



INTERVENTION RESEARCH AMONG DRUG-USING MEN WHO HAVE SEX WITH MEN

Recruiting Drug-Using Men Who Have Sex with Men into Behavioral Interventions: A Two-Stage Approach

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ABSTRACT *Drug-using men who have sex with men (MSM) are at high risk of acquiring or transmitting HIV infection. Efforts to change behaviors in this population have been hampered by difficulties in recruiting drug-using MSM into behavioral interventions. This study sought to develop an effective strategy for recruiting drug-using MSM into behavioral interventions that consist of motivational interviewing alone or motivational interviewing plus contingency management. MSM were recruited through advertising and community outreach into groups to discuss party drugs, party burnout, and sexual behavior, with the intervention subsequently described and enrollment offered in the group setting. Many more eligible MSM responded to advertisements for the discussion groups than advertisements for the interventions, and 58% of those who participated in the discussion groups volunteered for counseling. Men who entered counseling reported high levels of drug use and sexual activity and were racially and ethnically diverse; only 35% were willing to accept drug treatment. Results demonstrate that a two-stage strategy in which drug-using MSM are first recruited into discussion groups before they are offered a behavioral intervention can be an effective way to induce voluntary acceptance of an intervention employing a behavioral risk-reduction approach.*

KEYWORDS *Contingency management, Gay and bisexual men, Health services marketing, Illicit drugs, Motivational interviewing, Sexual risk behaviors.*

INTRODUCTION

Recent reports document a dramatic increase since the mid 1990s in the prevalence of HIV and other sexually transmitted diseases (STDs) among men who have sex with men (MSM).¹⁻⁵ New cases of HIV/AIDS have steadily risen among MSM, accounting for 40% of all new HIV/AIDS diagnoses in the United States in 1999, 41%

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in 2000, 43% in 2001, and 44% in 2002.⁶ Public health and behavioral indicators suggest that the wave of new HIV infections among MSM is partly attributable to increased use of noninjection illicit stimulant drugs, which has been strongly associated with risky sexual practice.⁷⁻⁹ In a recent probability sample of MSM, HIV prevalence was particularly high among heavy noninjection substance users, with 32% of ultra-heavy users and 24% of heavy users versus 16% and 12% of light and nonusers, respectively, reporting HIV-positive serostatus.¹⁰ Use of methamphetamine, a highly addictive stimulant drug, has been associated with having and acquiring STDs, including HIV and syphilis.¹¹⁻¹⁵ Stimulant drugs may increase HIV/STD risk because of their disinhibitory, aphrodisiac-like effects that encourage unsafe sexual behavior. Use of stimulant drugs, including crack cocaine and methamphetamine, has been associated with heightened sexual risk behavior among MSM and other risk groups.¹⁶⁻²³

The strong link between substance use and risky sex has led researchers and practitioners to infer that treating substance abuse can lead to a corresponding reduction in sexual risk and HIV transmission.²⁴⁻²⁶ Nevertheless, most HIV prevention interventions have not specifically addressed substance abuse, and those that have done so have tended to target injection drug users,²⁷⁻³⁰ most of whom are heterosexual.³¹ Few interventions have targeted drug-using MSM in particular, especially those who use noninjection stimulant drugs. For example, a recent meta-analysis identified only 12 rigorous controlled trials that specifically aimed to reduce sexual risk among MSM.³²

In the absence of effective targeted interventions for this population, drug-using MSM are likely to receive help only if they turn to programs available in the community. Twelve-step self-help programs, such as Alcoholics Anonymous and Narcotics Anonymous, are the most widely used and recommended programs for substance use.³³⁻³⁵ Twelve-step programs, which conceptualize drug addiction as a spiritual and medical disease, aim for total abstinence. They typically have high attrition rates, suggesting that they are acceptable only to a portion of the substance-abusing individuals willing to change. Further, the emphasis on spirituality may alienate some potential participants,³⁶ especially MSM who fear homophobia from religious groups.³⁷

