Research Brief

Safer Conception and Contraceptive Counseling By Providers of Men Living With HIV in San Francisco

Megan Orlando, MD*
Shannon Weber, MSW
Rebecca Martinez, MD
Deborah Cohan, MD, MPH
Dominika Seidman, MD, MAS

Key words: *contraception, family planning, HIV sero-different couple, men living with HIV, reproductive health, safer conception*

Men are often viewed as peripheral to interventions related to contraception, preconception, and pregnancy care (Ramirez-Ferrero & Lusti-Narasimhan, 2012). This approach can lead to unintended consequences, including (a) women carrying the burden of health promotion for families and communities, (b) overlooking men's reproductive health needs and desires, and (c) less effective reproductive and sexual health interventions to reduce HIV transmission and unintended pregnancies.

Male involvement in reproductive health, defined as conversations between male/female couples regarding pregnancy desires or specific reproductive health interventions, is associated with women's increased contraceptive use (Wanyenze et al., 2011), male partner HIV testing, and condom use (Desgrées-Du-Loû et al., 2007). These behaviors demonstrate the dual benefits of decreasing HIV transmission and promoting couples-based decision-making related to reproductive health. In the United States, African American sero-different partners who completed a couple-focused behavioral risk-reduction intervention were more likely to have sustained condom use over time (El-Bassel et al., 2010). Other benefits of male partner involvement in reproductive health include support for behaviors by women living with HIV that decrease perinatal transmission, such as increased use of and adherence to antiretroviral therapy (Ramirez-Ferrero & Lusti-Narasimhan, 2012).

Despite known positive impacts of couple involvement in HIV prevention and reproductive health, providers do not consistently discuss family planning with couples affected by HIV (Gokhale, Bradley, & Weiser, 2017). Research has shown that many men and women living with HIV desire parenthood (Chen, Philips, Kanouse, Collins, & Miu, 2001; Steiner, Finocchario-Kessler, & Dariotis, 2013), while less than half of HIV providers perform comprehensive reproductive health counseling for their female patients (Gokhale et al., 2017). There is a lack of data regarding HIV provider counseling

*Megan Orlando, MD, is a Resident Physician, Obstetrics, Gynecology and Reproductive Sciences, University of California San Francisco, San Francisco, California, USA. (*Correspondence to: megan.orlando@ucsf.edu). Shannon Weber, MSW, is the Director, HIVE, University of California San Francisco, San Francisco, California, USA. Rebecca Martinez, MD, is a Resident Physician, Columbia University College of Physicians and Surgeons, New York, New York, USA. Deborah Cohan, MD, MPH, is the Medical Director, HIVE, University of California San Francisco, San Francisco, California, USA and a Professor, University of California San Francisco, San Francisco, California, USA. Dominika Seidman, MD, MAS, is a Family Planning Fellow, University of California San Francisco, San Francisco, California, USA.*

JOURNAL OF THE ASSOCIATION OF NURSES IN AIDS CARE, Vol. ■, No. ■, ■/■ 2017, 1-7
http://dx.doi.org/10.1016/j.jana.2017.06.008

patterns for male patients. Rates of unintended pregnancy are high in HIV-affected couples (Loutfy et al., 2012), suggesting an unmet need for contraception or safer conception counseling. With highly efficacious biomedical interventions, including pre-exposure prophylaxis (PrEP), and the use of antiretroviral therapy as prevention, providers have the opportunity to offer a variety of safer conception options to patients. Health care providers can play critical roles in supporting male engagement in decision-making, thereby helping to meet the reproductive needs of men, women, and their families.

Few studies in the United States examine provider roles in reproductive health counseling of men living with HIV. Recent research into counseling practices related to pregnancy intentions and contraception for women living with HIV (Rahangdale, Richardson, Carda-Auten, Adams, & Grodensky, 2014) and provider attitudes toward PrEP among sero-different couples (Finocchario-Kessler et al., 2016; Scherer et al., 2014) suggest that HIV providers are often willing to discuss and support reproductive options for people living with HIV. We built on existing literature by focusing on knowledge, attitudes, and practices surrounding contraception and safer conception among health care providers of men living with HIV and their female partners.

