
Substance Abuse and HIV: Considerations With Regard to Methamphetamines and Other Recreational Drugs for Nursing Practice and Research

E. Michael Gorman, PhD, MPH, MSW
Robert T. Carroll, MN, RN, ACRN

Substance use continues to be closely associated with both HIV infection and treatment considerations in all at-risk populations. Among those groups heretofore not well characterized epidemiologically or clinically are those dual-risk men who have sex with other men (MSM) and use and/or inject drugs. Of particular current concern with regard to drug-using MSM is the growth in popularity of a group of recreational or so-called party drugs associated with specific social and sexual environments and networks. Chief among these drugs are hallucinogens, such as MDMA, ketamine, and GHB, and stimulants, such as cocaine, amphetamines, and methamphetamine. Increased methamphetamine use by MSM is particularly alarming because of its reported associations with high-risk injecting and sexual behaviors. Preliminary data are reported from an ethnographic exploration of MSM methamphetamine users in the Pacific Northwest of the United States. Case studies drawn from the data illustrate the complex and variable patterns of methamphetamine use among MSM. Finally, implications for nursing are discussed, and "upstream nursing" is suggested as a means of patient advocacy for HIV nurses working with substance-using populations.

Key words: HIV, substance use, gay males, methamphetamine, ethnography

Drugs of all types figure prominently in the lives of HIV sero-positive individuals. If drugs are not

linked in some way to a predisposition or exposure to the human immunodeficiency virus, then they are used as prophylactic or therapeutic agents against its destructive effects. The roles that drugs play in the lives of sero-positive individuals and their caretakers emerge as factors that shape the climate and delivery of health care. (Naegle, 1994, p. 39)

Nursing science is well suited to explore the connection between substance use and HIV-related concerns of both treatment and prevention. Because the field is not bound to a single epistemological perspective, it has enjoyed the freedom to employ innovative methodological approaches in the generation of new knowledge about human responses to health and illness. Also, in light of its particular intellectual and philosophical mandate, the field at times has been in the position of articulating cutting-edge issues drawing on the variety of methods at its disposal. One such area ripe for exploration has to do with the complex

E. Michael Gorman, PhD, MPH, MSW is a research scientist and preceptor, University of Washington Alcohol and Drug Abuse Institute, University of Washington School of Nursing, Seattle, and an assistant professor of social work research and policy, College of Social Work, San Jose State University. Robert T. Carroll, MN, RN, ACRN, is a doctoral candidate, University of Washington School of Nursing, and an NIDA nursing research training fellow, University of Washington Alcohol and Drug Abuse Institute, Seattle.

interconnectedness of substance use and HIV, where substance-using populations continue to be underserved and misunderstood, and in many respects still hidden. Indeed, given the growing recognition of the correlation of substance abuse issues with HIV transmission risks, in terms of treatment and care as well as prevention and education, we felt a particular imperative to bring to the fore a particular subset of issues in this topic area. That area concerns the population of drug users, including injection drug users, who are men who have sex with other men (MSM) and either have HIV or are at risk for new infection due to drug practices or drug-related sexual risk taking.

One of the populations as yet not well characterized with respect to HIV nursing care includes the dual-risk category of MSM who also inject or use nonmedically prescribed drugs (NMPDs). Whereas this population did not receive a great deal of attention historically in the first decade of the HIV epidemic, recent years have witnessed a growing awareness of the problem (Diaz et al., 1994; Gorman, Morgan, & Lambert, 1995; Harris, Thiede, McGough, & Gordon, 1993; Stall & Ostrow, 1989). This literature was driven in part by the recognition that this dual-risk group is far from negligible, especially in geographical areas such as the western United States and metropolitan centers such as New York, Chicago, Los Angeles, San Francisco, and Seattle. In these regions, large numbers of MSM who also inject or use NMPDs are found among AIDS cases linked to MSM and to intravenous drug using (IDU) populations. The primary purpose of this article is to provide an overview of current issues in substance use and abuse in relationship to HIV prevention and treatment among MSM. We will discuss epidemiological trends occurring at the intersection of substance use behaviors and HIV transmission. We will then review some basic information about NMPDs often associated with HIV among MSM.

Special attention will be paid to the so-called party drugs, a group of substances that have become increasingly associated with high-risk sexual and drug-using behaviors. Under this rubric, growing concern has emerged about methamphetamine and other related polysubstance use and abuse among MSM. In this article, we will describe current research efforts with respect to methamphetamine-using MSMs in the Seattle area. Case studies drawn from the study will be

used to highlight the complex connection between methamphetamine use and HIV risk. Finally, we will discuss implications for nursing practice, education, and research and articulate the need for client and community advocacy through policy making and political activism.

