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Drug Use, Drug Severity, and Help-Seeking Behaviors of Lesbian and Bisexual Women

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ABSTRACT

Background: **Illicit substance use and abuse may be an important contributor to behavioral health problems of lesbian and bisexual women. This paper describes the nature and extent of self-reported illicit and licit drug use, associated severity, and substance use-related help-seeking behaviors in an urban/metropolitan community sample of sexual minority women in California.**

Methods: **Self-administered questionnaire data from 2011 lesbian and bisexual women recruited through multiple strategies were used. Multiple logistic regression was employed to describe patterns of reported drug use and to compare lifetime severity of drug use with demographic characteristics, recent drug use, indicators of current social and emotional problems, and help-seeking behaviors.**

Results: **Drug use, especially marijuana (33% used in the past year), was fairly common. Overall, 16.2% of the women in the study reported lifetime drug use that was associated with self-reported severity of substance use, and another 10.8% indicated moderate-risk use. Extent of lifetime drug use was positively correlated with self-reported recent drug use as well as current life problems. Of the respondents who evidenced more problematic drug use, 41.5% indicated that they had received professional help for a substance use problem, and 16.3% wanted but had not received such help.**

Conclusions: **The women in this study reported elevated rates of illicit drug use that was frequently associated with impairment and specific life problems. A significant proportion wanted and had not received professional treatment for their drug use problems. Future studies that examine pathways by which lesbians and bisexual women can obtain referrals and treatment for substance use problems are needed.**

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INTRODUCTION

In recent years, substance use among lesbian and bisexual women has emerged as a serious health concern.[1–5] For example, in a study by Cochran et al.,[2] women who reported any female sexual partners in the prior 12 months were more likely than women who reported exclusively male sexual partners to evidence lifetime use of marijuana, hallucinogens, cocaine, inhalants, sedatives, stimulants, and tranquilizers. Reports of marijuana, analgesic, and cocaine use in the prior month were also elevated among the women who indicated a recent (prior 12 months) same-gender sexual partner. Furthermore, the study reported that women who indicated a recent female sexual partner were more likely than women who reported exclusively male sexual partners to indicate problems with marijuana, cocaine, and hallucinogen use. Findings from this and other studies[1–4] suggest that women with a minority sexual orientation are more likely than their heterosexual female counterparts to be diagnosed with substance abuse or dependence or both.

The extent to which drug use among lesbians and bisexual women is correlated with drug-related impairment has received less attention in the literature compared to empirical work aimed at estimating sexual orientation group differences in occurrence of substance use and/or substance use disorders. Examining drug use severity and self-perceived need for help for a substance use problem is important because both may influence healthcare utilization and expenditures.[6–9] Degree of drug use also has important implications for treatment considerations; for example, people who use drugs more frequently are also more likely to have diagnosable drug use disorders.[10] Similarly, polydrug use is associated with poorer prognosis and treatment outcomes among individuals with substance use disorders.[11,12]

Because illicit substance use and abuse may be significant contributing factors in the health and behavioral problems of lesbian and bisexual women, we examined self-reported drug use, degree of severity of drug use, perceived need for help with drug problems, and substance use-related help-seeking behaviors in an urban/metropolitan population of sexual minority women. To do this, we used data from a large community study of lesbian and bisexual women living in Los Angeles County or the San Francisco Bay area. These two geographical areas contain a sizable population of lesbian and bisexual women.[13] Our focus is on identifying factors in this population that may be amenable to substance abuse prevention and treatment.

MATERIALS AND METHODS

Sample

Data for this study come from a cross-sectional health survey of women who identified as lesbian or bisexual or were sexually active with or reported sexual attraction to other women (n = 2011). Participants living in Los Angeles County (n = 1258) or the San Francisco Bay area (n = 753) completed and returned an anonymous, self-administered questionnaire. To obtain the most representative sample of lesbians and bisexual women, a number of recruitment methods were employed that have been developed over the years to reach this hidden and geographically dispersed population.[14–16] Methods to reach this population included direct solicitation of women attending lesbian and gay community events and social organizations, informational mailings to individuals identified through lesbian and gay organizations and commercially available mailing lists, and advertisements and articles placed in lesbian and gay media sources and listservs. In addition, participants who completed questionnaires were asked if they would be willing to distribute flyers and questionnaires to others in their social networks. To reduce selection bias that might inflate the prevalence of substance use, no recruitment was conducted at bars, healthcare settings, or any service or self-help setting devoted to physical or mental health services. Potential participants were told that the purpose of the study was to learn more about the health of lesbian and bisexual women. They were also told that they would be mailed a questionnaire in a plain brown envelope that could be sent to an address or a post office box. In situations where project staff was invited to attend social organizations and meetings, questionnaires were handed out in bulk with postage paid return envelopes. Potential participants were advised to complete the questionnaire in private and not to discuss their answers with others until after all had completed the questionnaire. Accurate calculation of a response rate is not possible with this method of recruiting participants because of the inability

