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ORIGINAL PAPER

"Unspoken Agreements": Perceived Acceptability of Couples HIV Testing and Counseling (CHTC) Among Cisgender Men with Transgender Women Partners

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Abstract
Transgender women (TW) are one of the highest risk groups for HIV infection globally; however, the HIV testing needs of their cisgender (non-transgender) male partners remain largely unknown. This study sought to examine the perceived acceptability of couples HIV testing and counseling (CHTC) for TW-male dyads from the perspective of cisgender men who partner with TW. Between September 2016 and June 2017, 19 cisgender men (mean age = 40.1, SD = 12.8) who currently have, or have ever had a TW partner completed an in-depth semi-structured phone interview and brief survey to gather data on acceptability of CHTC, as well as perceived barriers and facilitators to CHTC for TW-male couples. Qualitative data were thematically analyzed and integrated with survey data. Acceptability of CHTC was high in the sample (89.5%) but was complex and largely contingent on: (1) monogamy and commitment as critical precursors to CHTC acceptability; (2) risk perception and level of comfort with CHTC; (3) understandings of sexual agreements; and (4) personal relationships versus other TW-male relationships. Findings have implications for culturally-adapting and implementing CHTC in real-world settings for TW-male couples, as well as for meeting the individual HIV testing needs of cisgender men who partner with TW.

Keywords Transgender women · Men who partner with transgender women · HIV infection · Couples HIV counseling and testing (CHTC) · Intervention

Introduction

Transgender women (TW)—individuals assigned a male sex at birth who identify as women, trans women, female, male-to-female, or another diverse trans feminine identity—are one of the highest risk groups for HIV infection globally. In the United States (U.S.), TW have an estimated 21.7% laboratory-confirmed HIV prevalence (meta-analysis), a 34-fold increased odds relative to the general U.S. population [1]. Research suggests that TW more frequently engage in condomless sex with primary cisgender (non-transgender) male partners than with casual or transactional male sex partners [2, 3]. Thus, HIV acquisition and transmission for TW has been primarily attributed to condomless intercourse with a primary cisgender male sexual partner [2–5].

As a result of the recognized dyadic nature of HIV transmission risk, studies have examined the relationship context of HIV risk among TW, particularly with TW of color [2–5]. Although TW are acknowledged as a priority population for HIV prevention, research about their cisgender male sexual partners remains limited [6, 7]. Some existing research with male partners of TW has found high HIV prevalence, inconsistent condom use with TW partners, and importantly low engagement with HIV prevention services [3]. Additional evidence from a sample of 191 TW-male couples found that 45% of the dyads had a discrepant sexual agreement, i.e., one partner thought they were monogamous and the other reported they were in a relationship which permitted sex with other partners [6].

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The proportion of TW-male couples reporting a discrepancy in sexual agreement types is substantially higher than studies with same-sex male couples [8–11], highlighting the urgent need to address the HIV prevention needs of TW-male dyads.

To our knowledge, there has only been one HIV prevention intervention developed and pilot tested with TW-male couples [12]. While this intervention was shown to be acceptable, feasible, and promising in reducing condomless intercourse, the premise of the intervention was that the couple members were aware of their own and their partners' HIV serostatus. However, many people are unaware of their own HIV serostatus, including TW [13–15]. Additionally, cisgender men sexually active with TW have demonstrated low engagement in HIV prevention services [3, 16] which may heighten rates of unrecognized HIV infection for this group. Thus, intervention efforts are warranted to increase HIV testing and engagement in HIV prevention services for cisgender males who partner with TW.

To date, Couples HIV Testing and Counseling (CHTC) is one of the very few effective couples-focused HIV prevention interventions to help couples learn their HIV status together and develop a tailored HIV prevention plan that meets the needs of their relationship. CHTC has been used as an HIV prevention for heterosexual couples in Africa for over 20 years [17], and was adapted for male couples in the U.S. [18–20]. CHTC has been shown to be efficacious for male couples in promoting the formation and adherence to prevention planning and is now endorsed by the Center of Disease Control and Prevention (CDC) as an effective HIV prevention strategy and is being implemented in 40 states in the U.S. [19, 21]. In contrast to individual HIV testing and counseling, CHTC includes both partners of a relationship in one session where they receive counseling and testing together at the same time. Specifically, CHTC consists of one session in which the counselor learns about the couples' relationship and provides tailored counseling and prevention recommendations based on the couple's relationship and their HIV serostatus results [17, 20]. Importantly, CHTC is forward-looking where the focus of the session is not on past behaviors but rather focuses on the future and each partner's prevention goals [17].