Epidemiological Considerations

Whereas the current literature provides a wealth of general information related to the connection between substance use and HIV risk behaviors, explorations related to the variability of drug use patterns and the diversity of drug subcultures tend to be largely ignored. An important component of this diversity is the significant regional variation found among user populations, especially with respect to gender, ethnicity, sexual orientation, and drug of choice and affiliation with particular drug subcultures (Centers for Disease Control and Prevention, 1995; Diaz et al., 1994; Gorman, 1996; Gorman et al., 1995; Mills et al., 1997; Sullivan et al., 1998). Moreover, whereas there is increasing information on the public health consequences of drug use in relation to HIV infection, the specific dimensions of that dynamic, as well as its variability across different subcultures and social environments, are often not fully appreciated. Of the major IDU populations not well characterized, MSM represent one fifth of the cumulative IDU-related AIDS cases ($n = 251,759$) and approximately one sixth of incident IDU-related AIDS cases in the United States since 1994. Much higher proportions have been reported in the respective AIDS caseloads of the western United States, including California, Washington, Oregon, Colorado, and New Mexico (Centers for Disease Control and Prevention, 1998), and in some cases are on the order of 35% to 45% of the state's IDU AIDS caseload (Gorman, Pach, et al., 1998; Gorman, 1999a, 1999b, 1999c). However, when examining risks related to substance use, it is important to consider not only IDUs themselves but also their sexual partners and those individuals who use drugs but do not inject or share (directly or indirectly) injection equipment.

Evidence indicates that MSM may use NMPDs in higher proportions than comparable heterosexual populations (Cabaj, 1989; Gorman et al., 1995; McKirnan & Peterson, 1989; Stall, 1999; Stall &

Ostrow, 1989). Of particular concern by the mid and late 1990s was the high reported use of methamphetamines, often in conjunction with alcohol, marijuana, cocaine, and other so-called designer drugs such as 3-4 methylenedioxymethamphetamine (MDMA) (a.k.a. ecstasy, X, or E), ketamine (a.k.a. special K or K), and gamma hydroxybutyrate (GHB) (a.k.a. G or liquid X). These designer drugs have been so named because they have been chemically engineered for their specific pharmacological qualities and intoxication effects.

Generally, individuals use these drugs in a variety of venues, either alone or within specific social networks. One type of network revolves around community music or dance events such as raves and circuit parties. Raves are large, private parties that tend to be associated with younger people and with various hard rock and contemporary music scenes. Circuit parties are larger, publicly promoted dance events, often conducted as AIDS or gay community-related fundraisers held in major cities such as New York, Miami, Montreal, Palm Springs, and Sydney. These circuit parties attract thousands of gay and bisexual men, and some women, both lesbian and heterosexual. In addition to these two types of parties, many other smaller events are held in cities and communities across the country where some of the same kinds of drugs can be found.

Psychoactive Drugs Commonly Used for Nonmedically Prescribed Purposes

Psychoactive drugs are classified according to the effects they exert on the brain and central nervous system (CNS). A wide range of these classifications include drugs that have specific medical uses, drugs used for medical purposes as well as recreationally for their consciousness-altering qualities, and drugs that are used solely for recreational purposes, absent of current clinically therapeutic applications. Although drugs used specifically for medical purposes will not be discussed in this article, they include those used for anesthesia, the treatment of affective mental disorders and psychoses, and the treatment of epilepsy.

Four classes of drugs that have been implicated for their nonmedically prescribed recreational use include sedative/hypnotics, opiates, stimulants, and hallucino-

gens. Sedatives/hypnotics are CNS depressants, such as barbiturates, benzodiazepines, marijuana, antihistamines, and ethanol (alcohol). Opiates, such as morphine and heroin, change the way the brain processes pain. Stimulants produce CNS and behavioral arousal, and hallucinogens are drugs that induce sensory hallucinations. Although each of these classes of NMPDs warrants careful scrutiny for their harmful effects on health and their addictive potential, the remainder of this article will focus on hallucinogens and stimulants, which appear to be most significantly associated with current HIV risk trends, especially among young adult populations and MSM.

Hallucinogens

Hallucinogens are substances that generate visual or auditory distortions, that is, the perception of a sensation, sound, or object not based in reality. One of the most commonly seen of the major hallucinogens is LSD, considered to be semisynthetic because one of its constituent ingredients is a product of grain fungi. Another common hallucinogen is MDMA. MDMA use may result in heightened sensory perceptions, euphoria, and exaggerated emotional expressiveness, to facilitate communication through social disinhibition.

