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Brief Report

African Americans views of COVID-19 contact tracing and testing

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Increasing COVID-testing and contact tracing is necessary to control the COVID-19 pandemic considering suboptimal vaccine rates. We conducted semi-structured interviews to explore views towards contact tracing and testing among 62 African Americans. Based on our findings, participants identified COVID-19 testing and contact tracing as beneficial, yet medical and governmental mistrust, stigma associated with SARS-CoV-2, lack of access, poor communication, and costs as major barriers. This study also highlights intervention targets to improve COVID-testing and contact tracing.

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With over 888,000 deaths since onset of the COVID-19 pandemic,¹ the vaccine remains the best preventive tool against SARS-CoV-2, including Delta and Omicron variants. Yet, rates remain suboptimal with 63.9% of the US population fully vaccinated.¹ While African Americans comprise 12.4% of the U.S. population, only 9.9% are fully vaccinated.¹ This warrants concern as COVID-19 disproportionately impacts African Americans.

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Structural racism drives health care inequities,² underscored during the COVID-19 pandemic. Communities of color, including African Americans lack access to testing and contact tracing and cite poor engagement with health care providers.³ There is historical mistrust in medical systems, researchers, and the government, elevating negative perceptions towards these behaviors.⁴ Furthermore, miscommunication during previous pandemics has been commonly cited and has exacerbated health inequities and governmental mistrust.^{5,6} Many health officials highlight these issues with a need for exploratory data on this topic.⁷ Our study purpose is to explore African Americans views towards COVID-testing and contact tracing to inform messaging and intervention targets.

MATERIALS AND METHODS

We conducted a phenomenological, qualitative study between May and September 2020 among a purposive sample of African Americans. The interview protocol asked questions about views towards contact tracing and testing along with facilitators, barriers, and potential strategies to increase use. Participants provided consent then completed a brief survey and interview. Descriptive statistics summarized survey data and rapid qualitative data analysis was conducted by two team members. Specifically, they: (1) coded interview data until saturation was met, and (2) conducted cross-case analysis of codes to form themes. Data triangulation, peer debriefing, and thick rich descriptions were used to establish trustworthiness. Meharry Medical College Institutional Review Board approved this study.

RESULTS

Of the 62 participants, mean age was 40 years. Majority were female (69.4%), had never been tested (62.9%), and had an Associate degree or higher (64.5%) (Table 1). No interviewees had participated in contact tracing.

Knowledge and perceptions

A major factor negatively impacting participation was lack of knowledge. Several participants had a general understanding of contact tracing; however, a few had not heard of or had no definition of contact tracing. Most were unfamiliar with its' role in SAR-CoV-2 prevention. Additionally, some participants were unclear about the guidelines for notification (ie, who and when to notify someone) during the contact tracing process. Participants described contact tracing as invading ones' privacy and infringing on personal rights. For testing, participants described lack of understanding related to the degree of pain, length of the process, and rationale for nasal swab for testing. Others did not understand testing guidelines. A few perceived tests sometimes yielded false positives, while those who had not been tested perceived the process as painful. While views of contact tracing and testing were influenced by the internet, family and/or peers, and news, many had experienced testing.

Personal experiences

Participants varied in level of physical and mental discomfort during testing. Experiencing pain and depth of nasal swab insertion were commonly noted. Anxiety and fear were mentioned by participants who were tested and those who observed others being tested. Some participants cited close friends and colleagues' experiences with contact tracing as well as the information they received from the media. Many were unclear of what happened during their experiences which left more questions while others understood it but did not trust it. All participants cited no personal experiences with contact tracing.

Perceived Benefits

Across all participants, regardless of category, testing was considered beneficial. While no participants had engaged in contact tracing,

many viewed this behavior as beneficial. The main benefits cited for both behaviors were: (1) a peace of mind; (2) awareness of status and ability to take precautions if needed; and (3) identification of viral hot spots. Ultimately, knowing ones' status allowed them the opportunity to be informed and provide some if not full protection to their family and friends. It further allowed them to gain understanding of places that should be avoided due to the possibility of high transmission. For testing only, participants perceived that testing free of cost made people more inclined to do it.

Perceived barriers

For some participants, personal, family, or peer testing experiences (eg, long wait times, painful) made participants less likely to get tested. Furthermore, the perceptions towards these behaviors (eg, false positives from testing or contact tracing invading privacy) prevented many from participated in these behaviors. A few lacked awareness of testing locations outside of traditional drug stores or hospitals especially being in a rural area while others expressed discomfort navigating testing centers outside of traditional hospital locations. They were unaware of sanitation procedures and feared contracting SARS-CoV-2. Additionally, tests were only provided to individuals, especially those in rural areas, experiencing symptoms. Furthermore, some were charged by their insurance provider, so fee for service was a barrier. Last, some participants, especially those who were the financial provider, were unable to quarantine for the designated timeframe if they received a positive test.

