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Broaching the Topic of HIV Self-testing with Potential Sexual Partners Among Men and Transgender Women who have Sex with Men in New York and Puerto Rico

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Abstract

Men who have sex with men (MSM) and transgender women (TGW) are highly affected by HIV and need novel prevention strategies. Using HIV self-testing (HIVST) kits to screen sexual partners may represent a viable risk-reduction alternative; however, more research is needed on effective strategies for broaching HIVST with partners. In the ISUM study, 136 MSM and TGW were given ten HIVST kits for self- and partner-testing. After three months, they returned for a follow-up assessment; thirty participants were also selected for in-depth interviews about their experiences initiating HIVST with partners. Most found proposing HIVST to a diverse array of

partners relatively easy. They employed strategies such as joint testing and integrating HIVST into larger discussions about protection and sexual health, with moderate success. Nonetheless, real or anticipated negative partner reactions were a significant barrier. Future research can inform best practices for safely and successfully broaching HIVST with sexual partners.

Resumen

Los hombres que tienen sexo con hombres (HSH) y las mujeres transgénero (MTG) están muy afectados por el VIH y necesitan estrategias innovadoras de prevención. El uso del autotest de VIH (HIVST) para testear a parejas sexuales podría ser una alternativa viable de reducir el riesgo; sin embargo, se necesitan más investigaciones sobre estrategias eficaces para abordar el tema de usar el HIVST con parejas. En el estudio ISUM, 136 HSH y MTG fueron provistos de diez HIVST para testear a sí mismo y a parejas. Después de tres meses, volvieron para una evaluación de seguimiento; treinta participantes también fueron seleccionados para una entrevista en profundidad sobre sus experiencias abordando el tema del uso del HIVST con parejas. La mayoría encontró que proponer HIVST a una gran variedad de parejas fue relativamente fácil. Emplearon estrategias como hacerse la prueba juntos y integrar HIVST en una conversación más amplia sobre la protección y la salud sexual, con leve éxito. No obstante, las reacciones negativas de parejas, ya sean reales o anticipadas, representaron una barrera importante. Las investigaciones futuras pueden informar las mejores prácticas para abordar el tema de HIVST con parejas sexuales de manera segura y exitosa.

Keywords

HIV prevention; self-testing; transgender; men who have sex with men

Introduction

HIV self-testing (HIVST) has emerged in recent years as a promising risk reduction strategy, stemming from myriad efforts to curtail the HIV epidemic (1–2). In particular, HIVST has been reported to be an easy, convenient, and highly acceptable testing alternative for a diverse array of key populations worldwide (3–16). This holds true for populations who may not have ready access to safe, affordable testing services and who are disproportionately affected by the epidemic, including sexually active men who have sex with men (MSM) and transgender women (TGW) who do not consistently use protection (e.g., condoms, PrEP) when engaging in anal intercourse (3,4,6–9,11,12,15,16). For such MSM and TGW, HIVST kits may serve as an active form of risk reduction, in that availability of HIVST kits has been shown to contribute to more frequent partner-testing (4,9,17,18).

Using HIVST kits to screen sexual partners can help individuals make more informed decisions and better protect themselves during a sexual encounter. Primarily, it enables individuals to engage in serosorting based on objective information about a given partner's HIV status (19–21). In the event that a partner tests positive, individuals can re-evaluate whether they want sexual activity to continue, revisit what forms of protection they would like to utilize, and limit the sexual acts in which they engage to minimize their risk of HIV acquisition (21–23). Although this method does not eliminate risk, in that HIVST kits are

not sensitive enough to detect more recent infections (i.e., those occurring within the past three months), it may offer MSM and TGW who do not utilize other forms of protection some knowledge about a partner's HIV status prior to the initiation of a sexual encounter (24,25).

Testing partners with HIVST kits appears to be an auspicious risk reduction strategy; however, little is currently known about the ways in which MSM and TGW communicate with potential sexual partners about HIVST and navigate this sensitive topic during sexual encounters. Research suggests that proposing HIVST to sexual partners can be more successful when the kits are introduced in the context of dual or couples testing (4,10,14,18,26); that said, these studies largely included female sex workers (10,14) who tested regular clients and pregnant or recently pregnant women who tested primary sex partners (17,26). While such findings provide a nice starting ground regarding how individuals could effectively communicate with sexual partners about HIVST, more tailored research is needed to elucidate strategies that are likely to yield success among other key populations. Specifically, further exploration of how sexually active MSM and TGW, who may wish to broach this topic among a wider variety of less committed sexual partners and, thus, may face greater communication challenges, is warranted.

