



HHS Public Access

Author manuscript

Couple Family Psychol. Author manuscript; available in PMC 2019 March 01.

Published in final edited form as:

Couple Family Psychol. 2018 March ; 7(1): 22–33. doi:10.1037/cfp0000097.

Providers' Perceptions of Couples' HIV Testing and Counseling (CHTC): Perspectives From a U.S. HIV Epicenter

Natalie M. Leblanc, PhD, MPH, RN, BSN and

Post-doctorate Associate at the University of Rochester School of Nursing, Rochester, NY

Jason Mitchell, PhD, MPH

Assistant Professor in Office of Public Health Studies at the University of Hawai'i at M oea, Honolulu, HI

Abstract

Current epidemiology demonstrate the significance of couple-based HIV transmission among vulnerable U.S. populations and its contribution to health disparity in HIV prevalence. Couples HIV testing and counseling (CHTC) can be used to address couple-based HIV risk in the U.S. Though a globally recognized service, the literature lacks U.S.-based healthcare providers' (HCP) perspectives of CHTC. To address this research gap, a qualitative descriptive design was used to ascertain HCPs' perceptions about CHTC. Semi-structured in-depth interviews were conducted with 22 HCPs who were experienced with engaging patients or clients across the HIV care continuum. Overall, HCPs supported CHTC among different U.S. populations. Content and thematic analysis revealed HCPs perceived CHTC to be an evolution from current HIV testing approaches and a mechanism to screen people who may not otherwise. CHTC was perceived to have biomedical and bio-behavioral merit that warranted consideration for implementation within health service settings and among populations with heightened HIV risk. This strategy was perceived to be a mechanism for introducing PrEP and conception health into one's practice. CHTC also signaled patients reorienting perceptions of personal health as being linked to the health of another individual. Providers recognized that couples have evolved to be increasingly non-heteronormative and thought that CHTC should be offered to all couples. However, participants also noted that HCPs in the U.S. need to be comfortable with promoting sexual health among various populations for implementation of CHTC to be successful.

Background

Globally, it is estimated that half of those who are HIV infected are in a relationship with someone who is uninfected (World Health Organization [WHO], 2012). In the U.S., it is estimated that there are approximately 200,000 heterosexual serodiscordant couples (Campsmith et al, 2010; Centers for Disease Control and Prevention [CDC], 2016a; McMahon et al, 2014). Current U.S. epidemiology demonstrate that couples are vulnerable to heightened HIV risk, which contributes to health disparity in HIV prevalence (Crepaz,

Corresponding Author: Natalie M. Leblanc: Natalie_Leblanc@URMC.Rochester.edu.

Disclosures

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

Dong, Chen, & Hall, 2017). Unprotected sex with a partner who is unaware of his HIV infection is attributable to over two thirds of new HIV infections in U.S. Black women (Black AIDS Institute, 2009, Crepaz et al., 2017; Nolte, Kim, & Guthrie, 2017). It is estimated that 30% to 67% of new infections occur within main male same-sex partnerships (Goodreau, Carnegie, Vittinghoff, et al., 2012; Sullivan, Salazar, Buchbinder, & Sanchez, 2009), thereby demonstrating the need for couple-centered approaches to HIV prevention in the U.S.

Couples HIV testing and counseling (CHTC) is a dyadic approach to HIV prevention that entails joint HIV testing and immediate disclosure of serostatus to both members of a couple. It also includes the provision of pre- and post-test counseling with specific emphasis on a risk-reduction plan that guides the establishment of relationship goals for HIV prevention (CDC, 2012). To identify serodiscordant couples and prevent new HIV infections within couples, the World Health Organization proposed guidelines for implementation of CHTC based on experiences from low- to mid-income countries (WHO, 2012). These guidelines recommend healthcare providers (HCPs) support CHTC and HIV prevention for serodiscordant couples, and that this support is critical to the success of CHTC implementation. In 2012, the CDC released a protocol for CHTC implementation for community-based HIV prevention settings (CDC, 2012); however, this report focused on CHTC implementation for male couples.

Couples HIV testing and counseling (CHTC) has been shown to reduce transmission within HIV serodiscordant couples, promote consistent condom use, decrease the number of sex partners, increase and ease partner disclosure of HIV status, and sustain linkages to medical care for those who are seropositive (Allen et al., 1992; Allen et al., 2003; Becker, Mlay, Schwandt, & Lyamuya, 2010; Chomba et al., 2008; CDC, 2012; Lolekha et al., 2014). Systematic analyses of couple-centered HIV prevention propose that interventions like CHTC are efficient and effective because it ensures information is provided simultaneously to both partners, encourages serostatus disclosure, and allows for development of a tailored HIV risk reduction plan (Crepaz, Tungol-Ashmon, Vosburgh, Baack & Mullins, 2017; Jiwatram-Negron & El-Bassel, 2014; Karney et al., 2010; McMahon et al., 2014). Studies have also demonstrated that provider motivation is at times the sole influence for individual HIV testing (Dowson, Kober, Perry, Fisher, & Richardson, 2012; Siegel, Lekas, Olson, & Van Devanter, 2010; WHO, 2014); thus, indicating the significance of provider involvement in HIV screening in healthcare settings.

Providers' perspectives are critical to encourage adoption of new practice modalities in community-based and clinical health settings (Anderson et al., 2017; Krakower & Mayer, 2016; Rubio-Valera et al., 2014). Few studies have explored HCPs' perceptions of CHTC outside of low- to mid-income countries. Studies conducted in low-middle income countries mainly assessed partner-based testing in the context of men's ability and willingness to participate in OB/GYN HIV prevention services (Kebaabtswe et al. 2010; Lippman et al., 2015; Mlay et al., 2008; Njau et al., 2012; Orne-Gilemann et al., 2010; Theuring et al., 2010). One study in the U.S. did explore U.S. providers' perceptions of CHTC to help adapt the African-based heterosexually-oriented CHTC strategy for male couples (Sullivan et al., 2014). This study found that HIV counselors were supportive of CHTC among MSM;

however, further investigation is warranted as research in this area is still in its' nascent stage.