Materials and Methods

Between July 2012 and February 2014, the study team contacted a convenience sample of HIV providers in San Francisco, including clinicians working at the largest HIV clinics in the area. To be eligible, clinicians were required to have cared for men living with HIV in the previous year. Providers completed an anonymous online survey through Research Electronic Data Capture (REDCap; Vanderbilt University, Nashville, TN) that queried their attitudes, perceived knowledge, and practices related to the provision of reproductive health care for men living with HIV.

Respondents provided demographic information including age, gender, ethnicity, professional degree, specialty, and practice setting. In order to assess practice patterns, providers answered multiple-choice questions about how often and in what situations they inquired about patient fertility desires and contraceptive behaviors.

Providers responded regarding their roles in couples counseling, including whether they had ever facilitated HIV testing for a female partner of a male living with HIV and/or counseled a sero-different couple together. Survey respondents also selected from a list of preconception interventions they had discussed with their male patients (treatment as prevention, PrEP, sperm washing with assisted reproduction, and peri-ovulatory timed intercourse).

The survey also queried providers about personal confidence in and knowledge of reproductive health counseling. On a 100-point Likert-style scale (0 = *minimum comfort or confidence*; 100 = *maximum comfort or confidence*), providers assessed their comfort discussing and knowledge of preconception counseling and contraception, respectively, for patients living with HIV.

Lastly, providers identified their levels of agreement on a Likert-style scale from 0 (*strongly disagree*) to 100 (*strongly agree*) regarding whether primary HIV providers should ask patients about fertility desires and contraception.

Descriptive statistics were calculated. Chi-squared tests were used to compare responses about contraception and safer conception. Survey results are reported based on the number of providers who answered each item, respectively. Institutional review board approval was obtained from iRIS at the University of California San Francisco prior to survey distribution.

Results

Of 88 health care providers approached, 87 consented to participate in the study; 75 met eligibility criteria, and 72 participated in the survey. Half of participants (36/72, 50%) self-identified as female and half as male, with a median age of 47 years (interquartile range [IQR] 38-54). Seventy-two percent (51/71) identified as White, 16% (11/71) as Asian, 7% (5/71) as Hispanic or Latino, 4.2% (3/71) as Black or African American, and 1.4% (1/71) as American Indian or Alaska Native. The majority of respondents (87.5%, 63/72) were physicians, and 12.5% (9/72) were nurse practitioners. Provider practice settings included

public (59.1%, 42/71), private (35.2%, 25/71), and Veterans Administration clinics (12.7%, 9/71). Participant specialties included Infectious Disease (44%, 32/72), Family Practice (17%, 12/72), Internal Medicine (50%, 36/72), and HIV medicine (39%, 28/72). Clinicians cared for a median of 55 men living with HIV annually (IQR 30-100).

When queried about fertility discussions with male patients living with HIV, 65% (45/69) reported asking *some* male patients at least once about desiring children, while 5.7% (4/69) reported asking *all* male patients at least once. Providers selected the following clinical scenarios during which they asked patients about fertility desires (providers could select more than one response; Figure 1A): *If they bring it up* (80%, 35/44), *If they report being sexually active with women* (71%, 31/44), *If I happen to remember to ask* (41%, 18/44), *If they have other children or have gotten someone pregnant in the past* (41%, 18/44), and *If they are accompanied by a female sex partner* (32%, 14/44). Twenty-eight percent of providers (19/69) reported *never* asking male patients living with HIV about fertility desires (Figure 1B). These providers responded that they never discussed reproductive goals because: *There is insufficient time* (37%, 7/19), *None of my HIV+ male patients have sex with women* (26%, 5/19), *There are more pressing health issues* (21%, 4/19), *I do not think it is relevant to their health* (11%, 2/19), and *I don't feel equipped to discuss the topic* (11%, 2/19). Sixty-one percent of providers (43/70) reported ever having a male patient spontaneously ask about fertility.

