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***“If I don’t use a condom ... I would be stressed in my heart that I’ve done something wrong”*: Routine prevention messages preclude safer conception counseling for HIV-infected men and women in South Africa**

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Abstract

Intended conception likely contributes to a significant proportion of new HIV infections in South Africa. Safer conception strategies require healthcare provider-client communication about fertility intentions, periconception risks, and options to modify those risks.

We conducted in-depth interviews with 35 HIV-infected men and women accessing care in South Africa to explore barriers and promoters to patient-provider communication around fertility desires and intentions.

Few participants had discussed personal fertility goals with providers. Discussions about pregnancy focused on maternal and child health, not sexual HIV transmission; no participants had received tailored safer conception advice. Although participants welcomed safer conception counseling, barriers to client-initiated discussions included narrowly focused prevention messages and perceptions that periconception transmission risk is not modifiable.

Supporting providers to assess clients’ fertility intentions and offer appropriate advice, and public health campaigns that address sexual HIV transmission in the context of conception may improve awareness of and access to safer conception strategies.

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Disclosures

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Keywords

Safer conception; client-provider communication; HIV prevention; South Africa

Introduction

An estimated 25% of stable heterosexual couples in South Africa are HIV serodiscordant (1,2). Transmission within stable heterosexual couples is estimated to account for up to half of new HIV infections in South Africa (3). Many HIV-positive South African men and women want to have children (4–11). With high fertility rates and an absence of programs that address periconception transmission, the contribution of intended conception to HIV incidence is likely to be significant (11–16).

Condom-based HIV prevention requires that serodiscordant couples forgo having children or risk infecting the HIV-uninfected partner. However, evidence now supports implementation of several safer conception strategies, including antiretroviral therapy (ART) for the infected partner (17,18), pre-exposure antiretroviral prophylaxis (PrEP) for the uninfected partner (19–23) and limiting sex without condoms to peak fertility (24–27). Manual insemination (28) and medical male circumcision may reduce transmission risks for uninfected men with HIV-infected partners (29–32). Sperm processing and assisted reproduction is considered standard of care for male-infected couples in higher-income countries, yet costs and limited availability make this inaccessible to most persons living with HIV (PLWH) (33–36). The South African constitution protects reproductive rights of PLWH and clinical guidelines suggest a range of feasible risk-reduction strategies including ART for the infected partner, timing sex without condoms to peak fertility, and manual insemination for female-positive couples (37,38).

Healthcare providers play a key role in determining access to and quality of sexual and reproductive health services (39–41), and influence clients' knowledge, attitudes and practices (42–45). However, HIV-positive men and women in many HIV endemic settings rarely discuss fertility desires or intentions with healthcare providers, a critical first step to safer conception counseling (4,9,40,41).

The primary aim of this study was to use qualitative methods in an HIV-endemic setting in South Africa, to gain a more in-depth understanding of the factors influencing the occurrence and content of conversations between providers and clients regarding clients' fertility desires and intentions. Secondly, we aimed to explore clients' actual and hypothetical responses to such discussions in order to identify barriers and promoters to these conversations. We also explored client knowledge and attitudes towards and practices of safer conception behaviours. These insights will contribute to a growing body of knowledge that can be used to inform interventions aiming to encourage safer sexual practice among HIV-serodiscordant couples choosing to conceive, and ultimately to limit HIV transmission.

Methods

Setting and participant recruitment

We conducted individual in-depth interviews during June and July 2012 with HIV-infected men and women (not couples) accessing care from four public sector clinics in a township outside of Durban, South Africa, where HIV prevalence is estimated at 14.5% and antenatal clinic HIV prevalence is estimated at 38% (48). Eligibility criteria for women included age 18–40 years, self-report being HIV-infected and not currently pregnant, fluent in English or isiZulu, and able to give informed consent. Eligibility criteria for men included age 18 years and over, self-report being HIV-infected, fluent in English or isiZulu, and able to give informed consent. Prior personal or partner pregnancy were not inclusion criteria as we were interested in the experience of all clients regardless of prior pregnancy.

