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### Cut The Pressure: Blood Pressure Screening in a Community Based Setting

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# Cut The Pressure:

## Blood pressure screening in community based settings

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### Abstract

This study addresses the pressing issue of cardiovascular health disparities in African American males through community-based interventions, specifically blood pressure screenings and surveys conducted in a local barbershop setting. Despite a preference among participants for clinical settings, an overwhelming 97.7% expressed high comfort levels in the community-based environment, highlighting the importance of culturally sensitive approaches in healthcare delivery. With 92.5% indicating willingness to return for future screenings, the study underscores the efficacy of non-traditional settings in fostering healthcare engagement. Findings suggest the potential for broader impact through scalable, community-centric initiatives, offering promising avenues for improving health outcomes in underserved populations.

### Introduction

Hypertension represents a significant health concern in the United States, particularly among various population groups, with black males being disproportionately affected<sup>1</sup>. This racial disparity in hypertension prevalence has persisted over time, with black men exhibiting higher rates of hypertension compared to other racial and ethnic groups<sup>1</sup>. The heightened prevalence and earlier onset of hypertension in black men are associated with increased risks of severe complications such as stroke, kidney disease, and cardiovascular disease<sup>1,2</sup>. Studies have indicated that Black Americans, including males, are predisposed to developing hypertension at younger ages than their white counterparts. Therefore, effective management of hypertension in black men is essential to address the health disparities prevalent in this community<sup>1,2</sup>.

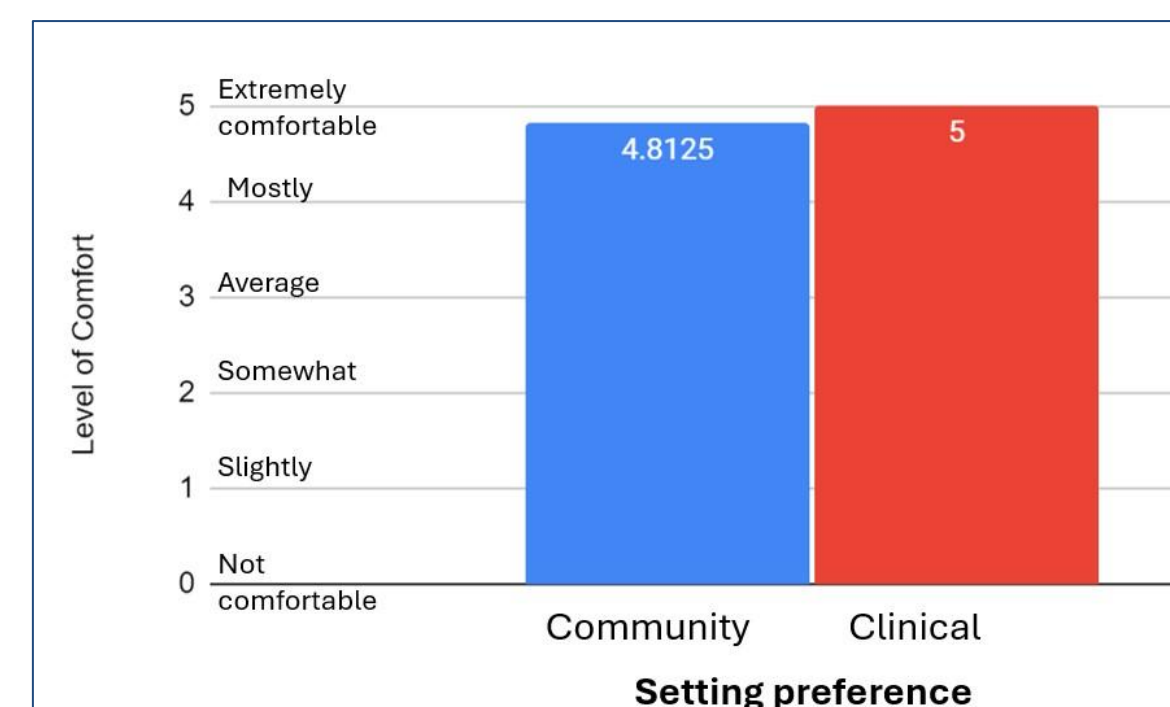
African American communities are disproportionately affected by preventable diseases associated with poor cardiovascular health and usually do not have readily accessible and comprehensive information on how to prevent the debilitating effects that these diseases bring<sup>3</sup>. This is a problem that the medical community has attempted to address for decades<sup>4</sup>. This was the primary focus of this study. The project addressed this disparity by conducting a series of community blood pressure screenings followed by a survey in a location frequented by African American males of various ages, which in this case was a community barbershop. The blood pressure screenings were administered for free and without coercion to patrons who entered the establishment over a period in which the business experienced high interaction with individuals of this community. We hypothesized that the population of male patrons arriving at the barber shop would be much more susceptible to participate in the blood screening, in a familiar and relaxed setting, and to receive follow up recommendations and pertinent information regarding cardiovascular disease. To address this health disparity participants were asked to complete a survey, and the data collected would be used to better understand how to serve this population in a proactive manner.