Available studies suggest that most substance-abusing MSM have never sought treatment. For example, Stall and colleagues³⁸ observed that among the approximately 40,000 MSM in San Francisco, 10-20% of whom may have a likely substance-use disorder, fewer than 600 accessed substance abuse treatment services in a centrally located community-based organization over a 2-year period. In New York City, a massive effort to recruit alcohol-abusing MSM into cognitive behavioral risk reduction or motivational enhancement therapy by using 12 different recruitment methods that included advertisement in the media, distribution of 100,000 pamphlets, presentations at community agencies, outreach in gay bars and other risk venues, Internet recruitment in MSM chatrooms, and mass mailings to gay customers yielded just 1,404 telephone calls for screening and 198 men enrolled in the study, of whom only 89 attended at least one session of treatment.³⁹

That few drug-using MSM who are at high risk for HIV seek available treatment programs suggests a public health need for (1) effective interventions that are more acceptable to this population and (2) effective marketing strategies for getting MSM at risk to enter these programs in large numbers. We conducted a pilot study that explored promising approaches to address both of these public health needs. The intervention used a motivational interviewing approach, either alone or in combination with contingency management to reward the attainment of specific behavioral goals that are part of an individualized treatment plan. This article reports on the novel recruitment strategy used to recruit drug-using MSM into behavioral interventions.

Earlier pilot work indicated that a direct marketing strategy of letting MSM know that a free counseling program was available was not likely to yield much success. However, it proved to be quite easy to recruit eligible MSM into focus groups to discuss their drug use and sexual behavior and advise us about the viability of different recruitment strategies. The success of these focus groups led us to use group discussions to create more favorable attitudes toward the intervention and thereby increase the likelihood of successful recruitment into it. The “foot in the door” effect refers to a well-established finding that a small initial request increases the likelihood that an individual will agree to a larger, related second request,^{40,41} that is, acquiescence to a first request leads to changes in attitudes and self-perceptions that enhance compliance with a subsequent request.⁴² In this study, participants were sequentially presented with opportunities, first, to participate in a discussion group focusing on drug use and risky sexual behavior and, second, to enroll in a study in which they received free counseling aimed at reducing drug use and risky sexual behavior. Although neither opportunity was accompanied by a personal request, both were offered as part of a study in which participants’ cooperation was solicited. This foot-in-the-door approach is useful when participation in a group can lead to changes in attitudes and self-perceptions regarding drug use that pave the way for entry into drug counseling.

METHODS

Participants

Study participants were men recruited through advertising and community outreach in Los Angeles County. Eligible men were 18 years of age or older who reported having had sex with another man in the past 30 days and having used one or more of the following drugs in the last 30 days: methamphetamine, methylenedioxymethamphetamine (or Ecstasy), cocaine, gamma-hydroxybutyrate, Rohypnol, ketamine, or lysergic acid diethylamide.

Recruitment Procedures

The RAND Human Subjects Protection Committee and Institutional Review Boards at University of California, Los Angeles and Friends Research Institute approved the study on June 18, 2003, July 25, 2003, and July 24, 2003, respectively, and provided oversight of all study procedures. Potential study participants were recruited by using print advertisements in gay-oriented publications and flyers posted at community centers, bars, bathhouses, coffee houses, community-based HIV prevention and health service agencies, and clinics and drug treatment facilities. Two types of advertisements were used: (1) an advertisement that described and directly offered counseling, and (2) an advertisement that invited individuals to participate in a discussion group. Each advertisement provided a toll-free number to call for more information (a different number for counseling vs. discussion group). Dedicated toll-free lines were answered by project staff from 9:30 AM to 9:00 PM, and messages received at other times were returned promptly.

Screening and Consent for Discussion Groups Screening was done by telephone. After identifying the institutions conducting the research and describing the purpose of the discussion group, the study representative explained that he or she needed to ask a few questions to determine whether the caller was qualified and assured him

that responses given during the telephone call would be kept confidential. Callers providing oral consent were screened to determine eligibility. Screening was stopped if the caller did not meet eligibility criteria. Callers who met eligibility criteria were given further information about the discussion group, whose purpose was described as helping researchers find ways to reach men who might be interested in behavioral risk-reduction programs for drug-using MSM. Callers were informed that at the end of the discussion group, participants would have the opportunity to enroll in a further study if they so chose that included confidential free counseling. Interested callers were then scheduled for a discussion group.

Individuals who appeared for the discussion group were again informed about the topics to be discussed, asked to treat the information shared by group members as confidential, and advised of the risks of participation, including breach of confidentiality. They were asked to use only their first name or a pseudonym. A facilitator went over key points with them in a written consent document, and they received a copy after providing oral consent.