Two other hallucinogens recently correlated with HIV risk in MSM populations are GHB and ketamine. A dissociative anesthetic, ketamine is a synthetic drug that produces hallucinations, analgesia, and amnesia. It is marketed as a white crystalline powder soluble in water and alcohol. Effects reported by users include feelings of euphoria and mystical revelations, as well as sensations of disembodiment or floating. Harmful side effects reported by users and clinicians alike include impaired thought processes, confusion, dizziness, impaired motor coordination, and slurred speech. GHB is a dopamine enhancer, used sometimes to treat narcolepsy and ethanol withdrawal. It is easily manufactured with readily available ingredients, and like ketamine, is most commonly found as a powder that may be mixed with water or other liquids. Also, like ketamine, GHB is described by users as inducing feelings of euphoria, a factor that has contributed significantly to its current use at raves and circuit parties. Overdosing on GHB has been associated with a

number of dangerous and often life-threatening side effects, including confusion, electrolyte imbalance, respiratory depression, hypotension, seizure induction, and vomiting with aspiration.

Stimulants

Stimulants yield behavioral arousal through generalized sympathetic nervous system arousal. Common physiological effects of use include increased blood pressure, tachycardia, tachypnea, pupillary dilation, and gluconeogenesis, as well as the shunting of blood flow from digestion organs to skeletal muscles. Examples of stimulants include cocaine, amphetamines and methamphetamines, and the East African and Arabian substance known as *khat*, as well as the more commonly used and legal nicotine and caffeine. Stimulants that have been associated with HIV include cocaine, crack (freebase cocaine), and methamphetamines/amphetamines.

Cocaine is a powerful CNS stimulant and local anesthetic that increases alertness, reduces appetite and the need for sleep, and produces intense feelings of euphoria. It is prepared from the leaf of the coca bush. It is marketed as both cocaine hydrochloride (a white, odorless powder form, snorted or injected) and crack (a hardened chunk form that is smoked [freebased]). Crack cocaine became very popular in the late 1980s when the process for producing pure cocaine became simplified.

Amphetamines were first synthesized by a German pharmacologist in 1887. The related compound methamphetamine, commonly referred to as crystal, speed, crank, or ice, was synthesized in 1919. Amphetamines, including methamphetamines, are currently the most widely abused synthetic drug in the United States and along the Pacific Rim. During World War II, the use of amphetamines was sanctioned by a number of governments, including Germany, the United States, and Japan, for its energizing and antidepressant properties. In the United States, there have been three distinct methamphetamine epidemics: one in the 1950s, one in the late 1960s, and the current epidemic, which began in the mid-1990s.

Amphetamines and methamphetamines—which may be drunk, eaten, smoked, injected, or absorbed through the rectum—cause the release of the neuro-

transmitters norepinephrine, dopamine, and serotonin. With a half-life of approximately 24 hours, the action of these drugs may be quite prolonged. Therapeutically, amphetamines have been used in the treatment of narcolepsy (a sleep disorder), attention deficit disorder (ADD), and some forms of clinical depression (Fernandez, 1988). Toxic effects may include headache, hypertension, pallor, tachycardia, and vasoconstriction; in low to moderate doses, central nervous system signs of intoxication include anorexia; hyperreflexia; psychomotor agitation; insomnia; and excessive, rapid, and pressured speech patterns. At high dosages or with prolonged, continuous use, symptoms may include hypervigilance, paranoia with hallucinations, and tendencies to violent behavior.

Because there is compelling evidence that HIV disease and speed use are linked, the current methamphetamine epidemic is certainly the most alarming to date. Studies in Seattle, San Francisco, and Los Angeles indicate that gay and bisexual men who used speed in those cities (Diaz et al., 1994; Gorman, 1995; Harris, 1993) have much higher HIV seroprevalence than either heterosexual injection drug users or gay and bisexual men who do not inject drugs. Studies from San Francisco and other West Coast cities provide evidence of the high prevalence of this drug. In addition, there is a clear indication from a variety of sources that some seropositive individuals appear to be self-medicating HIV-related fatigue or depressive symptoms by using the drug. This response is understandable, since methamphetamine lifts lethargy, raises libido, and can produce antidepressant effects. However, the long-term consequences of speed use are likely to be of more harm than benefit. A profound psychological “crash” and depression often accompanies cessation of use, and this response can be complicated by the malnutrition and dehydration that may accompany HIV disease. Speed users often suffer from alienation and isolation due to paranoia that frequently accompanies prolonged use. Furthermore, in some cases, speed users can become violent or vulnerable to violent situations due to their irrational behavior.