to determine if intended recipients received the questionnaire.

Drug-related measures

Drug use. Respondents were asked to indicate the recentness of using the following drugs: marijuana, stimulants (speed, amphetamines), methamphetamine, tranquilizers (benzodiazepines), sedative-hypnotics (barbiturates), cocaine, crack, heroin, opioids other than heroin, hallucinogens (psychedelics), designer/synthetic drugs (e.g., MDMA [3-4 methylenedioxymethamphetamine], fentanyl), alkylnitrites (poppers), inhalants, and steroids (anabolic steroids). To ensure accuracy of identification of drugs, both formal and street names were included in the questionnaire. Because some types of drugs may be more prevalently used in the gay and lesbian community,[17–19] we asked about the use of these drugs separately rather than subsuming them within a broader drug group category. These included methamphetamine, cocaine, crack, and poppers. We coded use of each type of drug as ever, in the past year, and/or in the past month. We also created a measure that assessed use of any type of drug in the past year. In addition, we derived a measure to index lifetime polydrug use by subjecting the polycoric correlation matrix of the lifetime use of the different types of drugs to principal factor analysis. One factor emerged. The factor scores for each type of drug used were then summed. This showed that respondents who reported using more types of drugs during their lifetime had a higher polydrug use score than respondents who reported using fewer types of drug.

Drug use severity. Three measures of severity associated with lifetime drug use were included in the questionnaire: ever having used drugs by needle; ever having had problems with family, friends, or neighbors or on the job or with the law because of one's drug use; ever wanting help with one's drug use.

Using the measures of drug use and drug use severity, we created a lifetime drug use severity measure that classified women as high-risk, moderate-risk, or low-risk users. We classified women as evidencing high-risk use if they reported they had problems with family, friends, or neighbors, on the job, or with the law because of their drug use or that they had wanted help with their drug use at some point in their lifetime. Women who did not indicate ever having problems or wanting help because of their drug use and who were >1 standard deviation (SD) above the mean polydrug use score or who reported that they had ever used drugs by needle, were coded as evidencing moderate-risk drug use. Finally, those women who did not report drug use problems, wanting help for their drug use, a lifetime history of drug use by needle and who scored <1 SD above the mean on the polydrug use measure were coded as evidencing low-risk drug use.

Indicators of emotional and behavioral problems

Several indicators of emotional and social problems were included in the questionnaire. Women were asked if they labeled themselves as alcoholic. In addition, women were administered the Center for Epidemiologic Studies Depression Scale (CES-D), which assesses current levels of depressive distress. We coded women as evidencing high levels of depressive distress if they scored ≥ 16 points on the CES-D, which is the accepted cutoff score for clinical depression.[20] The frequency of occurrence of self-reported life problems in the past year was also measured. These included (1) using drugs to feel better, (2) using alcohol to feel better, (3) having emotional problems, (4) having problems controlling one's anger, (5) having thoughts of harming others, (6) having thoughts of killing oneself, and (7) having thoughts of getting professional help. Women were coded as evidencing a life problem if they endorsed experiencing the problem at least some time in the past year.

Help-seeking related to substance use

Help-seeking for substance use was indexed by four additional questions included in the questionnaire that sought to determine if the person accessed help or perceived a need for help but did not receive it. These included (1) ever having gotten help from a medical or mental health professional for a drug or alcohol problem, (2) having been to a medical or mental health professional for treatment of a drug or alcohol problem in the past 12 months, (3) ever having received help from a self-help (e.g., 12-step) program for a drug or alcohol problem, and (4) ever wanting, but not receiving, help for drug or alcohol use.