Discussion Group Process Two moderators led the discussion groups and asked participants to introduce themselves by their first name or pseudonym and describe the types of drugs they have used in the past. Following a discussion of the drugs used by participants and reasons for use (e.g., having better sex, breaking down sexual inhibitions), the group discussed problems with drug use (e.g., health concerns, relationship problems, adverse effects on employment or housing). The conversation turned to whether participants had ever tried abstaining from or reducing their drug use or sexual risk behavior. This elicited a range of experiences about treatment, relapse, or having intentions to change. One of the moderators would then describe the study, the interventions that were being evaluated, and what was involved in participating, including the agreement to be randomized. He informed those interested that they could sign up for the study at the end of the discussion group. Participants were invited to suggest ways of advertising and conducting outreach to people like them to encourage their participation in the study. They were thanked for their suggestions and given \$40 as compensation for their time and travel costs. Sign-up sheets were also available for participants to provide confidential contact information if they wished to participate in the study.

Screening and Consent for the Counseling Intervention Study Screening of men who called in response to the advertisements for confidential counseling was handled similarly to calls for the discussion groups, inasmuch as the eligibility criteria were the same for both. However, the study was described as designed to help participants change the kind of drug-use behavior that can lead to risky sex and thereby help reduce the chances of acquiring HIV. At no cost to the participant, a counselor would work with him to identify things in his life that he wanted to work on and change. Potential participants who screened as ineligible were thanked and provided with appropriate referrals for drug treatment and other services in their area of residence.

Interventions

Eligible men who consented were randomized to one of the two treatment arms: motivational interviewing alone or motivational interviewing augmented with treatment-plan-related contingency management. Motivational interviewing is a cognitive behavioral approach that is used to enhance intrinsic motivation to change by

exploring and resolving clients’ ambivalence regarding their substance-use behavior and desire to change, using motivational strategies that correspond to a client’s particular stage of change, and moving at the pace of the client, rather than that of the counselor.^{43,44} Contingency management is a behavior therapy that uses operant reinforcement by providing incentives (e.g., money, vouchers) for desired target behaviors, most often consecutive urine samples that document drug abstinence.^{45–47} When paired with cognitive behavioral therapy, it has led to successful outcomes in methamphetamine-using MSM.⁴⁸ For this study, contingency management was used to reinforce adherence to a treatment plan that included clearly defined, achievable behavioral tasks to help clients take small steps toward long-term goals of reduced drug use or drug abstinence and less risky sexual behavior.^{49,50} The motivational interviewing group received two to four counseling sessions, and the motivational interviewing plus contingency management group received eight counseling sessions. Questionnaires measuring sociodemographic characteristics, current sexual behavior, and substance use were completed at baseline, and 4, 6, 12, and 26 weeks beyond baseline. Results from the baseline assessment are reported to describe the characteristics of MSM recruited to the study.

RESULTS

As shown in Table 1, the discussion group yielded a nearly four-fold higher rate of recruitment per advertisement than did direct marketing, at about a quarter of the cost per participant recruited. Over a 6-month period, 158 men were screened for the study across recruitment conditions, and 83 MSM enrolled and completed the baseline assessment. Figure depicts the recruitment disposition for the 80 participants recruited purely through the discussion group or direct marketing advertisements; an additional three participants were recruited via referral by an earlier participant or other indirect means. As shown in Figure, 140 participants responded to advertisements for the discussion group, and 18 responded to the direct marketing advertisements. Of the men screened for the discussion group, 116 participated in the group and 67 enrolled. Of the men who called the toll-free number in response to direct advertising or referral, 13 enrolled.

About 19% of the 83 participants in the main study were under the age of 30 years, 41% had a high-school diploma/General Educational Development or a lower level of education, and 55% were unemployed. About 28% were African American, 39% White, 20% Hispanic, and 3% Asian or Pacific Islander. Almost all of the men self-identified as gay (64%) or bisexual (30%), and over three-quarters (77%) had never been married.

