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ORIGINAL ARTICLE

Attitudes, perceptions and behaviours towards HIV testing among African-American and East African immigrant women in Washington, DC: implications for targeted HIV testing promotion and communication strategies

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ABSTRACT

Objectives The objective of the study was to examine and compare the HIV testing attitudes, perceptions and behaviours between African-American and East African immigrant women in the Washington, DC metropolitan area.

Methods Adopting an inductive, qualitative methodological approach, we conducted a total of 40 in-depth, semistructured interviews between October 2012 and March 2013. Qualitative thematic analysis was used to analyse the data.

Results Overall, African-American women held more favourable views towards HIV testing than East African immigrant women. Very few East African immigrant women sought HIV testing intentionally. The majority of East African participants were tested inadvertently, while others tested for immigration-related or employment-related purposes. There were many barriers that impede women from seeking an HIV test including negative assumptions (eg, "Getting an HIV test implies that I am HIV positive"), negative emotions (eg, "Fear of being diagnosed with HIV and what this will mean for me") and potential negative reactions from partner or others (eg, "Getting an HIV test can signal distrust, disrespect, or infidelity"). There were nuances in how each group articulated some of these barriers and East African women expressed unique concerns that originated from experiences in their home countries.

Conclusions The study shed light into the complexity of factors that constrain women from presenting themselves voluntarily for an HIV test and highlighted the nuances between African-American and East African perceptions. Implications of findings for effective targeted HIV screening promotion and communication strategies among these groups of women are discussed.

INTRODUCTION

Washington, DC has the highest rate of HIV in the USA, with an HIV prevalence that is nearly 10 times that of the entire US.[1–3] HIV infection is at a generalised epidemic level comparable to that of several countries in sub-Saharan Africa,[1 2] with 2.4% (15 506) of DC residents living with HIV.[3] Black women continue to be disproportionately affected by HIV, accounting for 92.2% of all infections among women, yet representing 55% of the female population citywide.[3 4]

The foreign-born population accounted for 14.4% of the population in Washington, DC in 2013,[5] with a large number consisting of African-born immigrants. Specifically, the percentage of the foreign-born population from Africa in the Washington, DC metropolitan area (13%) was more than three times the national percentage (4%).[6] The region's 161 000 Africans as a group are second in absolute size only to Africans in New York (212 000).[6] One of every five black African immigrants is from Ethiopia, which represents 19% of the total African immigrant population in the area.[7]

Foreign-born blacks in DC comprise 46% of all foreign-born persons living with HIV, and a third of these are born in an African country.[8] Furthermore, a recent study demonstrated that African-born women, in particular, account for a substantial percentage of HIV diagnoses (57.4%) compared with native-born black women (35.8%).[9]

One of the biggest obstacles to controlling HIV is that a substantial number of people living with the virus are undiagnosed. Despite HIV testing being the single largest HIV prevention campaign funded by the US government,[10] a study conducted by the US Centers for Disease Control and Prevention estimated that approximately half (49%) of new HIV infections originate with the 20% of individuals living with the virus and are unaware of their infection.[11] Moreover, foreign-born blacks have a lower rate of recent HIV testing and are more likely to be diagnosed with AIDS within one year of their HIV diagnoses compared with US-born blacks, which is attributed to late testing.[9]

To date, there are few US studies that distinguish between African-American and African-born women. Moreover, little is known about East African immigrant women (who represent a large share of African population in the Washington, DC metropolitan area) and their culture-specific perceptions related to HIV testing. Foreign-born black individuals are typically categorised as 'black' or 'African-American' in studies, and country of origin is rarely reported. This can often lead to inconsistent data.[8 9] Efforts to effectively engage these groups in HIV testing strategies are hindered if there is limited understanding of their attitudes, perceptions and behaviours regarding HIV testing.

To fill this critical gap, a community-based qualitative study was conducted in collaboration with *The Women's Collective* (a DC-based non-profit agency that serves mainly low-income black women living with or at risk for HIV/AIDS) to examine and compare African-American and East African women's HIV testing attitudes, perceptions and behaviours.