This study explored how a sample of MSM and TGW from New York City (NYC) and San Juan, Puerto Rico (SJU) initiated HIVST with potential sexual partners. Particular attention is given to the ways participants broached this topic and further communicated with potential partners about HIVST to successfully negotiate kit usage, participants' decision-making processes when opting not to test specific partners, and participants' accounts of how their partners reacted to the suggestion of using an HIVST kit.

Methods

Sample

The ISUM study was a 5-year, randomized controlled trial designed to examine the effectiveness of providing at-risk MSM and TGW in NYC and SJU with HIVST kits to test potential sexual partners before engaging in anal intercourse as a form of risk reduction. Enrolled participants were at least 18 years of age, HIV-negative, non-monogamous, and self-identified as cisgender MSM or TGW who have sex with men. As the study targeted high-risk populations, participants were only eligible if they were not taking oral PrEP and reported three or more occasions of condomless anal intercourse (CAI) with sero-discordant or unknown status partners in the past three months. The primary outcomes of this study are presented elsewhere (27).

Recruitment

Participants were recruited between 2014 and 2017 through a number of mechanisms, including online dating apps (e.g., Grindr, GROWLr), in-person venues (e.g., tabling at LGBTQ+ centers), and participant referrals (28). In total, 272 participants were enrolled into the study.

Procedures

Interested participants responded to a pre-screening questionnaire and, if eligible, attended an in-person screening visit (Visit 1). At Visit 1, the research staff obtained written consent from all participants prior to their participation in any components of the study. Then, consenting participants completed a baseline computer administered self-interview (CASI) about their typical sexual risk behavior, tested themselves using the OraQuick® In-home HIV rapid self-test without assistance from study staff, and underwent a staff-administered secondary HIV test (i.e., the Alere Determine™ HIV-1/2 Ag/Ab Combo Test).

Eligible participants were invited to return for an enrollment visit (Visit 2) within one week, at which time they were randomized to either the intervention (N=136) or control (N=136) group. Intervention group participants immediately received ten OraQuick® In-home HIV rapid self-tests and were permitted to request up to 20 additional kits prior to their next follow-up visit. To prepare for using the HIVST kits at home, these participants watched a fifteen-minute video (29) played by actors who shared the experiences of participants in a prior study (4) who used the tests to screen potential sexual partners or clients. The video was made specifically for the present study and included topics such as things to consider when broaching HIVST kit use with potential partners and how to respond to partners who might become angry as a result of the HIVST proposal.

After randomization, participants in both groups underwent HIV counseling, were offered condoms, and were enrolled in the study's test messaging system (SMS; 30). In between Visit 2 and Visit 3, which occurred three months later, participants received daily text messages asking them to report on recent CAI occasions, knowledge of their partners' HIV status during such occasions, and the number of unused test kits they had remaining (intervention group only).

After three months, all participants returned for Visit 3, were re-tested for HIV, and completed a follow-up CASI. Thirty intervention participants were also selected to undergo an in-depth interview (IDI) to further explore their experiences initiating test use with sexual partners. As the purpose of these IDIs was to better capture the experiences of individuals who may have had unique risk or HIVST kit use profiles, participants were selected if they met at least one of the following criteria: they did not use any test kits, they used an unusually high number of test kits (i.e., more than the initial 10), they identified as a TGW, or they tested at least one partner HIV-positive.

All procedures were reviewed and approved by the Institutional Review Boards at the New York State Psychiatric Institute and the University of Puerto Rico Medical Sciences Campus.

Measures

As part of the Visit 1 CASI, participants answered questions pertaining to demographics and baseline sexual behavior.