Demographics

Demographic factors that may be correlated with drug use, as well as emotional and social

problems and help-seeking behaviors, were also included in the analyses. These include age, race/ethnicity, self-reported family economic status during childhood, educational attainment, annual personal income, employment status, current relationships status, location of residence (Los Angeles County or San Francisco Bay area, which includes South and East Bay metropolitan areas), and sexual orientation identification. To code family economic status during childhood, respondents who indicated that their family was very poor—got public assistance, welfare sometimes or struggling just to make ends meet were categorized as having lower family economic status. Respondents who indicated that their family owned a home or took vacations, but money was tight were categorized as having medium economic status, and those who reported that their family did well financially; money and education were not an issue, did extremely well financially, almost rich or wealthy, or came from a wealthy family were coded as having higher family economic status.

Sexual orientation

Women were coded into one of three sexual orientation identification categories: lesbian (including gay or homosexual), bisexual, and other (nonheterosexual). The last included participants who reported they were questioning or unsure or who wrote in various other labels but specifically did not check heterosexual.

Statistical analyses

Data were analyzed with SAS version 8.2.[21] Lifetime severity of drug use was compared to demographic factors, recent (past year and past month) drug use, indicators of emotional and social problems, and help-seeking behaviors. To determine demographic correlates of lifetime drug use severity, multinomial logistic regression was used. In this model, lifetime drug use severity was included as the dependent variable, and demographic factors were included simultaneously as independent variables. Demographic correlates of any drug use in the past year were assessed by multiple logistic regression. Any drug use in the past year was modeled as a dependent variable, and demographic factors were included simultaneously as independent variables. To assess associations of lifetime drug use severity with recent use of different types of drugs, life problems, and help-seeking behaviors, multiple logistic regression was used. In these logistic regression models, types of drugs used in the past year, life problems, and help-seeking behaviors were modeled as dependent variables, and lifetime drug use severity and demographic factors that may confound associations were included as independent variables. Odds ratios (OR) and 95% confidence intervals (CI) are presented. Statistical significance is determined at the $p < 0.05$ level. This study received institutional review board approval from the University of California, Los Angeles.

RESULTS

Demographic characteristics of sample by lifetime drug use severity

Demographic correlates of severity of lifetime drug use are presented in Table 1. Overall, 16.2% of the women evidenced lifetime drug use that was associated with high-risk drug use, another 10.8% evidenced moderate-risk use, and 73.1% evidenced low-risk drug use. We identified several demographic characteristics, such as geographic place of residence, age, race/ethnicity, education, and income, that were independently related to severity of lifetime drug use. Specifically, lesbian and bisexual women from the San Francisco Bay area were more likely than those from Los Angeles County to be classified as moderate-risk drug users (OR 1.78, CI 1.31, 2.42). Compared with younger women (18–24 years), women aged 35–44 years and 45–54 years were more likely to be classified into the high-risk (OR 2.73, CI 1.61, 4.61, and OR 2.48, CI, 1.42, 4.33, respectively) and the moderate-risk (OR 4.26, CI 2.04, 8.92, and OR 4.88, CI 2.28, 10.4, respectively) drug use groups. Compared with white women, Asian/Pacific Islander and African American women were less likely to be classified as evidencing high-risk (OR 0.38, CI 0.2.0, 0.72, and OR 0.45, CI 0.28, 0.71, respectively) or moderate-risk (OR 0.23, CI, 0.08, 0.65, and OR 0.50, CI 0.28, 0.87, respectively) drug use, whereas Latinas were only less likely to be classified as experiencing high-risk use (OR 0.52, CI 0.35, 0.78). Compared with women who came from families with lower economic status backgrounds, women classified as having middle (OR 0.74, CI 0.52, 1.05) or higher (OR 0.70, CI 0.52, 0.94) economic status backgrounds were less likely to indicate high-risk

Table 1. Demographic Characteristics of Lesbian and Bisexual Women by Severity of Lifetime Drug Use[a]