The men enrolled in the main study used a range of different substances. In the past 30 days, 69% used marijuana, 61% amphetamines, 61% crack cocaine, 15% gamma-hydroxybutyrate, 14% Ecstasy, 7% hallucinogens, 8% ketamine, 5% heroin,

TABLE 1. Advertising expenses and enrollment yield, by recruitment mode

	Discussion group	Direct marketing
Number of advertisements	14	10
Total advertising expenses	\$9,024	\$6,558
Enrollees per advertisement	4.79	1.30
Advertising cost per participant	134.66	\$504.46

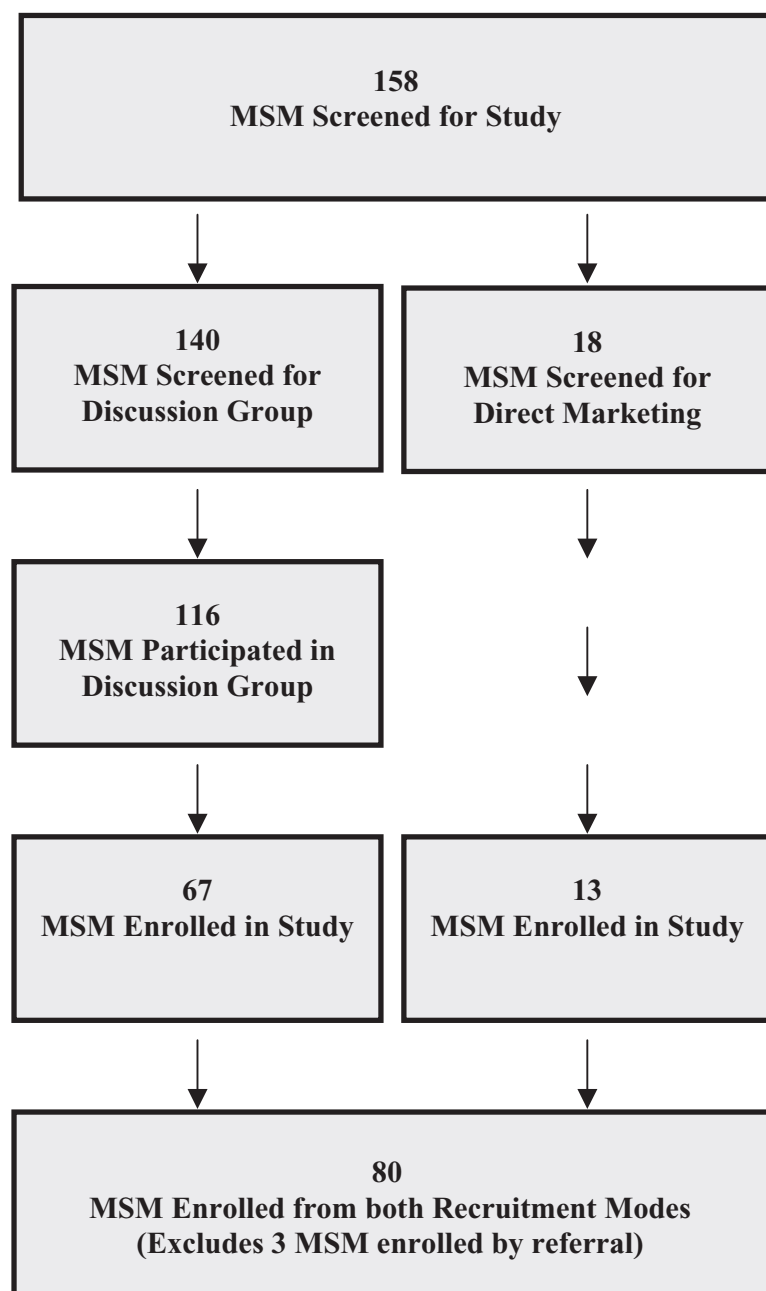


FIGURE. Flow chart of screening and recruitment procedures.

1% phenylcyclohexylpiperidine (Phencyclidine), and 1% Rohypnol; 18% used Viagra. Nearly 20% had injected drugs in the last 30 days, and 43% had ever injected drugs.