At Visit 3, intervention participants reported via CASI on the ease/difficulty with which they were able to broach HIVST with sexual partners during the past three months: "*how easy or difficult was it for you to raise the idea of using a rapid HIV test with a partner?*"

Participants responded using a 4-point Likert scale (1= very easy to do; 2= fairly easy; 3= fairly hard; 4= very hard to do). Intervention group participants also indicated via CASI how often they brought up HIVST with potential partners. Those who broached the topic with at least one partner reported on the mode of communication (e.g., in-person, via text or dating app) and how their partner(s) reacted to the proposal. Participants who initially proposed test use electronically were asked to categorically quantify how many of their potential partners (i.e., “none,” “few,” “some,” “many,” “all”) responded in specified ways (e.g., refused to test, got angry or upset, ended the communication). It was anticipated that, in the case of electronic exchanges, which tend to start and end very quickly, it might be difficult for participants to recall the exact number of individuals who reacted in a certain manner. Conversely, those who proposed kit use to at least one partner in-person were asked to quantify the types of sexual partners with whom they discussed HIVST, as well as their partners’ reactions to these discussions, using exact numbers. Those who opted not to bring up HIVST with at least one partner were asked to explain why.

During the IDIs, participants discussed in more detail the strategies they used to bring up HIVST with potential sexual partners, how those proposals went, and how their partners reacted. Finally, participants shared their decision-making processes regarding the partners they opted to discuss the tests with as opposed to those they did not.

Data Analysis

As the focus of this manuscript is the ways in which participants broached HIVST and further navigated testing with sexual partners, only the 136 intervention participants were included in the data analysis. Due to insufficient sample sizes, the present findings have not been stratified by gender identity (MSM vs. TGW) or sex work (sex work vs. not); however, composite findings for the sub-sample of transgender participants (31) and sub-sample of participants who reported engaging in sex work (32) have been previously reported and explored in greater depth.

Frequencies on relevant items from the Visit 1 and Visit 3 CASIs were calculated using SPSS V25; percentages and total Ns are reported where appropriate. All IDI audio files were transcribed by a professional transcription company and verified for accuracy by the research team. Using the IDI guide as a reference, the research team developed a detailed codebook that included code names, definitions, and inclusion/exclusion criteria. After individually coding five transcripts, three members of the research team reconvened to discuss codes and modify the codebook as needed. Transcripts were processed using the NVivo v.11 qualitative data analysis program; two independent coders reviewed each transcript and later met to reconcile discrepant codes. For the present manuscript, the first and second authors reviewed the codes for ‘broaching the topic of HIVST kit use with partners’ and ‘decision not to discuss HIVST kits with partners’ to identify salient themes. Two additional authors then reviewed the list of themes and corresponding quotes to ensure the data had been accurately characterized. The research team translated Spanish quotes into English. All quotes were cleaned for clarity and readability without compromising the integrity of their content.

Results

Demographics

Intervention group demographics and baseline sexual behavior data are presented in Table I. On average, participants were 34 years of age, reported some college education, and earned an annual income of almost \$25,000. In total, 123 participants (90%) were cisgender men and 13 (10%) were transgender women. Of these, 102 (75%) identified as gay/homosexual, 26 (19%) as bisexual, four (3%) as heterosexual, and four (3%) as other. Seventy-six (56%) participants self-identified as Hispanic/Latino and 64 (47%) as Black/African-American (categories not mutually exclusive). Regarding sexual behavior in the past three months, participants reported a median of 10 sexual partners (IQR = 6–17), five condomless insertive anal sex occasions (IQR = 2–12), and five condomless receptive anal sex occasions (IQR = 3–10).

Ease of Broaching the Topic of HIVST with Partners

At Visit 3, 130 (96%) participants returned for follow-up and reported via CASI on the ease of raising the idea of HIVST with partners over the past three months. Five participants (4%) selected “Refuse to answer” or “Not applicable.” Among the remaining 125 participants, 97 (78%) responded that it had been “very” or “fairly” *easy* to broach this topic with their partners, while 28 (22%) responded that it had been “fairly” or “very” *hard*. Below are the main themes and subthemes pertaining to 1) participants’ modes of broaching HIVST with partners, 2) strategies for broaching this topic, 3) partners’ reactions, and 4) participants’ decision-making processes when opting not to test specific partners.

Modes of Broaching the Topic

Two main themes emerged from the IDI data regarding the modes of communication that participants utilized when bringing up HIVST with partners. Some participants chose to broach this topic electronically (i.e., via text, dating app, or online messenger), while others preferred to initiate these discussions in-person.