Participants attending clinics were recruited from waiting rooms. Thirty-seven female clients were approached. Five (13%) were not interested in completing the screening form, citing time constraints. Among 32 women screened for participation, 24 met inclusion criteria, and 20 completed interviews. The four women who did not complete interviews reported being unable to participate due to time. Thirty-eight male clients were approached and completed the screening form. Among 22 eligible men, 15 (62%) completed the interview. Those who did not participate in the interview cited time limits as their reason for not participating. We conducted interviews until saturation was reached, or until no new major themes were identified (49). Those who completed the study were reimbursed 70 South African Rand (~10 USD at the time of the study) for their time.

Ethics and regulatory approvals

Ethics approvals were obtained from the University of the Witwatersrand Human Research Ethics Committee (Johannesburg, South Africa) and Partners Healthcare (Boston, MA). Permissions were also obtained from the provincial Department of Health and the individual facilities.

Data collection and analysis

We conducted in-depth interviews with open-ended questioning and an inductive approach to data collection and analysis (50,51). Interview guides explored clients' experiences of discussing fertility with providers and their actual or hypothetical responses to these conversations. Guides were developed based on a conceptual framework for provider-patient communication from Feldman-Stewart in which patient-provider communication is influenced by structural factors external to each individual (52,53). In addition, provider needs (e.g. to manage time; provide adherence counseling; assess symptoms), skills (e.g. to assess fertility intention), knowledge (e.g. of safer conception strategies), values (e.g. views towards reproduction by HIV+ patients), beliefs (e.g. efficacy of counseling), and emotions (e.g. frustration with the clinic system) all affect communication. Similarly, the patient's needs (e.g. discussion of fertility plans or current symptoms), skills (e.g. communicating needs to the HCW), knowledge (safer conception options), values (his/her rights to have a child), beliefs (risk perceptions, or the appropriateness of discussing fertility goals with a HCW), and emotions around engaging in such discussions with a HCW affect

communication. Topics explored in the interview guides included (in this order) recent consultation with doctor, nurse, and counselor (topics covered, time spent in consultation), any conversations since HIV diagnosis with a healthcare worker about having children (the primary focus of the study), knowledge of safer conception strategies (through questions exploring what people living with HIV should do if they want to have a child), and HIV risk reduction strategies and practices (including questions specific to ART as prevention and PrEP). Additional items explored which provider clients would prefer to talk to about safer conception strategies.

Interviews were conducted by research assistants fluent in English and isiZulu and lasted approximately one hour. A complete transcript in English was produced for each interview, from either English or isiZulu language digital recordings, and reviewed for quality by another member of the study team, who made appropriate corrections.

Content analysis was used to assess whether clients' fertility desires and intentions had been assessed by a healthcare provider (the primary focus of the study), their knowledge and perceptions of safer conception, and what advice they had received using techniques described by Miles and Huberman (54). First, individual coding team members independently reviewed a subset of transcripts to identify major themes. Coding was then used to structure data into categories. Themes were re-examined, and major and minor themes within each content area were identified. To ensure reliability, three coders analyzed the data independently, compared results from each phase of analysis and discussed discrepancies, until consensus on the coding scheme was reached. To check coding reliability in the final phase, nine interviews were coded in duplicate and then reviewed to resolve discrepancies, before coding the remaining data. Inter-coder agreement was high as suggested by a calculated kappa of 0.65, suggestive of "substantial agreement" (55). NVivo10 software (QSR International) was used to organize the analysis.

Results

Demographic characteristics of the sample

Fifteen men and twenty women enrolled in the study. All were black South Africans. Enrolled women had median age of 30 years, the median number of years since HIV diagnosis was 1.5, and 65% were on ART. Women had a median of two prior live births and two women reported a desire to have children with a current partner. Men had a median age of 33 years, a median of one year since HIV diagnosis, and 60% were on ART. Men had a median of two children and over half reported a desire to have children with a current partner. Most men and women were educated to at least grade 10, were unemployed, and had disclosed serostatus to at least one sexual partner. Around half the sample reported being in a seroconcordant partnership; 27% of men and 55% of women reported a serodiscordant or unknown serostatus primary partner (Table 1).