Characteristic, %	*Total (n = 2011)*	*High-risk use (n = 325)*	*Moderate-risk use (n = 217)*	*Low-risk use (n = 1469)*
Geographic place of residence				
Los Angeles County	62.6	64.0	54.4	63.4
San Francisco Bay area	37.4	36.0	45.6	36.6
Sexual orientation				
Lesbian	82.8	83.1	84.3	82.5
Bisexual	11.2	11.4	9.7	11.4
Other nonheterosexual	6.0	5.5	6.0	6.1
Age, years				
18–24	9.6	8.3	4.6	10.6
25–34	26.6	24.6	17.1	28.5
35–44	31.2	37.9	39.2	28.6
45–54	21.1	23.7	30.9	19.1
≥55	11.5	5.5	8.3	13.3
Race/ethnicity				
White	66.7	72.9	74.7	64.2
African American	10.2	8.0	7.4	11.1
Latina	13.2	11.1	11.1	14.0
Asian/Pacific Islander	6.7	3.7	1.8	8.1
Other	3.1	4.3	5.1	2.6
Family economic status during childhood				
Lower	26.6	32.9	27.7	25.1
Middle	46.5	43.7	43.3	47.7
Higher	26.9	23.4	29.0	27.3
Educational attainment				
High school or less	13.2	22.5	12.0	11.4
Some college	25.2	29.9	28.6	23.7
Bachelor's degree	32.3	26.5	31.3	33.7
Post-bachelor's degree	29.3	21.2	28.1	31.3
Annual personal income, $				
<20,000	20.2	28.6	17.1	18.7
20,000–39,999	29.7	24.9	29.5	30.9
40,000–59,999	26.2	27.4	25.8	26.0
≥60,000	23.8	19.1	27.7	24.4
Employment status				
Working for pay	84.5	80.0	87.6	85.0
Disabled	2.6	4.6	3.7	2.0
Unemployed	4.2	6.8	3.7	3.7
Other	8.7	8.6	5.1	9.2
Current relationship status				
In cohabiting relationship	48.7	46.8	56.2	48.0
In noncohabiting relationship	18.2	18.8	13.8	18.7
Single	33.2	34.5	30.0	33.4

[a]Prevalence of high-risk use is 16.2%, moderate-risk use is 10.8%, and low-risk use is 73.1%. Columns sum to 100% except in cases of rounding.

drug use. Women who indicated they had a high school degree or less education, when compared with women with some college (OR 0.64, CI 0.44, 0.94), a college degree (OR 0.42, CI 0.28, 0.61), or a post-bachelor's degree (OR 0.35, CI 0.23, 0.53), were less likely to be classified as high-risk drug users. Finally, women whose annual income was $20,000–$39,999 (OR 0.54, CI 0.37, 0.79), $40,000–$59,999 (OR 0.71, CI 0.48, 1.05), or >$60,000 (OR 0.58; CI 0.38, 0.89) were less likely than women whose income was <$20,000 to be classified as high-risk drug users. No other significant demographic differences were found.

Patterns and heterogeneity of any drug use in past year

Approximately 49.5% of the sample reported using at least one drug in the past year. Respondents who reported being older, having higher

educational attainment, or being Asian/Pacific Islander were less likely to report the use of any drug in the past year (Table 2). Being in a current cohabiting relationship also appeared to serve as a protective factor against using drugs. In addition, women from the San Francisco Bay area were more likely than women from Los Angeles County to report use of drugs within the past year.

Correlations of current drug use with lifetime drug use severity

Overall, the most frequent type of drug used in the past year was marijuana (33.0%) (Table 3). Approximately 13.6% of the sample indicated they had used marijuana in the week prior to completing the questionnaire, with only 17.2% of the women reporting that in their lifetime they had never

TABLE 2. DEMOGRAPHIC CORRELATES OF ANY DRUG USE IN PAST YEAR AMONG LESBIAN AND BISEXUAL WOMEN (n = 2011)[a]