Puget Sound Methamphetamine Study

The Puget Sound Methamphetamine Study (Gorman, Carroll, et al., 1998; Gorman, Pach, Needle,

Lambert, & Sterk, 1998) was funded by the National Institutes on Drug Abuse Community Research Branch in 1995 as a pilot, exploratory community assessment of drug use patterns, especially methamphetamine use, in relation to HIV risk behaviors among MSM. This project built upon both the previous and ongoing work of the Seattle Health Department's Project Neon outreach and peer education efforts and those of Stonewall Recovery Services, as well as the previous work in this field by the principle investigator in Los Angeles and the San Francisco Bay Area. Research goals of the Seattle study included understanding patterns of user behaviors, contexts of use, social interactions, and service needs.

Method

In this study, three ethnographic methods were employed: (a) contextual, unobtrusive community observations; (b) focus group interviews with service providers and community leaders; and (c) individual interviews (unstructured, semistructured, and structured) with study participants who currently use the drug or recently stopped using. Study participants were recruited using referrals from participating agencies and participating individuals (i.e., snowball sampling). All ethnographers had training and experience in substance abuse and mental health issues, as well as extensive experience working in HIV/AIDS communities in the western United States.

Interviews with current users constitute the primary database from which analysis proceeded. Audiotaped interviews were transcribed, and transcripts were checked for accuracy by the ethnography team. Transcripts were organized for analysis using the EZ-Text software program from the Centers for Disease Control and Prevention. Research team members reviewed transcripts for significant emergent themes, and these themes formed the basis of the ongoing and dynamic preliminary coding list. New themes that emerged from the interviews were added to the coding list and incorporated into the protocol for subsequent interviews. The code list will continue to reflect the addition of emergent themes until the final interview is completed (projected $N = 200$). This code list will then be reorganized along broader axial coding categories with specific subcategories (i.e., broad category of

"methods of use," with subcategories of "snorting," "injecting," or "oral") for final analysis of the complete interview database. Interviews and focus groups with providers, as well as field notes from unobtrusive observations and user interviews, were organized into databases separate from the interviews and regularly reviewed for new information that could be incorporated into subsequent interviews and observations.

Sample Characteristics

Participants ($n = 103$) ranging in age from 20 to 56 reported initiation of methamphetamine use through injection or other means at 12 to 49 years of age. Approximately 20% were non-White, including Native Americans, Latinos, African Americans, and mixed-race individuals. These proportions reflect the ethnic/racial profile of the cumulative Seattle-King County AIDS caseload, the general population of King County, and persons entering treatment for methamphetamine use. A majority of study participants self-identified as gay; about one in six reported being bisexual, and three said they were transgendered. Whereas some subjects rejected any label relating to sexual orientation, most men reported they were predominantly homosexual and socialized predominantly within the gay community. A majority of those interviewed reported they were HIV-positive or had an AIDS diagnosis.

Findings

Preliminary findings suggest that there are complex and possibly overlapping social and cultural ecologies for the population of IDU MSM in the Seattle area, which extends beyond central Seattle to include adjacent suburban and semirural communities. In the course of interviews with service providers, public health authorities, community leaders, and drug users, several themes emerged.

In Seattle, the Capitol Hill area exists as a primarily gay economic and cultural center that is comparable to, albeit smaller than, San Francisco's Castro District or the West Hollywood district of Los Angeles (Gorman, 1992). But satellite communities, such as Tacoma's Downtown South and Sixth Avenue neighborhoods, also have gay social hubs that serve as the focus

of gay and bisexual social, economic, and sexual activity.

User subgroups. User subgroups identified to date include (a) drug-using men who appear to be involved in various party circuits, (b) men whose sexual/drug focus appears to center on activities in gay baths and sex clubs, (c) a transgender/transsexual community of users, (d) several young adult/youth clubs and street scenes, and (e) a population of AIDS-infected men who use methamphetamines and other drugs to self-medicate the effects of HIV (many of whom are indigent, transient, and/or homeless and report coexisting mental health problems such as depression). There is some indication that lower SES and homeless populations of gay and bisexual men may be more likely to inject than to either snort or ingest methamphetamines, a behavior that can, in turn, contribute to increased medical, social, and economic compromise (Gorman, 1999c; Gorman, Carroll, et al., 1998).

Other subgroups identified through preliminary interviews include (f) weekend users (a middle-class group of gay and bisexual men who work in Seattle's high-tech computer industry and use methamphetamines to alleviate work-related stress) and (g) a group of men who live and work in adjacent suburban and semirural communities but socialize in Seattle.

