Social Media as a Tool for Health Education: Assessing Its Impact on Hypertension Knowledge and Lifestyle Behaviors in Black Men in New York

Morgan McManus[1] and Tanisha Green, MPH[2]
[1]New York University Grossman School of Medicine, [2]Institute for Excellence in Health Equity, New York University Grossman School of Medicine

INTRODUCTION

- **Hypertension** is a major risk factor for cardiovascular disease, the leading cause of death in the United States[1]
- **Black men** have the highest prevalence of hypertension at 57.2%, compared to White men (50.2%)[2]
- Lifestyle interventions, such as the **DASH eating plan** and **physical activity**, have been shown to reduce blood pressure, especially in Black populations[3]
- However, real-world implementation is limited by barriers, such as **low health literacy**, which disproportionately affects Black individuals and men[4]

PURPOSE

- Assess and optimize the use of **social media** to improve hypertension knowledge and lifestyle behaviors among Black men in NYC
- Develop a **culturally relevant digital health education intervention** and evaluate its effectiveness
- This project is ancillary to the **Community-to-Clinic Linkage Program (CLIP)**, a cluster-randomized trial on hypertension prevention among self-identified Black men (NCT05447962).

METHODS

- **Phase 1:** Pre-survey assessing the frequency of social media usage and hypertension knowledge
- **Phase 2:** Development of a three-part educational series, shared on the @Staten_Island_CLIP Instagram
  - Hypertension Knowledge
  - The DASH Eating Plan
  - Physical Activity
- **Phase 3:** Post-survey assessing hypertension knowledge and self-reported content engagement

Figure 1. Example from Social Media Intervention

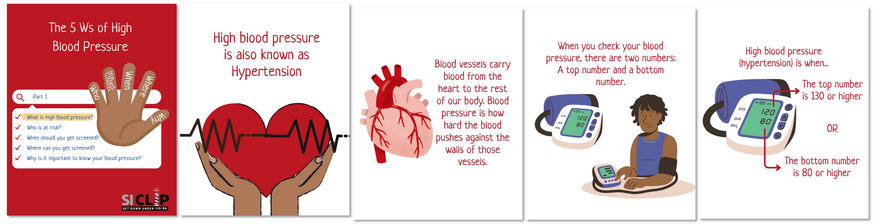

Figure 1. Example from Social Media Intervention
Example of a planned Instagram post covering hypertension knowledge, created as a part of the culturally relevant digital health education intervention.

Figure 2. Hypertension Knowledge and Social Media Usage among Participants

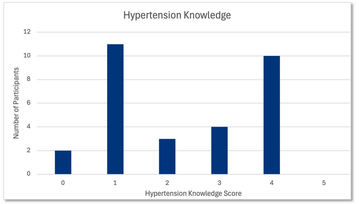

Figure 2A. Hypertension Knowledge Score
Distribution of hypertension knowledge scores (range 0–5) at baseline (n = 30). The average score was 2.3 ± 1.4, with no participants scoring a perfect 5.

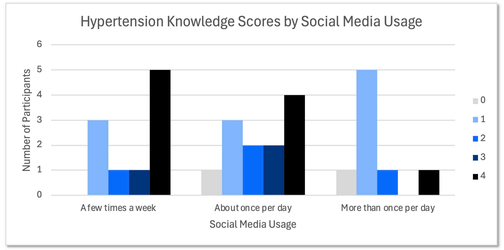

Figure 2B. Hypertension Knowledge Scores by Social Media Usage
Average hypertension knowledge scores stratified by social media usage: few times per week (2.8 ± 1.4), about once per day (2.42 ± 1.4), more than once per day (1.38 ± 1.2). Participants using social media less frequently had higher knowledge scores.

RESULTS

- 30 Participants
- Mean Age: 38 ± 12 years
- Social Media Usage (n=30)
  - A Few Times a Week: 33%
  - About Once Per Day: 40%
  - More than Once Per Day: 48%
- Platforms Utilized (n=29)
  - YouTube: 55%
  - Facebook: 48%
  - Instagram: 41%
  - TikTok: 34%
  - Pinterest: 7%

CONCLUSIONS

- Findings from the first phase of the project identified a **gap in hypertension knowledge** among a cohort of Black men in NYC, despite widespread usage of social media for health information.
- This highlights an opportunity to provide **accessible, culturally relevant health information** through **partnerships** with academic and community-based health organizations.
- The next step includes assessing whether a **targeted social media intervention** improves hypertension knowledge and supports lifestyle modifications to reduce blood pressure among Black men.
- These findings may inform a **free, scalable approach** for primary care physicians to prevent and manage chronic disease.

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Corresponding Author: Morgan McManus, NYU Grossman School of Medicine, morgan.mcmanus@nyulangone.org
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