Study Purpose

The findings presented here are part of a larger study on the exploration of U.S. healthcare providers (HCPs) perceptions about CHTC. The aims of the larger study were to: 1) ascertain HCP knowledge about and attitudes toward CHTC, 2) examine HCP perceptions about CHTC, and 3) ascertain HCP perceptions of perceived facilitators and barriers of CHTC within clinical settings. The focus of this paper is on the first two aims.

Method

We used a qualitative descriptive design, and content and thematic analysis as the approach to explore providers' knowledge and perceptions about CHTC (Sandelowski, 2010; Vaismoradi, Turunen & Bondas, 2013).

Setting and Sample Recruitment

Setting.—Of the 10 most populated jurisdictions in the United States, Miami-Dade County, Florida ranks first in new HIV diagnoses at a rate of 44.4 per 100,000 (CDC, 2017a). This HIV infection rate in Miami-Dade County is nearly twice that of the state of Florida, and three times the U.S. rate (CDC, 2016a; CDC, 2017a; Florida Department of Health [FDOH], 2014; FDOH, 2016).

Sample Criteria.—Healthcare providers were operationalized as those in practice for at least one year, who provided a continuum of HIV care, including engagement, screening and prevention.

Sampling Strategy.—Two-tiered purposive sampling was used to recruit providers from four healthcare facilities in Miami-Dade County (Gentles, Charles, Ploeg & McKibbon, 2015; Polit & Beck, 2010). The first tier involved identification of healthcare facilities that provide HIV prevention and care services. The second tier involved provider recruitment that was tailored for each setting and in consultation with an administrative leadership from each facility. Healthcare providers (HCP) were sought to represent a variety of disciplines and included clinicians and non-clinically trained professionals. Providers were sampled from four healthcare settings: two community-based federally qualified health centers (FQHC), an HIV care clinic within one hospital and a separate OB/GYN specialty clinic within another hospital. The FQHC provide multi-service comprehensive outpatient and community-based primary care and social services to under- or uninsured populations in Miami-Dade County. Following the first few interviews, snowball sampling commenced to recruit additional HCPs. All participants provided verbal consent to participate and be interviewed; upon completion of the interview, all participants were offered a \$15 gift card for their time. The BLINDED IRB approved the protocol for this study.

Data Collection and Management

Data collection tool.—Semi-structured in-depth interviews were conducted using an interview guide. Sample questions are provided in Table 1. The interview guide was based on literature about provider-initiated HIV testing and couples-based HIV prevention approaches, and from peer debriefings with five health science researchers (Lincoln & Guba, 1985; Spall, 1988). The health science researchers collectively had expertise in HIV care, couples and family-based HIV prevention approaches, and qualitative research methodology.

Data management.—All interviews were conducted by the first author from November 2015 to March 2016. Interviews took place either in person or by phone, were audio recorded, and lasted between 30 to 90 minutes. Interviews were dictated into an online speech recognition application (Online Dictation, n.d.) to ease the transcription process. Each transcribed interview was individually copied into a word document and saved in a password-protected file on a password-protected computer. The audio and transcribed interviews were then cross-referenced to ensure accuracy of the data.

Data Analysis

Data collection and analysis were concurrent processes. Analysis involved peer debriefings among the lead author and two of the five health science researchers to discuss initial impressions of the narratives and refinement of the interview guide. Discussions regarding the findings and considerations required were conducted to ensure that the sample and interpretations were representative and aligned with the study questions and aims (Lincoln & Guba, 1985; Spall, 1988). MAXqDA (Verbi GmbH, Berlin), a qualitative data analysis software, was used to assist in analysis.

Analytic approach.—Conventional content analysis was used to investigate healthcare providers' (HCPs) perspectives about couples' HIV testing and counseling (CHTC) as an HIV prevention strategy while ensuring that interpretation of the narratives remained near to the data (Hsieh & Shannon, 2005). A thematic analysis then ensued to describe latent patterns in the data (Vaismoradi, Turunen & Bondas, 2013). These analyses allowed for the findings to reflect a comprehensive perspective of the phenomenon (Polit & Beck, 2012; Sandelowski & Barroso, 2003; Vaismoradi, Turunen & Bondas, 2013).

Ongoing peer debriefings throughout the analytic process involved discussion of the narrative content, emergent codes and subsequent themes. These efforts aimed to achieve study credibility and trustworthiness in the interpretation of findings (Thomas & Magilvy, 2011). Healthcare providers ($N = 22$) represented a variety of specialties, disciplines and years of experience with engaging patients across the HIV care continuum. Data saturation was identified when the issues and perspectives were consistent across the narratives (Munhall, 2012) and reflected perspectives of both clinically trained ($N = 13$) and non-clinical ($N = 9$) providers.

Some HCPs ($N = 8$) possessed knowledge of CHTC. These providers included those who received CHTC implementation training independent of this study ($N = 5$), and those who were versed in global HIV literature ($N = 3$). The remaining providers required briefing

about CHTC before interviewing commenced. The briefing entailed the global history of CHTC, research findings and documented health outcomes of CHTC, and information about the WHO guidelines and CDC protocol for CHTC implementation.

Results

Influences on Provider's Perception of CHTC

Patients' Vulnerabilities to HIV Transmission and Engagement in Care.—

Healthcare providers' perceptions were informed by their own knowledge of Miami-Dade County, population characteristics and the context of HIV transmission in the county. Their perceptions were also informed by reflections on individual practice and experiences, and personal ethos regarding HIV prevention.

In the eyes of HCPs, psychosocial vulnerabilities such as drug use, poor coping skills and mental health problems either heightened HIV transmission risk or served as impediments to engagement in HIV care. Vulnerabilities also included membership in a historically stigmatized social group based on ethnicity, racial group, or immigration status, in tandem with a nonheteronormative sexual orientation or gender identity. Further vulnerabilities included poverty, limited or no health insurance coverage and low educational attainment. As one participant stated: "...the challenges we have here in Miami-Dade County is there is generally lower socioeconomic, lower educated, not like San Francisco" (clinical provider, >20 years in practice).

