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Mental and Physical Health Needs of Lesbian, Gay, and Bisexual Clients in Substance Abuse Treatment

Annesa Flentje, Ph.D.[a], **Nicholas A. Livingston, M.A.**[b], **Jason Roley, B.A.**[c,d], and **James L. Sorensen, Ph.D.**[c]

[a]Department of Community Health Systems, University of California, San Francisco, 2 Koret Way, San Francisco, California 94143

[b]Department of Psychology, The University of Montana, 32 Campus Drive Missoula, Montana 59812

[c]Department of Psychiatry, University of California, San Francisco, 1001 Potrero Avenue, San Francisco, California 94110

[d]School of Medicine, Drexel University, 3300 Henry Avenue, Philadelphia, Pennsylvania 19129

Abstract

Objective—Lesbian, gay, and bisexual (LGB) orientation predicts greater substance use, treatment utilization, and poorer mental and physical health, but health needs of LGB individuals in substance abuse treatment remain largely unknown. The purpose of this study was to identify differences in mental and physical health needs of LGB individuals in substance abuse treatment.

Methods—Substance abuse treatment admissions data from the County of San Francisco were used in this investigation of differences in mental and physical health problems and service utilization between LGB (*n*=1,441) and heterosexual individuals (*n*=11,770).

Results—LGB individuals were more likely to have mental health diagnoses ($_{adj}$ORs ranging from 1.86–4.00) and current mental health prescription medications ($_{adj}$ORs from 1.79–4.99) than heterosexual counterparts. Gay and bisexual men and bisexual women but not lesbian women, were more likely to be receiving mental health treatment. Gay men and bisexual women were more likely than heterosexual counterparts to report physical health problems. Gay and bisexual men and bisexual women but not lesbian women were more likely to be receiving health care. There were no differences between LGB individuals and heterosexual counterparts in the number of emergency room visits or hospital overnight stays.

Discussion—This study found that LGB individuals entering substance abuse treatment have greater mental and physical health needs than heterosexual counterparts. Implications for healthcare integration, research, and practice are discussed.

Corresponding author: Annesa Flentje, annesa.flentje@ucsf.edu; Department of Community Health Systems, University of California, San Francisco, 2 Koret Way Room N505, San Francisco, California 94143.

Keywords

lesbian; gay; bisexual; substance abuse treatment; physical health disparities; mental health disparities

1. Introduction

Alcohol and illicit drug use remain significant public health concerns among the general population (Substance Abuse and Mental Health Services Administration, 2012). Additionally, rates of use and substance use disorder diagnoses (SUDs) among lesbian, gay, and bisexual (LGB) individuals remain disproportionately high relative to heterosexuals (McCabe, Hughes, Bostwick, West, & Boyd, 2009; Green & Feinstein, 2012). As outlined in Meyer's Minority Stress Model (Meyer, 2003), this disparity has been linked to higher rates of *minority stress*—often stemming from LGB-based institutional oppression and interpersonal mistreatment (e.g., discrimination and victimization)—which has been shown to confer risk for substance use and comorbidity through heightened emotional regulation demands (Weber, 2008). Consistent with elevated rates of use and SUD diagnoses, LGB individuals are also more likely to seek substance abuse treatment compared to heterosexual individuals (McCabe, West, Hughes, & Boyd, 2013). Further, LGB individuals evidence elevated rates of physical and mental health concerns relative to heterosexual individuals (Dilley, Simmons, Boysun, Pizacani, & Stark, 2010; Fredriksen-Goldsen et al., 2013), consistent with the minority stress hypothesis (Meyer, 2003). Such comorbidity is a salient concern among substance use treatment seekers, as co-morbid mental health conditions may precede substance use disorders (Swendsen et al., 2010) and co-occurring health complications may negatively impact substance use treatment outcomes (Grella, Hser, Joshi, & Rounds-Bryant, 2001). Furthermore, treatment for SUD is an important tactic for reducing the both substance use-related deaths and health problems (U.S. Department of Health and Human Services, 2014). At present, it is unclear whether programs and providers are sufficiently aware of the specific mental and physical health needs of LGB individuals seeking substance use treatment, an important precursor to providing appropriate services.