Characteristic	*OR*[b]	*(95% CI)*
Geographic place of residence		
Los Angeles County	Ref	Ref
San Francisco Bay area	1.46	(1.20, 1.77)
Sexual orientation		
Lesbian	Ref	Ref
Bisexual	1.17	(0.87, 1.58)
Other nonheterosexual	1.56	(1.05, 2.36)
Age, years		
18–24	Ref	Ref
25–34	0.63	(0.43, 0.91)
35–44	0.51	(0.35, 0.74)
45–54	0.50	(0.34, 0.76)
≥55	0.47	(0.30, 0.74)
Race/ethnicity		
White	Ref	Ref
African American	1.22	(0.89, 1.66)
Latina	0.85	(0.64, 1.13)
Asian/Pacific Islander	0.55	(0.38, 0.81)
Other	1.13	(0.66, 1.92)
Family economic status during childhood		
Lower	Ref	Ref
Middle	1.23	(0.98, 1.53)
Higher	1.24	(0.96, 1.60)
Educational attainment		
High school or less	Ref	Ref
Some college	0.83	(0.61, 1.14)
Bachelor's degree	0.71	(0.52, 0.97)
Post-bachelor's degree	0.63	(0.46, 0.87)
Annual personal income, $		
<20,000	Ref	Ref
20,000–39,999	0.95	(0.72, 1.26)
40,000–59,999	0.94	(0.70, 1.27)
≥60,000	0.91	(0.66, 1.26)
Employment status		
Working for pay	Ref	Ref
Disabled	1.59	(0.88, 2.87)
Unemployed	1.39	(0.87, 2.20)
Other	0.96	(0.68, 1.35)
Current relationship status		
In cohabiting relationship	0.71	(0.58, 0.87)
In noncohabiting relationship	0.87	(0.67, 1.14)
Single	Ref	Ref

[a]Approximately 49.5% (n = 996) of the sample reported using at least one drug in the past year. Differences estimated by multiple logistic regression predicting any drug used in the past year by all demographic characteristics listed.
[b]OR, odds ratio; CI, confidence interval; Ref, reference.

Table 3. Prevalence of Recent Drug Use among Lesbian and Bisexual Women by Severity of Lifetime Drug Use (n = 2011)[a]

Type of drug, %	*Total*	*High-risk use*	*Moderate-risk use*	*Low-risk use*
Marijuana				
Use in past year	33.0	39.4*	46.5*	29.5
Use in past month	22.8	28.6*	35.0*	19.7
Stimulants				
Use in past year	6.0	12.0*	11.1*	3.9
Use in past month	3.6	8.0*	5.5*	2.4
Methamphetamine				
Use in past year	2.1	7.7*	3.2*	0.8
Use in past month	0.9	4.3*	1.4*	0.1
Tranquilizers				
Use in past year	11.6	18.2*	25.8*	8.1
Use in past month	7.3	11.1*	14.3*	5.4
Sedative-hypnotics				
Use in past year	8.0	14.5*	14.8*	5.5
Use in past month	5.1	9.2*	10.1*	3.4
Cocaine				
Use in past year	3.8	8.9*	9.7*	1.8
Use in past month	1.6	3.1*	5.1*	0.8
Crack				
Use in past year	1.0	5.2*	0.5	0.2
Use in past month[b]	0.5	2.8	0.0	0.0
Heroin				
Use in past year[b]	0.3	1.5	0.5	0.0
Use in past month[b]	0.1	0.6	0.0	0.0
Other opioids				
Use in past year	15.1	21.5*	31.3*	11.3
Use in past month	7.9	10.8*	18.0*	5.7
Hallucinogens				
Use in past year	2.7	4.6*	4.6*	2.0
Use in past month	1.0	1.9	2.3*	0.7
Designers/synthetics				
Use in past year	4.9	5.5	7.4*	4.4
Use in past month	2.1	2.8	2.3	1.9
Poppers				
Use in past year	0.7	1.2	1.4*	0.4
Use in past month[b]	0.2	0.3	0.5	0.1
Inhalants				
Use in past year[b]	0.4	1.5	0.5	0.1
Use in past month[b]	0.1	0.6	0.0	0.0
Steroids				
Use in past year	2.4	3.4	4.6	1.9
Use in past month	1.5	2.5	1.8	1.2

[a]Differences estimated by multiple logistic regression predicting recent drug use. Models adjust for confounding by place of residence, sexual orientation identification, age, race/ethnicity, family economic status during childhood, educational attainment, annual personal income, employment status, and relationship status. Referent is Low-risk use.

*$p < 0.05$.

[b]Estimate unstable because <10 respondents were positive for drug use.

used marijuana. Although the prevalence of recent marijuana use was lower among older women, a significant proportion of women across all age categories indicated that they had used marijuana in the past week (prevalence across age categories, in years: 18–24, 22.4%; 25–34, 14.4%; 35–44, 14.2%; 45–54, 10.1%; ≥55, 9.1%).

