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Journal

Substance Use & Misuse, 52(7)

ISSN

1082-6084

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Publication Date

2017-06-07

DOI

10.1080/10826084.2016.1264968

Peer reviewed

Title: **A Qualitative Assessment of Alcohol Consumption and Sexual Risk Behaviors Among Men Who Have Sex with Men and Transgender Women in Peru**

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Funding: This work was funded by the U.S. National Institute on Drug Abuse (NIH/NIDA) through research (R01 DA032106) and career development awards (K24 DA017072). The funding source played no role in study design, data collection, data analysis, data interpretation, writing of the manuscript or the decision to submit the paper for publication.

Keywords: men who have sex with men, MSM, gay men, transgender women, alcohol drinking, unprotected sex, risky sex, HIV, focus groups

Word Count: 4,932

Abstract

Background: Peruvian men who have sex with men (MSM) and transgender women (TGW) experience the double burden of a highly concentrated HIV epidemic with a high prevalence of alcohol use disorders (AUDs). Recent research has associated both with risky sexual behaviors, including unprotected sex, having multiple sexual partners, engaging in sex work, having recent sexually transmitted infections (STIs) and having HIV-infected partners. AUDs have also been associated in MSM/TGW with being unaware of HIV-positive status.

Objectives: This study aims to further examine issues associated with alcohol consumption, HIV infection and risk behaviors in a qualitative analysis of focus groups conducted with MSM/TGW in Peru.

Methods: A total of 26 MSM/TGW participants with AUDs participated in three semi-structured focus groups in Lima, Peru. Content analysis was facilitated by software, and specific themes were elucidated.

Results: Participants described their drinking patterns, including the types of alcoholic drinks they consumed. They depicted drinking frequently and over multiple-day sessions. Problematic drinking behaviors were described, as well as the perceived characteristics of alcohol dependence. Interestingly, HIV-infected participants who were prescribed antiretroviral therapy (ART) did not believe that their drinking affected their medication adherence. These insights can aid in the design of future interventions aiming to reduce problematic drinking, as well as HIV-related risk behaviors and, subsequently, HIV incidence.

Conclusion: Peruvian MSM/TGW exhibit problematic drinking which may be associated with risky sexual behaviors and HIV transmission. Interest in reducing alcohol consumption was high, suggesting the need for targeted behavioral and pharmacological interventions.

Introduction

While overall HIV incidence is decreasing worldwide, more than half of new infections in the Americas are among men who have sex with men (MSM) (Beyrer et al., 2011; van Griensven, de Lind van Wijngaarden, Baral, & Grulich, 2009). Concentrated epidemics among MSM were observed early in the HIV epidemic and are perpetuated especially in large urban settings in the U.S., and in Latin American countries, including Peru. In Peru, overall HIV prevalence is remarkably low at 0.2% (Garcia et al., 2012), yet HIV prevalence estimates among MSM and transgender women (TGW) in Lima range from 18%-22% (Sanchez et al., 2007; Tabet et al., 2002), with prevalence similar to findings from the general population in sub-Saharan Africa.

Globally, substance use disorders continue to fuel the HIV epidemic (Kamarulzaman & Altice, 2015). Recent research among a large sample of Peruvian MSM/TGW found a high prevalence (63%) of alcohol use disorders (AUDs) (Ludford et al., 2013), identified through systematic screening using the World Health Organization's Alcohol Use Disorders Identification Test (AUDIT) (Babor, Delafuente, & Saunders, 1992). Similarly, another study using the CAGE questionnaire found high prevalence (58%) of problematic drinking among Peruvian MSM (Deiss et al., 2013). Moreover, AUDs are independently correlated with multiple risky sexual behaviors, including unprotected sex, having multiple partners, having HIV-infected partners, engaging in sex work and having recent STI infections (Deiss et al., 2013; Ludford et al., 2013), as well as being unaware of being HIV-infected (Vagenas et al., 2014).

