled HTN. This finding is confirmed by previous research with homeless hypertensive patients in Virginia.<sup>14</sup> These findings suggest the importance of health literacy in patient-provider communication and the health care providers' ability to provide simple, clear HTN self-management education during a clinic visit.<sup>18</sup> Health care providers at this clinic should seek to understand patients' previous knowledge of HTN possibly obtained from previous health care providers; this knowledge may influence patients' ability to currently manage their HTN.

Furthermore, other facilitators such as support from family and friends were similar to findings from previous research.<sup>14</sup> Also, patients' trust and rapport with their health care providers were also a facilitator to HTN self-management in previous research.<sup>15</sup> This study differs by focusing on a medically underserved sample of African Americans in the Southeast treated by a clinic nurse and not a primary care physician.

There are possible factors in the social environment that may influence HTN self-management through role-modeling or social influence of healthy behaviors, including dietary and exercise changes, and the provision of support through this process of behavior changes. It is important for nurses and health care providers at this clinic to identify and incorporate these facilitators to assist in designing HTN self-management education. Patient educators at this clinic can design HTN education messages focusing on their perceived facilitators to health behavior change, while also addressing strategies to overcome their perceived barriers.

### Practice Implications

The results suggest a need for the practice redesign and transformation of future HTN education focused on this sample of older African Americans. This study offers multiple implications for clinical practice and patient education settings at this clinic. Understanding HTN self-management through applications of qualitative methods aids future efforts at this clinic to: 1) improve patient-provider communication; 2) improve planning of hypertension education; and 3) design gender and age-sensitive HTN messages.

Based upon the results, providers and nurses can tailor their language to design HTN management education for patients at this clinic. For example, providers could use simpler language and shorter sentences to discuss HTN management with uninsured, low-educated patients. They can also apply patients' current HTN knowledge to design tailored

messages for HTN education. Incorporating tailored messages for HTN education may assist with medication compliance and facilitating health behavior change in this sample. For example, designing HTN education messages for specific patient populations, such as older African Americans, could be beneficial at this clinic.<sup>16</sup> Clinic nurses may apply results to design sex-sensitive HTN messages for older African Americans. Clinic nurses could address gender differences from the qualitative interviews to construct different HTN education messages for men versus women.

### Strengths and Limitations

There are several strengths of this study to acknowledge. First, this study applies a qualitative descriptive design to understand hypertension self-management among underserved older African Americans, expanding upon previous research in this topic.<sup>1,3,11</sup> Second, this study uses individual semi-structured interviews, whereas previous research used focus groups for data collection about HTN self-management behaviors.<sup>6</sup> Also, previous studies sampled from White, Hispanic, or African Americans adults living in other regions of the United States.<sup>6,14,19-21</sup> However, this study differed by sampling underserved African American adults in the Southeast.

On the other hand, there are several limitations to acknowledge. First, patients may have provided the researcher with socially desirable answers about their HTN self-management behaviors during the interview. Second, the researcher conducted interviews at one hypertension clinic in

the Southeast. Results may not generalize to other clinics in the Southeast and in the United States. Results may differ from other clinics in the same state due to possible regional or administrative differences. Third, patients' answers were not compared with their physicians' answers to determine whether HTN education was provided to them and to verify previous clinical interactions.

### CONCLUSION

This study focuses on understanding the perceived barriers of and perceived facilitators to HTN self-management among a sample of underserved African American patients in a southeastern clinic. These results may also help educate future HTN patients at this clinic by learning about the HTN management perceptions of other patients. These results suggest a need for the transformation and redesign of HTN education for patients attending this southeastern HTN clinic. This study addresses the importance of patient-provider communication, cultural competency, and health literacy in improving HTN education for underserved African American patients at this clinic.

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