7-1-2017

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NSUWorks Citation

Buttram, M. E., & Kurtz, S. P. (2017). A Qualitative Study of African American/Black MSM's Experiences of Participating in a Substance Use and Sexual Risk Reduction Intervention. *American Journal of Men's Health, 11* (4), 1155-1161. https://doi.org/10.1177/1557988315584157

Article

American Journal of Men's Health
2017, Vol. 11(4) 1155–1161

DOI: 10.1177/1557988315584157
journals.sagepub.com/home/ajmh
SAGE

A Qualitative Study of African American/Black MSM's Experiences of Participating in a Substance Use and Sexual Risk Reduction Intervention

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Abstract

The majority of new HIV infections in the United States are among men who have sex with men (MSM), and African American/Black MSM are especially affected. Employing a grounded theory approach, this study presents qualitative data from 21 African American/Black MSM who participated in a substance use and sexual risk reduction intervention trial (Project ROOM [men Reaching Out to Other Men]) in South Florida. African American/Black MSM from Project ROOM reduced their substance use and sexual risk behaviors at a faster rate than other men in the study. The present study examines how the experiences of participation in Project ROOM influenced the behavior change among African American/Black MSM. In-depth interviews indicate that study assessments enhanced African American/Black men's mindfulness and self-realization of behaviors leading to behavior modification and changes in social relationships. Furthermore, these findings suggest that interventions tailored to the social environment of HIV transmission and substance use behaviors are key to reducing risk behaviors among this population.

Keywords

behavior modification, drug use, HIV, qualitative, gay

Introduction

In the United States, estimates indicate that 57% of all new HIV infections are among men who have sex with men (MSM; Hall et al., 2008). Among African American/Black MSM (BMSM), HIV prevalence is significantly higher than for other racial/ethnic groups, with estimates of 28% among BMSM, compared with 16% among White and 18% among Hispanic MSM (Centers for Disease Control and Prevention, 2010). BMSM report nearly as many annual new HIV infections as White MSM, though White MSM comprise a much larger proportion of the population (Prejean et al., 2011). Furthermore, a study conducted in five U.S. cities reported that more than 60% of HIV-positive BMSM were unaware of their infection (Centers for Disease Control and Prevention, 2010).

At the same time, substance-using MSM are also among the populations most at risk for HIV infection (Carey et al., 2009; Chesney, Barrett, & Stall, 1998; Plankey et al., 2007; Stall & Purcell, 2000). Two independent analyses using HIV seroconversion endpoints reported that about a third of new HIV infections among MSM can be attributed to noninjection substance use (Koblin et al., 2006; Ostrow et al., 2009). This body of epidemiological and behavioral research makes it clear that strategies that are specifically designed to lower risks among MSM in the United States, especially among substance-using BMSM, must be an essential component of any successful response to the epidemic.

As of 2015, there have been four randomized controlled trials (RCTs) to reduce HIV risk among HIV-negative (or not serostatus specified), substance-using MSM (Kurtz, Stall, Buttram, Surratt, & Chen, 2013; Mansergh et al., 2010; Shoptaw et al., 2005; Stall, Paul, Barrett, Crosby, & Bein, 1999). Of these RCTs, only one, Project ROOM (men Reaching Out to Other Men) reported outcomes by race/ethnicity (Kurtz, et al., 2013).

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Though Project ROOM reported substantial reductions in substance use and HIV transmission risk behaviors that were as large as or larger than those achieved by other efficacious interventions for MSM now being diffused as tools in standard public health practice, there were no differences identified between experimental and control conditions. However, at 12-month follow-up postintervention, Project ROOM outcomes demonstrated that BMSM reduced substance use and HIV transmission risk behaviors at a faster rate than other men, despite not having higher levels of HIV transmission risk at baseline (Kurtz et al., 2013).

Within this context, the present study investigates experiences of BMSM in Project ROOM. This article presents qualitative data examining BMSM's participation in the study assessments and interventions, the impact of Project ROOM on behavior change, and participants' social environment in which behavior change occurred. Specificially, this study is guided by the following research question: How did BMSM's experiences of participation in Project ROOM influence their substance use and sexual behaviors? Although a full description of Project ROOM has been published, including the study site, measures, sampling procedures, interventions, and outcomes (Kurtz et al., 2013), this is the first examination of qualitative data from a vulnerable population of MSM participating in a behavioral intervention RCT.