### Methods and Materials

A quantitative study was conducted using a 9-question paper survey administered to participants after providing blood pressure results and American Heart Association approved literature. The study took place on 5 separate days between the times of 8:30am-2:30pm and the usable data was gained from the results of the completed surveys collected at this time. The 9-question survey was grouped into four parts. The first section asked each participant about relevant demographic information, including: ethnicity, and preference of healthcare provider ethnicity. The second section reviewed the interaction that the participant had during the blood pressure screening. The third section focused on the participants' mental state, assessing whether they showed any signs of depression. The final section was a follow-up question to determine if the participant would return to the location for an additional blood pressure screening.



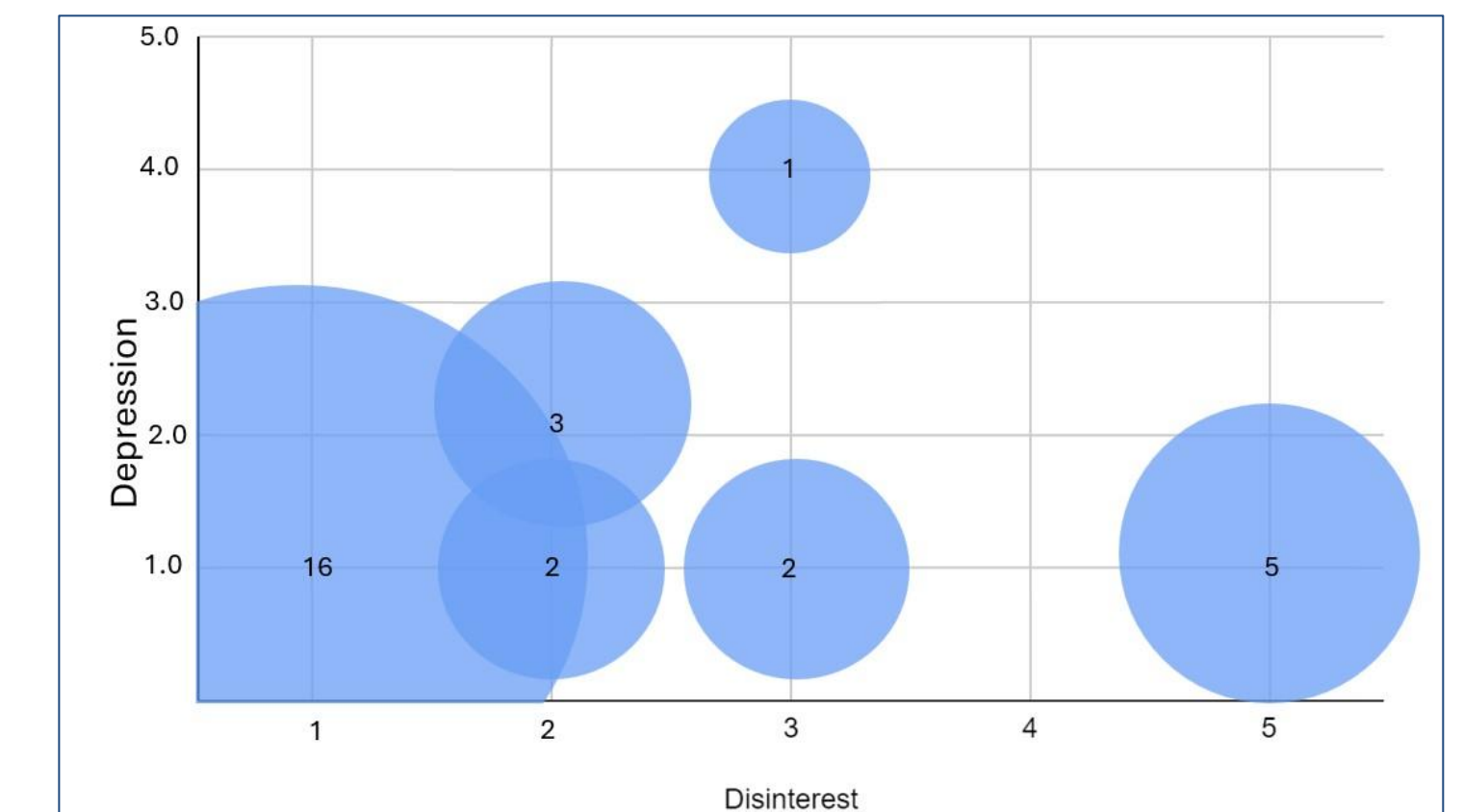
### Results



The first aim of this study was to determine how comfortable the participants felt receiving health-care related information and screenings at this community based location. Participants were asked to choose which type of setting they preferred for receiving health care related information and assessments. 59.2% of participants claimed to prefer a clinical setting as opposed to a community based setting. Although a slight majority of participants preferred a clinical setting, there was no statistically significant difference in the reported level of comfort between the group that preferred clinical vs a community based setting (above figure). In fact the average level of comfort with the community based setting was reported at an astonishingly high 97.7%. The participants were also asked if they preferred a health care provider of the same ethnicity. Upon additional analysis, it was found that 52% of the participants preferred a healthcare provider of the same ethnicity.

		Was this information Helpful?	
		YES	NO
Was this information NEW?	YES	19	0
	NO	9	0

The second aim of this study was to provide useful health care related information to the members of the community. Although this information was not new to all participants, with only 70.4% stating the information was new; all participants found the information helpful (above table). The number of participants claiming this information was new and helpful was statistically significant ( $p < 0.0005$ ). Additionally, results from the survey also showed that 92.5% of the participants indicated that they would return to the location for an additional blood pressure screening.