Electronically—According to CASI data, 71 (55%) intervention participants proposed HIVST to at least one partner electronically. Based on IDI data collected from the 30 selected participants, some (N=8) opted to broach this topic electronically because they believed their partners would be more receptive to the idea of HIVST if they were forthcoming about having the kits and initiated this conversation prior to the beginning of a sexual encounter. To this end, a few (N=3) of these participants integrated the subject of HIVST into conversations with potential partners to coordinate the logistics (e.g., when, how) of the encounter.

“I always did it before they showed up. I didn’t want to surprise anybody. And I wanted to make sure that they were cool with it. So most of these conversations are taking place on the apps or online.”

– (ID 074, 58 yo MSM, NYC)

“So, I would be talking to them about when they wanted to have sex with me, how they wanted to have sex with me, and at the point when I was bringing up issues of

protection and the health issues that could potentially arise, which was always something that I discussed with new clients or partners, I would bring it up.”

– (ID 015, 24 yo TGW, NYC)

In-Person—In total, 111 (85%) participants brought up HIVST with a potential partner in-person. The types of partners with whom they discussed HIVST varied. Specifically, participants tended to offer kit use to more casual partners, with 80 (72%) mentioning the kits to a casual partner with whom they had had sex before, 72 (65%) to someone they had just met and were going to have sex with for the first time, and 45 (41%) to someone they already knew but were going to have sex with for the first time; only 27 (24%) discussed HIVST with a lover or primary partner.

Strategies for Broaching the Topic

Participants described in detail how they went about broaching HIVST with actual partners. Five overarching strategies emerged from these accounts: 1) asking partners to test in a straightforward manner without preamble, 2) integrating the topic of HIVST into larger conversations about both partners' HIV status, 3) introducing the test kit as a tool to facilitate joint testing, 4) framing use of the test kits as a prerequisite for certain kinds of sex, and 5) introducing the tests as components of a research study. Many participants disclosed using more than one strategy; the below Ns reflect this overlap.

Straightforward Request to Test—Many (N=11) of the participants who raised HIVST with partners in-person utilized a brief, straightforward approach. They had no issue initiating these discussions with partners without preamble, preferring to casually and directly ask their partners if they'd be willing to take an HIV test prior to the start of their encounter.

“Right, we was just talking. So, when he came over, I came out the blue, ‘Oh, I got a HIV test. You want to take it?’ He was like, ‘What?’ I was like, ‘The HIV testing kits. I have one.’ He’s like, ‘For real?’ And he took it.”

– (ID 018, 26 yo MSM, NYC)

“Well, so I said to him, ‘Can I test you for HIV?’ Those were my words... just, ‘Look, I’d like to do this test for you. Yes or no?’”

– (ID 125, 23 yo TGW, SJU)

Integrating HIVST into Larger Conversations—Alternatively, many (N=12) participants attempted to ease into discussions of HIVST by incorporating the topic into larger conversations about both partners' HIV status. Most commonly, these participants would initiate the proposal after asking their partner if he was aware of his own HIV status, using the kits as a segue to obtain some form of objective verification of their partner's verbal assessment.

“First we were talking about sexually transmitted diseases. I asked if he knew his status, if he had had an STD before and then I told him, ‘Look, I have the home testing kit, it’s a rapid test, we can do the test together,’ and he agreed.”

– (ID 114, 38 yo MSM, SJU)

“I ask them nicely. I say, ‘Hey, by the way, do you ever take an HIV test?’ Most of the people say yes. ‘How was the results?’ ‘Negative.’ ‘Can you mind taking one again? Like, a rapid one?’ They say, ‘How’s that work?’ That’s the first thing they ask me.” - (ID 059, 52 yo MSM, NYC)

Joint Testing—In an effort to reduce the likelihood of a negative reaction, some (N=9) participants also framed the HIVST kits as tools to facilitate joint testing. Participants who utilized this approach presented the test kits as a way for both partners to verify each other’s status, believing that partners would be more receptive to the idea if they did not feel targeted during the testing process.

“It helped me convince them, and I wanted to show them that, like I said before, I’m not trying to single them out or offend them, so if I offered to take it too, then perhaps they’ll feel better about it. And they’ll be more willing to do it.”