Despite the promise it may hold, CHTC has not yet been culturally-adapted for TW-male partner dyads, and there have been challenges identified in engaging cisgender male sexual partners of TW in HIV prevention services [7]. As such, the current study sought to fill this gap by examining the potential acceptability of CHTC for cisgender male partners of TW, including perceived barriers and facilitators to culturally-adapting and implementing CHTC to account for the diversity of cisgender males and their relationships with TW in real-world settings.

Methods

Participants and Procedures

Project Learning and Understanding about our Sexual Health Together (LUST) was a mixed-methods study conducting formative work on perceived acceptability, barriers, and facilitators to CHTC for TW-male couples. The study commenced in March 2015, and the initial design sought to recruit 6–18 TW-male dyads to take part in interviews with both members of the dyad. Convenience sampling methods were implemented which have been successfully used in our prior research recruitment, such as peer-to-peer referrals, attendance at community events, flyers in community venues and spaces, online advertisements (e.g., Craigslist), referrals from local community-based organizations, and clinic-based recruitment at Fenway Health, a federally-qualified health center in Boston, MA. However, there were many challenges in recruiting and enrolling couples into the project. Between March 2015 and March 2016 over 50 participants were screened, but only four dyads were eligible and agreed to participate in an in-person TW-male couples interview. During the screening process, many TW reported that their male partner would not want to participate in an interview with her due to concerns regarding disclosure of their dating (stigma of dating a TW and/or they were not "publicly" a couple) [22]. Several participants were also ineligible to participate in the study due to intimate partner violence or concordant HIV positive status among the couple.

These difficulties merited changes to the study design. Modifications to the protocol were made to accommodate in-person focus groups for TW that were in or had ever been in a relationship with a cisgender male and focus groups for cisgender males that were in or had ever been in a relationship with a TW to gather input on adapting CHTC protocols for TW-male dyads. Although these modifications proved successful for TW (two focus groups were held in December 2015 with a total of 15 TW) [22], recruiting cisgender males remained difficult. After more than 6 months of recruitment efforts limited to the Boston, MA area, only 1 cisgender male who was willing to participate in the focus group was identified. Therefore, further changes to the protocol were made in October 2016 to allow for individual phone interviews to be conducted, and for recruitment efforts to expand to Providence, RI and New York City, NY. Recruitment advertisements were posted on Craigslist in Boston, MA, Providence, RI, and New York City, NY. Advertisements were also posted in the Boston, MA area on Scruff, an online dating application primarily used by men who have sex with men. These cities were chosen primarily for sake of convenience, as

larger population sizes in metropolitan areas within the same time zone would allow for easier recruitment and coordination of study participation.

Between October 2016 and June 2017, approximately 85 interested participants responded to recruitment advertisements via the email or phone information provided in the recruitment ads. Twenty-five of these interested respondents completed a pre-screening phone call with a research study staff and screened eligible to participate in the study. Study procedures were as follows: during the phone call a research study staff provided more information about the study to the potentially interested individual, fielded questions, and then pre-screened each participant to ensure eligibility criteria was met. Eligible participants were scheduled for a date and time to participate in the phone interview; participants that did not meet eligibility criteria were informed of their ineligibility and were directed to other research opportunities if they had expressed interest. Cisgender males were eligible to participate if they were 18 years or older; assigned a male sex at birth, currently identify their gender identity as man or male; reported having ever been in a relationship with a TW who they felt committed to above all others; and were comfortable discussing their current/previous sexual relationship with TW over the phone. Criteria regarding relationships with TW could have either been previous or current. Six of the eligible participants were unable to be contacted for the phone interview (4 missed appointments; 2 changed phone number). Therefore, in-depth, semi-structured phone interviews and brief surveys were conducted with 19 cisgender males. Interviews lasted approximately 1–2 h in length.