Current Issues with HIV Screening.—Healthcare provider perceptions were influenced by their sentiments regarding broader structural and policy issues related to HIV screening in Florida and healthcare in general. Some participants expressed that CHTC may address the failures of routine testing in the state, noting if routine testing was successful then CHTC may not be necessary. For example, at the time of this study, expedited partner therapy for partners of patients diagnosed with STDs was prohibited and written consent was required for HIV screening in Florida versus verbal consent, which is acceptable in other states (CDC, 2016b; CDC, 2017b).

HIV Screening is Accessible.—Despite the patient population and health policy contexts, providers believed that as a relatively accessible health promotion strategy, HIV screening should simply be a part of one's sexual health. Providers also reported that HIV testing should be adopted by individuals before engaging in a sexual relationship with a new partner and should include mutual awareness of sexual partners' serostatus via disclosure. Couples HIV testing and counseling (CHTC) was generally discussed as an evolution from current HIV testing approaches as another iteration to increase HIV screening among those who would not pursue HIV testing otherwise ($N=22$).

I think it is a good thing, I think any way to offer some different iteration of testing that is just going to get more people tested is better.

– Non-clinical provider, >20 years in practice

Perception of CHTC

Healthcare provider narratives included reflections on what CHTC could provide to current practice and to couples. From these narratives three categories emerged: (a) address couple-based HIV vulnerability and risk, (b) CHTC can work for all couple types, and c) Considerations for how to improve the CHTC protocol in the United States.

Address Couple-based HIV Vulnerability and Risk

Meet Current Community Demands for Joint HIV Screening.—Some HCPs ($N=10$) reported experiences with patients requesting joint HIV screening who were generally informed that joint HIV screening was not available. CHTC was perceived as a mechanism for health settings and HIV programs to meet patient demands for joint HIV screening and to have individual results discussed jointly:

We had a couple of cases in the past where people want to get tested together...So this is going to give that opportunity for those who really want it.

– Non-clinical provider, 8 years in practice

Promote Couple-based Health and Relationship Commitment.—Couples' HIV testing and counseling was also perceived ($N=13$) as an opportunity for partners to affirm or re-affirm relationship commitment.

The benefit that I will always assume is the peace of mind, there is no deception through the process, there's no lies, there's really no room for that. So people get the benefit of truth being established.

– Clinical provider, 4 years in practice

Couples' adoption of CHTC would indicate an evolution in a patients' sense of personal well-being to a point where personal health was as important as being in a relationship:

If I was single and I was going to go into a relationship and my partner being male or female or transgender said, 'nah, I am not into that,' then I am not into you because that's telling me, I don't really matter.

– Clinical provider, 16 years in practice

Hence, CHTC would help avert partner-based disease risk *and* promote health within the couple. Couples' HIV testing and counseling was perceived to support couples' discussion about sexual health and fostered an understanding of joint health as a component of personal well-being.

... if one person wants to do it and the other person does not, then what happens? This could be an issue in a relationship. How much do you care about me? How much do you care about my health? How much do you care about our health? That's a new concept, not like, how healthy are you or me, but how healthy are we?

– Non-clinical provider, >20 years in practice

Couples HIV testing and counseling was further perceived to provide an opportunity to decide on and commit to a relationship agreement.

It is an opportunity for couples, I would not say just for two people who are having sex or hooking up, but people who are in a relationship to establish common goals on how they will make sure that they will remain negative...or how they would deal with a potential infection if anything happens.

– Non-clinical provider, 8 years in practice

Three providers who had experience with CHTC ($N = 3$) reported that participants were primarily established couples attempting monogamy and/or re-affirming their relationship.

For some people I think it's maybe trying to reinforce that they may have made the right decision...Like okay we decided to be together and you told me that everything is fine...if this comes out good, then it's alright and I trust you.

– Non-clinical provider, 12 years in practice

Reduce HIV-related Anxiety Among Partners.—Couples HIV testing was further perceived to potentially diffuse individual anxiety concerning HIV testing and blame towards partners ($N=9$). Healthcare providers recognized that people may also use CHTC as a mechanism for disclosure of known HIV sero-positivity and perceived CHTC to help anxiety associated with non-disclosure.

There is always a relief in not keeping a secret, in not hiding something, in not hiding your health with the person that you are intimate with.

– Clinical provider, >20 years in practice

Facilitate Couple-centered HIV Prevention.—CHTC may be a mechanism to provide both members of a couple with information regarding options for joint sexual health, including HIV screening and integration of biomedical prevention methods. Couples could discuss their joint HIV sero-status, how best to manage their prevention needs, and pursue joint health and relationship goals with knowledge of their joint sero-status.

Providers who reported experience with either implementing CHTC ($N=3$), engaging HIV infected pregnant women and partners as part of an existing practice ($N=4$), or engaging partners within a general primary health visit ($N=4$) noted that CHTC ensures couples' receipt of information simultaneously and eliminates confusion about a partner's serostatus, irrespective of the testing outcome (i.e., concordant HIV-positive, concordant HIV-negative, HIV-discordant). CHTC was perceived to streamline couple engagement in HIV screening.

It is important when you can educate two people at the same time, so that they both will have the same information, and can do the testing together.

– Clinical provider, 16 years in practice

CHTC could also help enable use of biomedical prevention options (e.g., pre-exposure prophylaxis) among couples and can be an opportunity to discuss these options in tandem with fertility goals among HIV-discordant heterosexual couples.

I have done one case of a couple...She was negative and he was positive and I referred them for PrEP...because we have a preconception counseling sub-clinic.

It's really nice when I get referrals into that because these are people that want to have a baby safely.

– Clinical provider, >20 years in practice

Overall healthcare providers ($N=21$) also perceived themselves to be instrumental to facilitating couples working toward joint health attainment (e.g., joint HIV serostatus disclosure). While some couples might independently seek CHTC, providers are well suited to suggest it for other couples.

...it was a gay couple, they were kind of relieved. That is what I felt from them because they were like, 'oh my God, thank you'...It's tough...