Emergent themes. Several themes have emerged from the user interview data analyzed to date. A majority of participants reported extensive histories of intermittent or ongoing polydrug use, including cocaine, MDMA, alcohol, marijuana, and heroin. All reported, however, that when they tried methamphetamine, they became "hooked." One man said,

Kicking heroin was a lot easier than kicking methamphetamine. The heroin I picked up pretty physically, my dexterity physically was a lot higher. I could stand a lot more physical discomfort. Methamphetamine withdrawal is a lot more psychological . . . more devastating than heroin. That's what usually kept me out there.

Injection history was reported by a great majority of the men interviewed. Nearly half reported injection as their primary method of use. One participant stated,

But I do know that the people that did go on to shooting—I'm not just talking like this . . . because over the years I've talked with other people and the vast majority of them have said once they did that, shoot it two or three times, snorting never gave them that rush they got from shooting.

In addition, about half of the injectors reported using the local Seattle Needle Exchange program targeted at gay/bisexual methamphetamine injectors. However, a majority of injectors reported that at some time in their injection history, they had shared needles.

A wide variability was found among the ways in which safer sex tactics were incorporated into intimate encounters. Whereas some participants reported always using condoms for anal intercourse, others reported that they preferred, or would only engage in, unprotected sex. Moreover, some stated that they used condoms with casual or anonymous partners, but eschewed condom use during sex with a partner who they considered primary. For many, discussion of HIV status was always done prior to sex, whereas others noted that this was seldom, if ever, done. Also, a number of participants indicated that if they were high on methamphetamine, they were less likely to discuss their HIV status with potential sex partners. One man said, "Since I was positive I assumed anyone I was doing [injecting] drugs with or having sex with was HIV [positive], too."

Finally, a number of participants talked about the barriers they encountered in accessing and using effective substance use treatment resources. A 43-year-old HIV-positive Latino man who had experienced long periods of sobriety discussed the difficulty of staying sober because he was unable to enjoy sex without methamphetamine. He found that traditional, abstinence-oriented treatment programs did not address these issues:

But I've also made the decision [to use again after 4 years]. I use such dangerous words as like *recreational* [and] *occasional* but I know that it can get ahead of me. . . . I [was] being interviewed by someone at the U and we started talking about the sexual part . . . of course, I just sort of played along like, well, yeah, I use condoms and whatever. But at the very end I used to fess up

and I think. . . . I don't want to tell you that for 4 years I didn't do any crystal at all, but for 4 years I didn't have any sex at all. So part of the loneliness comes in . . . everything just kind of stopped . . . and I thought, you know what? I didn't stop doing everything to be unhappy or to be lonely. So right or wrong, I don't care what anybody thinks, I'm going to make this decision [to use again] because I want to. This is how I want the end of my life to look like.

This man died of AIDS-related complications 4 months after his interview.

Case Studies

The following four case studies, drawn from interview data and ethnographic field notes, illustrate the complex experiences of MSM who use methamphetamine living with HIV or AIDS.

Lionel. Lionel, a 37-year-old, gay African American male, is homeless and HIV-positive. He uses crystal methamphetamine on a daily basis. He started using drugs in his early 20s, mostly acid and 3,4-methylenedioxymphetamine (MDA). At 30, he began snorting crystal. Four years later, he and his partner began injecting the drug as a way to enhance the eroticism of their sexual relationship. Lionel explains that crystal also gave him "a lot of energy" to perform daily tasks and made him feel "beautiful." Lionel's partner died of an aneurysm 6 months prior to Lionel's interview, sending him into a deep depression and, ultimately, homelessness. He continues to inject crystal methamphetamine and frequents a local park for anonymous unprotected oral sex. Since his partner's death, Lionel says that using crystal has helped him deal with the loss and helps distract him from continual thoughts of dying from AIDS. Although he has a prescription for antidepressants, he does not take them. He reports intentionally missing medical appointments because of his fear of confronting his HIV status. He currently deals crystal methamphetamine and shoots up people who cannot do it themselves. He supports his habit by "dumpster diving"—digging through dumpsters and garbage cans in search of valuables (i.e., televisions, VCRs) that can be sold

for quick cash. Lionel says he would like to "slow down" his crystal methamphetamine use, but he does not see himself abstaining. He explains, "I can see myself being 80 years old and doing a hit."