Given the correlations between AUDs and risky sex (Vagenas et al., 2013), interventions that target problematic alcohol drinking may have a significant effect in curbing the concentrated HIV epidemic among this population of MSM/TGW. For example, medication-assisted therapies (MAT), such as naltrexone, effectively reduce excessive drinking (Anton et al., 2006; O'Malley, Krishnan-Sarin, Farren, Sinha, & Kreek, 2002). Behavioral interventions, such as cognitive behavioral therapy, may also be effective, but are not overly effective unless combined with naltrexone (Anton et al., 2006). Interventions that effectively reduce heavy drinking and related risky behavior would be a welcomed strategy to reduce HIV incidence for this group.

Qualitative research can provide a key link between two related co-morbidities, HIV and AUDs, and greatly influence the design of potentially effective interventions (Glanz, Rimer, & Lewis, 2002; Nastasi & Schensul, 2005). To provide insights into a planned study of naltrexone in MSM/TGW with problematic drinking patterns, three subgroups meeting criteria for having an AUD were assessed: 1) HIV-uninfected only; 2) HIV-infected only; and 3) mixed HIV-infected and uninfected participants focusing on acceptability of oral and injectable naltrexone therapy. Our study aims to identify perceptions of drinking, drinking behaviors and related sexual risk behaviors among this population.

Methods

Three focus groups (FGs) were conducted in November 2011 at Asociación Civil Impacta Salud y Educación (Impacta), a clinical care and research NGO located in

Lima, Peru, dedicated to research, clinical services and community education. The recruitment and methods of FG participants have been previously described for an assessment of naltrexone acceptability (Brown et al., 2015). Briefly, following informed consent procedures, all 26 participants met screening criteria (Babor et al., 1992) for having an AUD (score 8 or greater on the AUDIT), were born male (male-to-female TGW were included), reported unprotected anal intercourse (UAI) with another male in the previous year and were 18 years or older (see Table 1). Individual AUDIT scores of participants were not recorded. Two groups (Groups 1 and 3) consisted of predominantly HIV-uninfected participants (9 HIV-, 1 HIV+; self-reported). The third group (Group 2) was a predominantly HIV+ group consisting of six participants (5 HIV+, 1 HIV-; self-reported). The FGs were arranged in those configurations, to elaborate on aspects of the interaction between drinking behaviors and sexual risk. HIV-uninfected participants were selected to address general issues of alcohol use and sexual behavior. HIV-infected participants were selected to address general issues of alcohol use and sexual behavior that had a high likelihood of transmitting HIV as well as the impact of alcohol use on antiretroviral therapy (ART) adherence. The mixed HIV status group was formed to enable a dynamic conversation that may introduce additional unforeseen issues. A facilitator trained in qualitative research with local MSM/TGW conducted and audio-recorded the FGs in the presence of a note-taker who wrote a summary of participants' responses. Each FG lasted 60-90 minutes. After each FG, the facilitator, note-taker and on-site researchers would discuss the responses to identify preliminary patterns and themes. The interviews were subsequently transcribed and translated into English by Impacta personnel with back-translation to ensure cultural

understandability (Brislin, 1970). Because FG participants were recruited from the local LGBT community in Lima and may still be identifiable, they did not use names/identifiers during the sessions, resulting in responses not being traced to an individual participant. Therefore, each quote is attributed to a specific group and not to an individual. Each participant was compensated 55 Soles ($20 USD). The study was approved by the Institutional Review Boards of all institutions.

FGs provide real-time interaction with participants to elaborate on specific concepts, especially social norms and behaviors. As a group, the participants can engage with each other to discuss their experiences, in this case related to drinking alcohol, in order to identify the links between alcohol and risky sexual behaviors. From these discussions come in-depth descriptions of their behavior and beliefs about alcohol and risky sexual behaviors, along with their rationalizations for such behaviors. In all three FGs, the topics centered on drinking, risky behaviors, sex, HIV and possible treatments for alcohol use disorders. The open-ended questions were designed based on the literature on alcohol use, sexual behavior, HIV/STIs and the extensive previous experience that this research team has with this population and topics. The participants were asked to discuss situations when drinking is appropriate or seems obligatory and ways that alcohol affects decision-making and sexual behavior. Participants were also asked to describe their experiences of being drunk. The mostly HIV+ group (Group 2) was additionally asked about the role of alcohol in the lives of HIV+ people and possible difficulties adhering to ART because of alcohol use. All groups were asked about potential acceptability of pharmacological treatment of AUDs, but to avoid potential

dissemination of misinformation about naltrexone as a result of FG participation, only Group 3 received specific information about extended-release naltrexone and discussed it by name.

