

# Not Just Food: Understanding the Effect of Nutrition and Diet on Hypertension

## Amongst African American Populations

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### Abstract

Although research has been conducted showing the influence of dietary approaches on preventing and regulating hypertension, there exists a lack of research on the understanding and perspectives of African-Americans who are disproportionately affected by hypertension at younger ages. The following study examines the written responses of 18 to 25-year-old African-American males and females to assess, by quantifiable means, the knowledge retained after a 1-hour session dedicated to hypertension and diet. Sixty-two current students at a Historically Black University partook in the eight-question pre-test followed by a live virtual presentation and post-test. Comparing the pre and post-test responses, the average score in the pre-test was 64%, which rose to 85% when the same questions were revisited after the presentation. With increased accuracy ranging from 5% to 44%, participants were able to identify the tools necessary to check blood pressure, understand blood pressure readings, select recommended sodium intake levels, and distinguish between foods and their relative health benefits. These results lend ideas for future research on such topics as well as ideas to better the current state of knowledge on hypertension in African-Americans.

### Purpose

The purpose of this research was to increase dialogue and understanding of hypertension and the possible effects diet and nutritional changes can have on the progression and regulation of blood pressure. Also, a primary focus was to provide an opportunity for participants to communicate with each other and knowledgeable speakers regarding the topic.

### Demographic

The research population for this study is adult African-American males and females above the age of 18 in Nashville, TN.

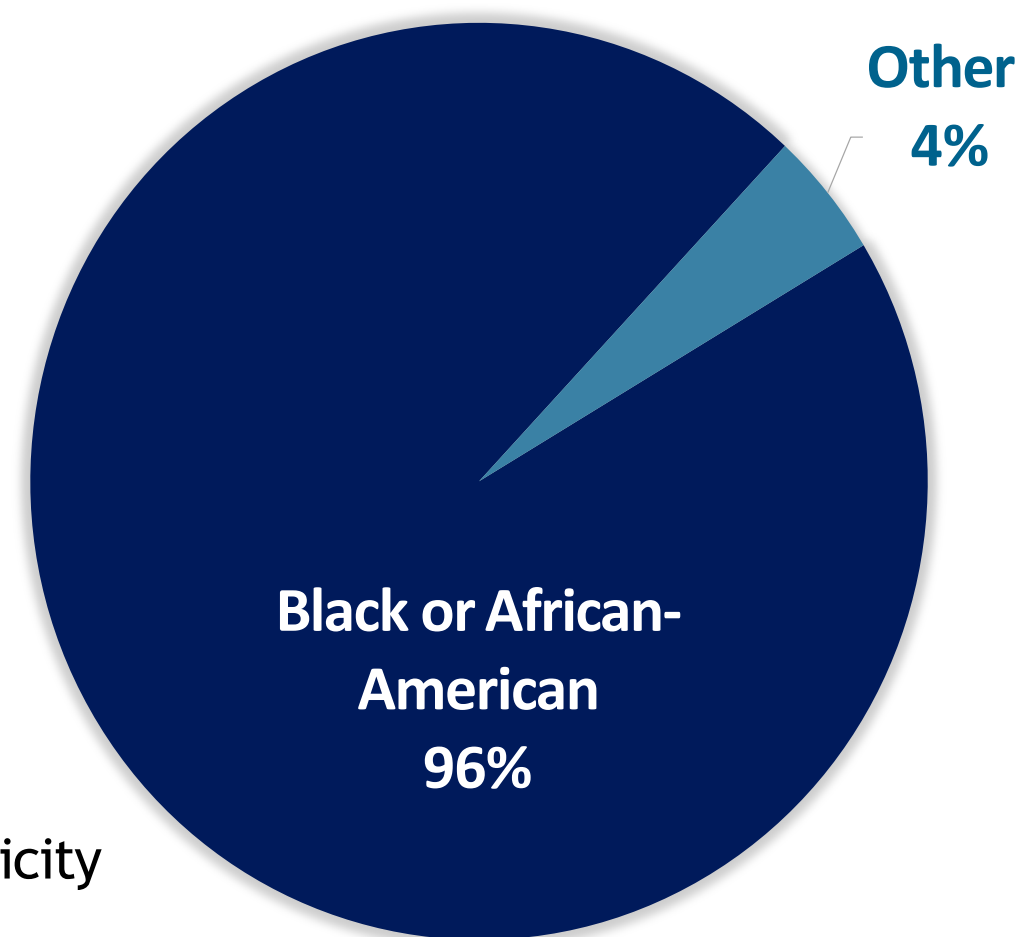


Figure 1. Self-Reported Ethnicity

### Methods

All promotion for the event occurred virtually and remotely. Specifically, this event was promoted by word of mouth, and social media (primarily Fisk GroupMe). Attached to all promotional material and messages was the pre-survey for event registration. In total, there were 60 participants in the Zoom session that completed both the pre and post survey. The information obtained from both surveys were used for data assessment.

The guest speaker, Dr. Katherine Y. Brown, guided the participants through several slides of a pre-made presentation detailing hypertension, pulmonary hypertension, care, diet, and nutrition. A segment after the presentation allowed for questions and feedback from the audience. The session was concluded with a post-survey to measure the knowledge gained. Both the pre and post-tests were Google Forms and utilized initials and the numeric portion of participants street address to protect the identifying information of attendees. Participants were incentivized to complete both tests with a monetary gift card draw.

### Outcomes

The outcomes of this project are as follows:

- Forty-eight (48) females and twelve (12) males completed both pre and post tests.
- All participants were between the ages of eighteen to twenty-five (18 -25) with 96% identifying as Black or African-American
- The average score in the pretest was a 64% and the average score in the post-test was an 85%, showing an increase of 21%.
- The greatest difference between correct responses in the pre and post-test was within the question: "Which is an example of a food that is not recommended for someone that has hypertension?"

### Acknowledgements

- Fisk University
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- Middle Tennessee State University
- TN-MMC HBCU Wellness Project
- Rutherford County Health Department

You're invited to

# NOT JUST FOOD

Join us as we discuss how our **eating habits** dictate more than just a full stomach. Investigate hypertension in its many forms, specifically **pulmonary hypertension**, and how we can positively impact our health

**TUESDAY, MARCH 22**  
3 PM - 4 PM

Earn 2 Hours of PD  
Win \$25 Gift Card

Question	% of Correct Responses Pre-Test	% of Correct Responses Post-Test	% Differences
Is there a difference between diet and nutrition?	93.5%	97.8%	4.30%
What is hypertension commonly referred to as?	90.3%	97.8%	7.50%
Is hypertension preventable?	93.5%	97.8%	4.30%
What are some of the risk factors for hypertension and pulmonary hypertension?	73.4%	95.6%	22.20%
What tool can be used to check your blood pressure?	79%	84.4%	5.40%
What blood pressure readings would suggest a person is in a hypertensive crisis?	66.1%	68.9%	2.80%
Which is an example of a food that is not recommended for someone that has hypertension?	21%	80%	59%

Figure 2. Pre & Post Test Question Response