In addition to marijuana, women also reported use of several other drugs in the past year, including opioids other than heroin (15.1%), tranquilizers (11.6%), sedative-hypnotics (8.0%), stimulants (6.0%), designer/synthetic drugs (4.9%), cocaine (3.8%), hallucinogens (2.7%), steroids (2.4%), and methamphetamine (2.1%). Reports of

use in the past year of crack (1.0%), poppers (0.7%), inhalants (0.4%), and heroin (0.3%) were relatively rare in our sample.

As would be expected, women evidencing high-risk and moderate-risk drug use were more likely than low-risk drug use women to indicate use of several types of drugs in the past month or year, including marijuana, stimulants, methamphetamine, tranquilizers, sedative-hypnotics, cocaine, opioids other than heroin, and hallucinogens (Table 3). Further, women classified as experiencing high-risk use were more likely than other women to indicate that they had used crack in the past year. Women evidencing moderate-risk drug use were more likely than other women to report that they used poppers and designer drugs in the past year.

Associations of emotional/behavioral problems and help-seeking behavior with lifetime drug use severity

Indicators of emotional and behavioral problems were found to be associated with lifetime drug use severity (Table 4). Across all indicators, respondents classified as high-risk users were most likely to report problems in the past year, particularly emotional problems and thoughts of getting professional help. These women were also more likely to evidence depressive distress and to label themselves as alcoholic. Interestingly, similar to high-risk drug users, moderate-risk users were more likely than nonusers to report using drugs to feel better, emotional problems, thoughts of getting professional help, and thoughts of harming others or suicide in the past year. Women evidencing moderate-risk use were also similar to high-risk women in their reports of using alcohol to feel better in the past year.

Predictably, women classified as experiencing lifetime high-risk drug use were more likely than other women to report that they had received lifetime and past year professional help for a drug or alcohol problem (Table 4). Despite these associations, less than half (41.5%) of the women classified as evidencing high-risk drug use indicated that they had ever received professional help for a drug or alcohol problem. High-risk and moderate-risk drug users were also more likely than low-risk drug users to report that they had re-

TABLE 4. PREVALENCE OF EMOTIONAL AND BEHAVIORAL PROBLEMS AND HELP-SEEKING BEHAVIORS AMONG LESBIAN AND BISEXUAL WOMEN BY SEVERITY OF LIFETIME DRUG USE ($n = 2011$)[a]

Characteristic, %	*Total*	*High-risk use*	*Moderate-risk use*	*Low-risk use*
Labels self as alcoholic	11.3	46.5*	8.8*	3.9
CES-D $\geq$ 16	33.5	44.3*	30.4	31.5
Indicators of life problems, past year[b]				
Used drugs to feel better	12.2	27.7*	20.7*	7.6
Used alcohol to feel better	16.0	25.2*	28.1*	12.2
Emotional problems	45.8	58.8*	49.8*	42.3
Problems controlling one's anger	24.1	33.5*	24.9	21.9
Thoughts of harming others	6.7	12.0*	7.8*	5.3
Thoughts of killing oneself	12.1	21.5*	14.3*	9.7
Thoughts of getting professional help	44.5	57.2*	51.2*	40.6
Received professional help for a drug or alcohol problem				
In one's lifetime	8.4	41.5*	3.7	1.8
In the past year	1.3	7.1*	1.4*	0.1
Ever received help from a self-help program for a drug or alcohol problem	12.4	56.9*	7.4*	3.3
Ever wanted but had not received professional help for drugs or alcohol	4.4	16.3*	3.7	1.8

[a]Differences estimated by multiple logistic regression predicting life problems and help-seeking behaviors. Models adjust for confounding by demographic factors (place of residence, sexual orientation identification, age, race/ethnicity, family economic status during childhood, educational attainment, annual personal income, employment status, and relationship status). Referent is Low-risk use.

*$p < 0.05$.

[b]Reported to have occurred at least sometimes in the prior year.

ceived help from a self-help program for a drug or alcohol problem. Among high-risk users, 32.0% indicated no experience with either self-help programs or professional assistance, 11.1% reported experience with professional help only, 26.5% reported experience with self-help programs only, and 30.5% reported experiences with both self-help programs and professional assistance. In addition, women exhibiting lifetime high-risk drug use were more likely than other women to report that they had wanted but not received professional help for drug or alcohol use. Approximately 1 in 6 women who evidenced high-risk drug use reported that they had wanted but not received professional help.

