

Published in final edited form as:

Int J Drug Policy. 2011 January ; 22(1): 1–8. doi:10.1016/j.drugpo.2010.06.004.

Group-sex events among non-gay drug users: An understudied risk environment

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Abstract

Background and Methods—This article discusses relevant literature on group sex events—defined as events at which some people have sex with more than one partner—as risk environments, with a particular focus on group sex events where people who take drugs by non-injection routes of administration participate and where the event is not primarily LGBT-identified, at a “classic” crack house, nor in a brothel. It also briefly presents some findings from a small ethnography of such events.

Results—Group sex participation by people who take drugs by non-injection routes of administration seems to be widespread. It involves both behavioural and network risk for HIV and STI infection, including documented high-risk behaviour and sexual mixing of STI- and HIV-infected people with those who are uninfected. Indeed several HIV and STI outbreaks have been documented as based on such group sex events. Further, group sex events often serve as potential bridge environments that may allow infections to pass from members of one high-risk-behavioural category to another, and to branch out through these people’s sexual and/or injection networks to other members of the local community. The ethnographic data presented here suggest a serious possibility of “third party transmission” of infectious agents between people who do not have sex with each other. This can occur even when condoms are consistently used since condoms and sex toys are sometimes used with different people without being removed or cleaned, and since fingers and mouths come into contact with mucosal surfaces of other members of the same or opposite sex. In addition to being risk environments, many of these group sex events are venues where risk-reducing norms, activities and roles are present—which lays the basis for harm reduction interventions.

Conclusion—Research in more geographical locations is needed so we can better understand risks associated with group sex events in which drug users participate—and, in particular, how both participants and others can intervene effectively to reduce the risks posed to participants and non-participants by these group sex events. Such interventions are needed and should be developed.

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Conflict of Interest: None

Keywords

Risk environments; group sex; networks; non-injection drug use; HIV; sexually transmitted diseases

Introduction

Risk environments are social situations that affect what behaviors occur in them and/or the probability that a given behavior will lead to harmful results. Shooting galleries have been widely studied as HIV risk environments for people who *inject* drugs (Friedman & Aral, 2001; Klein & Levy, 2003; Rhodes, 2002; Rhodes et al., 2005), crack houses as risk environments for unsafe sex and for risk reduction efforts (Inciardi, 1996; Maher, 1997; Ross et al., 1999; Sterk, 1999, 2000; Williams, 1992), brothels for sex workers and others (Deren et al., 1996; Remple et al., 2007), and bathhouses, public cruising areas and circuit parties as environments conducive to drug use and high-risk sex among gay men (Binson et al., 2001; Choi et al., 2004; Ghaziani & Cook, 2005; Grierson, Smith, & von Doussa, 2008; Ostrow & Stall, 2008; Weidel, Provencio-Vasquez, & Grossman, 2008; Wohlfeiler & Potterat, 2005). This article discusses group sex events—defined as events at which some people have sex with more than one partner—as risk environments, with a particular focus on group sex events where people who take heroin, cocaine or crack by non-injection routes of administration take part and where the event is not primarily LGBT-identified, at a classic crack house, nor in a brothel. It is important to note, also, that many group sex events of this type also include participants who are primarily LGBT and people who may inject drugs, use other drugs, or use no drugs. Epidemiologically, this is *one* reason they are important—they often involve contexts in which sexually transmitted infections can bridge across groups. Although most data presented are from United States studies, available data indicate that such substance use and group sex co-occur in other developed and developing countries.

The study of group sex events of this kind is important for understanding drug-related harms. As shown below, large numbers of heroin, cocaine and crack users take part in group sex events—and this means that these events are important risk environments for many drug users.

Group sex participation by people who take drugs by non-injection routes of administration seems to be common and to involve considerable risk, although existing research is geographically limited

It is difficult to measure the extent of group sex that occurs through survey methods. As studies in North Carolina that are reviewed below show, underreporting of this highly-stigmatized behavior is common. In addition to conscious underreporting, we would add, respondents may deny having group sex because their image of what the term means is restricted to highly-orgiastic events (rather than threesomes or foursomes, for example).