During the phone interview, a research staff member consented participants into the study via verbal consent. Participants were then verbally guided through a brief quantitative survey that collected demographic information (age, sex assigned at birth, gender identity, race/ethnicity, educational attainment), relationship information (currently have or have ever had a TW partner, duration of relationship of current TW partner, number of times they have been in a committed relationship with a TW partner), HIV/STI testing history (timeframe of most recent test, self-reported HIV results from most recent test), and sexual behaviors in the last 3 months (engagement in anal sex, frequency of condomless anal sex, number of episodes of condomless anal sex with TW partners). Interviews were conducted following the survey; all interviews were digitally recorded and transcribed verbatim. The semi-structured interview guide covered four main domains: relationship dynamics, sexual agreements, experiences with individual HTC, and attitudes toward CHTC including potential barriers and facilitators to seeking this service in the context of a TW-male dyad. Participants received a $50 gift card (sent via email online or physical mail) for their participation.

Data Analyses

Thematic analysis was used as a framework for coding interview transcripts [23]. Codes were discussed and developed collaboratively by the research team in accordance with the domains investigated through the interview guide. Four main overarching themes were subsequently coded: Modifying CHTC for TW and Cisgender Male Couples; Facilitators and Barriers to Seeking and Receiving CHTC; Attitudes and Perspectives Regarding CHTC; and Relationship Context. Each overarching theme possessed subordinate categories that further encapsulated emergent themes that arose from preliminary analysis, discussion, and synthesis of transcript data by the team. Two members of the research team applied the finalized codes to all transcripts (inter-rater reliability of double-coding $k = 0.94$) using Dedoose (2017) software. Quantitative survey data were descriptively integrated to contextualize and support qualitative findings.

Results

Characteristics of Study Sample

Nineteen participants were interviewed for the study. Participants ranged in age from 18 to 68 years (M = 40.1, SD = 12.8). As required by eligibility criteria, all participants were cisgender males. Most (n = 13) identified as White, four as Black/African American, one as Black/African American and Jamaican/Puerto Rican, and one as Asian. Three participants identified their ethnicity as Hispanic/Latino. Three participants had received a high school diploma/general equivalency diploma (GED), six had some college education but no Bachelor's degree, five completed college (Bachelor's degree), three had some graduate level education but no graduate degree, and two obtained graduate degrees. All participants reported having received an HIV test at some time in their lives, and all self-reported as having a HIV negative status. Nine participants reported receiving their last HIV test more than 1 year ago, four were last tested between 6 months and 1 year ago, four were last tested between 3 and 6 months ago, and two was last tested within the past 3 months. Only one participant was aware of CHTC and that HIV counseling and testing services could be conducted as a couple; none had accessed this service.

In total, 63.2% (n = 12) were currently in a relationship with a TW with relationship duration ranging from 2 months to 15 years (M = 51.4 months; SD = 57.1 months). The number of relationships with TW reported by all participants ranged from one time to 10 times (M = 2.9; SD = 2.5). The

majority (84.2%, n = 16) of participants reported engaging in anal sex in the past 3 months with over two-thirds of the men reporting having anal sex with a TW partner within the past 3 months (68.4% %, n = 13). Of the men who reported anal sex with a TW partner in the past 3 months, one reported having anal sex every day, two reported having anal sex more than four times a week, six reported having anal sex approximately 2–4 times a week, three reported having anal sex once a week, and one refused to say. The number of TW partners these participants reported having anal sex with in the past 3 months ranged from one to four (M = 1.1; SD = 1.0). Eleven (57.9%) participants reported having condomless anal sex (receptive or insertive) with TW in the last 3 months and the number of TW sexual partners in the past 3 months ranged from one to two (M = 1.1; SD = 0.6).

Qualitative Findings: Perceived Acceptability to CHTC

In general, high levels of acceptability for CHTC were reported among this sample of cisgender males reporting a relationship with a TW. Overall, 89.5% felt they would be "very likely" to access CHCT services in the future were they readily available. However, acceptability of CHTC was complex, and appeared to be contingent upon several factors that primarily focused on: (1) important relationship dynamics, such as commitment and monogamy; (2) HIV-risk perception; (3) understandings of sexual agreements; and (4) personal relationships versus other TW-male relationships.

Theme #1—CHTC Monogamy and Commitment as Critical Precursors to CHTC Acceptability

Many participants described that their perceived comfort in utilizing CHTC was dependent on the level of trust and commitment they felt with their TW partners. Reasons for citing trust and commitment needs varied. One participant brought up issues of confidentiality when it came to being able to trust a partner with personal health information:

> White participant, age 68: "Well, because I think if they're not in really a committed relationship I don't know if they'd really feel comfortable with being tested with another person. You'd have to be in a fairly close relationship with that person. All right. To want to do testing together. And to have that other person learn about your status. If you're not in a close relationship with them. So I think this would really be more for people who are exclusive with each other. Because who knows? You may not want to be sharing this information with somebody you're in a semi-casual relationship with. Because you don't know how they're going to react to it and you don't know what they're going to say to other people. But if you're in a committed relationship you know it'll be confidential and you probably feel more comfortable with the way they'd react."