– (ID 049, 27 yo MSM, NYC)

“Because I brought up testing together, but I told him, let’s test together, so that he would not feel bad -- why would he do it if I didn’t do it? I said to him, ‘Just to be sure, we’ll both do it. That way you are sure about me, and I am sure about you.’”

– (ID 007, 58 yo MSM, SJU)

Pre-Requisite for Certain Types of Sex—Though less common, some (N=6) participants presented the idea of HIVST as a pre-requisite for certain types of sex. Predominantly, these participants negotiated kit usage by stating that their willingness to engage in more desirable sexual acts, such as “swallowing” or unprotected intercourse, was contingent upon their partner using an HIVST kit. Additionally, two participants explained to partners that they were asking them to test so that they could feel protected while performing these riskier sexual acts.

“I’m like, ‘Here. If you take the test, I’ll swallow. You like stuff like that, right? I’ll swallow then keep sucking it.’ And he was sitting there, holding his stuff, gripping on his pants. And then, I kind of unbuttoned stuff, started unbuttoning my shirt, just to kind of tease him. And zipping down my zipper. I’m, like, ‘well, what’s taking you so long?’ And then he took it out, read the instructions. He swabbed himself.”

– (ID 058, 23 yo TGW, NYC)

“When I approached the second partner, I just said, ‘My dear, if you want to have sex with me without protection, well, we’re going to do the test. I have the test here. It’s just that I want to know, because I know my status but I don’t know yours.’ And that’s how the conversation went, and people agreed, it was fine.”

– (ID 071, 39 yo TGW, SJU)

Part of a Research Study—Finally, a few (N=3) participants mentioned that they were using HIVST kits as part of a research study and asked partners if they would help them in their work by using a test.

“I would tell them, ‘I’m doing some work, and I have HIV kits. Do you want to take a test?’ And some of them would be like, ‘OK, what kind of work? I want to know more.’ And then I’d explain to them, it was a study and I was volunteering.”

– (ID 028, 24 yo TGW, NYC)

“The first time that I used it, it was really funny. I told him, ‘Look, I am participating in a study, and they gave me these HIV home test kits, and since we’re going to have sex, well, I’d like to use it.’”

– (ID 113, 35 yo MSM, SJU)

Partner Reactions to HIVST Proposals

Participants reported via CASI on their partners’ reactions to HIVST proposals. The programmed response options included: “agreed to test,” “refused to test,” “got angry or upset,” “ended the conversation” (electronic proposals only), “got physically violent” (in-person proposals only), and “disclosed they were HIV positive.” IDI participants also discussed partners’ reactions to in-person HIVST proposals. The themes that emerged mirrored the CASI response options almost exactly, with one exception: some IDI participants noted that partners became worried when they initiated HIVST conversations.

Electronic Proposals—Participants’ proposals were met with varying degrees of success (Table II). Notably, 96% of those who broached the topic of HIVST electronically had at least one partner agree to test; conversely, 73% had at least one partner refuse to test and 54% had at least one partner end the correspondence upon being asked about HIVST.

In-Person Proposals—Participants’ in-person proposals were likewise met with a range of responses (Table II); nearly all (94%) had at least one partner agree to test, while 37% had at least one partner refuse to test and 34% had at least one partner get angry or upset upon being asked to test. In addition to describing partner reactions that fell into the response options listed on the CASI, some (N=6) IDI participants also reported that their HIVST proposals elicited fear or worry in their partners. This fear appeared to stem from partners’ uncertainty regarding their own HIV status.

“I guess what happened was that when I had been discussing with them previously about meeting with them and I had brought up the test, they had built it up in their head as like this big thing that they had to pass. And so that was like the thing that they were worried about, is what ended up happening in their head. And when that came out negative, then they were able to relax.”

– (ID 015, 24 yo TGW, NYC)

“He told me that he was afraid of confirming his status and doing the test. And I spoke with him before we did the test. I told him about the technological advances, and the treatments that are available these days, that it is very simple to get on treatment because there are pills you can take with breakfast, and with that medication you can remain stable. So, I spoke with him about the benefits of knowing whether he had been exposed.”

– (ID 053, 46 yo MSM, SJU)

Experiences over Time—Although participants' experiences raising the idea of HIVST with partners varied, some (N=6) noted that the process became easier over time. As these participants practiced discussing HIVST with actual partners, they began to hone their selected strategies, learning from experience how to best present the test kits and minimize resistance in potential partners.