Nevertheless, in spite of these difficulties, several studies indicate that group sex event (GSE) participation by non-injecting users is common in the United States—although even in the USA, this research remains geographically limited. It is strongest for New York City:

Krauss et al (2006) conducted several studies of teenagers and youth in New York City's Lower East Side. In a population-representative sample of 14 – 19 year old teenagers, 21% were sexually active. More than a third reported at least one sexual experience at a “sexual event in a group setting,” of whom a majority reported that their first sexual experience was at such an event. (Krauss's definition of these events is somewhat looser than ours, but her

discussion makes it clear that they typically fit our definition as well.) Those who had taken part in GSEs averaged 15.8 years of age and, on average, attended their first GSE when 13.8 years old. Among an older sample of youth under 25, 34% had attended GSEs. Drug use was common at these GSEs. Krauss et al also reported that typical GSEs were organized by young men (some were organized by young women; others just evolved from mixed-sex get-togethers). They usually took place in unsupervised apartments, lasted 5 – 8 hours (while parents or other caretakers were at work), and had 8 – 15 participants. Age mixing was common, ranging from 12 years old to 27—with all the HIV/STI risk that entails.

In a sociometric network study of primarily-heterosexual Bushwick (Brooklyn, NY) adults, Friedman et al (2008) found group sex to be common and also showed the potential importance of group sex (and group sex involving drug users) for HIV transmission. Over 40% of both non-injecting crack smokers and also of non-injecting users of other cocaine and/or heroin had been to one or more group sex events in the last year, as had 35% of IDUs. “Only” a fourth of those who had never used heroin, crack or cocaine attended GSEs in the last year. These data also show that many GSEs are bridge locations through which HIV and other STIs might spread across epidemiologic categories: IDUs, NIDUs, non-users of drugs, men who have sex with men (MSM) and also with women (MSM/W), women who have sex with women, and also with men (WSW/M), women who have sex only with men, and men who have sex only with women attended the same events and sometimes had sex with each other. These GSEs often included participants discordant on HIV, genital herpes and Chlamydia.

Zule and colleagues studied group sex among people who use drugs, men who have sex with men, and others “knowledgeable about drug use and/or male-to-male sexual activity” in a rural North Carolina (USA) county. 46% of 41 subjects in their ethnographic study of these groups had engaged in group sex (Zule et al., 2007). In a quantitative respondent-driven sample which they studied, however, very few subjects reported group sex participation; Zule attributes this difference to serious under-reporting in formal surveys (personal communication, June 2008).

Why is group sex important for drug-related harms?

In this section of the paper, we first show that group sex among drug users has contributed to a number of disease outbreaks and that group sex participation is a risk factor for disease acquisition. We then discuss risk behaviors at group sex events, and then discuss why group sex events are epidemiologically important.

Several HIV and STI outbreaks have been documented as based on group sex events

Rothenberg et al. (1998) showed how group sex network dynamics caused a syphilis outbreak in a Georgia suburb. A core group of 19 white women (most under 16 years old) arranged sex parties with groups of males (80 in total), including older white suburban men and inner-city age-peer minority men. GSEs took place at the women’s homes while their parents were out for the evening. They engaged in a wide range of high-risk sexual activities with simultaneous partners. Drugs and alcohol were often used.

In a Syracuse, NY, gonorrhea outbreak among 15–19 year olds in 8 inner-city, high-minority census tracts, focus groups found that some young women reported “running a lab,” having sex with multiple partners in abandoned houses, or “running a train” (serial intercourse with several males). Participants said sexual activity occurred in conjunction with drug use (“hang out, use drugs, then sex happens”) (Welych et al., 1998).

The CDC reported two HIV clusters (Centers for Disease Control and Prevention, 1999; Centers for Disease Control and Prevention, 2000) in a rural upstate New York county and a small rural Mississippi town. Neither article reported that GSEs were involved, but additional inquiries indicated that GSEs were involved in both the New York (Holmberg, personal communication, November, 2000) and Mississippi HIV clusters (St. Lawrence, personal communication, October, 2000).