Historically, LGB individuals have also experienced health disparities with regard to receiving adequate physical, mental, and substance use treatment services. For instance, LGB individuals experience greater barriers to securing appropriate medical and mental health services due, in part, to provider or institutional bias (Cochran, Peavy, & Robohm, 2007) and lower rates of adequate health care coverage relative to heterosexuals (Dilley et al., 2010; Buchmueller & Carpenter, 2010). A potential consequence is that, for many, health care services may be less available, especially in the absence of publicly-funded treatment options. Adequate care is also compromised by the lack of research on the specific physical and health care needs of LGB individuals. Despite reduced access to health care coverage, LGB individuals have been shown to utilize emergency care services at greater rates than their heterosexual counterparts (Sánchez, Hailpern, Lowe, Calderon, 2007), which is consistent with previously mentioned reports of worse general physical health among LGB individuals relative to heterosexual individuals and greater unmet medical needs.

Special mental and physical health considerations have also been documented among LGB individuals seeking substance use treatment services. For instance, researchers have shown that LGB individuals seeking substance use treatment present with elevated rates of comorbid mental health diagnoses (Lipsky et al., 2012), substance use severity, and past-year medical service utilization (Cochran & Cauce, 2006), relative to heterosexual individuals. Nonetheless, the research literature remains limited, as the aforementioned research (Lipsky et al., 2012; Cochran & Cauce, 2006) took place within the only US State (Washington) that, at the time, asked treatment applicants to identify their sexual orientation and gender identity.

The goal of this study was to examine how mental and physical health needs and treatment utilization of LGB individuals differed compared to heterosexual counterparts among those seeking substance abuse treatment within a publicly-funded system. Based on previous research documenting higher rates of mental and physical health problems among LGB individuals, and the minority stress hypothesis (Meyer, 2003), we hypothesized that LGB individuals would have higher rates of mental and physical health problems and service utilization relative to heterosexual individuals. This study can inform substance abuse treatment implementation and integration of psychiatric and medical health care to improve screening and service delivery.

2. Method

The methods for this study were similar to the methods used by Flentje, Heck, and Sorensen (2015), which utilized the same treatment database and sample for a study examining the primary substance of abuse, route of administration, age of initiation of that substance, and the frequency at which that substance was used among LGB individuals entering substance abuse treatment. The methods and sample description are described briefly here and also in Flentje et al. (2015).

De-identified data were obtained from the Department of Public Health in the County of San Francisco, which collected client admission and discharge information from all substance abuse treatment programs in the county that received any government funding. For individuals who sought treatment between July 2007 and December 2009, the treatment record(s) for that timeframe were included as well as all other existing treatment records. This resulted in 107,470 total treatment episodes attended by 14,015 different individuals. A treatment episode was defined as contact with any treatment program which initiated a billing entry into the San Francisco billing information system. These entries were associated with an admission record collected by the treatment agency. As such, treatment episodes could include a range of services including residential, detox, or outpatient services. A single treatment episode was selected for each individual based on the criterion that it was the most recent treatment episode, and information provided at admission was used for this study. Individuals with mental and physical health data were included in this study if they: (1) reported a male or female sex, (2) reported a lesbian, gay, bisexual, or heterosexual sexual orientation, and (3) did not endorse a transgender identity. Information regarding the admission characteristics of transgender individuals within the same substance

abuse treatment database was documented in a separate study (Flentje, Heck, & Sorensen, 2014).

2.1. Measures

The questions asked of clients at treatment and discharge were from the California Outcomes Measurement System (CALOMS), a procedure created to monitor substance abuse treatment outcomes within California which has been used in peer reviewed research (e.g. Flentje et al., 2014, 2015; Brecht & Urada, 2011; Conner, Hampton, Hunter, & Urada, 2011; Evans, Jaffe, Urada, & Anglin, 2011; Gonzales, Brecht, Mooney, & Rawson, 2011; Swartz, 2010). This measurement system was used across programs in California, but localities could also add questions of interest. At the time of data collection, the County of San Francisco had elected to add questions about sexual orientation and gender identity, data that was not collected in other areas. Sexual orientation was queried with the following response options: “Lesbian: Female/Female,” “Gay: Male/Male,” “Bisexual: Both Male & Female,” “Heterosexual,” “Decline to Answer,” and “Unsure.”