METHODS

Study participants

The study sample comprised 20 African-American and 20 East African immigrant women (from Ethiopia, Eritrea, Kenya, Tanzania and Uganda) between the ages of 18 and 49 who reside in the Washington, DC metropolitan area. Eligibility criteria included being female; between the ages of 18 and 49; self-identifying as African-American or East African. Although having obtained an HIV test was not an eligibility criterion, all the study participants had gotten tested at least once.

Two trained female recruiters (one African-American and one Ethiopian) used a non-probability maximum variation sampling technique[12] to purposefully select a sample of participants who met eligibility criteria and represented diverse experiences and backgrounds (ie, socioeconomic level, education level, religion) related to the phenomenon of interest.[12] They began the recruitment process by posting fliers at various sites throughout the Washington, DC metropolitan area (including hair salons, grocery stores, community colleges, universities, churches) that serve a largely East African-born population. The recruiters also actively promoted the study in-person at various social service and community agencies.

Data collection

We adopted an inductive, qualitative methodological approach for the study.[13] Between October 2012 and March 2013, three trained female interviewers (one African-American and two African-born) conducted a total of 40 in-depth, semistructured qualitative interviews. Each interview lasted approximately 1.5 h and was conducted in English, except for one, which was conducted in Amharic. The interviews were held either at the participant's home or in a private study room at a local library.

The interview guide included questions such as, what first comes to mind when you hear the word HIV testing? Can you share with me an example of how someone you know who got an HIV test was viewed in your community?

A brief demographic questionnaire followed the interview. All interviews were recorded and analytic memos[12 13] were created following each interview. Data saturation was achieved with the sample as there was no new information that emerged with subsequent interviews. Participants received a $40 gift card incentive.

Data analysis

The data analysis team consisted of the authors and the three interviewers. We conducted qualitative thematic analysis using ATLAS.ti (V.7.0).[13 14]

We first developed verbatim transcripts of the audiotaped interviews and checked them for accuracy. Pseudonyms were used to protect participants' confidentiality. Data analysis followed the detailed steps as outlined by the first author in a previous qualitative HIV research study with Cape Verdean immigrant women.[15] Refer to online supplementary appendix for details. To ensure data validity, we conducted four rounds of interpretive validity member-checks[12] and refined our analyses based on the feedback we received.

RESULTS

Sociodemographic characteristics of study sample

Table 1 summarises the sociodemographic characteristics of the study sample and includes participant numbers that correspond with salient quotes presented in box 1.

Intergroup differences in HIV testing behaviour and attitudes

Analyses revealed differences in HIV testing behaviours between African-American and East African participants. A majority of East African participants (90%) was inadvertently tested for HIV, with most being tested during a medical encounter for another health issue or at a hospital emergency department. Others obtained mandatory HIV testing for immigration or employment-related purposes.

Conversely, only half of African-American participants were tested inadvertently during an annual physical or a medical encounter for another health issue. Slightly more than half of African-American participants in contrast to only two East African participants were tested intentionally at their doctor's office or an HIV testing site.

African-American women generally held more favourable attitudes towards HIV testing compared with East African women (box 1). Conversely, East Africans held more unfavourable attitudes as illustrated by an Ethiopian, who stated: "Most people from my community do not go out and get tested. We do not feel like we need it. No one I know does it regularly" (participant 13).

Theme clusters and meta-themes

The two meta-themes identified and their associated theme clusters are reported below. The meta-themes reflect the motivators and barriers to HIV testing. An overview of these findings and sample quotes are shown in box 1.

Meta-theme 1: motivators to HIV testing

Cluster 1: positive aspects associated with HIV testing

HIV prevention should be a way of life. African-Americans advocated a 'pragmatic, no-nonsense approach' to HIV testing, referring to the need for making HIV prevention 'a way of life'. These participants acknowledged, however, that routine HIV testing was still not a reality in the community.

Conversely, East Africans did not view HIV prevention as a 'way of life'. Rather than testing, they viewed the important role of 'religion as protection' in their lives: "Our religion supports being abstinent until you get married. So religion has some good things for preventing HIV" (participant 19). These perceptions, in part, stemmed from their experiences in their home countries, where preventive services are not easily available, nor part of a cultural ideology. They spoke of long waits and unsanitary conditions at public clinics, and the lack of proper counselling with HIV testing.

Getting an HIV test can provide me with peace of mind. While several African-Americans described how finding out one's status can provide one with a sense of comfort, none of the East Africans did.