Group sex events where drug use takes place facilitate high-risk sexual behaviors—but also involve some conscious efforts to avoid risks

In the Bushwick study (Friedman et al., 2008), most participants, whether men or women, reported having more than one partner at the event. Condoms were usually available, but many participants did not use them—although the extent of condom use varied between kinds of events, with smaller, more intimate events characterized by more unsafe sex. Respondents reported that almost all attendees at these events were high on drugs or alcohol, although drug injection was not very common.

Large numbers of people who used drugs through non-injection means of administration frequently participated in GSEs. They did so a mean of 6.4 times a year, ranging from 0 times to more than daily. To the extent that GSEs are sources of disease transmission, frequent attendees may serve as a core group for transmission to other non-injecting users and others in the community. Our network study data show that non-injector user men at GSEs had a mean of 1.5 women partners; and that 52% of their sex acts were unprotected. Non-injector drug using women averaged 1.6 male partners, with 18% of sex acts unprotected. Since non-users and IDUs attended, these reports on condom use need not be contradictory, although they probably do reflect socially desirable responding by women about condom use.

These group sex events had considerable social organization, much of it designed to reduce risk of violence or of disease transmission. (These data do not appear in Friedman et al., 2008. Subjects were asked about roles they filled at such events: how often in the last 3 months they **1.** arranged parties where people had sex; **2.** kept order at such a party; **3.** provided condoms at such a party; and **4.** supervised or protected someone who sells sex at such parties. IDUs, crack smokers and other users of non-injected drugs reported doing each action more often than did non-users. Among those who attended a GSE in the last 3 months, 21% of non-injecting heroin or cocaine users, 39% of crack smokers, and 20% of IDUs reported having kept order at a GSE during this period—and many did so multiple times. Eleven percent of drug-using attendees reported having urged someone at one of these events not to have group sex there. Thus, drug users seem active in setting up sex parties and helping maintain safety at them. These data clearly invited further investigation to clarify their prevention implications.

Theoretical perspectives and research questions about the epidemiologic significance of NIDUs' GSEs

The epidemiologic impact of GSEs goes far beyond the point that they are sites where some people have sex with several partners. If this were their only significance, then their impact could be understood from questions about numbers of partners an individual had sex with and condom use with those partners—even though reported partner numbers can be large: In the Bushwick study, some subjects reported up to 12 partners at the last GSE they attended (Friedman et al., 2008); and Krauss et al (personal communication) found that Lower East Side teenage men and women report up to 4 partners at individual GSEs (in which drug use was common) they attended, with 50% continuing relationships with at least one partner beyond the GSE event.

A network perspective on GSEs helps us understand GSEs' additional importance. In some ways, the epidemiologic impact of GSEs resembles that of shooting galleries in increasing the risk of disease transmission and in spreading it across social boundaries (Friedman et al., 2002). Figure 1 presents two schematic views of community sexual networks: The epidemiologic pattern in Figure 1a would isolate HIV or STI within any given isolated sexual network; but the attendance of several people at the GSE in Figure 1b facilitates transmission across these networks.

Moreover, the epidemiologic impact of GSEs may be increased by the rapidity of partner change. Many participants have sex with several others in an hour or less, and penises, fingers and/or sex toys move rapidly among different people's vaginas and/or anuses. The numerous sex acts in a short period of time may also bruise or abrade vaginal and penile tissue—which would facilitate transmission of HIV or other infectious agents. For women, risk may be increased by a widespread practice of men keeping the same condom on while having vaginal or anal sex with many partners. (These practices mean that studies and interventions that focus on “using condoms for every sex act” may miss sexual risk for the many community members—both drug users and others—who attend GSEs.)

The epidemiologic significance of these risks goes beyond the fact that some participants (for example, “Tom” or “Victoria”) engaged in unprotected sex with many partners. To the extent that bodily fluids from partners remain available to transfer to other partners, this opens the possibility of “indirect” HIV or STI transmission through these fluids from one of Tom's or Victoria's partners to another. This has been suggested for MSM by Götz et al (2005).