Method

Project ROOM Procedures

Project ROOM tested the efficacy of a novel four-session small group sexual and substance use risk reduction intervention based on psychological empowerment theory (Zimmerman, 2000) compared with an enhanced efficacious HIV risk reduction counseling condition using the RESPECT model (Kamb et al., 1998) targeting high-risk, not-in-treatment MSM substance users in Miami-Ft. Lauderdale, Florida. The small group intervention focused on assisting high-risk MSM substance users in: (a) strengthening the skills needed to exercise control over their lives; (b) taking a third person view of the interactions of drugs and sex among gay men, and examining the good and bad experiences associated with them; (c) broadening their spheres of social engagement; and (d) identifying achievable life goals and action plans to move toward them. Participants completed baseline assessments and post-intervention follow-up assessments at 3, 6, and 12 months. Assessments used a standardized and computerized questionnaire that took about 2 hours to complete and was administered by a trained interviewer. The first half of the assessment focused almost exclusively on quantifying recent (past 90 days) substance use (by drug and frequency of use) and sexual risk behavior (number of partners, frequencies of protected and unprotected sex). Later sections of the assessment inquired about mental health, feelings of loneliness, and social relationships. Men eligible for Project ROOM were 18 to 55 years; reported unprotected anal intercourse with a nonmonogamous partner(s) during the past 90 days; and met one or more of three substance use inclusion criteria during the past 30 days: binge drinking (five or more drinks) at least three times, using marijuana on 20 or more days, or using any other drug at least three times. Project ROOM included 108 BMSM at baseline, of which 85.2% ($N = 92$) completed the 12-month follow-up assessment. All 12-month completers were eligible to participate in the present qualitative study.

Qualitative Data

The current study uses newly collected qualitative data to answer the research question. In-depth interviews conducted by the first author allowed for the collection of rich data, which were unable to be obtained during Project ROOM study assessments. Qualitative interviews were guided by a semistructured protocol asking about men's experiences with study assessments and intervention components, their changes in substance use and sexual behavior, and the reasons why these changes occurred. Each interview lasted approximately 90 minutes and took place in a private office. Participants were compensated $50 for their time and travel expenses. Research protocols were approved by the institutional review boards at Nova Southeastern University and Florida International University.

All 92 BMSM Project ROOM completers were eligible to participate in the present qualitative study if they were able to be contacted through phone or e-mail. All BMSM who were contactable agreed to participate. In total, 21 (22.8%) BMSM Project ROOM completers participated in the qualitative interviews. Prior to conducting qualitative analyses, comparisons of BMSM from Project ROOM who did and did not participate in the present study were conducted. Measures of demographics, substance use, sexual behavior, mental health, and social relationships were not significantly different across the two groups. Given these results, it would appear that BMSM participants in the present study are broadly representative of the larger sample of BMSM from Project ROOM. Baseline and outcome findings of these measures have been published (Buttram & Kurtz, 2015; Buttram, Kurtz, & Surratt, 2013; Kurtz et al., 2013). As is identified in Table 1, at Project ROOM baseline, men completing qualitative interviews reported mean age of 40.8 years and all but one man completed 12 or more years of education. Past 90-day behaviors included an

Table 1. Demographic Characteristics and Substance Use and Sexual Behaviors of Qualitative Interview Participants ($N = 21$).

	M	*SD*	Range
Demographics			
Age	40.8	8.19	20-52
Education (years)	13.52	1.91	11-17
Past 90-day behaviors			
Days drunk/high all or most of the day	32.2	35.50	0-90
Number of anal sex partners	16.3	21.91	1-91
Frequency of unprotected anal intercourse	25.1	58.60	1-270

average of 32.2 days high, 16.3 anal sex partners, and 25.1 unprotected anal sex times.

Present Study Procedures

Qualitative interviews were conducted between May 2013 and August 2013. A semi-structured interview protocol was used for the interviews in which an interview guide was followed to ensure that all necessary topics were covered during the interview (see Table 2). Semistructured interviewing allows for some flexibility so that respondents are provided the space to express themselves in their own terms and at their own pace (Bernard, 2011). Using this flexibility, the interviews were conversational in style with topics from the interview guide being discussed as they naturally occurred during the conversation, rather than maintaining a fixed interview format.