Seeking an HIV test is about loving myself. African-Americans also stated that getting an HIV test demonstrates a healthy self-esteem. Very few East Africans brought up the role of self-esteem in deciding to get tested.

Meta-theme 2: barriers to HIV testing

Cluster 2: negative assumptions associated with HIV testing

Getting an HIV test implies that I have engaged in 'bad' behavior. Participants across both groups mentioned that community

Table 1 Sociodemographic information of East African immigrant women (n=20) and African–American women (n=20) in Washington DC metropolitan area

Age (years)	Education level	Employment status	Annual household income	Marital status	Health insurance	Religion
East African participants						
40	High school or less	Unemployed	$5K–$24 999K	Single	Government programme*	Orthodox Christian
29	Associate's/bachelor's degree	Employed	$25K–$49 999K	Married/in relationship	Private**	Other Christian
24	Graduate degree	Employed	$50K plus	Single	Private**	Orthodox Christian
28	Some college, no degree	Unemployed	$5K–$24 999K	Married/in relationship	Government programme*	Orthodox Christian
36	High school or less	Unemployed	$5K–$24 999K	Single	Government programme*	Orthodox Christian
49	Associate's/bachelor's degree	Employed	$25K–$49 999K	Married/in relationship	Private**	Orthodox Christian
25	Graduate degree	Employed	$50K plus	Single	Private**	Other Christian
26	Some college, no degree	Employed	$25K–$49 999K	Single	Private**	Orthodox Christian
38	High school or less	Unemployed	$5K–$24 999K	Single	Government programme*	Orthodox Christian
20	Some college, no degree	Employed	$25K–$49 999K	Married/in relationship	Private**	Other Christian
20	Some college, no degree	Unemployed	$5K–$24 999K	Other	Government programme*	Non-Christian
22	Graduate degree	Employed	$25K–$49 999K	Married/in relationship	Private**	Other Christian
46	Some college, no degree	Employed	$5K–$24 999K	Married/in relationship	Government programme*	Orthodox Christian
22	Some college, no degree	Employed	$50K plus	Single	Private**	Other Christian
21	Associate's/bachelor's degree	Employed	$25K–$49 999K	Other	Private**	Orthodox Christian
34	Some college, no degree	Employed	$25K–$49 999K	Single	Private**	Orthodox Christian
30	Some college, no degree	Employed	$25K–$49 999K	Single	Private**	Orthodox Christian
34	Associate's/bachelor's degree	Employed	$25K–$49 999K	Single	Private**	Orthodox Christian
47	Associate's/bachelor's degree	Employed	$50K plus	Other	Private**	Orthodox Christian
29	Some college, no degree	Unemployed	$5K–$24 999K	Single	Government programme*	Other Christian
African-American participants						
48	Graduate degree	Employed	$50K plus	Married/in relationship	Private**	Baptist
22	High school or less	Unemployed	$5K–$24 999K	Single	Government programme*	None
22	High school or less	Employed	$5K–$24 999K	Married/in relationship	Government programme*	None
29	Some college, no degree	Unemployed	$5K–$24 999K	Single	Government programme*	Baptist
23	High school or less	Unemployed	$5K–$24 999K	Single	Government programme*	None
44	Associate's/bachelor's degree	Employed	$25K–$49 999K	Single	Private**	Baptist
47	Some college, no degree	Unemployed	$5K–$24 999K	Single	Government programme*	Baptist
49	Associate's/bachelor's degree	Employed	$25K–$49 999K	Married/in relationship	Private**	Other Christian
48	Some college, no degree	Unemployed	$5K–$24 999K	Single	Government programme*	None
39	Some college, no degree	Employed	$5K–$24 999K	Single	Government programme*	None
19	High school or less	Employed	$5K–$24 999K	Single	None	None