Clients entering substance abuse treatment were required to answer multiple questions regarding demographics, substance use, mental health, and physical health. Substance abuse treatment programs provided client admission data to the County of San Francisco where it was compiled. Some questions that were used in this study queried for the time period of 30 days prior to admission, specifically, questions which asked if an individual had: taken prescribed medication for mental health, been in a hospital or psychiatric facility for mental health, experienced physical problems, gone to the emergency room (ER), or stayed in the hospital overnight for a physical health problem. Participants were also asked if they: had a prior mental health diagnosis, were receiving mental health treatment, had a recent mental health assessment, were receiving physical health care, or had a recent physical health assessment. Questions querying recent mental and physical health assessments and whether individuals were receiving mental health treatment were only queried in a specific iteration of the data collection system (which underwent adjustments during the time of data collection for this study), thus only a portion of the sample was queried with these questions.

2.2. Analyses

Analyses were conducted separately by sex. Demographics and demographic differences by sexual orientation are reported elsewhere (Flentje et al., 2015). Logistic regression was used to predict outcomes of interest in this study, with gay (for men) or lesbian (for women) and bisexual orientation entered (heterosexual was the reference group), and age, race (dichotomized as White and non-White), and ethnicity (dichotomized as Hispanic or not Hispanic) entered as covariates. To control for type I error, the alpha level was set to .01, and 99% confidence intervals were reported accordingly.

3. Results

3.1 Participants

Participants who did not meet sexual orientation and gender identity inclusion criteria were as follows: transgender (n=199), sexual orientation criterion not met (n=210, with n=135

who declined answering and *n*=75 who responded "unsure"), sexual orientation did not match with reported sex (e.g., endorsed female sex and gay male sexual orientation, *n*=23). A total of 13,211 participants met inclusion criteria for the study. Demographic information for participants is reported by sex and sexual orientation in Table 1 (similarly reported in Flentje et al., 2015). Participants were an average of 38.10 years old (*SD*= 13.48), with over 90% of participants being age 18 or older (*n*=12,012, 90.9%). Overall, among males, there were differences by sexual orientation in race and level of education, but not ethnicity or age. Percentages indicate that gay and bisexual men were more likely to be of White race, and reported higher levels of education. For females there were differences by sexual orientation in level of education, but not race, ethnicity, or age (specific analyses on differences in demographic characteristics by sexual orientation reported in Flentje et al., 2015).

3.2 Mental Health Problems and Service Utilization

Mental and physical health problems, care, and service utilization by sex and sexual orientation of participants is reported by sex and sexual orientation in Table 2. LGB status was predictive of higher rates of mental health diagnoses for both men (gay men, adjusted odds ratio [$_{adj}$OR]: 4.00, 99% confidence interval [CI]: 3.23, 4.94; bisexual men, $_{adj}$OR: 3.56, 99% CI: 2.42, 5.23) and women (lesbian women, $_{adj}$OR: 1.86, 99% CI: 1.22, 2.83; bisexual women, $_{adj}$OR: 2.26, 99% CI: 1.59, 3.20). LGB status predicted higher risk of current mental health prescription medication for both men (gay men, $_{adj}$OR: 4.99, 99% CI: 4.04, 6.16; bisexual men, $_{adj}$OR: 2.95, 99% CI: 1.99, 4.37) and women (lesbian women, $_{adj}$OR: 1.87, 99% CI: 1.20, 2.91; bisexual women, $_{adj}$OR: 1.79, 99% CI: 1.24, 2.60). Gay ($_{adj}$OR: 3.38, 99% CI: 2.43, 4.71) and bisexual men ($_{adj}$OR: 2.59, 99% CI: 1.37, 4.90), and bisexual women ($_{adj}$OR: 1.97, 99% CI: 1.13, 3.45) were more likely to be receiving mental health treatment, but there were no differences between lesbian women and heterosexual women in likelihood of receiving mental health treatment. Gay men and bisexual women were more likely than heterosexual men and women, respectively, to have undergone a recent mental health assessment (gay men, $_{adj}$OR: 1.96, 99% CI: 1.42, 2.71; bisexual women, $_{adj}$OR: 2.10, 99% CI: 1.22, 3.61). Lastly, gay men were more likely to have recently been in a psychiatric hospital or facility ($_{adj}$OR: 2.21, 99% CI: 1.47, 3.35) than heterosexual men, but no differences were observed in the other 3 groups when compared to heterosexual counterparts. Complete results of logistic regression analyses are reported in Table 3.