All qualitative interviews were digitally audiorecorded. During the data collection process, a data-accounting log was used to track all collected data. A contact summary form collected basic information about each participant, in addition to describing and summarizing the most salient themes discussed during each interview (Miles, Huberman, & Saldaña, 2014). Interviews were transcribed by an independent transcriptionist and reviewed for accuracy by the first author. Transcribed interviews were entered into ATLAS.ti Version 7 software for data management, coding, and analysis.

Analyses

A grounded theory framework guided the data analysis (Glaser & Strauss, 1967). In this method, the coding process is inductive and grounded in participants' voices. Each interview produces key concepts, which are later linked together and analyzed to form formal theories (Bernard, 2011; Glaser & Strauss, 1967).

On completion and transcription of each interview, preliminary codes were created by the first author using *descriptive* and *in vivo* coding schemes. While descriptive codes use words or short phrases to summarize passages of data, in vivo codes use actual language from participants to name concepts and themes (Saldaña, 2013). In addition, extensive analytic memos were written after each participant was interviewed and after each interview was coded. Analytic memos were also written throughout the coding process to reflect on code choices, emergent themes and patterns, and conceptual models. Following the last participant interview, all transcribed interviews were coded for a second time to ensure that all coding was consistent throughout the data set. Data collection was a cyclical process in which codes and memos were used to guide subsequent interviews, coding, and memo writing, as advocated by Saldaña (2013) and Glaser and Strauss (1967). Next, the data were themed (Saldaña, 2013) in which the final set of codes and their meanings were transformed into longer and more descriptive themes to organize recurrent meanings and patterns. Themes and definitions of themes were constantly compared across interviews to ensure consistency and reliability; validity was ensured through the use of thick, rich descriptions of data (Creswell, 2013).

Results

Self-Reflection and Increased Mindfulness During Assessments

A recurring theme was the importance of the baseline assessment in which nearly all men spoke of the interview as being a time in which they had to be honest with themselves, reflect, and evaluate the consequences of their actions. The process of calculating frequencies of substance use and sexual risk behaviors was especially thought provoking. One participant said the interviews, "made me think about those situations," while several others stated that the interviews "put things in perspective" and "made me aware of what I was doing." A common misconception among men in the study was that the interviews were part of the intervention process or had a purpose other than the collection of data. In the words of one Miami man, "I always felt like the interviews were like just trying to make you aware of what you are doing."

For nearly all participants, this was the first time they had ever been asked questions about their substance use and sexual risk behaviors, and at times this could be somewhat uncomfortable. A young man from Miami said, "Some of those questions are like . . . you don't want to answer them, but the fact that you don't want to answer them says something." While another respondent stated, "They were embarrassing, but they cause you to look at yourself too. You take a look at yourself and say, 'This is what I am doing,' and then, 'Perhaps I need to make some changes here.'"

Table 2. Semistructured Interview Guide.

Topic areas	Questions and probes
Study enrolment	1. Tell me what your life was like when you enrolled in the study.
	(Probes: substance use [which drugs, quantity, context]; relationships [friends, family, sexual]; health and well-being [mental health, HIV risk]).
	2. What did you do that made these things better? Worse?
	3. How did your relationships affect your situation?
	4. What other aspect (e.g., neighborhood, SES) made these things better or worse?
Behavioral changes	1. What changes have you experienced in your life since you began participating in Project ROOM?
	(Probes: social relationships [friends, family, groups]; substance use [increase or decrease; type; context], sexual behavior [partners, safer sex, substance use during sex]).
	2. Can you talk about why and how these changes happened?
	3. What has the process been like in going through these changes?
Study components	1. Now that you've completed Project ROOM, tell me about your experience.
	2. How did you feel?
	3. Which sessions (e.g., baseline assessment, follow-up assessment, intervention) did you like/dislike the most? Why?
	4. Where any sessions particularly meaningful to you? Why or why not?
	5. Were any of the behavioral changes you mentioned earlier related to the study? Why or why not?

Note. ROOM = men Reaching Out to Other Men; SES = socioeconomic status.