Some participants also felt that CHTC may help to establish a kind of commitment early-on between prospective partners by facilitating honesty and transparency in communicating with each other about sensitive topics during the CHTC process; other participants also noted how CHTC might further promote monogamy or monogamous behaviors:

> Black/African American participant, age 31: "…I'd say, the people that will most benefit from this is gays and transgender couples or whatever that are actually at the onset of their relationship –at the point where you're just trying to decide if this is for you or you guys are wanting to be together –because it opens a whole lot of doors for conversation –opens up a whole lot of opportunities to be honest about how you feel about certain things. [01:05:00] Getting tested is a primary occurrence of relationships, so I think being open, being able to express how you feel about getting tested is –and also being prepared whatever the result is. Can you be supportive?… Can you be open to having a relationship with somebody who's HIV positive?"
>
> Black/African American and Hispanic participant, age 48: "It gave us, like I said –it eliminates a large degree of worry. Again, it promotes –to me, it promotes monogamy and monogamous [01:00:00] behaviors. And I guess it gives, in a weird way, I guess, a confidence amongst each other. You know, not to knock other people that unfortunately that have contracted it [HIV], but it's more like, whew thank God we don't have to worry about that, babe let's, you know –there's other –there's 150 different things that we can now con–address and conquer."

For participants that were already in a committed relationship, they described CHTC as a mechanism to further strengthen their relationship with their TW partner by affirming their status as "couple":

> White participant, age 47: "You know, you can go together. You can get it done together. You can, you know, have it all taken care of, you know, and not have to worry about, you know, when you're going to make the appointments and plan together, where we could just make it and do it together and that. I think that I like it. I think that it, you know, the more things you do together as a couple, even as little as this, you know, build the bond that make you a couple. You know? The more –I just feel the more that we do together is a better bond and it makes us a stronger, better couple."

Similarly, participants that reported being in a committed and monogamous relationship stated that opting for CHTC would further communicate transparency. One participant described how choosing individual HIV testing and counseling compared to CHTC may invoke distrust from his partner:

> White participant, age 30: "Because I feel like it would mean that there'd be nothing to hide, and if you go… If I insisted on going separately to get tested, and to reading my results separately, then I think that might indicate that I could've been out doing something else, seeing someone else."

Theme #2—CHTC Risk Perception Determined Level of Comfort with CHTC

Some participants reported that they would not want to participate in CHTC if they had engaged in risky behaviors before the relationship or had sexual encounters with outside partners during the relationship, and would opt for individual HIV testing and counseling instead. For these participants, individual testing and counseling would give them an opportunity to disclose their HIV status on their own terms in the event of positive test results, or to not have to bring it up at all to their partner in the event of getting a HIV-negative result:

> White participant, age 42: "Well, the–obviously, if you even had a chance of having such a –well, let me put it to you this way. If I was 28, and I was going to get married to a woman, or –whether it be a transgender woman or a biological woman –and let's suppose 3 years before that I had had some unprotected encounters or maybe I had used needles, so there was probably in the back of my mind maybe I could ha–be –have a positive diagnosis, then going into that couples testing would be very uncomfortable for me. I would rather, you know, find out on my own, by myself, and then make a decision from there. You know? Tell my partner on my own or that, you know?"
> White participant, age 49: "The only thing that I wouldn't like is that if I had something to hide, like if I had a less than stellar past, I wouldn't want that to –I would rather –maybe, I would rather deal with that independently as long as, you know, my partner is not infected because that's something that I –you know, that was one of the stressful parts about my last relationship because –you know, because I was fooling around on her and if one of those times resulted in me getting HIV, how do I explain that to her and did I give it to her then? So, it's just an awful situation to have to deal with if you have to deal with it, yeah."

Theme #3—Understandings of Sexual Agreements

Given that CHTC has the potential to help couples discuss and establish sexual agreements in order to negotiate safety in their relationships, participants were asked about their understanding of sexual agreements. Many participants were unfamiliar with the term "sexual agreements," but upon further discussion expressed familiarity with this concept and its implications in their own relationships.