Robert. Robert is a 28-year-old, gay Caucasian male who is staying with his friend for 2 months while looking for a job and a new apartment. Although he is unsure of his HIV status because he has not been tested for 3 years, he continues to engage in unsafe sex on occasion. Robert "water injects" crystal methamphetamine, a procedure of shooting crystal into the anus in combination with water. He says he has never shot crystal intravenously. Robert explains his initial motivations for using crystal were to heighten sexual pleasure and provide energy for dancing at gay clubs. Today, Robert states he uses crystal as a way of ignoring the issues of being homeless and jobless.

Raised a Mormon in Utah, Robert moved to Seattle at the age of 21 to take a job for which he had been recruited. He also began a law office internship and continued his undergraduate studies. A member of the university's honor society, he held a 3.9 grade point average and maintained a keen focus on his career goals. Robert says his first experience using crystal methamphetamine was while visiting friends in San Francisco when he was 23. That first time, he stated, using crystal "wasn't all that pleasant of an experience . . . it was like way too intense, lasted way too long." Two years later, burned out from his grueling school and work schedule, he decided that he was going to "live a little and do drugs all summer." After a 2-month period of water injecting crystal, he had lost his job, quit his internship, and dropped out of college. In addition, he was evicted from his apartment and lost \$24,000 dollars in furniture and personal belongings. Robert considers himself addicted to crystal. He states, "I mean crystal is the type of drug that you're doing, like, around the clock. Crystal would definitely be the one [drug] more habit-forming psychologically." Reflecting on the loss of his education, job, and home, he concludes, "I wish I never would have done crystal."

Roxy. Roxy, a 36-year-old, HIV-positive, transgendered Caucasian female, refers to crystal methamphetamine as "my drug of choice." At 19, Roxy began

shooting (injecting) speed. She says her first experience shooting crystal “was like dying and going to heaven.” Roxy is primarily motivated to use crystal for “energy” when going dancing rather than for its sexual enhancement qualities. In 1983, Roxy began hormone replacement therapy in San Francisco to help her transition from male to female. When doctors told her that the use of crystal would interfere with her male-to-female process, she stopped using crystal for 2 years, choosing to inject cocaine instead. When she almost died of a cocaine overdose, she went back to injecting crystal.

After her full transition from male to female, Roxy began prostituting in San Francisco’s Tenderloin District. While high on crystal, she regularly engaged in unsafe sexual acts. She eventually began stealing money to support her habit, going on crystal binges that sometimes lasted as long as 18 days, usually with no sleep. Ultimately, she decided that she had to stop prostituting and using crystal, so she moved to Seattle with one of her “johns.” Following inpatient treatment, she remained clean from crystal for 2 years. During a trip to San Francisco to visit friends, the reality of her HIV-positive status hit her and she began shooting crystal again. Roxy states, “HIV will really depress the shit out of you. Especially when you know somebody that’s really sick.” She currently uses crystal alone while masturbating to pornographic videos. She is well connected to medical and social services in Seattle and regularly volunteers time at local AIDS organizations.

Rick. Rick is a 32-year-old, HIV-positive, gay Hispanic male who states he has been diagnosed with schizophrenia, bipolar disorder, and depression. He currently lives in a sobriety house and is trying to “temporarily” abstain from using crystal methamphetamine because the house requires abstinence from all drugs. At the age of 11, Rick left Seattle for San Francisco, where he became a prostitute. He began using crystal 5 years later. Having both snorted and injected crystal, he states that “it’s a waste to snort crystal when you can shoot it up.” For Rick, using crystal helped him “stay up all the time to pull tricks.” He adds, “Everything became fun. My insecurities went away. I didn’t feel all ugly and I could lose weight [on crystal] and it just seemed to make the problems go

away.” Rick has experimented with marijuana and heroine but concludes that “crystal is my main choice.” He is hoping to find housing where people are more accepting of those who use drugs like crystal methamphetamine.

Implications for Nursing

Clinical Practice

Among those infected with HIV, substance users in general and methamphetamine users in particular often lead lives characterized by chaos and complexity, and nurses who provide care to these populations are continually challenged by this complicated matrix of intertwining biopsychosocial variables. In addition, patients who have felt stigmatized in prior health care situations—due to sexual orientation, HIV-seropositivity, or substance use behaviors—may be reluctant to share information about aspects of their lives that may be deemed socially unacceptable. This omission of information about drug-using and sexual behaviors may create serious gaps in the patient assessment database, gaps that bear heavily on the design and implementation of appropriate and effective nursing interventions. Whether designing a community-based prevention program or individually tailoring an antiretroviral drug regimen, care providers who remain blinded to these aspects of human behavior will be significantly handicapped in their efforts to achieve optimally beneficial outcomes. Consequently, a primary charge of nursing care with these populations should reflect an ongoing commitment to the creation of nonjudgmental venues of care, where personal disclosure and open discussion flow naturally within a trusting relationship between the nurse and the patient.