The three FGs were analyzed at Yale University by content analysis to obtain salient themes from the participants' responses. Content analysis is an iterative process where the text was reviewed in an in-depth, systematic fashion to arrange phrases and responses into themes associated with the main topics of inquiry. A single coder (SB) reviewed the text, conferred with one co-author (PV) to develop the themes, and communicated preliminary findings to the rest of the team. This process was facilitated using the text analytical software NVivo® (QSR International, Doncaster, Australia).

Findings

Group-level participant characteristics

As previously reported (Brown et al., 2015), participants were mostly young (mean=28.3 years; range=20-40 years). Socioeconomic information was not recorded. The mean age of the participants in Group 1 (N=10) was 26 years (±1.9, range=23-30 years) with three self-identifying as bisexual, three as TGW, three as heterosexual, and one as homosexual. Five participants were college-educated, three finished high school, and two did not finish high school. For Group 2 (N=6) the mean age of the participants was 27 years (±7.6, range=20-38 years). Three participants had some college education and four graduated high school. Three participants self-identified as homosexual, one as bisexual and two were TGW. For Group 3 (N=10), there were 9 HIV-uninfected and one

HIV-infected participant. The participants' mean age was 32 (±6.7, range=22-40) years. Four participants had some college education, three graduated high school, two did not finish high school, and one finished primary school. Four participants self-identified as homosexual, one as bisexual, one heterosexual, and one as TGW. Two participants did not report sexual orientation or gender identity.

The seven major themes identified were the following: 1) drinking patterns, 2) problematic drinking, 3) drinking and ART adherence, 4) drinking and sexual risk, 5) perceptions of alcohol problems, 6) facilitators to accepting and seeking MAT for treating AUDS, and 7) barriers to MAT. The first four themes are discussed herein; the latter three were published recently (Brown et al., 2015).

Patterns of Drinking

Participants in all FGs were asked about their patterns of drinking, including what types of drinks they consumed, how often they drank and the reasons that usually lead them to drink. There was wide agreement and saturation on most of these topics across all three FGs. Participants reported consuming many types of drinks, including margaritas, beer, rum, whisky, vodka, wine, "piscina" (pisco), sangria and cañazo (local sugar cane liquor). Participants were asked to define what is considered a normal amount of alcohol for one person to drink, or to share between a group, a common practice in Peru. They were also asked to compare that to the amount that they themselves can consume in a single session. The numbers of drinks and the quantities varied between groups.

Participants stated that they divided about three cases (defined as 12 liters) of alcoholic drinks between four and six people. One participant described his family's routine:

"It's a family tradition and there is always a bottle of wine in my house every Sunday. We all drink enough on Sunday that we have a hard time getting started on Monday."

In Group 1, the participants debated how much they drank. One participant described drinking "a box" or a "box and a half" of beer. For comparison, another participant said, "if there are many people, we buy 3 or 4 boxes" to be split between four or five people. One participant, however, admitted:

"I really cannot be totally honest. Because once the weekend starts, I do not remember anything until Monday morning when I wake up and suffer."

Duration and days of drinking varied, but most participants in the HIV negative group reported multiple-day drinking sessions, or even until the point when they can no longer drink:

"If I start [a] "Thursday Party," it would end on a Saturday or maybe Sunday. But if I start on a Saturday, I would end it on a Monday."

"In general it is like this: I go to sleep, and then I wake up, and then keep going and so on until Monday."

"Yes, you get up and keep drinking until your body can not go any more."

"Me, I cannot do that anymore, my body gives up too quickly."

Participants were asked to discuss the reasons that normally lead them to drink. There was wide consensus between groups that drinking is a social function itself and that going out and socializing is inherently linked to drinking. Participants in Group 1 said:

"And after a couple of beers you keep talking, then you keep drinking."

"Depends also on the conversation, if it is good we are going to want to keep talking and talking, and so we will keep drinking and drinking."