Overview

The data first describe whether clients' fertility desires and intentions had been assessed by a healthcare provider, followed by an exploration of barriers and promoters to safer

conception counseling in the healthcare setting. The barriers and promoters emerged as we explored clients' actual and hypothetical responses to such discussions and their knowledge and attitudes towards and practices of safer conception. Some of the categories were identified prior to the research (*a priori*) and some emerged from the data (emergent).

We first describe (1) client interactions with healthcare providers regarding conception and pregnancy (*a priori*), followed by barriers to these interactions, including (2) condom-centered prevention messages implying that conception is not feasible for PLWH (emergent), (3) a focus on perinatal over periconception transmission risk (emergent), (4) absence of planned pregnancy (*a priori*), and (5) clients' fear of judgment from healthcare providers if they express fertility desires (*a priori*). We then discuss promoters to client interactions with healthcare providers regarding conception and pregnancy, namely that (6) PLWH welcome pre-conception counseling from healthcare providers (emergent).

1. Healthcare providers sometimes assess fertility intentions of PLWH but rarely offer specific safer conception advice—While many participants, including men and women, reported having discussed or received information about pregnancy and HIV with a healthcare provider, few reported that their personal fertility goals had been assessed. About half of the discussions were described as client-, rather than provider-initiated. Two participants said they were asked to state their fertility intentions on a form, prior to consultation with a doctor.

In general, reported discussions suggested that providers adopt a strong focus on reproductive rights for PLWH:

“The counselor says, it is not said a person who is sick can't have a child she has a right to have a child, even though she is HIV positive.” (6001F, 29-year-old woman)

Few participants reported being advised against having children:

“[T]hey were telling us that we should think for ourselves, that if we are in this situation, we shouldn't like keep on having children. [...] Because the blood level drops. [...] Yes, the immune system drops if you have sex more often.” (6018F, 36-year-old woman)

When given, reproductive advice was generally non-specific, usually involving pregnancy planning and referral to another provider for CD4 testing and further counseling:

“Actually I learnt that when I want to have a child [...] I would have to go back to my doctor, with my partner. [We should] sit down with the doctor and tell them we want to have children, and the reason why we want to have children. Then the doctor will explain everything to us and counsel us and then do how it is done. [The doctors will] check us, look at our treatment and see if I am ready, if my immune system is alright for me to have a child and my partner's as well, to see if she is fit enough to have a child, by checking her CD4 count and viral Load. Then she can be able to, if she needs to change treatment, she would change it, the decision will

be taken. The doctor will be the one to tell us if we are fit or not, that we can be able to have children.” (6004M, 42-year-old man)

These recommendations were typically made in reference to safer pregnancy rather than safer conception, “*because it weakens a woman to have a baby*” (6019F, 28-year-old woman). Similarly, more specific advice usually addressed perinatal transmission or avoiding fetal exposure to potential teratogens:

“[T]hey say there are pills, nevirapine, that are given to a person, maybe give them to a person who is pregnant at that time so that it [HIV] cannot be transmitted to the baby.” (6030M, 38-year-old man)

“[The counsellor told us], ‘for those I was filling forms for, those that I asked if they still want to have children, I am saying this for you to know that the doctor will read your form, for those who do not want children, there are pills that they will get and you cannot be able to have a child when you are on those pills because if you do, that child will be physically challenged’.” (6021F, 33-year-old woman)

Only a few participants mentioned periconception transmission risk as an additional consideration:

“[The counselor] is doing this [asking about fertility intentions] so that I do not infect the other, the person I am in a relationship with, with this disease, HIV. And also that, when she is pregnant, the person you are in a relationship with, the child be born negative and not infected by this disease.” (6016M, 33-year-old man)

Only one participant reported that a healthcare provider recommended a specific safer conception strategy, namely artificial insemination, which was not seen as feasible.