Epidemiologically, to the extent that the fluids can transfer a pathogen among partners in this way, standard network risk measures such as in-degree, out-degree, centrality, and concurrency are greatly increased beyond what would be apparent from partnership data alone (Rothenberg et al., 1998; Kelley, Borawski, Flocke, & Keen, 2003; Helleringer & Kohler, 2007; Morris & Kretzschmar, 1997; Morris, 2001). We might conceptualize this in a new term such as “effective event concurrency” based on the numbers of persons to whom one could transfer an infection during a given GSE. Even a person with only one (uninfected) partner at a given event might be at high risk if any of several people to whose fluids he or she is directly or indirectly exposed was infectious—and that this in turn puts her or his non-attending partners at risk.

The epidemiologic implications of GSEs are further multiplied by who attends them. Although evidence on this issue is limited, GSEs seem to mix people from different “risk groups.” People who use non-injected drugs, IDUs, non-users, straight men, gays, and women (including lesbians) attend these events, and may have sex together. For example, at GSEs in the Bushwick network study, approximately a quarter of attendees injected drugs, and about a fifth of men had sex with another man there (Friedman et al., 2008). In addition, infection rates are high: Among GSE attendees in that study, 11% tested positive for HIV, 51% for HSV-2, and 10% for Chlamydia. In terms of HIV risk, this means (1) the number of potential infectors present was high; (2) a large fraction of HIV-negatives had enhanced susceptibility due to having an STI; (3) a large proportion of HIV positives had increased infectivity from STI infection; and (4) indirect transmission may have occurred among people who never have sex with each other.

Also, as ethnographic data reported below show, many people attend GSEs quite frequently—several times a week. This has major implications for HIV transmission. If any attendees do become infected with HIV at a GSE or elsewhere, they are likely to attend GSEs while still in the acute infection stage, where viral loads are often higher than $10^6/\text{mm}^3$ and per-

sexual act transmission rates are increased 100–1000 fold (Pilcher et al., 2004). If they acquire an STI, HIV viral load in secretions and transmissibility are also increased. Their partners and others exposed to their semen or vaginal fluids may also be highly susceptible due to genital inflammation caused by STIs; and a high “effective event concurrency” might make it likely that many people would be exposed there and, potentially, become infected and infectious themselves—only, in turn, to attend another GSE and continue the potential diffusion of HIV throughout the community across network boundaries. A network diagram in one of our papers (Friedman et al., 2008) presents a diagram that shows how group sex participants are widespread throughout sexual and injection networks in Bushwick and thus shows the potential for participants in GSEs to spread infections widely in urban networks.

Thus, GSEs are epidemiologically important. We believe that these venues and their associated behaviors may account for a disproportionate share of HIV transmission to non-injecting drug users (given their high rate of GSE attendance) and non-using heterosexuals. Finding ways to intervene to prevent HIV and STI transmission at GSEs is an important prevention priority.

Data from a small ethnographic study of group sex events involving drug users

To concretize this review, it will be useful to present a limited amount of data that illustrate aspects of these GSEs and that should be investigated more fully. These data are from a small ethnographic study we conducted with the ethical approval of the NDRI Institutional Review Board during 2007 – 2009. These data are mainly from informal in-depth interviews using a semi-structured interview guide with 28 adults who participate in GSEs. We recruited them by web-searching in Craigslist and by chain-recruiting from one subject to others. Of the 28 informants, 14 were middle class alcohol and marijuana users (many of whom who reported that cocaine and other drug use takes place at GSEs they go to). The other 14 were non-injecting users of heroin, crack and/or other cocaine who attend group sex events. Three private GSEs and one public commercial GSE were observed.

Based primarily on the in-depth interviews, we suggest that GSEs vary on several dimensions, including: (1) *Size*: Many intimate GSEs involve 3 – 6 people; others involve 60 or more. (2) *Intentionality*: Is the event planned or spontaneous? (3) *Goal*: Do people come primarily for sex, drugs, or both? (4) *What drugs are used*. Some primarily involve crack or other cocaine; others, heroin; yet others, methamphetamines, club drugs, sildenafil or related drugs such as Viagra; and in some, all of these. (5) *Norms*: GSE vary considerably in their social and behavioral norms. Some are very strict on safe drug use and sexual behaviors while others seem to have little concern about these risks. GSEs that care little about these risks may nonetheless have strong norms about physical safety or preventing pregnancy. (6) *The social class* of drug-using attendees at the event. Many events involved poor people, most of whom were jobless and spend much of their time hanging out with friends. Others, however, mix classes, and included employed drug users (some of whom were middle class in income and education).