Socializing in the absence of alcohol was perceived by most participants as either impossible or boring:

"Oh no, it would be super boring."

"No alcohol, no fun."

On the other hand, there was one participant in the mostly HIV+ group (Group 2), who explained how he can go out without drinking:

"It has been two years since I tried alcohol, I have had the [HIV] diagnosis for two years, but I don't feel bad, I go to the disco and the ambience is the same, now I do it with or without the beer but now I don't drink, I see the cases there and I don't drink them because I went to a spiritual retreat and made my life change a lot."

Drinking was identified as empowering or enabling the participants to participate in the fun of the situation:

"You can be pumped to do many things but sober you may not, but with a couple of drinks in you, you can do anything."

“Because if you go to a party you are not going to present yourself the same as if you had some drinks in your system.”

“First I would get loose or pump up.”

There was a feeling among participants in the mostly HIV-positive group (Group 2) that through alcohol, a person can be friendlier and also make more friends:

“With alcohol I think you can make more friends, this is something positive.”

“That is why alcohol is good for you, it helps you to make friends and make you outgoing.”

“I can tell that with a couple of drinks I am more friendly and all, right?”

In addition to the perceived social facilitation, peer pressure to drink was also mentioned by participants in Group 2:

“Why do I drink? It disinhibits, because alcohol disinhibits, gives you wings to do your social life. And I think this happens to everybody, alcohol is happy…. social pressure too, because if you are in a group and you don’t drink and everybody is drinking beer they are going to start to pick on you “hey…” basically “why did you come?””

Problematic Drinking

After interviewing FG participants about their patterns of drinking, we asked them to describe their perceptions of problematic drinking and/or alcohol use. Drinking limits, or lack of such limits, was a topic that was brought up by multiple participants as a characteristic of problematic drinking. One participant summarized:

“The alcoholic doesn’t know his limits.” (Group 3)

In Group 3, an individual's tolerance was mentioned as a cause for lack of limits:

"[People with alcohol problems] see beer as mainly water; otherwise, hard liquor for them- it's a lot, because a little bit is not enough for them, and if they drink half a case of beer they are not going to get wasted, with a little more they just get dizzy and with hard liquor."

In Group 1, participants reported that setting limits depends on the day of the week and "what you have to do the next day":

"On a weekday… I have to do things, but on the weekends… Uffff!!!!! No consequences, no brakes."

"I drink, last a couple of hours and then I go to work and then I get off work, keep drinking from that night to next morning, then I go back to work the next day and that is what happens to me during the week."

One participant speculated that the reason people have problems with alcohol is because of loneliness:

"I think that maybe people that are alcoholic, they drink because they feel empty inside, like if there is something missing."

In Group 2, participants though the limit was only reached when euphoria set in:

"Because there is a moment like this, it is like when you turn the page"

"Right, you no longer remember"

"You are really happy for a moment, and at a time is like everything gets cloudy"

"And you don't remember anything, and on the next day just remember"

One participant in Group 2 believed that limits depended on the day after a night of drinking:

"If you have responsibilities on the next day, and you have to do it no matter what, I do believe, actually you [can] even avoid drinking."

Another point that was raised by participants, when discussing problematic drinking, was that drinking leads to unintended behaviors with consequences:

"It was my birthday – and we went to have some drinks to a friend's house, well we were between friends and they made me dance and put me naked on the patio, the park, they took my underwear, they push[ed] me, tore my shirt… the police came, they put me in a car, took me to the police station, my friends were laughing, and when I was in the police station I said 'wow, I would never have done this in a normal state', the alcohol motivated me." (Group 2)

"I didn't remember how I reached home, but I wake up in my bed suddenly, startled, how did I get here? What happened in that time when I was drinking with that guy till I reached home? I start checking my things, my cellular, my documents, money to see if there is everything, but I don't know what happened, those memory loses make me really scared, more than spending all my money because money comes and goes.

What there is going to be is a moment when I won't reach home, and that really worries me." (Group 3)

Participants were asked to describe their ideas of alcoholism and what it means to be addicted to alcohol. Group 2 responded that for an alcoholic, alcohol takes priority in the person's life:

"The body asks you to drink."