“There is another way I remember the counselor told us about. [...] To take your partner’s sperm and put it to you, but she said only people that have money can do it. Maybe it would help me if I have money one day so I could be able to do that thing.” (6001F, 29-year-old woman)

2. Emphasis on condoms translates into assumptions that PLWHA should not have children—

Overall, condom use was perceived as a ‘gold standard’ for HIV prevention. Almost all participants named condoms as the only HIV risk reduction strategy adopted within their partnerships, regardless of their partner’s HIV status. Condoms were cited as important for protecting a partner from acquiring HIV (if uninfected) or resistant virus (if already infected). In addition, sex without condoms was described as triggering immunologic decline for infected persons:

“[T]here isn’t other way to prevent HIV without using the condom.” (6019M, 28-year-old man)

“[I]f you are not using a condom you are re-infecting each other truly speaking [...] [and] your CD4 count drops.” (6005F, 27-year-old woman)

For this reason most participants could not envisage the possibility of safer conception, which requires sex without condoms:

“I don’t know any other way [to conceive whilst preventing HIV] because the most important thing is to have safe sex. If we have unprotected sex, we are infecting ourselves further.” (6006F, 23-year-old woman)

Condom use was often expressed as almost a moral imperative:

“[T]hat will be the most stressful thing [not using condoms in order to conceive] because if I don’t use a condom just once, that would be stressful for me. [...] I would be stressed in my heart that I’ve done something wrong.” (6014F, 29-year-old woman)

A few also alluded to ways in which condom-centered prevention messages and the pressure to do what providers expect prevents communication of fertility desires. In response to the question, ‘what would it be like to talk to a healthcare provider about your questions or concerns about having children’, one participant answered:

“Maybe they [providers] would shout at me that ‘why do you want to have a child while you know that you are HIV positive?’, you know. I just become scared for that. [...] Maybe they would shout at us that we don’t use condoms because they always advise us to use them.” (6012F, 27-year-old woman)

3. PLWH consider maternal and child health, not sexual transmission risk, when considering how to proceed with having children—

When asked what PLWH should do if they want to have children, a majority of participants said that individuals or couples should consult with a healthcare provider (most commonly a doctor or nurse) to gain information. A physical health assessment would then indicate whether “you are ready or not ready” to conceive (6012F, 27-year-old woman). Unless asked directly about partner transmission, participants described the advice that would be given with reference to the woman’s health and her capacity to have a healthy baby, rather than to limit sexual HIV transmission:

“They [PLWH who want to have children] must take care of themselves. [...] They must consult with the doctor first if they want to have a child so they would check your well-being that how well are you, is your CD4 count okay, don’t you have other sickness that can disturb you, would you be able to carry the child. [...] Also [...] to make sure that when you are pregnant you use the condom when you engage in sex.” (6002F, 30-year-old woman)

While many participants demonstrated knowledge of prevention of mother to child transmission (PMTCT), awareness of specific periconception risk reduction strategies was rare:

“We just wish we could have a baby, but we do not know what to do.” (6009F, 31-year-old woman)

Rather than citing specific strategies, it was commonly expressed that PLWH can have children safely if they “follow the procedures” (6027M, 39-year-old man) and “do things according to what you are told to do” (6025F, 30-year-old woman). No participants mentioned PrEP, early ART, sperm washing or limiting sex without condoms to peak fertility.

