

## Study shows ChatGPT can be helpful for Black women's self-education about HIV, PrEP

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The artificial intelligence (AI) chatbot called ChatGPT is a powerful way for Black women to educate themselves about HIV prevention, as it provides reliable and culturally sensitive information, according to a study in *The Journal of the Association of Nurses in AIDS Care*.

"In addition to immediately available information, regardless of time or geographic location, privacy and anonymity can be maintained compared with being physically present in a clinical office setting," lead investigator Rasheeta D. Chandler, Ph.D., RN, FNP-BC, FAANP, FAAN, Associate Professor of Nursing at Emory University in Atlanta, and colleagues note about the use of ChatGPT.

"This is especially helpful for those who need accurate health care education on a new or current diagnosis without the fear of judgment, stigma, bias, or discrimination."

ChatGPT is trained on a diverse range of internet text sources with the goals of having it generate human-like written responses to simple or complex questions, provide personalized advice and explanations, and assist users in a conversational manner. However, bias has been known to creep in, especially from the data sets used for training.

The researchers evaluated the utility of the free version of ChatGPT to Black women seeking information on sensitive topics. They submitted 8 prompts, phrasing them in pairs to compare how ChatGPT responded about women in general and how it responded about Black women:

- Prompts 1 and 2—I would like to simulate some interactions between ChatGPT and a woman [Black woman] who is self-educating about HIV prevention
- Prompts 3 and 4—Can you give me information about HIV



- prevention in Black women [women]?
- Prompts 5 and 6—Can you give me information about HIV PrEP in women [Black women]?
- Prompts 7 and 8—I'm a Black [White] woman in college. My doctor mentioned HIV prevention at my last appointment. I don't fully understand. Can you tell me more about it?

## ChatGPT responses demonstrated an understanding of the impact of race-related factors

The responses to each pair of prompts differed when ChatGPT was addressing questions by or about Black women, the researchers found. For example:

- Transcript 2 (the response to prompt 2) acknowledged the user's racial background and provided a deeper level of detail about access to PrEP than Transcript 1 did. It offered information about financial assistance options, suggesting a heightened awareness of potential disparities in <a href="health care access">health care access</a> based on race, and the tone was supportive and encouraging. In fact, Transcript 2 concluded by praising the user for seeking information about her <a href="sexual health">sexual health</a> and extended a warm invitation to seek further assistance.
- Transcript 5 offered a clinically straightforward and medically focused explanation of PrEP. Transcript 6 took a more holistic and socially conscious approach, mentioning the disproportionate impact of HIV among Black women and delving into health care disparities, stigma reduction, and the importance of creating community support networks.
- Transcript 8 maintained a straightforward style and neutral tone, not addressing the user's racial identity or that she is in college.
  Transcript 7 adopted a compassionate tone and acknowledged the



user's identity as a Black woman in college. The language emphasized the user's health as a priority and included the phrase "remember that your doctor mentioned HIV prevention because they care about your well-being." This empathetic comment appears to be a deliberate effort to address the history of medical mistrust in the Black community.

"Traditional modes of health education often face challenges in reaching and engaging marginalized communities," Dr. Chandler's group points out.

"ChatGPT offers a novel opportunity to bridge these gaps by providing accessible, on-demand, and personalized information."

The authors caution, however, that "it is essential to remain vigilant about the quality and accuracy of information provided by ChatGPT to ensure that it aligns with evidence-based practices and the unique health care needs of Black women. It will be important to monitor AI's training and capability to present an equitable tone and provision of information without bias."

**More information:** Rasheeta D. Chandler et al, "What Did You Say, ChatGPT?" The Use of AI in Black Women's HIV Self-Education: An Inductive Qualitative Data Analysis, *Journal of the Association of Nurses in AIDS Care* (2024). DOI: 10.1097/JNC.000000000000468

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