HIV risk was high among participants, with the majority (58%) reporting having been diagnosed with an STD or hepatitis C in their lifetime. Twenty-eight participants (34%) were HIV positive, and 35 were HIV negative (45%); 18 participants (22%) either did not know or did not report their serostatus. A third had a

primary relationship partner, and of those, 14 had a partner of positive or unknown HIV status, as reported by the participant. Nearly all (99%) reported having oral, anal, or vaginal sex in the previous 6 months, and 92% had multiple partners during that time (range, 1–240). Of those who were sexually active, over half (57%) had multiple male sex partners in the last 30 days. Nearly half had engaged in receptive (48%) or insertive (49%) anal sex. Condom use was low: Of those who reported anal sex, only 22% used condoms every time for receptive anal sex, and 30% used condoms each time for insertive anal sex. Of the 19% reporting female partners in the past 30 days, eight had multiple partners. Of those reporting vaginal sex (16%), only five always used condoms. Almost a fifth of the sexually active sample (18%) had paid for sex, and 29% had been paid for sex, in the last 30 days. Most (86%) reported having sex while high in the past 30 days. Of those who were sexually active in the past 6 months, 53% reported visiting gay bars in the last 30 days, 38% bathhouses, 30% cruising parks, and 27% sex clubs.

A substantial percentage (42%) had never been in any form of drug treatment or self-help group, about half (49%) had attended an Alcoholics Anonymous or Narcotics Anonymous meeting at some point, and a quarter had participated in a formal drug treatment program. Only 35% said that they would accept a treatment slot at the time of the baseline assessment.

DISCUSSION

The two-stage recruitment procedure was successful on several counts. First, it produced an excellent yield, with a substantial proportion (47%) of all those screened and an even larger proportion (57%) of those participating in a discussion group subsequently enrolling in the intervention. Second, it provided a way to successfully recruit nontreatment-seeking MSM, who are entirely excluded by definition when a direct marketing approach is used. Two thirds of those enrolling in the counseling intervention said that they would not accept a treatment slot if it were available. Third, this two-stage recruitment method substantially increased the number of persons enrolled in response to each advertisement. Because advertisements for the discussion groups and the interventions cost the same amount and covered the same period, this resulted in lower direct advertising cost and a more rapid accrual rate for the two-stage recruitment method. Accrual into the intervention through direct marketing alone was at a rate slightly lower than that achieved in a controlled clinical trial of drug treatment intervention conducted by Shoptaw with methamphetamine-dependent gay or bisexual men in Los Angeles from 1997 to 2000, when 162 men were enrolled in the trial over a 3-year period.⁴⁸ Two-stage recruitment boosted the accrual rate substantially, suggesting that this method might make it possible to complete clinical trials more quickly.

The behavioral profile of the MSM recruited into this intervention indicates that they are at high risk, with high levels of drug use and sexual activity, large numbers of partners, and low levels of condom use. It is noteworthy that participants in the main study included substantial numbers of African American and Hispanic MSM, who constituted nearly half the sample in this study, in contrast to just 16% in the Shoptaw trial for methamphetamine-dependent MSM.⁴⁸ Our results indicate that a staged recruitment strategy using discussion groups can effectively reach a socioeconomically and racially diverse population of eligible MSM.

The foot-in-the-door approach has been used in other situations to induce a participant to do something for an organization or cause, rather than for the participant's own benefit.⁴⁰ The most common explanation for the effect involves

self-perception theory.⁴² By performing the initial request, the individual comes to see himself (at least temporarily) as the sort of person who is willing to do this kind of thing, making it more likely that he will agree to perform a second, related request. The need to maintain consistency in behavior may also facilitate agreement to perform a related request.⁵¹ Participants in the discussion groups were asked to suggest messages and dissemination strategies to reach people like them to help change their risky behavior. Providing such assistance endorses the need to change these behaviors, despite the participants' engaging in them themselves. Such dissonance can be resolved by changing one's own behavior and enrolling in the intervention.

Principles and strategies of motivational interviewing were applied in the discussion groups to develop the sense of discrepancy between participants' current behavior and broader goals or intentions, building motivation for change. Once motivation had been enhanced, the groups provided a nonthreatening context in which the interventions can be described in detail, countering some of the assumptions participants may have had about them. It was also possible to contrast the interventions with 12-step programs, a model many participants had experienced first hand and that most were familiar with. Many participants perceived the counseling interventions as following a very different model from 12-step programs. That may have made it easier for them to decide to enroll in the study because they did not need to resolve inconsistency between their past avoidance of treatment and present willingness to participate in an intervention.