DISCUSSION

There are two prevailing explanations for the patterns of drug use and related morbidity found among lesbians and bisexual women. The first posits that problematic substance use develops because homosexuality and bisexuality are stigmatized social statuses that generate life stress arising from experiences with ostracism, discrimination, or maltreatment.[22–26] Drug use and misuse, then, may represent a method for coping with the problems associated with having a stigmatized sexual identity.[25] This is consistent with a self-medication explanation for the high rates of alcohol and drug use disorders observed among individuals who have elevated levels of psychological distress.[27] Although the women in this sample had several characteristics that are usually considered protective, including high levels of education and employment, their potentially greater exposure to environmental stressors related to their sexual minority status may have increased vulnerability to psychological distress and associated substance use.

A second explanation for the observed high rates of substance use among lesbian and bisexual women concerns specific social norms and environmental characteristics of the lesbian and gay community that might foster dysfunctional alcohol and drug use. Bars and community gatherings often serve as central mechanisms for socializing and connecting with other individuals with a minority sexual orientation. This has led some to postulate that this context of socializing may contribute to higher rates of substance use among lesbian and bisexual women.[28] Indeed, bar orientation has been found to correlate positively with frequency of marijuana and cocaine use.[28,29] Bars may also provide a means for easy access to and procurement of these substances. Although our study specifically did not recruit from bar locations, it is possible that some of the high-risk drug use women in the study were comorbid with alcohol use problems.

Social network characteristics as well as other contextual factors have been shown to influence substance use patterns.[30] The finding that single lesbians and bisexual women, in contrast to those in relationships (especially cohabitating women), were more likely to use several types of drugs is suggestive that drug use is enabled in social settings that single women are more likely to frequent. However, this relationship cannot be directly examined with the data that was available in this study.

Like others,[28,31] we also found that the normative age-related decline in substance use that is typical of the general adult female population[32,33] is somewhat attenuated in this sample. The women in our study also had a particularly high prevalence of recent marijuana use. This finding echoes those reported in the Cochran et al. study[2] on drug use patterns in U.S. adults, in which marijuana was found to be the most common drug of dependence among homosexually active women. The lesbian and bisexual women in our sample were about five times more likely to have recently used marijuana compared with estimates from the general U.S. adult female population.[33] Furthermore, the rate of past year marijuana use in the current sample was about four times greater than estimates of California women (7.9% report use in the past year).[34] Use of marijuana was especially prevalent among young lesbian and bisexual women from the San Francisco Bay area. Although participants from the San Francisco Bay area were no more likely than those from Los Angeles County to evidence high-risk drug use, they were more likely to report using drugs in the year prior to completing the questionnaire. These findings suggest that there may be some differences between the two areas in normative drug use behaviors, patterns of socializing where drug use is present, or drug availability.[35]

When compared to the general U.S.[33] or California[34] adult female populations, lesbians and bisexual women in our study reported more frequent nonmedical use as well with other sub-

stances that are commonly available by prescription, such as tranquilizers, sedative-hypnotics, and other opioids (e.g., codeine, Demerol [Sanofi Winthrop, New York, NY], Percodan [DuPont, Wilmington, DE], Vicodin [Knoll, Whippany, NJ]). Indeed, approximately 1 of 5 high-risk users and nearly 1 of 3 moderate-risk users reported use of opioids. Further research is needed to understand the contexts in which these drugs are used by lesbian and bisexual women. For example, are these substances promoted and obtained within certain social contexts? Or is their use associated with current or prior medical problems and treatment? Unfortunately, answers to these questions are beyond the scope of the current study.

Equally concerning is that use of cocaine, crack, and methamphetamine was strongly associated with high-risk and moderate-risk status, particularly among those women who were younger and less educated and who reported being disabled or unemployed. Methamphetamine use has been prevalent on the West Coast in the past 10 years[36] and is associated with high-risk sexual behaviors among urban populations of gay and bisexual men.[37] Gay men's recreational use of methamphetamine as a club drug[38] is also indicative of how drug use may be initiated and encouraged through social contexts.[39] Further exploration is needed to determine if methamphetamine and cocaine use has become a part of the social culture of some lesbian and bisexual women as well. If social context is important to drug use, it would also be useful to determine the level of social relationships and interactions of these women with gay men.