"If you drink two or three days in a row and frequently during the week, that is an alcoholic, if he stops eating and likes drinking. I have friends and girlfriends that prefer beer over food."

"If he is already drunk and continues [drinking], I could tell that the person is an alcoholic."

"The person who has no will to stop then he already has a problem of self-control."

Participants in Group 1 had similar responses:

"[People are alcoholics] when they drink every day."

"I think alcoholic is the one that drinks anything just to drink."

"When they cannot stop drinking, like they say, when they drink daily, even if they do not have the money to drink and they do not even care about the damage their body could be going through. They just want to drink at any cost."

Participants in the same group agreed that an alcoholic would be willing to drink anything with alcohol in it:

“Cocktails, beers, and even medical alcohol.”

“[A man in rehab] told us that his addiction was so severe, that he went to the limit of mixing perfume with I don`t know what.”

“They come in bags. I think they are called ‘calentito’.”

Finally, participants described a desire to be drinking less (Group 3):

“I would like something that diminishes my urges to drink more”

“If we could drink less, it would be excellent.”

Drinking and Antiretroviral Therapy

Participants in the mostly HIV+ group (Group 2), who were prescribed ART, were asked additional questions to assess whether alcohol affected their ability to adhere to their medication regimen. Two participants reported drinking while taking ART medication – in one case, two hours afterward – and claimed that there was no effect on the ART medication. One person said that he forgot to take his medication but not because of alcohol.

“I am also a musician and for being in the music [business], sometimes I do not have time, I miss the time [to take the medication], but I did not stop taking it. I took it after the exact time but I did it.”

“I know how to control it.”

Another participant stated that he had been told not to drink alcohol and abstained for six months:

“In the sixth month, I remember that I went to a discotheque, and I grabbed a beer and I swear I didn’t have any reaction.”

Drinking and Sexual Risk

A number of participants talked about drinking as a social lubricant; in this section, participants describe alcohol as a way to muster courage to sexually approach other men:

“I would need a drink to get some courage, right?”

“Yes it can give you courage if you drank four” (beers).

Multiple participants answered affirmatively to the interviewer who asked who would do things when drunk that they would not do when sober. Participants (from Groups 1 and 2) said, about a time when they were intoxicated:

“I once spent the night with a total stranger”

“With a total stranger? Of course, you should be drunk to do that”

“When you are under [the influence of] alcohol, sometimes you do everything”

Drinking was considered as a facilitator for sexual encounters, especially by participants in Group 1. The following statement was mentioned in that group and half of the participants agreed that it was true:

“There are no ugly people, what you need is a drink.”

Participants brought up the “loosening up” properties of intoxication and how that condition relates to increased sex drive/opportunities to engage in sex:

“When you have a few drinks you are going to be looser”

“Alcohol makes me feel like anything can happen”

“I see that when people are drunk they loosen up and want to touch you; also your sex drive rises and you get more sexual and passionate”

“The shyest person, [with] alcohol completely gets out of the closet”

“When you are drinking it happens, you have more chances or more possibilities of having sex, right? It could be with you partner or someone who likes you”

A participant (Group 2) commented specifically on the effect of alcohol on sexual matching:

“I believe that alcohol activates the person that you really want to be in that moment, because if both are dizzy and have the desire to do it and want to have sex, I believe both will match”

A participant (Group 2) talked about drinking and forgetting what happened sexually the night before:

“One day I was asleep and I woke up and there was somebody sleeping by my side that I haven’t seen before in my life, and when I woke up I said: “hey, who are you?”

Another participant (Group 1) talked about drinking to unconsciousness followed by sexual intercourse, which also raises the question of lack of consent:

“I hang out with guys that got drunk; fell asleep and the other guy had sex with them without condoms, while they were unconscious”.