– Non-clinical provider, 6 years in practice

Couples' HIV testing and counseling was further perceived to be a mechanism for couples who have the intention of being monogamous and/or committed to one another to enter the relationship with a balanced understanding of their joint sexual health profile ($N=13$). It could facilitate a relationship agreement that reflects shared goals and aspirations as baseline for the development of trust within the couple.

Sometimes they need a jumping off point for trust to be developed...and you know where they stand before or as they're going to enter this relationship, as they're going to try to be monogamous.

– Non-clinical provider, >20 years in practice

Mitigate Potential Provider Bias.—Some providers perceived CHTC allowed for a more balanced engagement towards both individuals in a couple ($N=7$), rather than focusing consultation on the behaviors or health needs of one partner over the other. For example, one providers shared an experience with a newly diagnosed young mother. The provider later learned the male partner was previously diagnosed and admitted bias toward this partner who failed to disclose his HIV status to the young mother. CHTC might have tempered the providers' bias because the couple would have been jointly tested and informed of their status together. Instead, the couple's relationship dissolved, and despite efforts to engage the couple in care, the male partner refused, and the young mother's trauma of betrayal delayed her entry into treatment. CHTC might have provided a mechanism for mutual support and coping for the couple toward a joint diagnosis and engagement in HIV care.

I wonder, how he would have reacted knowing that she tested positive. I don't think it would have been violent...I would have tested them [together] because I would not have known he was already positive and he infected her. It would have been new to me as well. My compassion would have been going out to both of them, to get them linked into care.

– Non-clinical provider, 15 years in practice

CHTC Can Work for All Couple Types

Overall, HCPs endorsed that CHTC should have universal applicability and not solely be for male couples, as many perceived the CDC CHTC protocol suggested.

Even though this is catered for MSM, I don't know why it is not catered to heterosexual women as well because there is a need and risk from the male partner.

– Non-clinical provider, 8 years in practice

All providers reported experience with individuals who engage in non-heteronormative behaviors or who possessed non-heteronormative identities. Heterosexual couples in and of themselves have evolved beyond the traditional stereotype. These providers perceived that some partnerships were perhaps not committed because they were not truly monogamous. Some of the patients or partners were polyamorous, and/or had clandestine concurrent partners. Some women had children and were in a relationship with a partner whom they were not married to nor who was the father of their children. Further, some men were in a relationship with another man or woman or both. The diversity in relationship type caused certain HCPs to perceive couples as nuanced and evolved to manifest differently from traditional heteronormative unions.

...you have hookups and baby daddies...I am not sure what kind of relationships are even out there anymore... I don't know what a couple is anymore. I mean, I really, really don't know what a couple is. I don't even know if a traditional relationship is even out there anymore. I see a majority of, I think, non-traditional relationships, they're not living together. I don't know, maybe those are traditional now.

– Clinical provider, >20 years in practice

A few providers ($N=3$) initially struggled to reconcile this potential discord between the perceived coupling practices of patients and the need for couples-centered HIV prevention options, yet did not impose traditional hetero norms regarding couples and relationships.

I define a couple by the person who you are talking to. So it is not my definition that I go by. I define it by whether a person believes that they are a couple.

– Clinical provider, >20 years in practice

The consensus was that regardless of provider perception, couples define themselves and what commitment means to them. CHTC was therefore warranted among individuals who perceived themselves to be in a relationship, as one clinician with over 20 years of experience stated, "Couples should get tested, once they decide to be couples." Reconciling that couples are self-defined unions, providers endorsed CHTC for all couple types. Therefore, any guidelines or protocols for CHTC in the U.S. needed to reflect the realities and diversity in couple types.

Recommendations to Enhance CHTC

Some healthcare providers (HCPs) voiced specific recommendations for the CHTC protocol. First, they recommended the inclusion of pregnancy planning and fertility goals as part of the establishment of a couple's relationship agreement ($N=4$). This recommendation was in response to their collective experiences with couples whereby pregnancy intention was the sole relationship goal. Second, HCPs recommended that CHTC should incorporate the integration and uptake of other biomedical prevention options (e.g., PrEP) among couples

who test jointly and prove eligible ($N=20$). Finally, other HCPs ($N=3$) perceived the counseling component of CHTC needed to be improved as it currently places emphasis for couples to “move forward” to develop a relationship agreement *without* addressing prior sexual, drug using or other risk behaviors. This sentiment was specifically salient among HCPs who incorporated a mental health paradigm to patient care. They felt that if past infidelity, current substance use or underlying depression were not addressed, the couple would not be able to successfully develop nor sustain any type of relationship agreement even if they agreed to use CHTC.

So in order to [move forward], let’s lay it all out on the table, this is where I come from, this is where I’ve been, and this is where I am at today. Are you okay with that? Now we can make an agreement...See, if you don’t identify the thing, how are you going to change?

– Non-clinical provider, 16 years in practice

Discussion

Although current literature on the efficacy of CHTC demonstrates the benefits of couple-based strategies to reduce HIV transmission and influence sustained engagement in HIV care, couple-centered HIV prevention in healthcare settings have not been wholly adopted in the U.S. (Jiwatram-Negron & El-Bassel, 2014; WHO, 2012). This may reflect a Westernized idiocentric-orientation that has been maintained in U.S healthcare practices as demonstrated by the enduring focus on individually based HIV prevention interventions (Kippax et al., 2013; McCarthy, 2005). This individualist focus persists despite that among certain U.S. populations, interpersonal behaviors trump individual ones in heightening HIV transmission and fueling HIV-related health disparities (Nolte, Kim & Guthrie, 2017; Tieu et al., 2016).

This formative study provides insights into providers’ perceptions about CHTC as an HIV prevention service. Healthcare providers play a critical role and are essential to enhancing health promotion and HIV prevention, and providing care (Leblanc, Flores & Barroso, 2015; Krakower & Mayer, 2016). Ascertaining health promotion service is essential to inform program implementation and dissemination, and service user uptake of CHTC (Anderson et al., 2017; Krakower & Mayer, 2012). Such ascertainment has implications for the consideration, uptake and adaptation of interventions and tailoring to specific health service users.