In our study, as in others, drug use was significantly associated with drug-related severity and emotional and behavioral problems that influence overall functioning.[1–4] Our study also identified perceived severity of the problem of drug use. We found that approximately 1 of 6 women in the study reported that their drug use was associated with impairment in functioning at some point in their lifetime. Some of this impairment manifested itself in reports of problematic drinking, depressive distress, and other problems, such as difficulty in the managing of emotions or thoughts of harming oneself or others. Because this study is cross-sectional, however, it is not possible to determine if this impairment preceded the initiation of drug use, consistent with a self-medication approach, or was a by-product of substance use. Regardless of the causal connection between emotional and behavioral problems or depressive distress and impairment from drug use, there is ample evidence that both substance use and mental disorders need to be addressed simultaneously, as either condition left untreated is associated with greater risk of relapse and poorer drug treatment outcomes.[40–44]

One surprising and concerning finding in this study is the level of unmet need. Less than half of the women who indicated drug use-related impairment reported receiving some form of professional help. In addition, about 16% of high-risk users wanted but had not received professional help for their drug use. Our finding that many of the respondents with drug problems are not accessing services is striking, given the number of lesbian and bisexual friendly services and drug treatment resources available in the Los Angeles County and San Francisco Bay area regions, as well as the availability of treatment protocols specialized for this population.[45] It is beyond the scope of this study to determine the reasons for the underutilization of these services. As our findings suggest, it may be that a significant proportion of lesbian and bisexual women attempt to resolve their drug use problems through self-help programs. It may also be that these women do not perceive formal treatment services as necessary to cope with their substance use problems. Alternatively, there may fewer opportunities for lesbians to be referred to substance abuse treatment, in part, because they may be less likely than heterosexual women to visit primary care providers on a regular basis.[46]

In contrast to findings from some population-based studies in which bisexual women have shown higher rates of substance use and other mental health problems,[47,48] the bisexual women in this study were similar to the lesbians in most of the outcomes assessed. This divergence in findings may be due to differences in sampling and recruitment procedures. Because the women in this study were mainly recruited through lesbian networks, bisexual women who are embedded in heterosexual networks may be underrepresented.[49]

Findings presented here should be considered in the context of some limitations. First, the convenience-based sampling design may compromise generalizability of findings to the entire population of lesbian and bisexual women in the Los Angeles County and San Francisco Bay area re-

gions.[50] Healthy volunteer bias may have caused an underestimate of drug use and related problems in this population. Further, the sociodemographics of the sample, the majority of whom had some college education and were currently employed, have implications for interpreting the study findings on treatment access and utilization. Although the relatively high socioeconomic status of the sample suggests greater access to resources, such as health insurance (89.4% reported that they were currently insured), the participants may be less likely to interact with other social systems that often mandate women into treatment, most often the criminal justice and child welfare systems.[51] Second, the self-reported nature of drug use and drug-related problems may be subject to bias related to recall and response. The presence of recall and response bias would, however, again tend to underestimate the prevalence of drug use and impairment examined in our study. Despite these limitations, our study had ample precision to examine patterns of drug use and impairment in a large, diverse sample of lesbian and bisexual women.

CONCLUSIONS

We found significant levels of drug use and self-perceived drug-related impairment in this urban/metropolitan sample of lesbian and bisexual women. A sizable proportion of this drug use is associated with drug-related impairment as well as other emotional and behavioral problems. A fruitful area for future study might be assessing the availability and fit in meeting perceived need for drug treatment services for lesbian and bisexual women. It is also important to identify the most effective paths for screening and referral of lesbian and bisexual women into drug abuse treatment services as well as to identify the most efficacious drug-related interventions. There are a number of possible avenues for intervening with lesbian and bisexual women who evidence problematic substance use. First, because lesbians tend to use mental health services at higher rates and for longer duration than other women,[52–54] one avenue to accessing substance abuse treatment and addressing substance use problems could be through these mental healthcare providers. Second, if general healthcare providers were more aware of the prevalence of drug use and associated difficulties among lesbians and bisexual women, they might be more likely to screen and provide treatment referrals to their lesbian and bisexual female patients. Third, to reach women with substance use problems who do not interface regularly with mental and other healthcare providers, public health interventions, such as social marketing campaigns, that specifically target lesbians and bisexual women could be useful avenues for reaching these women.

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