Study shows text messaging is an effective tool to improve access to prenatal health information

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Pregnant urban African American and immigrant Afro-Caribbean women are more likely to receive the prenatal health information they need if they are given access to mhealth apps like Text4baby. That is the finding of a new study from SUNY Downstate Health Sciences University School of Public Health.

The study, "Using Text Messaging to Improve Access to Prenatal Health Information in Urban African American and Afro-Caribbean Immigrant Pregnant Women: Mixed Methods Analysis of Text4baby Usage", was published online today in the journal *JMIR mHealth and uHealth*.

This study aimed to understand the real-life experiences of pregnant urban African American and Afro-Caribbean immigrant women with accessing quality prenatal health care and health information; to assess usage of mHealth for seeking prenatal health information; and to measure changes in participants' knowledge, perceptions, and behavioral intent to use the Text4baby mHealth educational intervention.

Beginning with a focus group of nine women, the investigators identified three barriers these women faced in getting quality prenatal health information including the quality of patient-provider engagement, a lack of social support, and acculturalization of immigrant women.

"We discovered that inadequate engagement with their provider left

these women feeling indifferent about the prenatal care and information they received in the clinical setting," said Tenya M. Blackwell, BS, MS, DrPH, lead author of the study and Director of Community Engagement and Research at the Arthur Ashe Institute for Urban Health. "Based on these findings, we developed a survey of 49 women to gauge whether an app like Text4baby might bridge this indifference."

The results of this survey showed 63% believed an app like Text4baby would provide them with the extra support they wanted during pregnancy. Additionally, on a Likert scale of 1 to 5, their perception of the usefulness, compatibility and relative advantage of using the app ranked at 4.26, 4.41 and 4.15 respectively.

In a follow-up survey to measure changes in knowledge, perceptions and intent, these women showed a 14% increase from earlier testing in reporting their intent to use the app, and a 28% increase in their intent to speak more with their provider about the prenatal health information they learned about on Text4baby.

"In today's society, smart phones are ubiquitous and information delivered through them cuts across most social, cultural and economic barriers," said Laura Geer, Ph.D., MHS, principal investigator and Chair and Associate Professor, Department of Environmental and Occupational Health Sciences at SUNY Downstate Health Sciences University School of Public Health. "Even with a small sample size, these results clearly demonstrate how mhealth apps, focused on prenatal health, can go a long way in overcoming the economic, social and cultural barriers these women face in receiving the prenatal health information and care they need to have a healthy pregnancy."

More information: Tenya M Blackwell et al, Using Text Messaging to Improve Access to Prenatal Health Information in Urban African American and Afro-Caribbean Immigrant Pregnant Women: Mixed

Methods Analysis of Text4baby Usage, *JMIR mHealth and uHealth* (2019). DOI: 10.2196/14737

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