We also explored provider practices and attitudes about discussing contraception with male patients living with HIV. Thirty-nine percent of providers (24/62) asked some patients at least once about preventing unwanted pregnancies, while 55% (34/62) asked all male patients at least once. Only 6.5% (4/62) of providers reported never asking patients about preventing unintended pregnancies (Figure 1B). Clinicians most commonly selected the following reasons for discussing contraception with male patients (providers could choose more than one option; Figure 1A): *If they report being sexually active with women* (95%, 23/24), *If they bring it up* (80%, 19/24), and *If they have other children or have gotten someone pregnant in the past* (67%, 16/24). Twenty-six percent of providers (16/61) reported that a male patient living with HIV had ever initiated a discussion about contraception.

When comparing the proportion of providers who asked about contraception or fertility intentions in the previously listed scenarios, more providers were likely to ask about contraception than fertility intentions when confronted with a male patient who reported being sexually active with women ($p = .01$) or who reported having children or having gotten a partner pregnant in the past ($p = .04$; Figure 1A). In addition, a greater proportion of providers asked all male patients at least once about contraception ($p < .001$), and a greater proportion of providers never asked male patients about fertility intentions ($p = .002$; Figure 1B).

Providers also reported information about their roles in testing and counseling of female partners of their male patients living with HIV. Sixty-three percent (39/62) reported ever having facilitated HIV testing for a female partner. More than half of providers (63%, 39/62) reported ever counseling a sero-different male/female couple together during a clinic visit. During those visits, three-quarters (74%, 29/38) discussed contraception, and half (50%, 19/38) discussed safer conception.

Half of providers (50%, 33/66) had received any training on contraception. Provider median level of confidence in contraceptive knowledge was 62 (IQR 40-77, $n = 63$); provider median level of confidence in knowledge about safer conception was 60 (IQR 36-69, $n = 62$). When counseling patients about safer conception, almost all respondents discussed treatment as prevention (98%, 41/42), 60% (25/42) discussed PrEP, 62% (26/42) discussed sperm washing, and 29% (12/42) discussed timed intercourse.

Finally, when asked to state their level of agreement regarding whether HIV providers should ask male patients about their desire for children in the future, median levels of agreement were 89 (IQR 74-100, $n = 62$) for male patients who have sex with women and 83 (IQR 65-96) for male patients who have sex with men. Median level of agreement with the idea that HIV providers should ask male patients who have sex with women about contraception was 93 (IQR 74-100).