While momentary discomfort may have been experienced by men the first time they were asked about substance use and sexual risk behaviors, the interview process eventually became something the men looked forward to and thought of as "cool," "good," and causing respondents to "feel great." One man described it in this way:

> The follow-up I kind of liked, because I was able to see my progress. I was able to actually see from where I came from this point to this point, and I left, and I'm like, "Damn. Last time I answered this, this way. This time, it's this way. The first initial interview I'm like, 'Oh my God. Shut the hell up. I'm ready to go and get some drugs' [laughs]. But that was the first one, but after the second one, I'm like, 'Wow, I really came a long way,' and you don't actually see it until, like, somebody is interviewing you about it."

The follow-up interviews were especially useful in assisting participants to maintain decreased substance use and sexual risk behaviors. There was a common sentiment among participants that knowing they would need to complete a follow-up interview played a role in reducing risk because men did not want to report increased risk behaviors during the follow-up. Participants stated that follow-up interviews as: "kept me on an even keel" and would "push me a little bit more."

Self-Reflection and Increased Mindfulness During Intervention Components

The intervention components of Project ROOM also had an impact on the men's realization of their risk behavior. Participants assigned to the individual session did not generally have any observations about the impact of their intervention beyond their comments about the interview assessments. However, men assigned to the small group condition overwhelmingly believed the diversity of the groups to be the key influence on their behavior change. Participants were impressed by the fact that men who were vastly different than they were could have so many similarities. This led to a recognition that the "this could never happen to me" attitude was false, and that addiction, HIV infection, and related difficult life circumstances do not discriminate. Common descriptions of the experience of participating in the group sessions were similar to the comments of this participant,

> Everybody's walk of life was different, but we was all the same. There were two people in there that was HIV-positive, and I'm like "Wow. I never would've thought you had HIV, and maybe that could happen to me." So, you know, it made me take precaution. It make me look at myself differently—look at my life circumstances differently and what I was doing.

Another participant said,

> I thought it was awesome. To see people from so many different backgrounds have so many things they agree on, so many similarities. So one minute you are sitting in a room with a bunch of strangers and yet you have all these common denominators of everything we face in real life.

For men who participated in the group intervention, it was their first experience in discussing such topics with

other men. This was particularly impactful for men who wanted to make different choices, especially with regard to HIV transmission risk.

Influence of Study Participation on the Social Environment

One of the most prominent themes during the interviews was the men's social environment, with many men describing the natural separation of themselves from individuals they perceived to be of poor influence. As one young man from Miami stated, "No support at all. They were just either sex friends, drug friends, drinking friends, or party friends" and "I haven't spoken to a lot of people [since the conclusion of Project ROOM]. In my head I'm like, "What the [explicative] was I talkin' to those people for?" A majority of participants had similar experiences. Calling it a "domino effect," another young Miami man said, "I have less stress now, because I'm not hanging out with them people, so I'm not more inclined to, like, drink and drug as much as I used to." Descriptions such as these illustrate the mindfulness men experienced with respect to substance use and sexual risk behavior and associated social relationships.

As a result, a majority of participants began to search for positive social connections and relationships that they were lacking. One young man said the study assessment questions about friendships and relationships helped him realize he needed to reach out to people he may not have reached out to before and to be more social. One Ft. Lauderdale man said he had been "trying to hang out with more positive people, more positive influences," seeking out different social events and outings in which to make new friends and making it a point to go out and meet new people. In addition, a third of the respondents reported reconnecting with friends and family. In the words of one young participant describing his new social supports, "a lot of them was people that I always had, but I was too high to see it." Other participants had similar experiences and reported reconnecting with family members who provided material, financial, and emotional support.

Another aspect of social support frequently cited as a benefit from participating in the study was the opportunity to *vent*, share opinions, or meet people. Some men, especially those who had prior experience with support groups, were attracted to a venue in which they would be asked to respond to questions and possibly participate in a group. Conversely, many others were anxious or intimidated by the possibility of being interviewed by strangers and having to share thoughts and feelings with other men. As one man from Miami stated, "I was anxious and nervous about someone asking me questions about my life. That turned into something that I kind of maybe looked forward to."