“The first time, it was difficult. But the second one was not. I had no qualms about it. On the contrary, I was like, wait a minute. Here he comes, and I have this right by my bed. I said, ‘We’re going to talk about this before we do anything.’ And that’s how it went.”

– (ID 071, 39 yo TGW, SJU)

“Well, the first two times, it was hard. At least, having to explain the whole process. But after that, I had that experience and I knew what to say and what not to say.”

– (ID 038, 21 yo MSM, SJU)

Deciding Not to Broach the Topic

Overall, 79 (61%) participants reported being sexually active with at least one partner with whom they did not discuss HIVST. According to CASI data, the most common reasons participants cited for not raising this topic were that they believed their partner was HIV-negative (42%), did not have a test kit on hand (39%), or felt uncomfortable bringing it up (30%); the complete list of response options is presented in Table III. IDI participants also disclosed their reasons for opting not to discuss HIVST with certain partners in-person. Their rationales largely aligned with the response options included in the CASI; however, for this subset of participants, “felt uncomfortable bringing it up” emerged as the most prevalent theme and two additional themes were articulated: participants did not mention HIVST because they planned on utilizing other forms of protection or because they forgot/got caught up in the heat of the moment.

Felt Uncomfortable Bringing up HIVST—Some (N=7) IDI participants disclosed that they did not bring up HIVST with certain partners because they thought it would be awkward or uncomfortable. Some clarified that this stemmed from the fact that they were dealing with long-term partners who they had never before asked to verify their status; others stated that they believed discussing HIVST would significantly interrupt the sexual encounter and ruin the mood.

“This one guy lives in the neighborhood. We get together with him two or three times a year. We have for the past, like, four or probably five years. He gets around a lot, and I was thinking, even though I’m the top, I was going to ask him to take the test. But I’ve known him for, five, six years now, and I just became very uncomfortable with the idea of saying, ‘Well, you tell me’ because I ask him all the time and he says he’s negative, and all of a sudden, it’s like, ‘Well, I don’t trust you, and I want you to prove it.’”

– (ID 074, 58 yo MSM, NYC)

“I just feel like it might be either a little awkward because it’s one of those situations that the minute we’re in the space together he’s already all over me. So, I feel like the energy is kind of like so intense and the flow is so good that I just wonder if [discussing HIVST] would bring everything to a screeching halt.”

– (ID 080, 27 yo TGW, NYC)

Planned on Using Other Forms of Protection—A few (N=3) participants disclosed that they opted not to test some partners because they had already planned on using other forms of protection (i.e., condoms) and viewed additional precautions as unnecessary.

“Because I’ve known him for a long time and we always use condoms. That’s why I didn’t test him.”

– (ID 096, 35 yo TGW, SJU)

“I didn’t use the tests, but I ended up using condoms.”

– (ID 079, 26 yo TGW, SJU)

Forgot/Got Caught up in the Moment—Finally, a few (N=4) participants did not test partners simply because they forgot or got swept up in the passion of a particular sexual encounter.

“No, I just simply forgot to use the test. ‘Cause I wasn’t used to using that. And I forgot it. But it was inside my house.”

– (ID 125, 23 yo TGW, SJU)

“Another one of my ex-boyfriends. You know, we just recently broke up. And it just was like a heat of the moment thing. We was drinking and then had a little argument, and then after the argument, like, literally right after the argument, we started doing it... I didn’t even think about [the test] because I was so mad at the time.”

– (ID 058, 23 yo TGW, NYC)

Discussion

This study demonstrated that a high-risk group of MSM and TGW were able to easily, and with moderate success, broach the topic of HIVST with a variety of sexual partners to reduce their own risk of HIV infection. Most participants reported that it had been easy for them to bring up HIVST with potential partners; this finding is particularly striking given that participants predominantly opted to discuss HIVST with more casual partners, including those they had just met and were going to have sex with for the first time. Although this trend may have stemmed from the fact that many participants might not have had committed partners, one plausible alternative explanation is that participants reserved HIVST discussions for partners with whom they felt most at-risk. Research examining other forms of risk reduction (i.e., condoms, rectal microbicides) has documented this rationale in MSM (33,34), highlighting that participants report being more likely to utilize a given mode of protection with partners they do not trust because they perceive themselves to be at greater

risk of infection. Regardless of the specific reasoning, the relative ease with which MSM and TGW were able to broach HIVST with a diverse array of sexual partners is promising, particularly for these non-monogamous populations that do not often utilize other forms of protection against HIV.