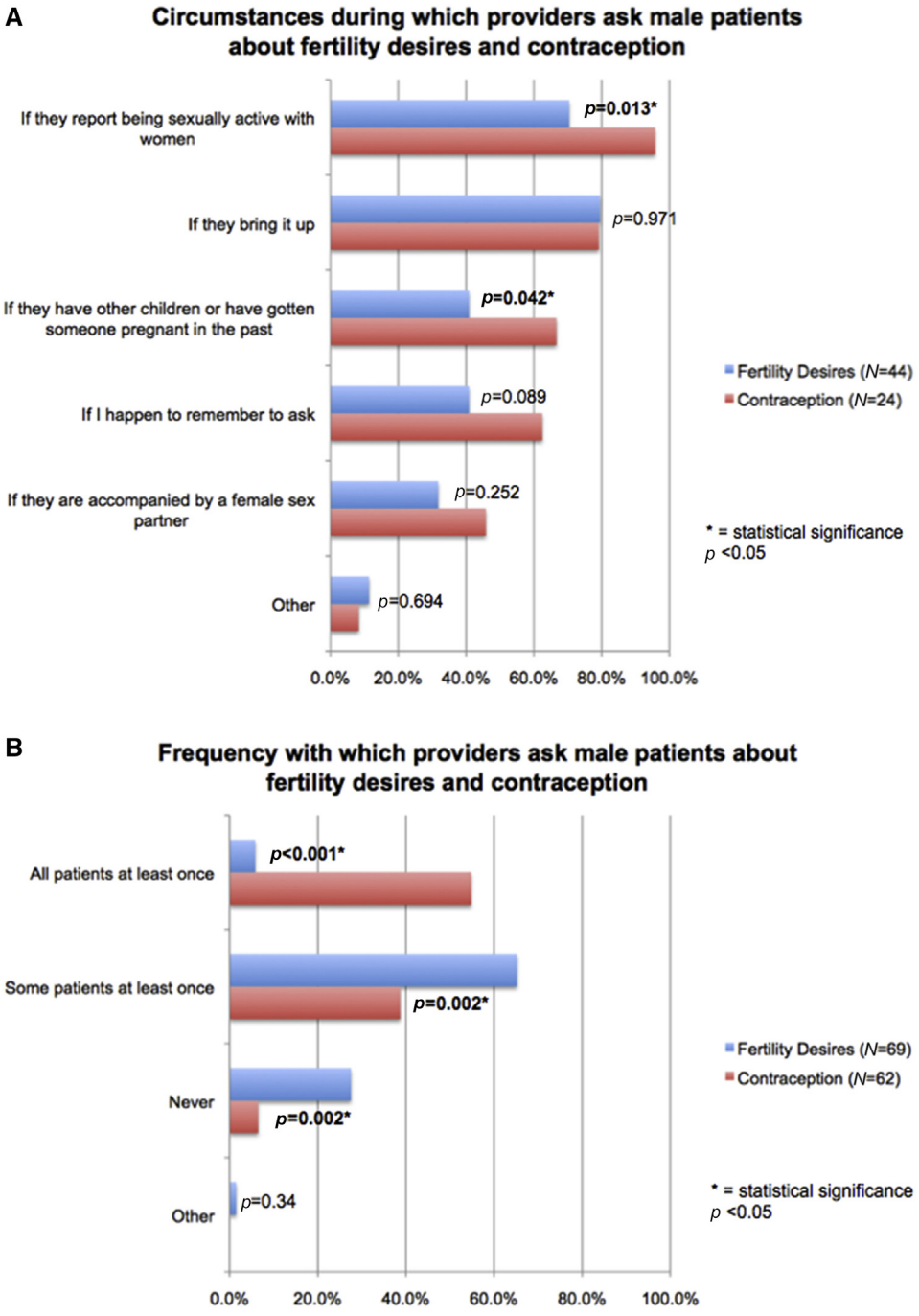

Figure 1. Clinical scenarios (A) and frequency (B) with which providers report asking male patients living with HIV about their fertility desires and contraception.

Discussion

The majority of providers caring for men living with HIV in this San Francisco-based sample believed that fertility and contraception counseling were within their scopes of practice. More than half of respondents reported including reproductive health counseling in their clinical work, although there was considerable variation regarding topics discussed during counseling sessions and reasons for discussing reproductive goals and contraception.

Notably, providers were more likely to ask male patients about contraception than fertility intentions in scenarios where male patients reported having a female partner or reported having a child—both scenarios in which the conversation should be directed by client preferences and goals rather than provider discretion. Providers were also more likely to ask all male patients at least once about contraception than about fertility intentions. These findings may reflect persistent stigma related to pregnancy in HIV-affected couples, providers' greater awareness of unintended pregnancies rather than fertility desires, or providers' variable comfort levels with each topic, although our findings suggest that comfort levels were similar overall.

While providers for men living with HIV acknowledged the importance of fertility discussions, the literature has suggested that provider assessments may be limited. For example, patients may not always feel comfortable initiating or participating in these conversations. In a qualitative study in San Francisco of men living with HIV who had sex with women, one in four had ever brought up the idea of having children with a provider, and one in five reported that a provider had ever asked about their desires to have children (Weber, Zakaras, Hilliard, Cohan, & Dworkin, 2017). In the same study, participants perceived provider assumptions about their sexual practices and reproductive goals as major barriers to fertility discussions. For example, male participants who had sex with men felt providers sometimes assumed they did not have sex with women or did not desire children (Weber et al., 2017). Of the providers in our study who reported never discussing fertility desires with male patients living with HIV, 26% cited caring exclusively for men who have sex with men as a reason for this practice. Together, these data from patients and providers highlight the need to educate providers about the pitfalls of inaccurate assumptions about sexual practices and fertility desires. Regardless of the patient's identified sexual orientation or life situation, routinely assessing fertility desires allows providers the opportunity to counsel patients about how to achieve those goals through relevant contraception and/or safer conception strategies.