Our field notes from an event an ethnographer attended provide an example of a spontaneous small group sex event which four impoverished people—three women and one man—engaged in both drug use and group sex:

All four of the participants had already been feeling a bit “buzzed,” and smoke from woolies (crack and marijuana) could be smelled. An open bottle of Hennessy (a preferred liquor among local young people) sat next to “D,” the only male at the event. They had music playing (rap), which encouraged the grinding of bodies

against one another(s). D starts pulling on “C” t-shirt and she removes it while smoking, the other 2 girls are just sitting on the sofa drinking. C gives “Jen” a “shotgun blast” (blowing the smoke of the woolie into her mouth). The girls join “C” and “D” on the mattress. (No condoms were present, used or even discussed.) They engage in oral sex and kissing. The man and one of the women put fingers in women’s vaginas and anuses. The man finishes off by having vaginal sex with all three women. The man had only one orgasm, which was preceded by the following:

“D” starts making jerky moments and says he is about to come [ejaculate]. Jen says “let him come inside you [meaning T] because I didn’t take my birth control.” C and Jen walk off to the sofa and continue to masturbate one another. “D” comes inside of T.

This study also provided information about GSE “careers”: Drug users who participate in GSEs may change the extent of their involvement in group sex and drug use over the years. For example, the GSE history of a 24 year old African American woman we interviewed began when she moved to attend college at 18 years old. She and 3 women and 3 men friends got bored with school and hung around getting high on marijuana and alcohol and decided to explore group sex—which was common among residents of the dorm. They held weekly sex parties at which condoms were sometimes but not always used. After a year, she started attending private hotel parties with people she knew (aged 18 to 24 years old, multi-racial). They used cocaine, ecstasy and sometimes methamphetamine, and engaged in heterosexual and WSW sex, and some anal sex, with condom use sometimes. She would have sex with 2 to 4 men, and perhaps some women, at each event. She regularly attended with 4 other women; all 5 were very close friends.

After 2 years, she left school and stopped attending GSEs to start a monogamous relationship with a man she met and fell in love with at the college GSEs. They had a baby, and for 2 years shared an apartment and were both employed. When their relationship ended, she was left alone with a baby, high rent and other costs. After a while, a friend invited her to go party to relieve her stress, and treated her to a private GSE with an entry fee where she had sex with 2 guys (using condoms), used cocaine and alcohol. She then started a private commercial GSE in her apartment, where carefully-vetted people come and party for a \$50 entry fee. Bowls of condoms are placed around the room, as are good alcoholic drinks, towelettes for wiping oneself which she handed out, and lube. Unlike another study participant, although she has set a rule that condoms should be used, she does not police it. Attendees sometimes bring and share cocaine, ecstasy, and/or crack.

Gender relationships at GSEs are complex mixtures of friendship, respect, subordination, domination, sisterhood and resistance. We were told of instances in which men used their access to money or drugs to try to compel unwilling women to have sex them—and of cases in which other women intervened to prevent this (sometimes by asking to have sex with the man instead).

Very importantly, pro-health intervention and other forms of positive deviance take place at some events. This is exemplified by some of the rules that the organizers of one recurrent group sex event established and enforced (as described by a graduate student who uses cocaine and other drugs and is one of the event’s organizers and rule-enforcers): a. Every guy has to wear a condom; b. every guy has to change condoms when he goes from one person to the next; c. A guy cannot go directly from anal penetration to vaginal penetration (because she might get an urinary tract infection).

She describes some elements of how rules are enforced in the following examples, which we have quoted verbatim:

“If a guy doesn’t take off a condom right after he’s done having sex with a woman, sometimes the informant will get on her knees in front of him, slide off the condom, and start oral sex with him. In doing so, she has integrated the rule of changing condoms into sex play and ensured his compliance.”