In addition to describing the counseling in the two study conditions, the counselors were able to model some key attributes of the motivational interviewing approach during the course of the 90-minute discussion groups. They engaged in active listening, expressed empathy, and were nonjudgmental. Discussion group participants seemed to respond positively to being treated with respect, and these counselor activities may have contributed to the intervention's attractiveness.

Processes of social interaction in the discussion group also appeared to facilitate individual decisions to enroll in the intervention. Because participants were all drug-using MSM, they had a basis for feeling similar to others in the group, which facilitated social comparison. The process of sharing experiences and concerns about drug use led many of them to perceive themselves to be at risk of consequences that other group members had experienced or were concerned about. Group members who signed up for the intervention often encouraged others to join them.

The discussion groups provide a venue in which the counseling interventions can be described to potentially eligible men under conditions that facilitate their openness to participation. However, it is important to recognize that features of the discussion groups that create openness to counseling also constitute a preliminary intervention that could lead to changes in risky behavior by themselves and could moderate the effects of subsequent counseling. This possibility needs to be considered in interpreting results from intervention studies that recruit "converted" volunteers from nontreatment-seeking populations. For example, effect sizes may differ when the main intervention is implemented without the preliminary intervention and compared with a "no intervention" group.

The small sample size in this study does not permit examination of possible differences in the types of MSM recruited through direct marketing versus discussion groups. For example, we might expect that those who sign up through direct marketing tend to be at a more advanced stage of readiness to change than those recruited through discussion groups. Given the small sample size, it is difficult to test this or to assess whether the staged recruitment approach yields differences in demographics

or other sample characteristics. Moreover, because the discussion groups require the use of additional incentive payments and labor costs compared with direct recruitment, future research should examine the cost effectiveness of the approach.

According to self-perception theory, the \$40 incentive payments would tend to undermine personal attributions for participating in the group, thereby reducing the likelihood of enrolling in counseling. However, although the incentive payment may be perceived as the immediate reason for their participation, it may not be perceived as a reason for sharing of personal concerns about drug use or other behaviors that go beyond the immediate purpose of the group. Such behaviors may tend to be attributed to internal causes, thereby facilitating change. The discussion group triggers many social psychological processes that may tend to induce enrollment, and it is not clear how important the foot-in-the-door effect is to the success of the approach. Additional research is needed to shed light on the reasons the approach is effective and to identify key elements necessary for designing successful staged recruitment strategies. It is important to learn more about the generalizability of this approach to other interventions and populations.

ACKNOWLEDGEMENT

This research was supported by the National Institute of Drug Abuse (R01 DA11379), National Institutes of Health, Bethesda, Maryland.

REFERENCES

1. From the Centers for Disease Control and Prevention. Increases in unsafe sex and rectal gonorrhea among men who have sex with men—San Francisco, California, 1994–1997. *JAMA*. 1999;281:696–697.
2. From the Centers for Disease Control and Prevention. Unrecognized HIV infection, risk behaviors, and perceptions of risk among young black men who have sex with men—six US cities, 1994–1998. *JAMA*. 2002;288:1344–1348.
3. Fox KK, del Rio C, Holmes KK, et al. Gonorrhea in the HIV era: a reversal in trends among men who have sex with men. *Am J Public Health*. 2001;91:959–964.
4. Kellogg T, McFarland W, Katz M. Recent increases in HIV seroconversion among repeat anonymous testers in San Francisco. *AIDS*. 1999;13:2303–2304.
5. Wolitski RJ, Valdiserri RO, Denning PH, Levine WC. Are we headed for a resurgence of the HIV epidemic among men who have sex with men? *Am J Public Health*. 2001;91:883–888.
6. Centers for Disease Control and Prevention. *HIV/AIDS Surveillance Report 2002*. Atlanta, GA: Centers for Disease Control and Prevention; 2003:14.
7. Courtenay-Quirk C, Wolitski RJ, Hoff C, Parsons JT. Interests in HIV prevention topics of HIV-seropositive men who have sex with men. *AIDS Educ Prev*. 2003;15:401–412.
8. Rotheram-Borus MJ, Rosario M, Meyer-Bahlburg HFL, Koopman C, Dopkins SC, Davies M. Sexual and substance use acts of gay and bisexual male adolescents in New York City. *J Sex Res*. 1994;31:47–57.
9. Stall R, McKusick L, Wiley J, Coates TJ, Ostrow DG. Alcohol and drug use during sexual activity and compliance with safe sex guidelines for AIDS. The AIDS Behavioral Research Project. *Health Educ Q*. 1986;13:359–371.
10. Catania JA, Osmond D, Stall RD, et al. The continuing HIV epidemic among men who have sex with men. *Am J Public Health*. 2001;91:907–914.
11. Shoptaw S, Reback CJ, Freese TE. Patient characteristics, HIV serostatus, and risk behaviors among gay and bisexual males seeking treatment for methamphetamine abuse and dependence in Los Angeles. *J Addict Dis*. 2002;21:91–105.