> White participant, age 54: "There has not been a clear relationship model. It's just a sense I get that there is –there's not been any overtures to sharing our–either sharing ourselves with other people while the other partner is there or exploring other sexual options outside of our relationship. There hasn't been any discussion of that so far."

Experiences discussing sexual agreements with TW partners varied for participants. Sexual agreements that were explicit focused on sexual practices such as, but not limited to, defining the relationship as either monogamous or non-monogamous, sexual positioning (receptive versus insertive anal sex), and/or safe sex (condom use):

> White participant, age 30: "We were talking on the phone still, and that's whenever we –whenever we decided we were in a relationship, we decided no sex outside of either of us, even though we couldn't see each other for quite a while."
> White participant, age 37: "Well, it was, it was an agreement that we would always use protection. And –it was talked about that she always wanted me to be the top and that she would be the bottom. Those were the only explicit agreements that we had, though."

A number of participants also reported that sexual agreements were implied. A few of these "unspoken agreements" centered on relationship status (monogamous vs. non-monogamous) and sexual positioning. In regards to relationship status, one participant described that spending a lot of time together signified his intentions of monogamy.

> Black/African American participant, age 31: "Well, starting this relationship, I think it was something that was understood, it just wasn't discussed. It was discussed later –much later on –about seeing other people and all that kind of stuff, and just being in a committed relationship. That's how it was discussed, but I think, for me, that went without saying. Once I started –once I gave you a key to my apartment and stuff, and, you know, you're driving my car and we're hanging out and spending a majority of time together –that goes without saying."

White participant, age 49: "I mean, we had unspoken agreements. Like I said, our verbal communication was not very good at all but there were things that were just understood."

Theme #4— Personal Versus Other TW-Male Relationships

Most participants believed that acceptability of CHTC for other TW-male couples would be very high. For some, this perception was restricted only to couples with similar levels of commitment and monogamy as their own:

White participant, age 37: "I think some couples certainly would. And I think some couples wouldn't. I think – a large part of this is dependent upon a level of trust between two partners. I mean, not all relationships are at that level where two parties trust each other that deeply, I think."

Other participants felt that TW-male couples would use CHTC because they may be at high risk for HIV transmission due to risky sexual behavior and high HIV prevalence in the gay and transgender communities. Participants felt other couples would use CHTC to check their HIV status:

White participant, age 49: "Oh, I definitely think so because, well, yes, I think so because I think cisgender men that are interested in trans women – I think that they have a tendency to exhibit more risky behavior and I think that trans women also tend to exhibit more risky behavior. Yeah, the two, I think, in general, you know, take more risky behaviors."

White participant, age 30: "Well, just because if anybody who is in a trans/cis relationship who knows about things knows that there's a high rate of HIV infections in the trans community, and therefore, in my mind, more of a need to get yourself educated and protected. You know, that's why."

Although there was high acceptability of CHTC for TW-male dyads in general, participants reported lower levels of acceptability for themselves and their own TW relationship. Many participants noted they would not use CHTC unless they knew their HIV status beforehand:

Asian participant, age 38: "See it's a very tricky question, because let's say if I have a monogamous relationship, and I happen to sleep with someone by accident. You know, and the female doesn't know it. So, if you caught me there, [20:00] I mean that month, I'd probably say it's the individual testing. If I had been like not having any sex for like four, five, 6 months, only with one partner, in that time I would say couples testing. So it's just like, you know, it's – because when people are either cheating or not doing things which the other partner doesn't know, that's when like people will not be willing. To me, it is like, even I'll think twice, like to go with the couples testing if I have had sex with someone which, you know, [inaudible 20:35] doesn't know about. I mean, my partner doesn't know about. So, if I had been clean, then I'd probably be more inclined to do a couples testing. It all depends on like, you know, like what kind of behavior I had been involved in."

However, these participants also noted that CHTC would be helpful with the facilitation of the CHTC counselor. For example, participants noted that a strength of CHTC was the facilitation provided by the counselor and their potential role in mediating reactions in the event of disclosing positive test results. One participant described this strength by contrasting the CHTC format with individual HIV testing and counseling:

White participant, age 49: "So, I guess if I really sit and think about it, I'd have to say that the couples counseling is better because then everybody knows at the same time. I don't have to break the news. The counselor would break the news and so we both find out together, and so for me, I mean, the anxiety of the wait to have to bring this up to my partner, oh, no, so without a question, I would say that couples counseling and testing –a much better way, a much better way to go, much better way to go."