3.3 Physical Health Problems and Service Utilization

Among men, gay men were more likely than heterosexual men to report physical health problems in the previous 30 days ($_{adj}$OR: 1.42, 99% CI: 1.14, 1.77), but this difference was not evident for bisexual men. Among women, bisexual women were more likely to report physical health problems ($_{adj}$OR: 1.70, 99% CI: 1.18, 2.47), but there was no difference between lesbian and heterosexual women. Gay ($_{adj}$OR: 4.25, 99% CI: 3.00, 6.04) and bisexual men ($_{adj}$OR: 2.61, 99% CI: 1.38, 4.96), and bisexual women ($_{adj}$OR: 1.83, 99% CI: 1.07, 3.13) had greater odds than heterosexual counterparts of receiving health care, but there were no differences observed between lesbian women and heterosexual women. Gay men were more likely to report a recent physical health assessment ($_{adj}$OR: 2.10, 99% CI:

1.49, 2.97), but there were no differences between bisexual men, lesbian women, nor bisexual women when compared to heterosexual counterparts. LGB status was not predictive of ER visits nor hospital stays among males or females.

4. Discussion

Consistent with hypotheses, and Meyer's minority stress hypothesis (2003), our study found that sexual orientation is a predictor of mental and physical health status, and that important mental and physical health status disparities exist among LGB substance abuse treatment-seeking individuals. A consistent trend across LGB individuals was that there were higher rates of previous mental health diagnoses. Similarly, all LGB groups were more likely to be taking psychiatric medications. Also, gay and bisexual men and bisexual women were more likely to be receiving mental health treatment. This suggests that these groups are entering treatment with a need for continuity of care for co-occurring disorders.

Within our study, lesbian and bisexual women had about 2 times greater odds of previous mental health diagnoses than heterosexual women, while gay and bisexual men had around 3.5–4 times greater odds, when compared to heterosexual men. Of note is the observed difference in rates of mental health diagnoses between the heterosexual comparison groups (38.1% for heterosexual women, and 27.0% for heterosexual men), which may reflect greater rates psychiatric complications associated with substance use for women than men, consistent with other studies (Denier, Thevos, Latham, & Randall, 1991; Hernandez-Avila, Rounsaville, & Kranzler, 2004). Even given the higher base rate for women, in our study we still detected greater odds of mental health diagnoses and mental health medication use for lesbian and bisexual women, and mental health treatment for bisexual women. The higher base rates of co-occurring mental health disorders observed among heterosexual women seeking treatment likely was reflected in the overall smaller observed odds ratios for lesbian and bisexual women (relative to gay and bisexual men compared to heterosexual men). More than half of all lesbian and bisexual women entered treatment with a mental health diagnosis, highlighting the importance of consideration of co-occurring mental health need within this population. Similarly, the overall lower rates of mental health service utilization among heterosexual men likely attributed to the large odds ratios observed among gay men (ranging from 3.38 for mental health treatment utilization to 4.99 for mental health medication usage). The absolute percentages among gay and bisexual men were also notable, as nearly two-thirds of gay and bisexual men entered treatment with a mental health diagnosis. The need for treatment addressing both substance use and co-occurring disorders is therefore extremely relevant for one-half to two-thirds of LGB people seeking substance abuse treatment services and is an imperative and not a complementary service among this population.

The null effects for mental health treatment utilization among lesbian women could be attributed to unmet mental health treatment need among lesbian clients. This may be consistent with prior research documenting compounded stress for sexual minority women (e.g., contending with both sexism and heterosexism; see Drabble & Eliason, 2012), but inconsistent with reports of greater utilization among sexual minority women in general (Drabble & Eliason, 2012). That being said, this effect is most likely attributable to

insufficient power to detect meaningful effects due to a relatively small number of lesbian women (our smallest observed LGB group) who reported recent mental health treatment or assessment, thus these results should be interpreted with caution.