Continued

Table 1 Continued

Age (years)	Education level	Employment status	Annual household income	Marital status	Health insurance	Religion
22	High school or less	Unemployed	$5K–$24 999K	Single	Government programme*	None
38	High school or less	Unemployed	$5K–$24 999K	Single	None	Baptist
32	Some college, no degree	Employed	$25K–$49 999K	Married/in relationship	Private**	Other Christian
31	Some college, no degree	Unemployed	$5K–$24 999K	Single	Government programme*	None
30	Some college, no degree	Employed	$5K–$24 999K	Single	Government programme*	None
33	Some college, no degree	Unemployed	$5K–$24 999K	Married/in relationship	Government programme*	Non-Christian
34	Associate's/bachelor's degree	Employed	$25K–$49 999K	Single	Private**	Other Christian
41	Associate's/bachelor's degree	Employed	$50K plus	Married/in relationship	Private**	Other Christian
31	Some college, no degree	Unemployed	$5K–$24 999K	Single	Government programme*	None

*Government program: Medicaid/Medicare.
**Private health insurance: Employer-based or self-bought.

members would assume that those who seek HIV testing have 'done something wrong'. East Africans embedded these 'bad' behaviours in the language of their religious beliefs, viewing these behaviours as having transgressed religious norms.

Getting an HIV test implies that I am HIV positive. Participants in both groups also stated that community members assume that if individuals get tested for HIV it means they have HIV.

Cluster 3: negative emotions associated with HIV testing

Fear of being diagnosed with HIV and what it may mean for me. Participants in both groups shared that HIV testing evoked fear about the possibility of being diagnosed with HIV and having to endure severe personal and social consequences. Because of these fears, many participants preferred not to know their HIV status. For East Africans, these fears originated from experiences in their home countries; the majority of participants acknowledged how a family member or someone in their community had lost their job or housing due to the fact that the individual was suspected of having HIV. East Africans also talked about the unique immigration-related fears that HIV testing brought up for them.

Worry about gossip and others' negative judgments about me. Participants in both groups also brought up being wary of going to a clinic or other site to get tested for fear that they might run into people whom they knew and be judged or that gossip would start regarding one's status, which was an influential force in discouraging women from getting tested.

Worry that information regarding HIV diagnosis is not confidential. East Africans worried that their HIV test results would not be kept confidential, and, subsequently, this concern deterred them from seeking an HIV test. They conflated the notions of confidentiality and anonymity. In doing so, they contrasted experiences related to privacy in their home country with those in the USA. In their home country, anonymous testing meant that they did not need to give any identifying information. However, they were worried that it was not private because they ran the risk of seeing people they knew at the clinic or providers sharing their results with others. These participants stated that they were surprised, however, when they came to the USA that one was required to provide identifying information to obtain an HIV test and this seemed contradictory to 'true' privacy.

Uncomfortable with invasive questions prior to being tested. Several participants in both groups spoke about the fact that they were uncomfortable with the questions they were asked prior to getting tested.

Annoyed with being asked whether wanted to be tested while in a medical emergency. East Africans only mentioned being bothered about having been approached about an HIV test during a medical emergency.

Cluster 4: potential negative reaction from partner or others due to HIV testing

Getting an HIV test can signal distrust, disrespect, or infidelity. African-Americans brought up the negative verbal, psychological and/or physical reaction they sometimes faced if they brought up HIV testing with their partner. A few East Africans mentioned that seeking an HIV test might imply that one is suspicious of one's husband being unfaithful.

Getting an HIV test can lead to argument with family members. Several East Africans and only a very few African-Americans shared how family members were upset with them for talking about HIV testing.

DISCUSSION

This is the first qualitative study to compare the attitudes, perceptions and behaviours towards HIV testing of African-American and East African immigrant women in Washington, DC. Findings revealed that while a majority of East Africans did not present themselves voluntarily for an HIV test, slightly more than half of African-Americans did. These findings are consistent with a recent study that found that foreign-born blacks are more likely than native-born blacks to be diagnosed with AIDS within one year of their HIV diagnoses, suggesting that they are likely not proactively seeking HIV testing and may be delaying testing until it is too late.[9]

It is unlikely that many of the participants, especially East Africans who held unfavourable views towards HIV testing, would have gotten tested for HIV had it not been offered by a healthcare provider. Thus, healthcare providers play a critical role in

Box 1 An overview of descriptive subthemes and theme clusters

Meta-theme 1: motivators to HIV testing
Cluster 1: positive aspects associated with HIV testing
HIV prevention should be a way of life (only African-American women)
- "People should see the HIV test as a routine test like getting a flu shot or getting your cholesterol checked." (AA participant 32)