Participants described being able to talk and share things for the first time, which had a large impact on their reductions in risk behaviors. One respondent attributed his behavior change to the fact that he had someone listening to him in a confidential setting. In his words "I used to live for it. I used to couldn't wait to get there. I used to say, 'I just can't wait to get off my feet, get there and be comfortable and just speak out on things . . . '" Other men had similar feelings as they described sharing their opinions and "venting" during the interviews and the camaraderie of the group sessions. For many, such an experience was novel and the impact was felt across many aspects of their lives. As one man said,

> Well, I think coming to the groups, and then reflecting, and talking to people, and also meeting people in the groups that were HIV positive, and the whole just coming in and doing the whole thing—the whole research thing, the whole questioning, the whole, you know, your opinion matters, and you matter, and, because if your opinion matters, then you matter.

Participants also noted that a supportive social environment is often lacking among BMSM. Thus, social support from study staff members and from other men in the groups was significant. As one young participant stated,

> A lot of [White and Hispanic men] don't have the hardships that a lot of Black males have, and I think, so when Black males get into a warm and a nurturing environment where they can really be themselves, and people seem to not be judgmental and open to them or whatever, I think they can't help but to thrive in there. I think [Black men] are a little bit more appreciative, because I think they that they have to deal with a lot more in life. I mean, let's get real. Black men have the highest incarceration rate, the highest incidence of AIDS, the highest homicide rate, the highest murder rate, the highest suicide rate. . . . That's a recipe for disaster, so I'm saying, so yeah, so when [Black men] come into any environment like this, of course it's going to be a positive benefit for them.

Many men expressed similar comments and described the hardships BMSM face and the impact that feelings of social support from the study had on them. There was a sense of feeling among the men that when someone shows care or concern, it ignites a deeper sense of care within themselves. Thus, men described reduced desire to engage in such substance use and sexual risk behaviors.

Discussion

These qualitative data are important as they demonstrate the reasons behind behavioral changes that occurred among BMSM participants during the Project ROOM

sexual and substance use risk reduction intervention RCT. The findings indicate that study participation enhanced men's mindfulness and self-reflection, with nearly all men describing these phenomena as occurring during the baseline and follow-up assessments. Furthermore, men participating in the group intervention arm of the study described the interaction with other men as facilitating self-realization about the dangers of substance use and HIV transmission risk behaviors.

Men's stories shared during the in-depth interviews suggest that accessing social support resources was another essential part of their risk reduction processes. As a result, men described the need to remove themselves from unsupportive relationships and seek out or reconnect with positive social supports. Furthermore, the use of Project ROOM group discussions as means of sharing, communicating, or venting were also beneficial to these men.

These findings make several contributions to HIV prevention intervention research. First, findings suggest the importance of assessments in facilitating behavioral risk reduction. Such reactive measurement effects have been documented since the 1970s (Clifford & Maisto, 2000) and recently among club drug users in Miami (Kurtz, Surratt, Buttram, Levi-Minzi, & Chen, 2012). Though this is the only apparent qualitative research that describes this phenomenon among BMSM, this study coheres with prior work documenting increased self-awareness, consciousness raising, and focused attention in reponse to study assessments (Clifford & Maisto, 2000; Epstein et al., 2005; Halkitis, Mukherjee, & Palamar, 2007; Lightfoot, Rotheram-Borus, Comulada, Gundersen, & Reddy, 2007; Marsden et al., 2006).

Second, these findings suggest that risk reduction interventions, which are tailored to the specific context of HIV risk behaviors are key to reducing health and socical disparities among BMSM. Participation in Project ROOM provided BMSM with an environment in which they felt comfortable, were able to speak openly, and share their feelings, in addition to interacting with other men who had similar experiences and circumstances. This aspect of the intervention was especially important considering that a majority of the BMSM reported lacking adequate social support resources (Buttram et al., 2013; Buttram & Kurtz, 2015). Project ROOM was able to positively affect the social environment of BMSM by providing this type of support. In turn, BMSM were able to achieve positive changes with respect to their health and social disparities.

Building on these findings, it is likely that research examining the social environment of HIV preventive behaviors will yield important information about how decisions are made with regard to HIV transmission risk and preventive behaviors. Such information is necessary for any behavioral, biomedical, or combination approach to HIV prevention to be effective (Kippax & Stephenson, 2012). Research that does not include a sociocultural perspective will miss these important data.