12. Outbreak of syphilis among men who have sex with men—Southern California, 2000. *MMWR Morb Mortal Wkly Rep.* 23, 50:117–120.
13. Chesney MA, Barrett DC, Stall R. Histories of substance use and risk behavior: precursors to HIV seroconversion in homosexual men. *Am J Public Health.* 1998;88:113–116.
14. Gorman EM, Carroll RT. Substance abuse and HIV: considerations with regard to methamphetamines and other recreational drugs for nursing practice and research. *J Assoc Nurses AIDS Care.* 2000;11:51–62.
15. Halkitis PN, Parsons JT, Stirratt MJ. A double epidemic: crystal methamphetamine drug use in relation to HIV transmission among gay men. *J Homosex.* 2001;41:17–35.
16. Frosch D, Shoptaw S, Huber A, Rawson RA, Ling W. Sexual HIV risk among gay and bisexual male methamphetamine abusers. *J Subst Abuse Treat.* 1996;13:483–486.
17. Gleghorn AA, Marx R, Vittinghoff E, Katz MH. Association between drug use patterns and HIV risks among homeless, runaway, and street youth in northern California. *Drug Alcohol Depend.* 1998;51:219–227.
18. McNall M, Remafedi G. Relationship of amphetamine and other substance use to unprotected intercourse among young men who have sex with men. *Arch Pediatr Adolesc Med.* 1999;153:1130–1135.
19. Semple SJ, Patterson TL, Grant I. Motivations associated with methamphetamine use among HIV+ men who have sex with men. *J Subst Abuse Treat.* 2002;22:149–156.
20. Sheeran P, Orbell S. Do intentions predict condom use? Meta-analysis and examination of six moderator variables. *Br J Soc Psychol.* 1998;37:231–250.
21. Reback CJ, Grella CE. HIV risk behaviors of gay and bisexual male methamphetamine users contacted through Street Outreach. *J Drug Issues.* 1999;29:155–166.
22. Reback CJ, Larkins S, Shoptaw S. Changes in the meaning of sexual risk behaviors among gay and bisexual male methamphetamine abusers before and after drug treatment. *AIDS Behav.* 2004;8:87–98.
23. Edlin BR, Irwin KL, Faruque S et al. Intersecting epidemics—crack cocaine use and HIV infection among inner-city young adults. Multicenter Crack Cocaine and HIV Infection Study Team. *N Engl J Med.* 1994;331:1422–1427.
24. Janssen RS, Holtgrave DR, Valdiserri RO, Shepherd M, Gayle HD, De Cock KM. The serostatus approach to fighting the HIV epidemic: prevention strategies for infected individuals. *Am J Public Health.* 2001;91:1019–1024.
25. Moss AR, Vranizan K, Gorter R, Bacchetti P, Watters J, Osmond D. HIV seroconversion in intravenous drug users in San Francisco, 1985–1990. *AIDS.* 1994;8:223–231.
26. Shoptaw S, Reback CJ, Frosch DL, Rawson RA. Stimulant abuse treatment as HIV prevention. *J Addict Dis.* 1998;17:19–32.
27. Baker A, Heather N, Wodak A et al. Evaluation of a cognitive-behavioural intervention for HIV prevention among injecting drug users. *AIDS.* 1993;7:247–256.
28. Baker A, Kochan N, Dixon J, Heather N, Wodak A. Controlled evaluation of a brief intervention for HIV prevention among injecting drug users not in treatment. *AIDS Care.* 1994;6:559–570.
29. Boatler JF, Knight K, Simpson DD. Assessment of an AIDS intervention program during drug abuse treatment. *J Subst Abuse Treat.* 1994;11:367–372.
30. Lewis JR, Boyle DP, Lewis LS, Evans M. Reducing AIDS and substance abuse risk factors among homeless, HIV-infected, drug-using persons. *Res Soc Work Pract.* 2000;10:15–33.
31. Deren S, Estrada AL, Stark M, Goldstein M. Sexual orientation and HIV risk behaviors in a national sample of injection drug users and crack smokers. *Drug Soc.* 1996;9:97–108.
32. Johnson WD, Hedges LV, Diaz RM. Interventions to modify sexual risk behaviors for preventing HIV infection in men who have sex with men. *Cochrane Database Syst Rev.* 2003;(1):CD001230.
33. Practice guidelines for the treatment of patients with substance use disorders: alcohol, cocaine, opioids. American Psychiatric Association. *Am J Psychiatry.* 1995;152(suppl 11):1–59.