Our study also highlights the importance of comprehensive safer conception counseling. Twice as many providers in our study reported that they discussed PrEP or sperm washing with their patients, compared to timed intercourse. Safer conception strategies such as PrEP and sperm washing require high levels of interaction with the health care system, including multiple clinic visits, lab draws, prescriptions, and potential interventions that might not be accessible or desirable to all patients. Conversely, patients can practice timed intercourse regardless of their insurance status or health care system access. Timed intercourse is most effective as an HIV prevention method when coupled with other interventions, making accurate and comprehensive counseling all the more important. Given the multitude of barriers to HIV-affected couples accessing information on safer conception, providers play a critical role in querying the fertility desires of all patients and presenting a complete list of options for achieving fertility goals.

Finally, we found that only half of our respondents had ever received training in contraception care, and providers had an intermediate level of confidence in their contraceptive awareness. To our knowledge, these are the first data examining contraceptive knowledge in providers who care for men living with HIV. The lack of provider training could contribute to an apparent unmet need for contraception by people living with HIV, as evidenced by high rates of unplanned pregnancy (Loutfy et al., 2012). However, data on unplanned pregnancy must be interpreted with caution: unplanned pregnancies cannot be equated with unwanted pregnancies, particularly in light of persistent stigma surrounding HIV and reproduction, as couples may be more likely to under-report planned or desired pregnancies. To assess and improve the reproductive health care of individuals and couples affected by HIV, particularly provider roles in that care, end points must include

ongoing assessments of patient intentions and satisfaction with counseling and care.

To our knowledge, this study is one of the first to describe attitudes, knowledge, and practices about reproductive health care for providers of men living with HIV in the United States. Limitations include the possibility of social desirability bias, reflecting what providers view as ideal practices rather than actual practice patterns. Additionally, our study constituted a small sample of providers in a single city that has been a leader in health care for people living with and affected by HIV. Consequently, although results of this study are not generalizable to providers around the country, the findings of limited knowledge and practice are all the more striking.

Health care providers can play an important role in supporting patient reproductive goals and decreasing stigma related to fertility in couples affected by HIV. Key steps in this process include a nonjudgmental assessment of reproductive goals, the provision of information and options that are accurate and comprehensive, and patient-centered decision-making to guide treatment. This approach can have multiple positive outcomes, including helping patients achieve their fertility goals, minimizing HIV transmission, and supporting the reproductive health needs of uninfected partners who may not otherwise access health care. Training and resources are needed to support the provision of comprehensive, integrated, and patient-centered sexual and reproductive health care for sero-different couples.

Conclusion

We present one of the first studies of HIV provider reproductive health counseling of men living with HIV in the United States. Providers overwhelmingly believed that reproductive health counseling was within their scope of practice, although there was considerable variation regarding topics discussed and reasons for inquiring about reproductive health. Additionally, providers more often reported discussing contraception than fertility intentions with male patients living with HIV who were sexually active with women. These findings suggest the need for focused provider training regarding the provision of comprehensive reproductive health counseling and shared decision-making for HIV-affected couples.

Disclosures

The authors report no real or perceived vested interests that relate to this article that could be construed as a conflict of interest.

References

Chen J. L., Philips K. A., Kanouse D. E., Collins R. L., Miu A. (2001). Fertility desires and intentions of HIV-positive men and women. *Family Planning Perspectives*, *33*(4), 144-152. http://dx.doi.org/10.1363/3314401 165.