Through its endorsement of harm reduction as a theoretical basis for the care of marginalized substance-using populations, the Association of Nurses in AIDS Care acknowledges the importance of fostering accepting and candid therapeutic alliances with these marginalized patients (Fisk, 1998). Harm reduction asks the provider to employ a nonjudgmental approach toward the patient during therapeutic interactions to reduce the potential negative consequences of current and ongoing high-risk behaviors. Although the patient

may plan to modify or cease a potentially harmful behavior, such as substance use or unprotected sex, the harm reduction approach does not mandate abstinence as a prerequisite for treatment.

Health care providers who work with substance-using patients should be knowledgeable about the biopsychosocial effects of these substances and develop approaches to education, prevention, assessment, and treatment that reflect this understanding. Naegle (1994, pp. 42-45) has described a range of nursing process actions appropriate for the care of substance-using patients, and they remain highly applicable in work with methamphetamine and other party drug-using groups. Nurses are encouraged to do the following:

1. Perform physical assessments that adequately address the range of signs and symptoms that may be indicative of current substance use, or may alert care providers to developing health status complications. In addition to psychological manifestations, prolonged use of methamphetamine and other party drugs may lead to alterations in skin integrity (especially among injection users), alterations in oral health (especially in the gums and teeth), alterations in respiratory rates, electrolyte imbalances (related to dehydration), and malnutrition (related to appetite suppression). In addition, users who inject should be assessed for both localized (injection site) and general infections.
2. Include a short drug and alcohol history as part of the nursing history admission, especially related to the current use of NMPDs with medically prescribed drugs.
3. Perform a brief mental status exam periodically as part of ongoing nursing care, with particular attention to the emergence of alterations in thought processes and speech patterns.
4. Recognize and treat dual diagnosis. Patients who are living with undiagnosed mental health problems, especially mood disorders or alterations in thought processes, may be vulnerable to substance use and addiction, either because of impaired judgement or as a means

to self-medicate psychological symptomatology. Also, patients who are currently using (especially methamphetamines) may be experiencing severe depression, with possible paranoid manifestations, and report recent impulsive or violent behavior.

5. Be alert to emotional reactions to positive HIV test results or an HIV-positive to AIDS conversion diagnosis. It is important to understand the ways in which patients may use NMPDs to moderate or temporarily block depressive or anxious symptoms common in these crisis situations.
6. Monitor prescription drug use for effectiveness in the treatment of fatigue, pain, and psychological symptoms. Patients who are not experiencing effective medical treatment results may be illicitly self-medicating to compensate for this failure.
7. Educate clients about the health effects of all medications and drugs. This requires a comprehensive understanding of not only HIV-related medications but drugs used for non-medically prescribed and/or recreational purposes.
8. With the patient, explore the ways in which illicit drug use can increase risks to individual and community health and shorten life expectancy. Patients should be educated on the ways in which the use of methamphetamines and other party drugs may contribute to behavioral disinhibition and lead to the transmission of or infection by HIV. Clients who are initiating or receiving ongoing antiretroviral drug treatment should be encouraged to explore the ways in which substance use may complicate efforts to adhere to complex medication regimens.
9. Refer clients to appropriate and culturally sensitive treatment and self-help resources for the support of both their HIV infection and their substance use behaviors.
10. Maintain a focus on the whole person and, if possible, include the family. This requires that nurses understand the broad range of social networks with which the patient may be associated. In addition, we must acknowledge that

many of these patients may be estranged from their biological family, and may rely exclusively on families of choice as their primary source of social support.

Education

Acknowledging the growing complexity of the HIV pandemic requires the implementation of novel approaches to nursing education. As nurses and other health care providers, we understand that the care needs of our patients far outdistance the minimal AIDS education standards that we currently mandate of our new graduates. Nurses at all levels of educational preparation—from the LPN/LVN to the registered professional nurse and the advanced practice nurse—must be sensitive to the ways in which HIV intersects with all aspects of the individual's life and experience. Furthermore, understanding the ways in which substance use and abuse have become inextricably entwined with the phenomenon of HIV is paramount to the appropriate treatment of people living with HIV, as well as those at risk for new infection. Nurses at all levels must be better prepared to assess the effects of both HIV and substance use, including an understanding of the physiological and psychological effects of current and emergent NMPD classes. Pharmacological training for nurses should include education about interactions between licit and illicit drugs, most notably between the so-called party drugs and antiretroviral medications. Addiction nursing specialists should be trained in the ways in which alcohol and other drugs influence engagement in HIV risk behaviors, and HIV nursing specialists should be equally well versed in the ways in which drug and alcohol use are connected with HIV disease. Nurses who work with populations affected by HIV should receive institutional support for ACRN certification preparation and testing, and current ACRN certification should include expanded emphases on issues of alcohol and other drug use. Finally, we must continue to develop and implement interdisciplinary educational opportunities that provide collaborative experiences among a wide range of medical and allied health professions. Health promotion and illness treatment can no longer be viewed as the sole domain of nursing and medicine.