"Governmental conspiracy" was identified as a barrier for contact tracing (eg, collecting personal information for tracking purposes) and testing (eg, microchip insertion as tracker). For both testing and contact tracing, shame and embarrassment associated with notifying co-workers, family members, or friends of contracting SARS-CoV-2 limited participation. Participants' hesitancy was also due to general mistrust of the healthcare system and researchers due to medical experimentation and poor health care experiences for communities of color. This was further exacerbated by contaminated testing viewed in the media, a perception that the healthcare system was trying to increase fear of SARS-CoV-2 and gain more control over Americans.

Strategies to increase engagement

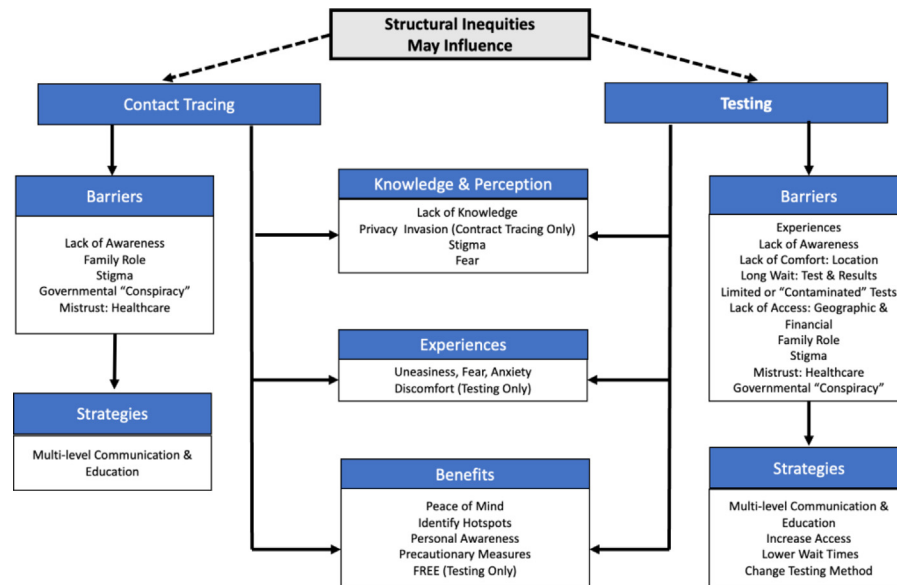
Participants provided constituent-involving, communication strategies on multi-levels to inform pandemic response plans in the areas of SARS-CoV-2 contact tracing and testing among African Americans. Preferred information sources were the national government and healthcare providers. In some instances, family members and/or friends were considered information sources if in fields of research and medicine. Another strategy was increased communication at testing sites and in places with high traffic. Accessible testing sites, increase in test availability, and minimization of testing restrictions (eg, symptomatic only) were also mentioned Fig 1: Data Summary).

DISCUSSION

Similar to past studies,⁸ contact tracing and testing were viewed as necessary to prevent SARS-CoV-2 transmission, yet many lacked knowledge of these procedures. Participants articulated several barriers to engaging in these behaviors. Unsurprisingly, negative testing experiences influenced decision-making,⁹ supporting that improved procedures might increase use. Mistrust in government, health care, and research is commonly cited as a barrier to engagement in health care recommendations.¹⁰ Trauma informed care could be used to address these concerns which involves screening and recognizing trauma, being aware of trauma impact, offering patient-centered

Table 1
Participant characteristics.

	Mean	Standard Deviation
Age	40.29	14.07
	N	%
Gender		
Male	19	30.6
Female	43	69.4
Ever Tested		
Yes	23	37.1
No	39	62.9
Contact Tracing		
Yes	0	0
No	62	100
Category		
Essential Worker	16	25.0
Underlying Medical Condition	15	25.0
Young Adults	15	25.0
Parents	16	25.0
Education		
Some College or less	22	35.5
Associates Degree or higher	40	64.5
Income		
Less than \$40,000	20	32.3
\$40,001-\$80,000	17	27.4
Over \$80,000	16	25.8
Do not want to answer	9	14.5



Discussion

Fig 1. African Americans Views toward COVID testing and contact tracing.