Narratives revealed that CHTC was perceived to have biomedical and socio-behavioral merit for HIV prevention and warranted consideration. Narratives on providers’ perceptions gave insight to the perceived relevancy of CHTC for certain populations. Healthcare providers were acutely aware that interpersonal HIV risk is an actual threat to the sexual well-being of the patient population served. Couples HIV testing and counseling was perceived to be an evolution from current HIV testing approaches by offering a different iteration of HIV screening, providing a unique mechanism for reducing transmission within couples, and encouraging an evolved self-concept of health to include the health of another individual.

Couple' HIV testing and counseling was perceived to be the gateway for mechanizing couple-centered coordinated HIV prevention and care which may include uptake and use of biomedical prevention options (e.g., PrEP, PrEP/ antiretroviral treatment) for a variety of couples. Couples HIV testing and counseling can optimize current U.S. provider practice and maximize the availability of biomedical prevention options. Healthcare providers recognized that although some couples may be self-motivated to engage in CHTC, others may need encouragement and/or referral from their providers to engage in CHTC (Nolte, Kim & Guthrie, 2017; Mitchell, 2014). Providers may need to clarify a joint HIV diagnosis (e.g., serodiscordance, seroconcordance) and guide prevention of and/or treatment for HIV infection. For providers, CHTC reinforces frameworks for couple-centered HIV care coordination that can include conception health, STD treatment, implementation of other biomedical prevention options (e.g., PrEP), and engagement in HIV care. Such an orientation would help support HCPs to engender a more holistic approach to patient care. Couple-centered HIV prevention also aims to ensure positive outcomes for patients with heightened vulnerability to poor sexual health, and implementation of biomedical and socio-behavior strategies that have demonstrated to improve health outcomes including retention in HIV care.

Perceptions regarding what constitutes a couple was important to recognize because it can have bearing on the HIV prevention options offered to patients. These perceptions could also influence patient outcomes and joint health attainment for couples engaging in these risk reduction strategies (Adams and Balderson, 2016; Flickinger et al., 2016). Importantly, narratives revealed that patient's sexual identities and relationship norms have changed [from the heteronormative], and that relationship commitment may manifest differently for some couples. In recognition of these changes, providers reconciled that couples are self-defining, couple-types are diverse (i.e., patients whose partners are polyamorous, non-gender conforming, unmarried), and acknowledged the need for providers to address couples' varying health needs.

Several potential limitations and strengths of the study should be noted. This study was conducted as part of a dissertation, whereby the nature of doctoral study can engender an isolating analytical process. The use of peer debriefings for tool development and data analysis allowed for insight from multiple perspectives in enhancing the integrity of the methods employed for this study. Further, the study design and recruitment strategy demonstrated efforts towards study trustworthiness and aligns with existing standards and expectations for rigor in qualitative studies (Creswell, 2013; Thomas & Magilvy, 2011). Despite these efforts potential limitations may be present in the sampling of facilities and HCPs. Participants with prior knowledge of CHTC may have also biased the sample. Experience in implementing CHTC was not a criterion for provider eligibility, however a small number of participants ($N = 3$) reported experience implementing CHTC. These limitations are eclipsed by more than half of the HCPs representing a variety of disciplines, possessing 10 or more years of experience in HIV screening and care. Participants also collectively brought significant insight and expertise to this perspective which may or may not resonate in other U.S. settings or among other populations. The experiences and reflections of this sample are a benefit to health facilities that are considering using CHTC for HIV prevention.

Another potential limitation is that participant perspectives of CHTC may appear to be skewed towards testing and not wholly inclusive of the counseling component of CHTC. We do not attribute this to provider disregard for counseling, but rather the counseling component within HIV prevention has been minimized in the U.S. as HIV testing has been incorporated within clinical practice. Further, the current CDC CHTC protocol includes creation of a relationship agreement which is an expected outcome resulting from provider counseling with the couple. Also many of the study participants routinely incorporate counseling in practice due to the nature of their discipline and therefore the newer component that would be introduced to providers is joint HIV testing and immediate disclosure. One last potential limitation is that as of this writing, the CDC protocol has since incorporated providers' recommendations. For example, amendments have been made to the CDC CHTC protocol to be inclusive of all couple types in various health settings and the protocol now appears to have incorporate PrEP and conception health (CDC, 2017b).

In closing, couples-centered approaches, specifically couples HIV testing and counseling (CHTC), provides an opportunity to address HIV prevention more contextually and optimize efforts towards positive patient outcomes for vulnerable populations. This study adds to the literature on CHTC and serves as formative research for implementation in the U.S. Providers' perceptions gave insight to the perceived relevancy of CHTC for certain U.S. populations. Opportunities for CHTC adoption should be assessed in U.S. settings where HIV screening or where HIV prevention should be routinized: maternal health, primary care and settings where PrEP services are offered. Further research on CHTC in the U.S. is still warranted to gain perspectives from potential consumers, stakeholders and from providers s in other jurisdictions to inform and tailor CHTC. Future research of CHTC in the U.S. should also include effectiveness and implementation research to inform translation of this strategy in varied U.S. healthcare settings (Curran, Bauer, Mittman, Pyne, & Stetler, 2012). Consideration and incorporation of HCP insights regarding CHTC ensures that adequate and appropriate insights on varying and diverse experiences are included in dissemination (Luquis & Paz, 2014).

Acknowledgments

The authors would like to acknowledge the health care providers that participated in this study and the communities they serve. The authors would also like to acknowledge Drs. Joseph DeSantis and Victoria Mitrani at the University of Miami, School of Nursing, Dr. Rosa Gonzalez-Guarda at Duke University School of Nursing, Dr. Laura Abuja University of Miami, School of Medicine and Dr. Julie Barroso at the Medical University of South Carolina School of Nursing. Dr. Leblanc would like to acknowledge the Florida Educational Fund McKnight Program for their support. This manuscript's development was supported by a postdoctoral fellowship to the first author from the University of Rochester, School of Nursing, and by the University of Rochester Center for AIDS Research (NIH P30AI078498).