A few who mentioned artificial or home insemination lacked information and presented these as inaccessible options:

“[M]aybe they would have to take the man’s sperm and put in me before having physical contact with him. [...] Because they say the semen actually carries the virus. [...] But it is not based in the sperm.” (6013F, 29-year-old woman)

4. Clients do not plan to have children—Having no current desire for children was cited as a reason not to initiate a fertility-related discussion with any type of healthcare provider. Many indicated that they would *“talk about it when I am ready”* (6004M, 42-year-old man). Others stated that they simply hadn’t had time to consider having children, citing other HIV-related priorities:

“I have been having this feeling that, the day I would be willing to have a child maybe I will start by then [discussing fertility with a provider]. Because for now I am still trying to protect myself.” (6008M, 31-year-old man)

Some participants expressed fear of the potential risks to child health associated with ART, which prevented disclosure of fertility goals to healthcare providers:

“I could have had the same problem of telling the counselor that I still want a child in future, I would have said I do not want it. [I was scared that] when I want to have a child, I would have a physically-challenged baby or my child would die, through these pills given to me by the doctor.” (6021F, 33-year-old woman)

5. Fear of judgment over fertility desires—Most participants reported that doctors, nurses and counselors usually made them feel comfortable and ‘free’ to discuss any issue, including having children:

“It was fine [talking to the counselor] because it’s just you and her. Her asking you and she ask nicely. [...] And if you have come and have a problem, you can just face her and tell and ask her that ‘I have a problem here like and this, now how can I fix it?’. Then she will explain to you how to fix it.” (6001F, 29-year-old woman)

However, some reported that providers could be hurried or “scolding” (6002F, 30-year-old woman). Such communication barriers were reported in general but also with reference to seeking reproductive advice:

“It’s not that easy to just tell a doctor something that she has not asked you. You talk about other things because she asks you.” (6026M, 29-year-old man)

“[I]f I would have maybe an open nurse maybe we would discuss about it [having children]. You see, because if you start talking about this to someone she would just ask you that ‘have you come for this or you have come here for another thing?’ you see, and it would be like you are wasting her time.” (6020M, 26-year-old man)

Participants occasionally reported anxiety over perceived judgmental attitudes of healthcare providers towards PLWH who want to have children, which prevented them from disclosing their fertility desires:

“I can say I have that fear of talking about it [having children], perhaps they [counselors] will yell or they will talk in a way that I will not be comfortable about it. That is a reason that makes me not to be able talk to them. But I want to speak to them because I need the child” (6009F, 31-year-old woman)

6. PLWH welcome reproductive advice from healthcare providers—Responses to reproductive advice offered by providers were positive overall; most participants reported relief and surprise that they may be able to have children safely. Many responses reveal the emotional and psychological significance of having children:

“I actually think that means you’re still a human being. [...] I mean that you can still have children. A protected child not infected with HIV.” (6032F, 39-year-old woman)

“It [getting information that people living with HIV can have children] has relieved me.... Because it makes me to feel like other people” (6002M, 33-year-old man)

Many expressed demand for knowledge of safer conception practices:

“I would ask, since they have told me that I have to practice safe sex but I still want to have more children, how am I going to have children while I always use condoms when I have sex and there will be no children that I can get?” (6011M, 23-year-old man)

Many participants placed faith in healthcare providers as an appropriate source of information about having children:

“I do not think it would be a problem because my life is in their hands as well because they are the ones who help me.” (6030M, 38-year-old man)

Participants expressed a range of opinions on the most suitable type of provider with whom to discuss having children, often differentiating between those with whom they would be most comfortable (usually counselors and sometimes nurses), and those who might offer the best advice or “full information” (6009F, 31-year-old woman) (usually doctors and sometimes nurses). Other factors influencing provider preference included accessibility, ability to identify and empathize with clients, and to explain information clearly:

“Actually the first person I would say is the counselor because you can get to the counselor easily. [...] The counselor is the one you can talk to easily about your problems ... if you are an HIV positive person. Yes, then if she sees that what you tell her is above her knowledge, then she will refer you to the sister. [...] And the sister, if that problem is above her knowledge, she will also refer you to a doctor. [...] But the person you can talk to, I think it’s the counselor.” (6014F, 39-year-old woman)

“The doctor, I know that he is the person who is trained about these things. Again at the end, he is the person who is going to give you either the medication or the exact plan that you are supposed to follow.” (6007M, 37-year-old man)

Discussion

Client-provider communication about fertility intention, the risks involved in having children, and options available to HIV-affected couples desiring pregnancy, are necessary steps to reduce sexual HIV transmission through safer conception interventions.