“Enforcing rules requires her to step out of the act and employ higher executive functioning (prefrontal cortex activation)—enforcing someone to change condoms, for example, requires planning ahead, thoughts about the future, thoughts about future consequences. In that moment, planning ahead takes precedence to immediate gratification, staying within roles, satisfying primal urges/drives, staying “in the act,” and staying overwhelmed by the physicality of the event.”

DISCUSSION

Group sex events seem to pose many dangers to drug users and others. From the evidence presented, they are risk environments that combine a high degree of behavioral and network risk for the transmission of HIV and other sexually transmitted infections. They also seem to serve as a bridge event that can let infections pass from members of one high-risk category to another, and then to branch out through these people’s sexual and/or injection networks to other members of the local community.

The ethnographic data presented here suggest a serious possibility of “third party transmission” of infectious agents and thus for enhanced “effective event concurrency.” This can occur even when condoms are consistently used since condoms and sex toys are sometimes used with different people without being removed or cleaned, and since fingers and mouths come into contact with mucosal surfaces of other members of the same or opposite sex. In one public GSE, we observed one heterosexual couple who were exposed to bodily fluids from at least 13 other people, and who potentially transferred these fluids to 10 or more people as well as each other, through sexual contact partly involving these mechanisms.

Most HIV-focused research on sexual behavior has focused on issues like knowledge, attitudes, risk perceptions and behaviors rather than social contexts (Coates, Richter, & Caceres, 2008; DiClemente, Salazar, & Crosby, 2007; Friedman & O’Reilly, 1997; Blankenship, Friedman, Dworkin, & Mantell, 2006). In group sex events, however, social contexts are vital since their dynamics sometimes lead to behavior that was neither expected nor intended before the event (see Figure 2)—though the extent of this may vary among GSE types (Krauss et al., 2006). GSEs can involve much use of alcohol and different drugs, and create an emerging atmosphere of sensuality. Watching others use drugs can easily lead to unintended levels of drug use, and the intense sensuality of some group sex events can lead attendees to engage in sex with more partners and in more dangerous ways than they had originally intended. “Regretted” sexual behaviors among European youth in 9 cities was associated with drug use in a study by Bellis et al. (2008). Krauss et al found that, even if some participants intend to have no partners or only 1 or 2 partners at the event, the combined impacts of drug and alcohol use, peer pressure, group dynamics, and sexual arousal at the event may change intentions around partnerships and condom use (Krauss, O’Day, & Thu, 2007; Krauss et al., 2008). Similarly, during our ethnographic interviews, 2 women described cases where they meant to have sex only with 2 “regulars” at recurrent GSEs, but other men convinced them to have sex as well. In some cases, of course, someone may attend in the full expectation that the dynamic normative environment will lead them to engage in new and exciting forms of sexual or drug pleasure and/or interaction with otherwise unattainable partners, e.g., those with “status.”

Nonetheless, the literature and our small ethnographic study both show that some participants in group sex events engage in efforts to reduce the risks both of violence and of disease transmission. Sometimes this is organizationally structured into the event, as when someone is assigned the role of keeping order at it or someone tries to intervene if she or he sees someone engaging in high-risk sex. Because there has been relatively little research on GSEs, however, little is known about the effectiveness of such efforts or about how to encourage more of such intravention behavior (Friedman et al., 2004; Mateu-Gelabert et al., 2008; Friedman, Bolyard, Maslow, Mateu-Gelabert, & Sandoval, 2005; Friedman et al., 2007).