References

- Adams LM, & Balderson BH (2016). HIV providers' likelihood to prescribe pre-exposure prophylaxis (PrEP) for HIV prevention differs by patient type: A short report. *AIDS Care*, 28(9), 1154–1158. 10.1080/09540121.2016.1153595 [PubMed: 26915281]
- Allen S, Meizen-Derr J, Kautzman M, Zulu I, Trask S, Fideli U, . . . Haworth A (2003). Sexual behaviour of HIV discordant couples after HIV counselling and testing. *AIDS*, 17(5), 733–740. [PubMed: 12646797]

- Allen S, Tice J, Ven de Perre P, Serufilira A, Hudes E, Nsengumuremyi F, . . . Hulley S (1992). Effect of sero-testing with counselling on condom use and sero-conversion among HIV discordant couples in Africa. *British Medical Journal*, 304 (6842), 1605–1609. [PubMed: 1628088]
- Anderson K, Francis T, Ibanez-Carrasco F, & Globerman J (2017). Physician’s perceptions of telemedicine in HIV care provision: A cross-sectional web-based survey. *JMIR Public Health and Surveillance*, 3(2), e31 10.2196/publichealth.6896 [PubMed: 28559226]
- Becker S, Mlay R, Schwandt H, & Lyamuya E (2010). Comparing couples’ and individual voluntary counselling and testing for HIV at antenatal clinics in Tanzania: A randomized trial. *AIDS Behav*, 14(3), 558–566. doi: 10.1007/s10461-009-9607-1 [PubMed: 19763813]
- Black AIDS Institute. (2009). Passing the test: The challenges and opportunities of HIV testing in Black America. Retrieved from <https://www.blackaids.org/images/reports/passing.pdf>
- Campsmith ML, Rhodes PH, Hall HI, & Green TA (2010). Undiagnosed HIV prevalence among adults and adolescents in the United States at the end of 2006. *J Acquir Immune Defic Syndr*, 53(5), 619–624 [PubMed: 19838124]
- Centers for Disease Control and Prevention [CDC]. (2012). Effective interventions. Couples HIV testing and counseling. Retrieved from <https://www.effectiveinterventions.org/en/HighImpactPrevention/PublicHealthStrategies/CHTC.aspx>
- Centers for Disease Control and Prevention [CDC]. (2016a). CDC Fact Sheet: Today’s HIV/AIDS Epidemic. Retrieved from <https://www.cdc.gov/nchhstp/newsroom/docs/factsheets/todaysepidemic-508.pdf>
- Centers for Disease Control and Prevention [CDC]. (2016b). Legal Status of EPT in Florida. Retrieved from <http://www.cdc.gov/std/ept/legal/florida.htm>
- Centers for Disease Control and Prevention [CDC]. (2017a). Diagnosed HIV infection among adults and adolescents in metropolitan statistical areas—United States and Puerto Rico, 2015. HIV Surveillance Supplemental Report 2017, volume 22. Retrieved from <https://www.cdc.gov/hiv/pdf/library/reports/surveillance/cdc-hiv-surveillance-supplemental-report-vol-22-1.pdf>
- Centers for Disease Control and Prevention [CDC]. (2017b). State HIV Laws. Retrieved from <https://www.cdc.gov/hiv/policies/law/states/>
- Chomba E, Stephenson R, Haworth A, Allen S, Kanweka W, Tichacek A, . . . Sinkala M (2008). Evolution of couples’ voluntary counseling and testing for HIV in Lusaka, Zambia. *Journal of Acquired Immune Deficiency Syndromes*, 47(1), 108. doi: 10.1097/QAI.0b013e31815b2d67 [PubMed: 17984761]
- Colorafi KJ, & Evans B (2016). Qualitative descriptive methods in health science research. *HERD: Health Environments Research & Design Journal*, 9(4), 16–25. doi:10.1177/1937586715614171
- Crepaz N, Dong X, Chen M, & Hall HI (2017). Examination of HIV infection through heterosexual contact with partners who are known to be HIV infected in the United States. *AIDS*, 31(11), 1641–1644. doi:10.1097/qad.0000000000001526 [PubMed: 28463885]
- Crepaz N, Tungol-Ashmon MV, Vosburgh HW, Baack BN, & Mullins MM (2015). Are couple-based interventions more effective than interventions delivered to individuals in promoting HIV protective behaviors? A meta-analysis. *AIDS Care*, 27(11):1361–1366. doi: 10.1080/09540121.2015.1112353. [PubMed: 26608175]
- Creswell JW (2013). *Qualitative Inquiry and Research Design: Choosing among Five Approaches*. Thousand Oaks, Los Angeles, CA: SAGE Publications.
- Curran GM, Bauer M, Mittman B, Pyne JM, & Stetler C (2012). Effectiveness-implementation hybrid designs: Combining elements of clinical effectiveness and implementation research to enhance public health impact. *Medical Care*, 50(3), 217–226. doi:10.1097/MLR.0b013e3182408812 [PubMed: 22310560]
- Dowson L, Kober C, Perry N, Fisher M, & Richardson D (2012). Why some MSM present late for HIV testing: A qualitative analysis. *AIDS Care*, 24(2), 204–209. doi: 10.1080/09540121.2011.597711 [PubMed: 21780956]
- Flickinger TE, Saha S, Roter D, Korthuis PT, Sharp V, Cohn J, . . . Beach MC (2016). Respecting patients is associated with more patient-centered communication behaviors in clinical encounters. *Patient Education and Counseling*, 99(2), 250–255. doi:10.1016/j.pec.2015.08.020 [PubMed: 26320821]