Data from this study suggest that HIV-infected men and women are rarely given the opportunity to discuss fertility desires and intentions with healthcare providers. The data suggest that in this setting, the occurrence of any client- or provider-initiated communication around safer conception between HIV-serodiscordant partners is more strongly influenced by communication barriers than promoters. The finding that clients welcome reproductive advice from providers is nevertheless important, since it suggests a willingness for clients to gain the skills to change their behaviour. These findings support those of earlier studies (4,9,40,41), despite interviews being conducted over a year since publication of national policy and clinical guidelines on safer conception and HIV (37). The Feldman-Stewart conceptual framework used to design the interview guides assumed some baseline level of communication between patient and provider. Given the relative lack of communication around fertility goals, we did not use the conceptual framework to frame this discussion.

When given, provider advice was in general terms only, with reference to maternal and child health but not sexual transmission risk; no participants reported counseling on specific, feasible safer conception strategies. Furthermore, low knowledge of specific safer conception strategies (as described in Theme 3) suggests that clients do not have access to this information elsewhere. Accordingly, most demonstrated awareness and understanding of the risks and potential risk reduction strategies relating to pregnancy and child health, but not periconception sexual transmission.

These data shed light on how narrowly-focused prevention messages affect the perceived purpose and value of pre-conception counseling for PLWH, in three areas. First, strong emphasis on condoms may drive misunderstandings of the potential for periconception risk reduction: if HIV prevention and sex without condoms are perceived as mutually exclusive, clients are more likely to regard queries about having children as futile. Although this condom consciousness reflects successful communication of core HIV prevention messages in South Africa, well-documented fertility desires of PLWH and availability of novel prevention strategies now requires that health services broaden the interpretation of HIV prevention. Second, whilst providers' emphasis on child health but not sexual transmission inevitably alters clients' own prevention priorities (42–45), our data also suggest that clients were inhibited from seeking reproductive counseling because of anxiety over healthcare providers' potential reservations about childbearing for PLWH (4,40,56–59, 70). Similarly, a Ugandan study identified greater internalized stigma as the strongest predictor of discomfort in discussing fertility intentions with healthcare providers (60). Third, the perceived importance of 'following the rules', indicates that clients are conscious of a social contract that compels them to comply with established codes of conduct within HIV service provision, including refraining from sex without condoms or reporting plans to engage in sex without condoms (61). Many PLWH may assume that they *should not* ask about having children. The fact that the vast majority of our sample reported that in principle they would

be comfortable discussing their fertility desires and intentions with a healthcare provider suggests that primary communication barriers around safer conception relate to factors that disempower clients from asking the right questions.

Increasing safer conception knowledge for PLWH requires that providers initiate fertility-related discussions and offer well-informed and tailored safer conception advice, interventions, or referral. In our own research and elsewhere, providers cite lack of training and the challenge of balancing opposing responsibilities to limit individual risk and support clients to realize their fertility goals, as major barriers to achieving these objectives (40,62–64, 70). Furthermore, while some providers assessed fertility goals primarily to avoid fetal exposure to potential teratogens, efavirenz is now prescribed regardless of pregnancy plans (65). In the absence of this trigger, even fewer providers are likely to initiate fertility-related discussions, unless they are empowered with information enabling them to offer safer conception advice.

This study suggests that clients are comfortable with a hierarchical system for seeking safer conception advice, whereby counselors represent the first point of call (by virtue of their availability and approachability), followed by appropriate referral to providers with additional training. Thus, although all providers should be trained to counsel clients on basic safer conception principles (e.g. delay conception attempts until the infected partner is on ART), subsequent referral system to a designated, available provider who can offer in-depth advice may be acceptable to clients (66). Public health campaigns to improve awareness of safer conception strategies for the general population are also needed. Suggesting that safer conception strategies are necessary elements of PMTCT may promote uptake by capitalizing on desires of PLWH to have healthy children.