Desgrées-Du-Loû A., Brou H., Djohan G., Becquet R., Ekouevi D. K., Zanou B., Leroy V. (2007). Beneficial effects of offering prenatal HIV counselling and testing on developing a HIV Preventive attitude among couples. Abidjan, 2002–2005. *AIDS and Behavior*, *13*(2), 348-355. http://dx.doi.org/10.1007/s10461-007-9316-6

El-Bassel N., Jemmott J. B., Landis J. R., Pequegnat W., Wingwood G. M., Wyatt G. E., Bellamy S. L. (2010). National Institute of Mental Health Multisite Eban HIV/STD prevention intervention for African American HIV serodiscordant couples: A cluster randomized trial. *Archives of Internal Medicine*, *170*(17), 1594-1601. http://dx.doi.org/10.1001/archinternmed.2010.261

Finocchario-Kessler S., Champassak S., Hoyt M. J., Short W., Chakraborty R., Weber S., Anderson J. (2016). Pre-exposure prophylaxis (PrEP) for safer conception among serodifferent couples: Findings from healthcare providers serving patients with HIV in seven US cities. *AIDS Patient Care and STDs*, *30*, 1-9. http://dx.doi.org/10.1089/apc.2015.0268

Gokhale R. H., Bradley H., Weiser J. (2017). Reproductive health counseling delivered to women living with HIV in the United States. *AIDS Care*, *29*(7), 928-935. http://dx.doi.org/10.1080/09540121.2017.1280125

Loutfy M., Raboud J., Wong J., Yudin M., Diong C., Blitz S., Walmsley S. (2012). High prevalence of unintended pregnancies in HIV-positive women of reproductive age in Ontario, Canada: A retrospective study. *HIV Medicine*, *13*(2), 107-117. http://dx.doi.org/10.1111/j.1468-1293.2011.00946.x

Rahangdale L., Richardson A., Carda-Auten J., Adams R., Grodensky C. (2014). Provider attitudes toward discussing fertility intentions with HIV-infected women and serodiscordant couples in the USA. *Journal of AIDS & Clinical Research*, *5*(6), 1000307. http://dx.doi.org/10.4172/2155-6113.1000307

Ramirez-Ferrero E., Lusti-Narasimhan M. (2012). The role of men as partners and fathers in the prevention of mother-to-child transmission of HIV and in the promotion of sexual and reproductive health. *Reproductive Health Matters*,

20(39 Suppl.), 103-109. http://dx.doi.org/10.1016/S0968-8080(12)39642-0

Scherer M. L., Douglas N. C., Churnet B. H., Grossman L. C., Kline M., Yin M. T., Olender S. A. (2014). Survey of HIV care providers on management of HIV serodiscordant couples – assessment of attitudes, knowledge, and practices. *AIDS Care*, *26*(11), 1435-1439. http://dx.doi.org/10.1080/09540121.2014.920950

Steiner R. J., Finocchario-Kessler S., Dariotis J. K. (2013). Engaging HIV care providers in conversations with their reproductive-age patients about fertility desires and intentions: A historical review of the HIV epidemic in the United States. *American Journal of Public Health*, *103*(8), 1357-1366. http://dx.doi.org/10.2105/AJPH.2013.301265

Wanyenze R. K., Tumwesigye N. M., Kindyomunda R., Beyeza-Kashesya J., Atuyambe L., Kansiime A., Mirembe F. (2011). Uptake of family planning methods and unplanned pregnancies among HIV-infected individuals: A cross-sectional survey among clients at HIV clinics in Uganda. *Journal of the International AIDS Society*, *14*, 35. http://dx.doi.org/10.1186/1758-2652-14-35

Weber S., Zakaras J. M., Hilliard S., Cohan D., Dworkin S. L. (2017). "Is it all right for me to have a baby or not?": Men living with HIV discuss fertility desires and interactions with providers. *Journal of the Association of Nurses in AIDS Care*, *28*(1), 118-129. http://dx.doi.org/10.1016/j.jana.2016.10.004