People who use drugs but who do not inject them may be at particularly high risk for these infections due to their involvement in group sex events. Their involvement in these events may help explain the fact that in New York and other US locations (Edlin et al., 1994; Gunn et al., 1995; Rolfs, Goldberg, & Sharrar, 1990; Zenilman et al., 1994; DiCarlo, Armentor, & Martin, 1995; Mertz et al., 1998; Ellen, Langer, Zimmerman, Cabral, & Fichtner, 1996; Schwarcz et al., 1992; Fleming et al., 1997; Buchacz et al., 2000), they are at high risk for HIV and other STIs. Des Jarlais et al. (found HIV prevalence among non-injecting users of about 15% in 2 samples recruited in 2001–2004. In another article, they (Des Jarlais et al., 2007b) found HSV-2 antibody in 60% of non-injecting drug users. (NHANES data for New York City residents in their 40s—roughly the same age group—showed HSV-2 prevalence of 36% [Schillinger et al., 2008]). In an earlier survey of 18–24 year old users of heroin, cocaine, or crack—including both injectors and non-injectors—in the Bushwick section of Brooklyn from 1997–2000, Friedman et al (2003) found lower rates of HIV infection among both non-injecting drug users and IDUs than did Des Jarlais et al (2007) (which would be expected given these subjects' young age) but nonetheless 2% to 3% of the non-injecting users had already been infected. HSV-2 prevalence was already high—particularly among women (46%). Data were not collected about group sex in either study, however.

The findings in this paper are subject to many important limitations. Relatively little research has been done on this topic, and the existing research is limited to a very few nations. Research accuracy is limited by the difficulties of obtaining accurate reports on these behaviors from respondents and by difficulties in gaining access to the less public types of group sex events.

More research in more geographical locations is clearly needed so we can better understand the extent to which drug users and other people participate in group sex events, and so we can more accurately understand the behaviors that take place at these events and the network properties of these behaviors and participants. Very few studies have been conducted of group sex and drug use in settings outside the USA other than those studying sex among men who have sex with men or the sexual behaviors of sex workers. Studies of Kenya (Njue, Voeten, & Remes, 2009) and of Bangladesh-Myanmar border boatmen (Gazi et al., 2008) suggest that research on group sex events and drug use might usefully be conducted in many countries.

More ethnographic research is needed to enable survey data to be collected accurately and indeed even to know what to ask about in surveys. For example, we have presented some data on intravention behaviors and roles at such events, but there are probably roles and intravention behaviors that take place that we still do not know exist. We also lack a solid foundation for writing well-grounded questions about normative processes at group sex events.

Research should thus be conducted on what forms of agency remain operative for individuals and groups of attendees; and on how norms evolve during an event and how

such normative change can be acted on to promote safety. In this regard, it is important to remember the widespread belief early in the HIV epidemic that IDUs were too dominated by addiction to reduce HIV risk—a belief that was rapidly belied by research and experience of the extent to which they did in fact reduce their risk and engage in both macro-level organized activities and micro-level self-protection and other-protective action (Booth, Des Jarlais, & Friedman, 2009; Friedman et al., 1987; Friedman et al., 2007).

We also need to learn more about the epidemiology of these events. The data presented in this paper show that on occasion participation in events at which drug use and group sex occur can spark disease outbreaks. We have only a rudimentary understanding of the parameters of risk at the events, however. Well-grounded questions could be added to existing cohort studies could contribute some of this knowledge, as could studies that focus directly on group sex events and their participants.

Finally, and most importantly, research is needed to learn how to intervene in these group sex events. We need to develop ways to intervene with potential participants before the events in order to prepare them to avoid risk themselves and also to help others avoid risk. We need to learn how to know where and when these events are going to take place, and how to gain access to them, so that outreach and organizing interventions can take place at them. Finally, together with participants at these events, we need to learn what forms of interventions (and intraventions) at these events are most effective in reducing risks.

Acknowledgments

Support was provided by NIDA Grants Staying Safe: Long-term IDUs who have avoided HIV & HCV (R01 DA19383) and Networks, Norms, and HIV/STI Risk among youth (R01DA013128) (both with Samuel R Friedman PI); Staying Safe: Training IDUs in Strategies to Avoid HIV and HCV Infection (R21DA026328; (Principal Investigator Pedro Mateu-Gelabert); and the Center for Drug Use and HIV Research (P30 DA11041; PI Sherry Deren).

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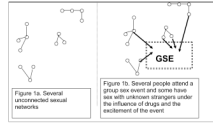


Figure 1.
Two views of sexual networks, where lines represents partnerships between people (circles)

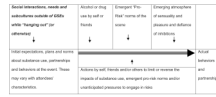


Figure 2. Factors potentially affecting behaviors and partnerships at some GSEs. We anticipate that these processes may vary among GSEs of different types