Given the high incidence of unplanned pregnancy amongst PLWH (56,67), and our finding that no current pregnancy plans is a primary reason *not* to seek reproductive advice, safer conception education and counseling should target PLWH *with and without* active plans for childbearing, since both groups lack information to make fully-informed reproductive choices. Men in particular, who have strong fertility desires and a powerful influence over reproductive decision-making in South Africa (4,5), but who experience inequitable access to sexual and reproductive health services (68,69), are a priority population for safer conception interventions.

Limitations to this study include recruitment of a small sample of participants from clinics in one South African locality, which has implications for generalizability. Among eligible men and women, 22% and 16%, respectively, did not complete in-depth interviews, citing time restrictions for not being able to participate. Thus, our sample is enriched for clients with particular interest in this topic and/or the reimbursement. Furthermore, the sensitive nature of questions relating to pregnancy desire and sexual practices introduces potential for social desirability bias. The fact that 80% of female participants reported no current desire to have children may also influence our findings. However, with a sizable proportion of participants with at risk partners (serodiscordant or unknown serostatus) and of reproductive age, our sample represents a priority population for safer conception interventions. Finally, this study focused on whether conversations about fertility goals happen between providers and

clients. Since these conversations are rare, we did not focus on the quality of safer conception counseling. A large body of literature explores what components are necessary for effective reproductive health counseling (e.g. client-centered, equitable, accessible, timely, efficient and safe, summarized in recent CDC guidelines (46,47)) but we have not explored that here.

In conclusion, we have identified that provider-initiated conversations about fertility plans for PLWH are rare. While clients are interested in these conversations, there are a number of barriers to client-initiated communication with healthcare providers about having children, signaling a need for providers to pre-emptively offer pre-conception counseling to PLWH. Moreover, given the influence of narrowly-focused condom-based prevention messages over access to safer conception advice, providers should be supported to offer tailored reproductive counseling and treatment that accounts for heterogeneity in personal circumstance. Client-provider communication around fertility for PLWH may be further improved through general population awareness-raising campaigns that reframe HIV prevention in the context of desired pregnancy in terms of mothers, children, *and* partners.

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Abbreviations

ART	Antiretroviral therapy
PrEP	pre-exposure prophylaxis
MMC	medical male circumcision
PLWH	people living with HIV
PMTCT	preventing mother-to-child transmission

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Table 1

Demographic characteristics of recruited participants

	Men (n=15)	Women (n=20)
Age		
<i>Median (IQR)</i>	33 (29–39)	30 (27–33)
Education		
<i>Grade 1–9</i>	5	8
<i>Grade 10–12</i>	10	12
Employment		
<i>Employed</i>	8	8
<i>Unemployed</i>	7	11
<i>Student</i>	0	1
Years since HIV diagnosis		
<i>Median (IQR)</i>	1 (0.4–2.2)	1.5 (0.9–6.0)
Currently on ART		
<i>Yes</i>	9 (60%)	13 (65%)
<i>No</i>	5 (33%)	7 (35%)
Years since started ART (of those currently on ART)		
<i>Median (IQR)</i>	0.8 (0.5–1.5)	0.6 (0.3–1.3)
Disclosed to at least one current sexual partner		
<i>Yes</i>	11 (73%)	16 (80%)
<i>No</i>	2 (13%)	3 (15%)
<i>N/A (no current relationship)</i>	2 (13%)	1 (5%)
HIV status of primary partner		
<i>HIV positive (seroconcordant)</i>	9 (60%)	8 (40%)
<i>HIV negative (serodiscordant)</i>	2 (13%)	2 (10%)
<i>Don't know</i>	2 (13%)	9 (45%)
<i>N/A (no current relationship)</i>	2 (13%)	1 (5%)
Desire to have children with current partner		
<i>Yes</i>	8 (53%)	2 (10%)
<i>No</i>	4 (27%)	16 (80%)
<i>Don't know</i>	1 (7%)	1 (5%)
<i>N/A (no current relationship)</i>	2 (13%)	1 (5%)