Condom negotiation while intoxicated was brought up by the interviewer and many participants commented. While some insisted they used condoms even when drunk, others talked about problematic condom use:

“Without alcohol you tend to think more, but when you have alcohol, if you have it at the moment yes, but if not and she puts it on you then cool”

“If I am sober yes I use condoms, if I am drunk maybe not”

“If I have enough drinks in me, I feel more relaxed about not using a condom. Unfortunately, I regret it in the morning”

Participants in the mostly HIV+ group (Group 2) reported more consistent condom use, but there were exceptions:

“If there isn’t condom, even I like it, ok; we drink, and do it just like this”

“Only this time when I woke up with a boy I’ve never met before; I guess we did it without condom because I do not remember anything”

Another participant (Group 3), explicitly linked alcohol with HIV transmission:

“Alcohol many times involves the family and then there are other risks; getting HIV for example”

Discussion

Consistent with recent reports (Deiss et al., 2013; Ludford et al., 2013) that showed a high prevalence of drinking among Peruvian MSM, we recruited participants for a set of FGs who reported drinking to a problematic level. It is especially interesting that participants reported excessive drinking patterns, multi-day drinking sessions, a strong link between drinking and their normal social behaviors and an association between drinking and sexual risk. A recent study of MSM using social media similarly found this association (Young, Nianogo, Chiu, Menacho, & Galea, 2015). Of note, despite evidence to the contrary (Vagenas et al., 2015), ART adherence was not perceived to be problematic when drinking. It may be possible that this finding is contrary to the existing body of literature because there were few participants who were on ART and therefore the sample is not representative of all people living with HIV and on ART, or that participants had been on ART for extensive periods of time, long enough for them to have developed a good adherence routine. This is discussed in detail later but we did not collect sufficient data on duration of ART to inform this observation further.

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The social pressure to drink was mentioned repeatedly by multiple participants and emerged as a central theme in this analysis. While the topic of peer pressure to drink has been studied mainly among youths (Caplan et al., 1992), our analysis shows that this can remain a factor well into adulthood, in certain groups like MSM, a subject to our knowledge that has not yet been studied in detail. While specifically targeted interventions, especially those involving medication-assisted treatment like naltrexone, have been shown to reduce amount of drinking as well as days of heavy drinking (Anton et al., 2006), it may be more challenging to disassociate heavy drinking from the social

settings where it mostly occurs. Nevertheless, a reduction in drinking may be in itself highly beneficial for this population and it may be enough to decrease sexual risk and other potentially health damaging behaviors.

Another theme observed in this analysis is the perception that drinking will act as a social facilitator and that it will help muster courage to approach potential sexual partners. Many participants reported feeling either that alcohol would help them enjoy their social setting more or that being intoxicated is the only way they can connect with other men. Sexual facilitation was also mentioned (a participant in Group 2 said “a big stigma is felt and alcohol helps lower inhibitions”). This concept is in agreement with a large body of literature discussing alcohol and drugs as facilitators for social interactions (Grant et al., 2005) as well as for engaging in stigmatized behaviors (Rosario, Schrimshaw, & Hunter, 2004). Data from HIV+ Peruvian MSM documents high levels of HIV stigma (Ferro et al., 2015), yet stigma in this group may be more complex and not only involve HIV, but also stigma associated with homosexuality, as well as internalized homophobia (Herrick et al., 2013). Although not mentioned, drinking excessively may also enhance stigma. In Peruvian society, stigma may be accentuated by the presence of religious and traditional societal and family values (Galea et al., 2011). Even though some more open-minded locations exist (e.g. the Miraflores and Barranco areas of the capital city, Lima) where many MSM and TGW congregate, many grew up and live in other parts of the city or the country, where traditional values are common.

Many participants mentioned that excessive drinking led to unintended behaviors and provided interesting stories from their personal experiences to illustrate the point. While most of them talked about drunkenness and how that led to embarrassing incidents, it is easy to extrapolate this type of behavior to risky sexual practices. Three recent independent studies (Deiss et al., 2013; Ludford et al., 2013; Young et al., 2015) described significant associations between excessive drinking and unprotected sex, as well as other HIV-related risk behaviors. It is, thus, highly likely that the participants who talked about their embarrassing behaviors while intoxicated would also engage in risky sex and put themselves (or their partners) at risk for HIV. Participants also discussed drinking to the point of unconsciousness, one describing not fully remembering sexual intercourse, also raising the issue of unprotected and potentially non-consensual sex, following intoxication. These findings add weight to the call for targeted interventions to reduce heavy drinking among this population that is afflicted with a high burden of HIV infection.