Overall, participants who opted to discuss HIVST with potential partners were met with moderate success, with almost everyone indicating that they had at least one partner agree to test regardless of the mode of communication (i.e., electronically vs. in-person) utilized. Participants employed a number of diverse strategies when initiating HIVST discussions and negotiating test usage to help ensure a favorable response from partners. Consistent with previous research (4,10,14,18,26), many participants introduced the HIVST kits as tools to facilitate couples testing and ensure that both partners felt safe during the sexual encounter. In addition, participants across strategies expressed the importance of ensuring that their partner(s) did not feel singled out or caught off guard by the initial HIVST proposal, believing this would make them more likely to refuse testing or become defensive. Participants addressed this concern in a number of ways, including bringing up HIVST with partners prior to meeting them in-person; incorporating the topic of HIVST into larger discussions about protection, HIV status, or the logistics of the sexual encounter; and emphasizing the benefits of testing for *both* partners. Although the present study was not designed to measure the success rates of those who employed each of the strategies listed above, it is clear from the high acceptance rates and participants' narratives that these largely partner-conscious approaches aided participants in navigating HIVST with many of their partners, particularly those they asked in-person (37% reported having a partner decline testing in-person vs. 74% of those who broached the topic electronically). Given that our study population included MSM and TGW who were not taking oral PrEP and reported three or more occasions of condomless anal intercourse (CAI) with sero-discordant or unknown status partners in the past three months at baseline, the HIVST kits could have served as the only form of risk reduction for these participants on many occasions. Hence, this initial success is critical, pointing to the potential of this approach as an HIV risk-reduction strategy among these typically hard-to-reach demographics.

Despite the ease and success with which many participants brought up HIVST with partners, the present study also elucidated a number of challenges to using HIVST kits with partners as a form of risk reduction. First and foremost, nearly a quarter of the sample reported that it had been relatively difficult for them to discuss HIVST with partners over the past three months; further, over half of the participants reported that they did not even propose HIVST to at least one partner with whom they were sexually active. Our findings also indicate that some participants experienced or anticipated negative reactions from their partners upon mentioning HIVST. Notably, many of those who broached HIVST had at least one partner refuse to test; similarly, over a third had at least one partner respond to their proposal by becoming angry or upset. Of those who broached HIVST with partners in-person, seven participants reported that partners went so far as to become physically violent following the HIVST proposal (participants' accounts of this violence are presented elsewhere; 35). In examining the reasons why participants opted not to discuss HIVST with potential partners, 30% reported that they felt uncomfortable bringing it up, 25% that they did not want to risk ending the encounter, and 19% that they felt their partner might respond negatively.

Taken altogether, these findings indicate that participants' willingness to use this risk-reduction approach is highly dependent upon how they anticipate their partner(s) will react. Therefore, to promote HIVST among these populations, it is necessary to further research effective communication strategies and develop resources that describe a diverse and adaptable array of best practices for how MSM and TGW can discuss HIVST with partners without compromising the sexual encounter or their individual safety. Although participants in the present study were shown an informational video about things to consider when broaching HIVST with partners, the significant challenges they shared indicate that more thorough guidance is needed for some. As suggested by a few participants, the act of practicing discussing HIVST with partners could help to make the process easier, regardless of the approach utilized; as such, it could prove beneficial to hold readily accessible skills building and communication workshops to provide MSM and TGW with safe spaces in which they can roleplay different strategies for mentioning HIVST to potential partners, therein refining their selected techniques and fostering confidence. Such efforts are imperative for facilitating risk-reduction among these uniquely at-risk populations.