Other participants also described the CHTC format as supportive in the event of HIV positive test results, whereby support was provided by their partners and/or the CHTC counselor. One participant noted:

Asian participant, age 38: "Yeah, it's a good idea. Because, you know, if God forbid, one person is infected in the relationship, and it takes –it can help that person to be supported, you know, and it's easier to take a shock when you have someone standing with you. Rather than getting it alone. So, it is always good to do it as a couple, whatever you're doing, it's good to do it as a couple."

Recommendations to Maximize Acceptability of CHTC

Participants offered several strategies that would be helpful to overcome barriers to CHTC for themselves and their TW partners. Specific recommendations to maximize acceptability of CHTC in this diverse community revolved around privacy and neighborhood context. Participants highlighted the need to implement robust privacy measures and to develop and find ways to make CHTC services discreet. Participants wanted access to CHTC testing locations outside of their

neighborhood context. Most commonly, neighborhood-related privacy concerns pertained to actual and/or perceived stigmas: the stigma of being in a partnership with a TW (e.g., did not want to be seen with a TW partner), stigma related to non-disclosure of outside sexual partners (e.g., did not want their sexual partner who presumed monogamy to see them accessing HIV services with a different sexual partner), and/or stigma related to perceived HIV status (e.g., did not want to be associated with HIV, did not want others in the community to assume their HIV serostatus). Offering access to mobile testing sites was suggested as having the potential to improve acceptability of CHTC; however, transportation barriers and costs complicated this suggestion. Monetary incentives were suggested to facilitate CHTC access and usage to sites outside their neighborhood.

Discussion

Findings from this formative study gathering the perspectives of cisgender male partners of TW suggest that awareness and uptake of CHTC are low, despite being a group who might greatly benefit from this service. Acceptability of CHTC in cisgender males who partner with TW appears similar to other studies among cisgender MSM and heterosexuals [18, 24–27]. CHTC does seem promising for this subgroup of cisgender males who partner with TW; however, the challenge will be recruiting men into services. The difficulty recruiting cisgender men who have sex with TW into this study highlights the need for innovative ways of engaging this group in any HIV prevention and testing service. In addition to the potential of CHTC to be an acceptable service for cisgender male partners of TW, findings also indicate that CHTC may only be accepted by some cisgender men and under certain circumstances. Recommendations by cisgender men to maximize acceptability of CHTC for TW-male dyads focused on addressing issues of privacy and neighborhood context, particularly as related to actual and/or perceived relationship stigma (being in a relationship with a TW) and HIV stigma (disclosure of HIV serostatus). Our findings have implications for implementation of CHTC programs, including the need for CHTC to address the concerns and issues relevant for cisgender male partners of TW. Different types of delivery modalities may warrant consideration for this population, such as couple home visits that include health education, relationship communication skills, and offer CHTC [28]. Specific training for CHTC will be required to effectively counsel TW-male dyads.

Many participants reported that their utilization of CHTC would depend on their perceived level of trust and commitment toward their relationship with a TW partner. Although some participants noted concerns regarding confidentiality of HIV status, others also mentioned that CHTC itself could facilitate the development of trust, commitment, transparency or honesty, and even monogamy within the relationship; this is noteworthy seeing as how some participants had indicated that some of these attributes would be required for them to use CHTC initially. Consistent with prior research on attitudes toward CHTC in other populations [18, 24, 25], participants who were mainly in a committed relationship expressed high levels perceived acceptability of CHTC and viewed it as an opportunity to affirm their relationship with TW and to engage in a "couple's activity." Capitalizing on the desire for commitment in their relationships with TW may help these cisgender male partners get linked to services.

Whereas prior research in other populations has found that the need for emotional support (e.g., partners wanting to feel supported by their significant other during the process of HIV testing and counseling) was a facilitator of CHTC acceptability [25], we did not find evidence of this in the current study. Some cisgender male partners of TW reported that they would rather opt for individual HIV testing and counseling, rather than CHTC, if they had engaged in risky sexual behaviors either before or during their relationship with TW. Reasons regarding this preference were strategic and focused on wanting to reduce potential conflict with their TW partners. By choosing to get tested individually, participants felt they would be afforded the time to devise how, and perhaps if, they would like to disclose a possible HIV positive status to their TW partners. If test results from individual testing came up HIV negative ("clean"), then there would be no concerns about disclosure. However, participants also noted that an appealing aspect of CHTC was the mediation provided by the CHTC counselor, especially in disclosing possible HIV positive results, a finding consistent with prior CHTC research.