Among HIV-infected participants prescribed ART, it was surprising that their experiences relating to drinking did not impact their reported medication adherence. A recent study of over 300 HIV-infected MSM in Lima, Peru, showed a significant association between AUDs and sub-optimal adherence (Ferro et al., 2015). Surprisingly, participants here did not report any problems relating to their alcohol use and taking their medications as prescribed. This may be due to selection bias in our sample or to previously documented practices of reducing risk, following HIV diagnosis (Fox et al., 2009). Additionally, this being a small focus group, it may have not been possible to identify

individuals with adherence issues. As adherence to ART is crucial for both the individual's health, as well as for reducing HIV transmission to others, adherence to ART among MSM who drink is a topic that should be investigated further. Condom negotiation appeared to be more common in the mostly HIV-infected group, compared to the others, but participants in all groups discussed instances of unprotected sex, following the consumption of alcohol, an issue that is directly linked to HIV transmission.

We conducted focus groups among MSM with AUDs, in Lima, Peru. Our findings agree with previous reports that this population drinks heavily and that their problematic drinking may be associated with risky sexual behaviors, which are in turn associated with HIV transmission. Our results add to a growing body of literature set in many locations that highlight these associations (Kalichman, Simbayi, Kaufman, Cain, & Jooste, 2007; Woolf & Maisto, 2009). Crucial here, however, was interest in "reducing" alcohol consumption, which may reduce some of the harms from excessive alcohol consumption. Naltrexone, while it does result in abstinence for a small number of patients who adhere to it, does result in significant reductions in heavy drinking, which could potentially reduce HIV risk-taking and improve ART adherence. A placebo-controlled study of extended-release naltrexone in HIV+ prisoners with AUDs and transitioning to the community is currently underway (Springer, Altice, Herme, & Di Paola, 2014). We believe that targeted interventions should be designed to reduce drinking among Peruvian MSM, in order to not only protect the health of the individuals from the detrimental short- and long-term effects of alcohol abuse, but also to potentially reduce HIV-related behaviors and transmission of the virus, perpetuating this

concentrated epidemic. These interventions can range from SBIRT (Screening, Brief Intervention, Referral to Treatment), which consists of a brief motivational interviewing session between a healthcare professional and the individual who is effectively screened for an AUD, to reduce drinking and explore treatment with a medication-assisted therapy, such as oral or extended-release naltrexone.

Acknowledgements

The authors would like to thank the participants for their time and effort and researchers and staff at Impacta, UCLA and the Yale AIDS Program for their help and support.

Table 1: Characteristics of Focus Group Participants. All participants were born male, reported sexual relations with other male(s) and screened for an AUD (AUDIT≥8).

Study ID	Focus Group	Identity	Age	HIV status
FG-01-A	1	Bisexual	27	Negative
FG-02-A	1	Bisexual	26	Negative
FG-03-A	1	Heterosexual	30	Negative
FG-04-A	1	TGW	26	Negative
FG-05-A	1	TGW	25	Negative
FG-06-A	1	Heterosexual	25	Negative
FG-07-A	1	Homosexual	23	Negative
FG-08-A	1	Heterosexual	27	Negative
FG-09-A	1	Bisexual	24	Negative
FG-10-A	1	TGW	27	Positive
FG-01-B	2	Homosexual	38	Positive
FG-02-B	2	TGW	34	Positive
FG-03-B	2	Homosexual	20	Positive
FG-04-B	2	Homosexual	21	Positive
FG-05-B	2	TGW	23	Positive
FG-06-B	2	Bisexual	23	Negative
FG-01-C	3	Bisexual	26	Negative
FG-02-C	3	Homosexual	40	Negative
FG-03-C	3	Bisexual	26	Negative
FG-04-C	3	No response	22	Negative
FG-05-C	3	No response	33	Negative
FG-06-C	3	Homosexual	38	Negative
FG-07-C	3	Heterosexual	24	Negative
FG-08-C	3	Homosexual	32	Negative
FG-09-C	3	Homosexual	40	Positive
FG-10-C	3	TGW	35	Negative

Legend: TGW= transgender woman (male-to-female)

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