The final aim of this study was to gather information on the mental health of participants. The vast majority of respondents reported the closest levels of depression and disinterest (above figure).

### Discussion

Overall the survey results indicate that our community initiative was successful in increasing the health literacy of our participants. Out of the 67 eligible patrons that came to the establishment while the study was being conducted, 28 agreed to be screened and to complete the survey. All 28 participants identified themselves as being African American.

If expanded, this initial screening and survey may increase health outcomes for a larger population. Our results showed that African American males would be more receptive to help from the medical community if it came in less formal settings given that 97.7% of the participants indicated they felt extremely comfortable in the non-traditional setting. In addition to this finding 92.5% of the participants indicated they would return to the location for an additional blood pressure screening. The limitations of this study were the single screening location and inclement weather which resulted in cancellation of one of the dates. Although the sample size in which this data was taken from is small, the materials needed to replicate this study are minimal and can be done on a larger scale. A follow up study in addition to soliciting a higher participation rate from this community may indicate better health outcomes due to more of an active role in one's individual healthcare. African American men historically have some of the worst health outcomes to preventable and treatable cardiovascular conditions<sup>3</sup>. Subsequently, a health screening in which they may be made aware of a medical condition early and educated on how to treat it could improve the morbidity and mortality for conditions such as cardiovascular disease.

### Conclusion

Based on our data interpretation, the participants preferred to have their blood pressure screened, and follow up recommendations and pertinent information regarding cardiovascular disease received in a non-clinical setting vs. a traditional medical setting. A notable portion of African American males are inclined to be more open to medical support and educational resources when these services are offered in an environment where they feel at ease. This could be due to an inherent mistrust of the medical community as a result of atrocities committed in the past, in addition to the lack of education and/or knowledge regarding the conditions in which they are afflicted. The exact root cause may never be known, but improving the health disparity in this community should be a priority nonetheless.

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