- Florida Department of Health [FDOH]. (2014). HIV Disease: United States vs. Florida. Retrieved from: http://www.floridahealth.gov/diseases-and-conditions/aids/surveillance/_documents/fact-sheet/2014/2014-us-vs-fl-fact-sheet1.pdf
- Florida Department of Health [FDOH]. (2016) HIV/AIDS section. Retrieved from <http://www.floridacharts.com/charts/OtherIndicators/NonVitalHIVAIDSViewer.aspx?cid=0471>
- Gentles SJ, Charles C, Ploeg J, & McKibbin K (2015). Sampling in qualitative research: Insights from an overview of the methods literature. *The Qualitative Report*, 20(11), 1772–1789.
- Goodreau SM, Carnegie NB, Vittinghoff E, Lama JR, Sanchez J, Grinsztejn B, . . . Buchbinder SP (2012). What drives the US and Peruvian HIV epidemics in men who have sex with men (MSM)? *PLoS one*, 7(11), 1–9. doi: 10.1371/journal.pone.0050522
- Hsieh HF, & Shannon SE (2005). Three approaches to qualitative content analysis. *Qualitative Health Research*, 15(9), 1277–1288. doi:10.1177/1049732305276687 [PubMed: 16204405]
- Jiwatram-Negron T & El-Bassel N (2014). Systematic review of couple-based HIV intervention and prevention studies: Advantages, gaps, and future directions. *AIDS and Behavior*, 18(10), 1864–1887. doi: 10.1007/s10461-014-0827-7 [PubMed: 24980246]
- Karney BR, Hops H, Redding CA, Reis HT, Rothman AJ, Simpson JA (2010). A framework for incorporating dyads in models of HIV-Prevention. *AIDS and Behavior*, 14(S2):189–203. doi: 10.1007/s10461-010-9802-0.
- Kebaabetswe P, Ndase P, Mujugira A, Sekoto T, Ntshimane M, Owor A, . . . Essex M (2010). Perceptions of couple HIV counseling and testing in Botswana: A stakeholder analysis. *Patient Education and Counseling*, 79(1):120–123. doi:10.1016/j.pec.2009.07.017. [PubMed: 19682831]
- Kippax S, Stephenson N, Parker RG, & Aggleton P (2013). Between Individual Agency and Structure in HIV Prevention: Understanding the Middle Ground of Social Practice. *American Journal of Public Health*, 103(8), 1367–1375. doi:10.2105/AJPH.2013.301301 [PubMed: 23763397]
- Krakower D, & Mayer KH (2012). Engaging healthcare providers to implement HIV pre-exposure prophylaxis. *Current opinion in HIV and AIDS*, 7(6), 593–599. doi:10.1097/COH.0b013e3283590446 [PubMed: 23032736]
- Krakower D, & Mayer KH (2016). The role of healthcare providers in the roll-out of PrEP. *Current Opinion in HIV and AIDS*, 11(1), 41–48. doi:10.1097/COH.0000000000000206 [PubMed: 26417953]
- Lincoln YS, & Guba EG (1985). *Naturalistic inquiry*. Beverly Hills, CA: Sage
- Lippman SA, Koester KA, Amico KR, Lama JR, Martinez Fernandes N, Gonzales P, . . . Koblin BA (2015). Client and provider perspectives on new HIV prevention tools for MSM in the Americas. *PLoS ONE*, 10(3), e0121044. doi:10.1371/journal.pone.0121044 [PubMed: 25826246]
- Leblanc NM, Flores DD, & Barroso J (2015). Facilitators and barriers to HIV screening: A qualitative meta-synthesis. *Qualitative Health Research*, 26(3), 294–301 [PubMed: 26631679]
- Lolekha R, Kullerk N, Wolfe MI, Klumthanom K, Singhagowin T, Pattanasin S, . . . Voramongkol N (2014). Assessment of a couples HIV counseling and testing program for pregnant women and their partners in antenatal care (ANC) in 7 provinces, Thailand. *BMC International Health and Human Rights*, 14, 39. doi:10.1186/s12914-014-0039-2 [PubMed: 25539670]
- Luquis RR, & Paz HL (2014). Attitudes about and practices of health promotion and prevention among primary care providers. *Health Promotion Practice*, 16(5):745–755. doi: 10.1177/1524839914561516 [PubMed: 25445979]
- Magilvy JK, & Thomas E (2009). A first qualitative project: Qualitative descriptive design for novice researchers. *Journal for Specialists in Pediatric Nursing*, 14(4), 298–300. doi:10.1111/j.1744-6155.2009.00212.x [PubMed: 19796329]
- MAXqDA VERBI GmbH Berlin, 1995
- McCarthy J (2005). Individualism and collectivism: What do they have to do with counselling? *Journal of Multicultural Counseling and Development*, 33(2):108–117. doi:10.1002/j.2161-1912.2005.tb00009.
- McMahon JM, Pouget ER, Tortu S, Volpe EM, Torres L, & Rodriguez W (2014). Couple-based HIV counseling and testing: A risk reduction intervention for US drug-involved women and their primary male partners. *Prevention Science*, 16(2):341–351. doi:10.1007/s1121-014-0540-9.