Research

Nursing researchers working within a wide range of biobehavioral disciplines have made a number of contributions to the understanding of the natural history of HIV, as well as the physiological manifestations of the virus and its co-occurring conditions. Much remains to be learned, however, with regard to the neuroimmune effects of methamphetamine and other party drugs on HIV progression. Moreover, although anecdotal evidence suggests the potential for serious drug interactions between certain antiretroviral medications and party drugs, this phenomenon continues to remain absent from current antiretroviral drug research. Although it is likely that political and ethical concerns are at the root of these omissions, it is impossible to ignore their potential impact on the lives and health of so many of our patients. As nurses, we advocate for our patients; as scientists, we must be willing to apply this advocacy to our research through the questions we ask and the means by which we attempt to find answers.

Little is known of the daily lived experience of substance users, especially young adults and users of color, two of the groups with the most rapidly accelerating HIV infection rates. Exploratory, descriptive, and theory-generating research could help us better explain the ways in which HIV infection and substance use are related and the means by which individuals and communities manage the maintenance of health behaviors within a rubric of drug and alcohol use. Themes emergent of exploratory work may generate theory-driven research questions testing conceptual relationships and correlations; moreover, substance-using populations at risk for or infected with HIV may provide a rich opportunity for the testing of established nursing science theories and metatheories, especially those that focus on person-environment interactions in the maintenance of self-care regimens. Nursing scholars should also be encouraged to engage in community-based investigations, using methods such as participatory action research that seek to emancipate marginalized groups through their involvement in the development, implementation, maintenance, and ongoing evaluation of community-supported wellness programs (Stringer, 1996).

Finally, because of the multidimensional nature of the relationship between substance use and HIV, nursing researchers must respond with innovative approaches to the research process. Postmodernist, feminist, and critical theory methods hold great promise for nursing scientists compelled to explore the interplay between person and environment and the means by which health is influenced by prevailing societal power structures. In both practice and research, nursing science has a rich tradition of responding to the needs of the marginalized and disenfranchised members of our society. The matrix of HIV and substance use provides an ideal proving ground upon which these critical methods may explore societal barriers to the access and use of health promotion education and treatment resources.

Upstream Nursing

The individual, the family, or the community is most frequently cast as the focus for nursing practice and inquiry, but an exciting trend is under way in which the environment is foregrounded as a domain of nursing knowledge (Kleffel, 1991). Recognizing that both the physical and the sociocultural environments of the individual may often be the primary sources of client problems, this so-called upstream nursing embraces a new direction for nursing practice, research, and scholarship in which nursing interventions and research efforts focus on advocacy and change making through policy development and political activism. Upstream nursing encourages practice that moves against the status quo to establish new societal infrastructures that better meet the health care needs of individuals, families, and community systems. In HIV nursing, we are seeing the welcome emergence of a group of dedicated nurses who are using education, empirical data, and positions of public prominence to support their personal commitments to the optimization of health care delivery systems for those affected by the dual onus of HIV and substance abuse (Lyons, 1997; Miramontes, 1998).

Persons who use methamphetamine and other party drugs may be infected with HIV or may be at high risk for new infection. Upstream nursing with this population, therefore, reflects harm reduction approaches to reduce the spread of the virus and to optimize positive

health behaviors in those already infected. Public policy issues that have emerged as relevant to HIV nursing with substance-using populations include advocating for the federal funding and expansion of needle exchange programs and decriminalizing the sale and possession of sterile syringes for drug users, shifting emphasis from incarceration to treatment for imprisoned users, supporting the development and testing of harm reduction-based care and treatment models by nursing and other health care providers, and supporting the continued and expanded education of health care providers on issues relevant to NMPDs and the consequences of their use. As HIV care specialists, we each have an implicit mandate to use our knowledge, our pen, our voice, and our vote to ensure that all persons living with HIV, substance users included, have access to appropriate, sensitive, and comprehensive health promotion and care. We must each find ways to assume the mantle of advocate for our patients and for our communities.

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