Study Limitations

Some limitations must be noted. The ability to generalize the findings to other MSM is limited by the study eligibility requirements and the relatively small sample size. Furthermore, the data are based on self-report, potentially leading to underreporting of social undesirable behaviors. Given the high levels of substance use and sexual risk behaviors reported by participants, the underreporting of these and other stigmatized behaviors would appear to be uncommon. Qualitative data can be subject to recall and social desirability bias as well as interviewer effects. However, the use of a trained, experienced interviewer likely mitigated this.

Implications for Future Research

Our data demonstrate that substance-using BMSM can make considerable reductions in substance use and HIV transmission risk. This study identifies that both assessment and intervention components of RCTs that address the social environment of HIV are beneficial for substance-using BMSM, especially given the greater health and social disparities faced by this population (Buttram & Kurtz, 2015). Facilitating increased self-reflection and encouraging the development and use of social support should be key elements of any future substance use or sexual risk reduction intervention for these men.

Authors' Note

The content is solely the responsibility of the authors and does not necessarily represent the official views of the National Institute on Drug Abuse or the National Institutes of Health.

Declaration of Conflicting Interests

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding

The author(s) disclosed receipt of the following financial support for the research, authorship, and/or publication of this article: This research was supported by an Early Career Investigator award from the Center for Applied Research on Substance Use and Health Disparities and DHHS Grant Number R01 DA024579 from the National Institute on Drug Abuse.

References

Bernard, R. H. (2011). *Research methods in anthropology: Qualitative and quantitative approaches*. New York, NY: AltaMira Press.

Buttram, M. E., & Kurtz, S. P. (2015). A mixed methods study of health and social disparities among substance-using African Amercian/Black men who have sex with men. *Journal of Racial and Ethnic Health Disparities*, *2*(1), 1-10.

Buttram, M. E., Kurtz, S. P., & Surratt, H. L. (2013). Substance use and sexual risk mediated by social support among Black men. *Journal of Community Health*, *38*, 62-69.

Carey, J. W., Mejia, R., Bingham, T., Ciesielski, C., Gelaude, D., Herbst, J. H., . . . Stall, R. (2009). Drug use, high-risk sex behaviors, and increased risk for recent HIV infection among men who have sex with men in Chicago and Los Angeles. *AIDS and Behavior*, *13*, 1084-1096.

Centers for Disease Control and Prevention. (2010). Prevalence and awareness of HIV infection among men who have sex with men: 21 Cities, United States, 2008. *Morbidity and Mortality Weekly Report*, *59*, 1201-1207.

Chesney, M. A., Barrett, D. C., & Stall, R. (1998). Histories of substance use and risk behavior: Precursors to HIV seroconversion in homosexual men. *American Journal of Public Health*, *88*, 113-116.

Clifford, P. R., & Maisto, S. A. (2000). Subject reactivity effects and alcohol treatment outcome research. *Journal of Studies on Alcohol*, *61*, 787-793.

Creswell, J. W. (2013). *Qualitative inquiry and research design: Choosing among five traditions*. Thousand Oaks, CA: Sage.

Epstein, E. E., Drapkin, M. L., Yusko, D. A., Cook, S. M., McCrady, B. S., & Jensen, N. K. (2005). Is alcohol assessment therapeutic? Pretreatment change in drinking among alcohol-dependent women. *Journal of Studies on Alcohol*, *66*, 369-378.

Glaser, B. G., & Strauss, A. L. (1967). *Discovery of grounded theory: Strategies for qualitative research*. Hawthorne, NY: Walter de Guyter.

Halkitis, P. N., Mukherjee, P. P., & Palamar, J. J. (2007). Multilevel modeling to explain methamphetamine use among gay and bisexual men. *Addiction*, *102*, 76-83.

Hall, H. I., Song, R., Rhodes, P., Prejean, J., An, Q., Lee, L. M., . . . Janssen, R. S. (2008). Estimation of HIV incidence in the United States. *Journal of the American Medical Association*, *300*, 520-529.

Kamb, M. L., Fishbein, M., Douglas, J. M., Rhodes, F., Rogers, J., Bolan, G., . . . Peterman, T. A. (1998). Efficacy of risk-reduction counseling to prevent human immunodeficiency virus and sexually transmitted diseases. *Journal of the American Medical Association*, *280*, 1161-1167.