Limitations

This study had a number of limitations. First, the study was not designed to measure the specific strategies that participants utilized when bringing up HIVST with partners; as such, while distinct strategies emerged in the IDIs, success and failure rates, as well as differential partner reactions, could not be linked to each strategy. Second, although 136 participants were enrolled into the intervention arm of this study, only 30 were selected for IDIs, largely due to their unique risk or kit use profiles. This small sample of qualitative data may not provide generalizable data. Third, although the study was designed to include a combined sample of MSM and TGW, research has indicated that these two heterogeneous groups possess unique risk profiles; thus, the prevalence and feasibility of the strategies listed above may differ between the two populations. Finally, while participants reported being highly willing to broach HIVST with partners, this finding is likely in part contingent upon their having access to free test kits. Currently, the OraQuick® In-home HIV rapid self-test is sold over-the-counter at 40 USD per kit, which would undoubtedly be prohibitive for many, particularly those who wish to engage in joint testing. Therefore, although HIVST appears to be a promising risk-reduction strategy, there is a need to explore how to decrease costs for these key populations. Nevertheless, this study does provide a valuable foundation regarding the specific strategies that at-risk MSM and TGW employ to ensure their success while broaching the topic of HIVST with potential sexual partners to reduce their risk of HIV acquisition.

Conclusions

Overall, this sample of MSM and TGW was able to easily and with moderate success broach HIVST with potential sexual partners, using HIVST kits as an active form of risk reduction. Given their success having these conversations with varying partner types, including partners they had just met, and their reluctance to use other forms of protection against HIV, future research is warranted to expand the acceptability and uptake of this approach among these populations. Specifically, future efforts are needed to develop best practices for how MSM and TGW can safely and comfortably utilize this strategy with potential partners without

compromising their sexual encounters. Skills-building and roleplaying workshops may represent strategies that could help at-risk populations hone their skills and develop confidence in navigating these sensitive conversations.

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Table I.**Demographics and Sexual Behavior at Baseline**

Demographics	Intervention (N=136¹)
	Mean (SD)
Age (years)	33.85 (11.12)
Level of education ²	4.36 (1.26)
Annual income (US dollars)	\$24,668 (29,876)
	N (%)
Hispanic/Latino ³	76 (56%)
Black/African-American	64 (47%)
White	39 (29%)
Asian	3 (2%)
Native American	1 (1%)
Other/More than one	28 (21%)
Man	123 (90%)
Woman/Transgender	13 (10%)
Gay/Homosexual	102 (75%)
Bisexual	26 (19%)
Straight/Heterosexual	4 (3%)
Other	4 (3%)
Employed	94 (69%)
Student	22 (16%)
Sexual Behavior (past 3 months)	Intervention (N=136)
	Median (25%–75% IQR)
Number of Sexual Partners ⁴	10 (6 – 17)
Insertive Anal Sex Occasions	6 (2 – 15)
Condomless Insertive Anal Sex Occasions	5 (2 – 12)
Receptive Anal Sex Occasions	6 (3 – 15)
Condomless Receptive Anal Sex Occasions	5 (3 – 10)

¹Ns may not sum to total due to missing data

²4= partial college, 5=college graduate

³Participants first indicated whether they were Latino/Hispanic or not; they could then choose one or more racial/ethnic category

⁴Includes all partners with whom participants engaged in anal sex, vaginal sex, oral sex, and/or rimming

Table II.**Partner Reactions to Broaching the Topic**

<i>Electronically (N=71)</i>	
	N (%)
Had at least one partner agree to test	68 (96%)
Had at least one partner refuse to test	52 (74%)
Had at least one partner end the conversation	38 (54%)
Had at least one partner get angry or upset	32 (46%)
Had at least one partner disclose they were HIV+	18 (26%)
<i>In-Person (N=111)</i>	
	N(%)
Had at least one partner agree to use a test	104 (94%)
Had at least one partner refuse to test	41 (37%)
Had at least one partner get angry or upset	38 (34%)
Had at least one partner disclose they were HIV+	12 (11%)
Had at least one partner get physically violent	7 (6%)

Table III.

Decision not to Broach the Topic with at Least One Partner (N=79)

	N(%)
Believed partner was HIV-negative	33 (42%)
Didn't have test kit on hand	31 (39%)
Felt uncomfortable bringing it up	24 (30%)
Did not want to risk ending encounter	20 (25%)
Knew would not have intercourse	20 (25%)
Felt partner might react negatively	15 (19%)
Was too high/drunken	10 (13%)
Didn't want to go through the hassle	10 (13%)
Other	8 (10%)