In comparison to their own levels of perceived acceptability, many participants perceived much higher levels of acceptability for CHTC in other TW-male couples. This perception may be rooted in pre-conceived notions that participants may possess towards HIV risk in the gay or transgender community—that cisgender males who have sex with TW and/or TW in general tend to exhibit more risky sexual behaviors and therefore would perceive themselves having greater need for CHTC. This assertion is contrary to participants' aforementioned preference for individual HIV testing and counseling if risky sexual behaviors occurred either before or during their relationship with TW. Some participants also noted that they believed other couples would use CHTC so long as their level of commitment and monogamy in the relationship mirrored their own. This is also contradictory to their perception that CHTC would be most acceptable to higher risk cisgender males who date TW and/or TW in general. Results suggest that the framing of

CHTC services will be important for uptake and utilization for cisgender males who partner with TW.

Discussions regarding sexual agreements varied greatly, and ranged from discussions about sexual practices within the couple, to defining the status of the relationship and whether or not outside partners were allowed. A consistent theme among participants was reporting that relationship status was also implied and therefore never explicitly discussed. This corroborates a prior study of TW-male dyads wherein 45% of couples reported discrepant agreements (e.g., one partner indicated having an open agreement and the other reported a monogamous agreement) [6]. CHTC could serve as an opportunity to facilitate explicit and open discussion among the couple regarding sexual agreements and relationship status, especially given participants' positive endorsement of CHTC to develop better trust, commitment, and transparency in the couple. Indeed, some participants reported that CHTC may help to establish commitment early on by serving as a platform for the couple to evaluate and agree upon their relationship status. However, CHTC was viewed with low acceptability if broken sexual agreements were to be brought to light, as preference for individual HIV testing was expressed in those circumstances.

Limitations

As a preliminary study, this research has several limitations. We employed community-based recruitment efforts proven successful in our prior research with other sexual and gender minority groups, but found that pervasive stigma for cisgender male sexual partners of TW was a prominent barrier to recruitment. Cisgender males that were comfortable discussing HIV counseling and testing and being in a TW relationship took part in the study; thus, as with all interview-based studies, participants were self-selected and willing to discuss the topics covered by the research. It is plausible that cisgender men who opted to participate were more open about discussing sexual topics and/or their relationship with a TW than others who did not opt to (or would not have opted to) participate. There was no way to confirm participants' relationship status. Recall error may have been introduced for participants recounting past relationships with a TW. Because only cisgender male partners of TW were interviewed, dyadic data from the TW-male dyad were not collected. Future research collecting data from both members of TW-male couples, separately one-on-one and together as a dyad, is recommended in order to link partners' perspectives. Additional research is needed assessing feasibility of recruiting cisgender men who are sexually active with TW, including geographic differences in feasibility and acceptability of recruitment methods, which will also have implications for future research and provision of HIV prevention services.

Conclusion

Despite being the sexual partners of TW, a "key population" for HIV infection globally [1], the HIV prevention and testing needs of cisgender males who partner with TW remain largely unknown. Addressing and curbing the HIV epidemic for TW will require engaging cisgender males who partner with TW in HIV prevention and testing services. This study highlights the voices of cisgender male partners of TW, a largely occult subpopulation at-risk of HIV acquisition or transmission, and provides formative data for future design and development of CHTC and other intervention approaches that may reach this group. It will be important for CHTC and other couples-focused interventions to address the specific concerns and issues salient to the lives of cisgender males as well as their TW partners, such as privacy and neighborhood contexts. Future research would benefit from examining the ways in which stigma (e.g., stigma as a result of partnering with TW and/or HIV stigma) may serve as a barrier to engaging in HIV prevention services among cisgender males who partner with TW.

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Compliance with Ethical Standards

Conflict of interest The authors have no conflicts of interest to disclose.

Ethical Approval All procedures performed in this study involving human participants were in accordance with the ethical standards of the institutional research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards.

Informed Consent Informed consent was obtained from all individual participants included in the study.

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