communication and care, recognizing emotional safety while avoiding triggers, and being helpful to patients on treatment options.¹¹ In addition, multi-level changes should be made to address racial discrimination to begin to restore the mistrust in our government, researchers, and healthcare system.^{12,13}

While there is an increase in COVID-testing rates,¹ it is still challenging to gain trust for participation in contact tracing and testing to promote SARS-CoV-2 prevention.^{8,10,11} Similar to previous research, this study highlights economic barriers, such as the inability to take time away from work, as contributing to the reluctance to engage in contact tracing and testing among African Americans.⁷ Inequities in social determinants of health partially reflect lack of access to testing (ie, location).¹⁰ Stigma and embarrassment are not uncommon for several preventive behaviors in African Americans,^{10,14} and can lead to disbelief or reluctance to use these tools.¹¹

Citing strategies to improve communication from multi-level stakeholders reflects low knowledge levels and poor communication from the national government,⁶ which negatively influenced communication within other channels (eg, providers, family and friends, peers). This is not uncommon in past pandemics.⁶ Future work should adapt existing emergency communication response plans to be culturally appropriate to increase chances of effectiveness. Kreuter et al. suggests five strategies to promote cultural appropriate interventions (ie, peripheral, evidential, linguistic, socio-cultural, and constituent-involving strategies).¹⁵ Using the literature, our findings, and Kreuter's strategies, we provide suggestions to improve existing communication plans around testing and contact tracing:

- **Peripheral Strategies.** Involves providing programs and/or materials that appeal to the African Americans. Cultural appealing dissemination products should be created to distribute in places where African Americans frequently visit. Testing sites, churches, doctor offices, and governmental websites (eg, Centers for Disease Control and Prevention) and TV newsroom (eg, White House updates) are potential sites. Messages should be cultural-appropriate and disseminated by trusted messengers.
- **Evidential strategies.** Involves increasing relevance of testing and contact tracing through messaging in dissemination products or programs. This includes use of analogies such as the number of

African Americans lives saved among those who do or do not use preventive behaviors correctly and consistently.

- **Linguistic strategies.** Involves ensuring the language is appropriate, ongoing, and appeals to the norms and values of the African Americans. Information should explain the process and guidelines for COVID-testing and contact tracing. An example strategy involves allowing community members to review messaging that promotes testing and contact tracing to ensure appropriateness and the context is acceptable.
- **>Socio-cultural strategies.** Involves discussing contact tracing and testing in the cultural context of African Americans. There are four cultural characteristics of the African American community: religiosity, collectivism, racial pride and perception of time.¹⁵ Therefore, strategies include: (1) creating faith-based programs to disseminate materials (eg, via church bulletin, flyers, health ministry) and offer these preventive tools during outreach activities (religiosity); (2) offering messaging which promotes the need to engage in these behaviors to protect family and friendships since these relationships are highly valued (collectivism); (3) using African American media to highlight low participation rates in testing and contact tracing and its' correlation with high COVID-19 hospitalization and mortality while discussing how to reverse participation rates through strategies such as increased education (racial pride); and (4) messaging should highlight how engaging in these behaviors now can prevent spread of COVID-19 to loved ones and future sequelae such as COVID-19 long haul (perception of time).
- **Constituent-involving strategies.** Involves allowing African Americans who have participated in contact tracing and testing to help inform, plan, and potentially conduct programs to increase engagement in these behaviors. Trusted messengers include community leaders, providers, researchers, along with family and friends.

Limitations

This study is not without limitations. This study cannot be generalized to other populations. Views and experiences of contact tracing was due to media, close friends, and colleagues, limiting participants perspectives towards contact tracing. This could potentially be due to: (1) our research being conducted during the early stages of the

pandemic; or (2) the lack of trust or understanding in the process as commonly cited in the literature^{4,6} and in our study. Furthermore, we did not aim to collect information about past experiences, whether positive or negative. So, this was an emerging finding that was explored. Future research should examine the lived experiences of those who have participated in contact tracing. A cross-sectional survey could also be used to quantify reasons for participation and/or non-participation in COVID-testing and contact tracing. This information can be used to inform intervention targets to increase engagement in these preventive behaviors.

CONCLUSIONS

We identified COVID-19 testing and contact tracing as being beneficial among African Americans, yet mistrust, SARS-CoV-2 stigma, location, and “perceived” costs as major barriers. This study also highlights intervention targets to improve COVID-testing and contact tracing among African Americans.

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SUPPLEMENTARY MATERIALS

Supplementary material associated with this article can be found in the online version at <https://doi.org/10.1016/j.ajic.2022.02.032>.

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