Kippax, S., & Stephenson, N. (2012). Beyond the distinction between biomedical and social dimensions of HIV: Prevention through the lens of a social public health. *American Journal of Public Health*, *102*, 789-799.

Koblin, B. A., Husnik, M. J., Colfax, G., Huang, Y., Madison, M., Mayer, K., . . . Buchbinder, S. (2006). Risk factors for HIV infection among men who have sex with men. *AIDS*, *20*, 731-739.

Kurtz, S. P., Stall, R. D., Buttram, M. E., Surratt, H. L., & Chen, M. (2013). A randomized trial of a behavioral intervention for high risk substance-using MSM. *AIDS and Behavior*, *17*, 2914-2926.

Kurtz, S. P., Surratt, H. L., Buttram, M. E., Levi-Minzi, M. A., & Chen, M. (2012). Interview as intervention: The case of young adult multidrug users in the club scene. *Journal of Substance Abuse Treatment*, *44*, 301-308.

Lightfoot, M., Rotheram-Borus, M. J., Comulada, S., Gundersen, G., & Reddy, V. (2007). Self-monitoring of behaviour as a risk reduction strategy for persons living with HIV. *AIDS Care*, *19*, 757-763.

Mansergh, G., Koblin, B. A., McKirnan, D. J., Hudson, S. M., Flores, S. A., Wiegand, R. E., . . . Colfax, G. N. (2010). An intervention to reduce HIV risk behavior of substance-using men who have sex with men: A two-group randomized trial with a nonrandomized third group. *PLoS ONE*, *7*(8), 1-9.

Marsden, J., Stillwell, G., Barlow, H., Boys, A., Taylor, C., Hunt, N., & Farrell, M. (2006). An evaluation of a brief motivational intervention among young ecstasy and cocaine users: No effect on substance and alcohol use outcomes. *Addiction*, *101*, 1014-1026.

Miles, M. B., Huberman, A. M., & Saldaña, J. (2014). *Qualitative data analysis: A methods sourcebook*. Thousand Oaks, CA: Sage.

Ostrow, D. G., Plankey, M. W., Cox, C., Li, X., Shoptaw, S., Jacobson, L. P., & Stall, R. C. (2009). Specific sex drug combinations contribute to the majority of recent HIV seroconversions among MSM in the MACS. *Journal of Acquired Immune Deficiency Syndromes*, *51*, 349-355.

Plankey, M. W., Ostrow, D. G., Stall, R., Cox, C., Li, X., Peck, J. A., & Jacobson, L. P. (2007). The relationship between methamphetamine and popper use and risk of HIV user in the multicenter AIDS cohort study. *Journal of Acquired Immune Deficiency Syndromes*, *1*, 85-92.

Prejean, J., Song, R., Hernandez, A., Ziebell, R., Green, T., Walker, F., . . . Hall, H. I. (2011). Estimated HIV incidence in the United States, 2006-2009. *PLoS ONE*, *6*(8), e17502. doi:10.1371/journal.pone.0017502

Saldaña, J. (2013). *The coding manual for qualitative researchers*. Thousand Oaks, CA: Sage.

Shoptaw, S., Reback, C. J., Peck, J. A., Yang, X., Rotheram-Fuller, E., Larkins, S., . . . Hucks-Ortiz, C. (2005). Behavioral treatment approaches for methamphetamine dependence and HIV-related sexual risk behaviors among urban gay and bisexual men. *Drug and Alcohol Dependence*, *78*, 125-134.

Stall, R. D., Paul, J. P., Barrett, D. C., Crosby, G. M., & Bein, E. (1999). An outcome evaluation to measure changes in sexual risk-taking among gay men undergoing substance use disorder treatment. *Journal of Studies on Alcohol*, *60*, 837-845.

Stall, R. D., & Purcell, D. W. (2000). Intertwining epidemics: A review of research on substance use among men who have sex with men and its connection to the AIDS epidemic. *AIDS and Behavior*, *4*, 181-192.

Zimmerman, M. A. (2000). Empowerment theory: Psychological, organizational and community levels of analysis. In J. Rappaport & E. Seidman (Eds.), *Handbook of community psychology* (pp. 43-63). New York, NY: Plenum Press.