Getting an HIV test can provide me with peace of mind (only African-American women)
- "Getting tested gives you one less thing to worry about. It gives you peace of mind." (AA participant 25)

Seeking an HIV test is about loving myself (mostly African-American women)
- "You need to care and love yourself that much to wanna get up and go to the clinic to get tested." (AA participant 28)

Meta-theme 2: barriers to HIV testing
Cluster 2: negative assumptions associated with HIV testing
Getting an HIV test implies that I have engaged in 'bad' behavior (both African-American and East African women)
- "People think you are going [to get tested] because you've been into something bad. 'Cause if you're not doing anything wrong, then why are you going in there?" (AA participant 31)
- "Our behavior should follow what our religion dictates (e.g., abstinence and monogamy), otherwise our behavior is immoral." (EA participant 15)

Getting an HIV test implies that I am HIV positive (both African-American and East African women)
- "I know personally how it feels for people to stare at you when you're going to get tested for HIV. They assume you are positive before they even know if you're sick, before *you* even know if you're sick or not." (AA participant 29)
- "In our community the moment you go out and get tested, it automatically means you have HIV." (EA participant 13)

Cluster 3: negative emotions associated with HIV testing
Fear of being diagnosed with HIV and what it may mean for me (both African-American and East African women)
- "Women are hesitant because they are afraid of what the results might be and if they are HIV positive, how people will treat or view them." (AA participant 28)
- "Learning that you are HIV positive diagnosis means that your plans for living permanently or reuniting with family members in the U.S. are destroyed." (EA participant 5)

Worry about gossip and others' negative judgments about me (both African-American and East African women)
- "Women are worried about who is going to see them. If they go by this building, people are going to think they might be going for HIV testing. Women then start thinking 'You know I'm just not gonna go' so that they don't get judged." (AA participant 24)
- "It all comes down to reputation. There is a lot of talk and word travels. In the end getting an HIV test just tarnishes you and embarrasses your family." (EA participant 8)

Worry that information regarding HIV diagnosis is not confidential (only East African women)
- "I would just be too scared to go get tested. Some of us immigrants don't have health insurance and so we have to go to certain clinics and I don't think it's possible without bearing the consequence of possibly having leaked information." (EA participant 5)

Uncomfortable with invasive questions prior to being tested (both African-American and East African women)
- "I really don't see the point but they ask you a lot of personal questions, which made me uncomfortable." (AA participant 30)
- "Too many private questions asked, number of partners, questions related to sex practices." (EA participant 1)

Annoyed with being asked whether wanted to be tested while in a medical emergency (only East African women)
- "It was random. I went to the hospital emergency department when I was sick and they asked me if they could test me for HIV. I am sick. How am I going to think about HIV testing? It was so annoying for me." (EA participant 9)

Cluster 4: potential negative reaction from partner or others due to HIV testing
Getting an HIV test can signal distrust, disrespect, or infidelity (mostly African-American women)
- "When I told him [male partner] I got an HIV test and I was negative, he was like, 'Why you got tested?'; I am like, 'What do you mean why? 'Cause I need to,' and he's like, 'Well I am the only one you deal with, right?'" (AA participant 28)
- "People assume you must not have enough faith in your partner if you're going to get checked. The notion is that because you're going to get checked you must have suspicions about the relationship" (EA participant 10)

Getting an HIV test can lead to argument with family members (mostly East African women)
- "The first thing they were thinking was, 'Why would you have to go get tested unless you are doing something that's no good?' They were very upset." (EA participant 12)

AA, African-American; EA, East African.

prompting women to get tested. These findings support the importance of strengthening the Centers for Disease Control and Prevention approach of expanded, non-risk-based opt-out screening.

There are, however, unique barriers surrounding HIV testing (eg, immigration-related fears and fears about losing employment or housing) that emerged among East Africans in the study that would need to be addressed to effectively promote HIV testing among this population. For example, information regarding the US HIV travel ban having been revoked in 2010, which means that individuals with HIV/AIDS can travel to the USA and can seek permanent residence status, would be useful information to present during pretest counselling and other education dissemination forums. Furthermore, information regarding federal and state laws that prohibit employment and housing discrimination against a person who is HIV-positive would be helpful.