34. Humphreys K. Clinicians' referral and matching of substance abuse patients to self-help groups after treatment. *Psychiatr Serv.* 1997;48:1445–1449.
35. *Management of Substance Use Disorders in the Primary and Specialty Care.* Washington, DC: Veterans Health Administration, Office of Quality and Performance and the Veterans Affairs, Department of Defense Development Work Group; 2001.
36. Kelly JF, Moos R. Dropout from 12-step self-help groups: prevalence, predictors, and counteracting treatment influences. *J Subst Abuse Treat.* 2003;24:241–250.
37. Hicks D. The importance of specialized treatment programs for lesbian and gay patients. In: Guss JR, Drescher J, eds. *Addictions in the Gay and Lesbian Community.* New York, NY: Haworth Press; 2000.
38. Stall RD, Paul JP, Barrett DC, Crosby GM, Bein E. An outcome evaluation to measure changes in sexual risk-taking among gay men undergoing substance use disorder treatment. *J Stud Alcohol.* 1999;60:837–845.
39. Morgenstern J, Irwin TW. Offering responsive alcohol treatment interventions: who responds? Paper presented at: New Dynamics of HIV Risk among Drug-Using MSM; March 1–2, 2004; Bethesda, MD.
40. Burger JM. The foot-in-the-door compliance procedure: a multiple-process analysis and review. *Pers Soc Psychol Rev.* 1999;3:303–325.
41. Freedman JL, Fraser SC. Compliance without pressure: the foot-in-the-door technique. *J Pers Soc Psychol.* 1966;4:195–202.
42. Bem DJ. Self-perception theory. In: Berkowitz L, ed. *Advances in Experimental Social Psychology.* Vol 6. New York, NY: Academic; 1972:63–108.
43. Burke BL, Arkowitz H, Menchola M. The efficacy of motivational interviewing: a meta-analysis of controlled clinical trials. *J Consult Clin Psychol.* 2003;71:843–861.
44. Dunn C, Deroo L, Rivara FP. The use of brief interventions adapted from motivational interviewing across behavioral domains: a systematic review. *Addiction.* 2001;96:1725–1742.
45. Higgins ST, Budney AJ, Bickel WK, Hughes JR, Foerg F, Badger G. Achieving cocaine abstinence with a behavioral approach. *Am J Psychiatry.* 1993;150:763–769.
46. Higgins ST, Silverman K. *Motivating Behavior Change Among Illicit-Drug Abusers.* Washington, DC: American Psychological Association; 1999.
47. Higgins ST, Wong CJ, Badger GJ, Ogden DE, Dantona RL. Contingent reinforcement increases cocaine abstinence during outpatient treatment and 1 year of follow-up. *J Consult Clin Psychol.* 2000;68:64–72.
48. Shoptaw S, Reback CJ, Peck JA, et al. Behavioral treatment approaches for methamphetamine dependence and HIV-related sexual risk behaviors among urban gay and bisexual men. *Drug Alcohol Depend.* In press.
49. Morral AR, Iguchi MY, Belding MA, Lamb RJ. Natural classes of treatment response. *J Consult Clin Psychol.* 1997;65:673–685.
50. Iguchi MY, Bux DA Jr. Reduced probability of HIV infection among crack cocaine—using injection drug users. *Am J Public Health.* 1997;87:1008–1012.
51. Festinger L. *A Theory of Cognitive Dissonance.* Stanford, CA: Stanford University Press; 1957.