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Better access to technology can help African Americans bridge the healthcare gap

Researchers at UC Santa Barbara have found that better access to technology can go a long way toward achieving equity in healthcare for African Americans in the United States. According to Sharon Tettegah and Ebenezer Larnyo, both researchers at UCSB's Center for Black Studies Research (CBSR), leveraging health technology is a promising strategy for addressing longstanding healthcare disparities "by enhancing access to care, improving its quality and reducing inequities."

"Our study shows that improving access to technology like broadband internet and smartphones, and healthcare technology use like telehealth and health-related social media platforms, can significantly reduce healthcare disparities among African Americans," said Larnyo, the lead author of a paper published in the journal Frontiers in Public Health.

'Evidence matters'

African Americans today continue to face an inordinate amount of difficulty in accessing healthcare, and tend to have worse healthcare outcomes than white counterparts. Tettegah recalled one particularly conspicuous case — that of tennis champion Venus Williams, who throughout her career was plagued with bouts of severe pelvic pain.

"She had uterine fibroids and had gone to several doctors and nobody was giving her the right response," said Tettegah, who directs CBSR and focuses her research at the intersection of social science and STEM. "They were dismissing her."

Indeed, despite the pain and the bleeding, in interviews Williams herself notes that while she knew she had fibroids (African American women are disproportionately affected by the noncancerous tumors), her doctors never connected the condition and her pain, telling her that her symptoms were a "normal" part of her menstrual cycle. Williams ultimately found a team that took her complaints seriously and because of this experience, now advocates for women's health.

Williams' experience of being glossed over by doctors is unfortunately too common for African Americans in the U.S. healthcare system, stemming from a history of systemic racism and historical patterns of exclusion, the researchers said. While she was able to eventually find the appropriate care, many others continue to struggle to be seen.

"So the question becomes, 'How do we get the medical community of people who are not people of color to understand that we really do have different needs?,'"

Tettegah said. "And a lot of times that has to come from the patient. But not every patient can advocate for themselves."

Socioeconomic status is another major factor. Healthcare in the US takes money, whether it's for health insurance, hospital and clinic visits, medicine and other supplies. Even the ongoing boom in healthcare technologies, such as internet-based telemedicine, wearables or precision medicine, which have great potential for leveling the healthcare playing field, are limited to who can afford them.

"Higher socioeconomic status individuals are more likely to have technology access, and when they do have access, they experience fewer healthcare disparities," Larnyo said. "So tackling both digital and structural barriers is key to achieving equity."

In their paper, the researchers explore the complex relationship between technology inequity and healthcare disparities among African Americans, and uncover statistical connections between socioeconomic status, technology access and health technology use.

"Evidence matters," Larnyo said. "Having hard numbers allows us to move beyond assumptions and demonstrate precisely how socioeconomic factors influence healthcare access in the digital age. It helps us understand the underlying mechanisms through which technology inequity reinforces and perpetuates healthcare disparities and allows us to be able to highlight the role of structural racism in shaping economic opportunities and digital inclusion, thus making a case for structural changes rather than individual solutions."

Analyzing data from a survey of 815 African Americans on their access to and use of health-related information and health-related behaviors, perceptions and knowledge, the research collaboration, which includes teams from Jiangsu University in China and Teesside University in the UK, elucidated this intricate dance of variables. They found a statistically significant relationship between socioeconomic status and technology access (the higher one's socioeconomic status, the more access to technology they have), and a positive association between technology access and health technology use (the more access to technology, the more likely to use health technology).

Conversely, they found a negative association between tech access and healthcare disparities — the less access to health technology, the larger the healthcare disparities. The influence that socioeconomic status, technology access and health disparities have on each other indicates that "addressing both socioeconomic disparities and technology access is crucial in reducing healthcare disparities," according to the paper.

Some of the most powerful solutions are already within reach.

"To begin with, broadband internet is foundational; it needs to be affordable, accessible and reliable," Larnyo said. "That goes hand-in-hand with affordable smartphones."

In addition, to effectively take advantage of the technology, culturally tailored telehealth, simple-to-use mental health apps and health-related social media platforms are needed, the researchers said.

"We definitely need to do more work to raise awareness that people of color have different needs that have to be addressed and not just passed off," Tettegah said, pointing out that ethnic minorities have differing likelihoods for various diseases and conditions. "We need to build a narrative that highlights that with advocacy and

information because often you don't know that you don't know."

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