Another unique barrier that emerged among East Africans only was the worry they expressed over the lack of confidentiality regarding their HIV results. It would, thus, be beneficial to

offer these women information in their native language regarding the Health Insurance Portability and Accountability Act, which ensures the privacy of individuals' HIV test results along with comprehensible information about the differences between confidential and anonymous testing.[16] Expanding opportunities for anonymous testing may also offer an invaluable way to circumvent worries regarding confidentiality.

There were also nuances in how each group articulated and experienced several HIV testing barriers. For example, although women in both groups mentioned worry about rumours spreading in the community if seen obtaining an HIV test, East Africans did not solely focus on the consequences to themselves as did African-Americans. East Africans described how getting an HIV test would give a bad name to their family as a whole and not simply to the individual who obtained the HIV test.

Our findings underscore that a focus on individual HIV testing behaviour alone without addressing the interpersonal, family and community contexts may limit the success of HIV testing interventions, particularly among the East African community where there is less buy-in regarding HIV screening compared with the African-American community overall.[17 18] Given the tight-knit community networks among the women in this study, it seems that community perceptions and attitudes exert a greater influence than individual-level factors, especially among East Africans whereby the potential stigmatisation within and towards the family related to HIV testing is of greater concern than possible individual-level advantages of HIV testing.

Although there is a plethora of studies examining the stigma attached to persons living with HIV and AIDS (PLWHA),[19–21] this study reveals that getting an HIV test itself is stigmatising for these women. The promotion of HIV testing, therefore, should coincide with culturally sensitive pretest and post-test counselling, which may contribute to a reduction of stigma and higher uptake of voluntary testing.[22] Community-based participatory interventions that aim at engaging community members to educate others and promote positive messages that reduce HIV-related stigma are also more likely to have greater impact at reducing stigma than individually targeted measures.[18 23 24]

Moreover, fear of receiving a positive diagnosis represented a salient barrier to testing overall. These findings are consistent with other studies that examined high-risk, untested persons.[23 25 26] A potentially effective strategy to promote HIV testing among these women is to present opportunities to learn from PLWHA who can serve as models.[23] Witnessing PLWHA in overall good health condition and hearing their testimonies about how to cope with HIV could be an effective way to promote HIV testing.

This study has limitations. As with other qualitative studies, our study comprised a purposeful sample. However, we attempted to achieve a more representative sample by adopting a sampling method that maximises variation. Despite the limited generalisability, the use of a rigorous, qualitative methodology allowed us to gather in-depth information to improve understanding of these women's HIV testing perceptions and attitudes, which is difficult to elicit through close-ended questions. Other strengths of the study include the use of a community-based, participatory research approach, the use of multiple coders to check reliability, and member-checking with participants, non-participants and CAB members to ensure data validity.

Despite the limitations, these findings provide much needed data on the nuances in HIV testing attitudes, perceptions and behaviours among these subgroups, which are vital to understand how best to tailor messages for each subgroup so that they resonate with these different audiences.[18 23 24]

In conclusion, the study findings suggest that addressing HIV testing promotion among black women in Washington, DC will require distinct approaches rather than a one-size-fits-all approach, taking into account the differences in behaviours and attitudes as well as some unique concerns among East African-born women as described above. Culturally responsive targeted HIV testing promotion and communication strategies that resonate with these populations are therefore recommended rather than universal test-and-treat strategies. Efforts to effectively promote and expand HIV testing will be critical for achieving the goals of the Centers for Disease Control and Prevention approach of expanded, non-risk-based opt-out screening.

Key messages

- Need to understand how African-American and African immigrant women perceive HIV testing and barriers to improve prevention efforts for these groups.
- African-Americans hold more favourable views overall towards HIV testing than East African immigrant women.
- Although similarities emerged across the two groups related to HIV testing barriers, differences were identified in how each group articulated and experienced these barriers.
- Addressing HIV testing promotion among black women in Washington, DC will require distinct and targeted strategies rather than one-size-fits-all approach given existing intergroup differences.

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Contributors MDJ was the principal investigator of this study, conceptualised the study, led the data analyses and wrote the manuscript. CC assisted with the data collection and analysis and final manuscript. CM contributed to the study protocol and final manuscript. PN was a co-leader on the Community Advisory Board and contributed to the data analyses and final manuscript. All authors reviewed and provided comments on the study protocol, results and final manuscript.

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