- Mitchell JW (2014). Gay male couples' attitudes toward using couples-based voluntary HIV counseling and testing. *Archives of Sexual Behavior*, 43(1), 161–171. doi: 10.1007/s10508-013-0211-0 [PubMed: 24213623]
- Mlay R, Lugina H, & Becker S (2008). Couple counselling and testing for HIV at antenatal clinics: Views from men, women and counsellors. *AIDS Care*, 20(3), 356–360. [PubMed: 18351484]
- Nolte K, Kim T, & Guthrie B (2017). "Taking Care of Ourselves": The experiences of Black women approaching and encouraging male partners to test for HIV. *Journal of the Association of Nurses in AIDS Care*, 28(3), 327–341. doi:10.1016/j.jana.2016.10.005 [PubMed: 27890322]
- Njau B, Watt MH, Ostermann J, Manongi R, & Sikkema KJ (2011). Perceived acceptability of home-based couples voluntary HIV counseling and testing in Northern Tanzania. *AIDS Care*, 24(4), 413–9. doi:10.1080/09540121.2011.608796. [PubMed: 21939369]
- Online dictation (n.d). Retrieved from <https://dictation.io/>
- Orne-Gliemann J, Tchendjou P, Miric M, Gadgil M, Butsashvili M, Eboko F, . . . Dabis F (2010). Couple-oriented prenatal HIV counseling for HIV primary prevention: An acceptability study. *BMC Public Health*, 10(1), 197. doi: 10.1186/1471-2458-10-197 [PubMed: 20403152]
- Polit DF, & Beck CT (2012). *Nursing Research: Generating and Assessing Evidence for Nursing Practice*. Philadelphia: PA, Wolters Kluwer Health/Lippincott Williams & Wilkins.
- Rubio-Valera M, Pons-Vigués M, Martínez-Andrés M, Moreno-Peral P, Berenguer A, & Fernández A (2014). Barriers and facilitators for the implementation of primary prevention and health promotion activities in primary care: A synthesis through meta-ethnography. *PLoS ONE*, 9(2):e89554. doi:10.1371/journal.pone.0089554. [PubMed: 24586867]
- Sandelowski M (2010). What's in a name? Qualitative description revisited. *Research in Nursing & Health*, 33(1), 77–84. doi: 10.1002/nur.20362 [PubMed: 20014004]
- Sandelowski M, & Barroso J (2003). Classifying the findings in qualitative studies. *Qualitative Health Research*, 13(7), 905–923. doi: 10.1177/1049732303253488 [PubMed: 14502957]
- Siegel K, Lekas H, Olson K, & Van Devanter N (2010). Gender, sexual orientation, and adolescent HIV testing: A qualitative analysis. *JANAC: Journal of the Association of Nurses in AIDS Care*, 21(4), 314–326. [PubMed: 20303793]
- Spall S (1998). Peer debriefing in qualitative research: Emerging operational models. *Qualitative Inquiry*, 4(2), 280–292. doi:10.1177/107780049800400208
- Sullivan PS, Salazar L, Buchbinder S, & Sanchez TH (2009). Estimating the proportion of HIV transmissions from main sex partners among men who have sex with men in five US cities. *AIDS*, 23(9), 1153–1162. doi:10.1097/QAD.0b013e32832baa34 [PubMed: 19417579]
- Sullivan PS, Stephenson R, Grazer B, Wingood G, Diclemente R, Allen S, ... Grabbe K (2014). Adaptation of the African couples HIV testing and counseling model for men who have sex with men in the United States: An application of the ADAPT-ITT framework. *SpringerPlus*, 3(1), 249. doi: 10.1186/2193-1801-3-249 [PubMed: 24877036]
- Theuring S, Nchimbi P, Jordan-Harder B, & Harms G (2010). Partner involvement in perinatal care and PMTCT services in Mbeya region, Tanzania: The providers' perspective. *AIDS Care*, 22(12): 1562–1568. doi:10.1080/09540121003758572. [PubMed: 20582753]
- Thomas E, & Magilvy JK (2011). Qualitative rigor or research validity in qualitative research. *Journal for Specialists in Pediatric Nursing*, 16(2):151–155. doi:10.1111/j.1744-6155.2011.00283.x. [PubMed: 21439005]
- Tieu HV, Nandi V, Hoover DR, Lucy D, Stewart K, Frye V, ... Koblin BA. (2016). Do sexual networks of men who have sex with men in New York City differ by Race/Ethnicity? *AIDS Patient Care and STDs*, 30(1), 39–47. doi: 10.1089/apc.2015.0237 [PubMed: 26745143]
- Vaismoradi M, Turunen H, & Bondas T (2013). Content analysis and thematic analysis: Implications for conducting a qualitative descriptive study. *Nursing & Health Sciences*, 15(3):398–405. doi: 10.1111/nhs.12048. [PubMed: 23480423]
- World Health Organization [WHO]. (2012). *Guidance on couples HIV testing and counseling including antiretroviral therapy for treatment and prevention in serodiscordant couples. Recommendations for a public health approach*. Retrieved from <http://www.who.int/hiv/pub/guidelines/9789241501972/en/>

Table 1.

Sample Questions from Interview Guide: Perceptions of Couples HIV Testing and Counseling

Opener	<ul style="list-style-type: none"> • Tell me about yourself and how you came to where you are in your profession.
Professional history of HIV testing	<ul style="list-style-type: none"> • Describe a time when you had to offer an HIV test to a patient (regardless of the outcome)? • Describe a time with a patient who tested seropositive where you may have thought about testing their partner(s)?
Knowledge about CHTC	<ul style="list-style-type: none"> • Describe anything you know or have heard about couples testing for HIV (Aside from what I explained). • How did you get to know about CHTC? • Have you attended a CHTC training? <ul style="list-style-type: none"> ○ What are your thoughts about the training? ○ Which elements/parts of the parts of the training were most salient for you and why?
Perceptions about couples testing for HIV	
Attitude about CHTC	<ul style="list-style-type: none"> • What do you think about CHTC? • If you had the opportunity to jointly test sexual partners for HIV would you and why?
If currently implementing CHTC	<ul style="list-style-type: none"> • Describe your experience with implementing CHTC. • What is your perception of the CHTC process/protocol? • What are some element of the strategy so far would you like to see improved and why?
Closing	<ul style="list-style-type: none"> • With the emergence of PrEP as a strategy, what are your thoughts on the incorporation in CHTC? • Is there anything you would like to add at this time? Or do you have any questions? • Is there someone you can think of that I may contact to participate in this study?

Author Manuscript

Author Manuscript

Author Manuscript

Author Manuscript

Table 2.

Provider demographics

Provider Demographics	
Demographics Variable	Frequency
Age (years)	
30–39	7
40–49	8
>50	7
Gender	
Female	13
Male	9
Race/Ethnicity (self-identified)	
Black	9
White	11
Hispanic/Latino	2
Foreign -born	
Yes	8
No	14
Nationality/Ethnicity/Ancestry (self-identified)	
American	11
Caribbean (Cuban, Haitian, Jamaican, Puerto Rican)	8
Latin/Hispanic	3
Years in practice	
<5	3
6–10	3
11–19	9
>20	6
Licensed clinical and non-clinical providers	
Advanced nurse practitioner	8
Medical doctor	2
Physician assistant	1
Mental health provider	4
Other non-clinical providers	
Program managers	4
Testers/counselors	3