Gay men and bisexual women were at greater risk for experiencing recent physical health problems compared to heterosexual individuals. Gay and bisexual men and bisexual women were more likely to be receiving health care, but only gay men were more likely to have had a recent physical health assessment. This suggests that health care continuity needs are an area for future investigation for this treatment population.

In contrast to previous research (Sánchez et al., 2007; Cochran & Cauce, 2006), LGB individuals seeking substance abuse treatment did not report higher rates of recent ER visits or hospital overnight stays. Whereas Sanchez and colleagues (2007) analyzed data from a convenience sample of LGBT individuals in New York City in 2004, Cochran and Cauce's (2006) results were based on data from individuals who received publicly-funded substance use treatment in the state of Washington between July 1, 2001 and December 31, 2002. The discrepancy between the results presented here and those presented elsewhere may be attributable to differing operationalization of emergency room utilization across studies (i.e., self-reported ER visits in last 12 months versus 30 days in the current study), low response variability given our retrospective 30-day measurement window, or actual regional differences with regard to ER visits across studies. For instance, the null effects for ER visits reported here could reflect that substance use treatment-seeking individuals in San Francisco, irrespective of sexual orientation, are at higher risk for ER visits (which ranged from 10–14.5% of participants across all sexual orientations) and hospital overnight stays (which ranged from 3.3%–7.7% of participants across sexual orientations) overall. It could also reflect that within San Francisco, it may be easier for LGB individuals to access other healthcare services, thus circumventing the need for emergency department use to fill the need of regular access to healthcare.

We found higher mental health treatment utilization among all LGB groups except for lesbian women. This is similar to data published from the population-based California Quality of Life Survey (Grella, Greenwell, Mays, & Cochran, 2009) which found higher mental health treatment utilization among lesbian and bisexual women. It is unknown if access to mental health care is easier for LGB individuals within California, and these results should be replicated in other locations. Research has shown that lesbian and bisexual women who disclose their sexual minority status report greater satisfaction with their providers (Mosack, Brouwer, & Petroll, 2013) and are more likely utilize health care services (Bergeron & Senn, 2003) compared to those for whom sexual identity remains undisclosed. Decisions to disclose are linked to openness and individuals' comfort level with their providers (Bergeron & Senn, 2003; Polek et al; 2008). It is possible that within San Francisco, an area with a track record for the moving forward the gay rights movement (Armstrong, 2002), disclosure and barriers to access to care are removed or greatly reduced for LGB individuals.

4.1. Implications for Care

These observed mental and physical health disparities suggest that additional screening, outreach, provider training, and service delivery integration are needed to best coordinate care among members of this at-risk population. It also may suggest that substance abuse treatment settings are well suited for linkage to psychiatric and primary care services. Our finding that sexual minority status predicts important mental and physical health problems suggests that providers should query about client sexual minority status (in a way that facilitates healthy and supporting provider-client dialogue), and perform careful screening of mental and physical health care needs among LGB individuals seeking services. Efforts to improve screening and outreach to LGB individuals would be further improved to the degree that providers are trained to meet the specific needs of LGB individuals seeking services.

Another suggestion includes the integration and coordination of care for LGB clients seeking substance use treatment. The benefits of integrating mental and physical health care into substance use treatment (Drainoni et al, 2014; Zaller, Gillani, & Rich, 2007; Grella & Stein, 2006; Hides et al., 2010; Hart, Tulloch, & O'Cleirigh, 2014) as well as LGB-specific interventions into existing substance use treatment settings (Reback, Veniegas, & Shoptaw, 2014; Shoptaw et al., 2008; Senriech, 2010), have been recognized. Our study also indicates that LGB clients are more likely to enter treatment on psychiatric medications, and therefore may benefit from integrated psychiatric care. The dearth of research on fully integrated and/or coordinated LGB-specific services necessitates further inquiry. Thus far, research has shown integrated services to be an efficacious alternative among difficult to reach clinical populations with unmet treatment needs (Drainoni et al., 2014). Expected advantages of health care integration to LGB clients include not having to repeatedly disclose sexual orientation to new providers, coordination of care, concurrent treatment of comorbid mental and physical health conditions that might otherwise complicate substance use treatment, greater support in terms of facilitating client treatment adherence and follow through, and increased accountability regarding health care service delivery. These suspected benefits represent plausible and testable hypotheses for future public health promotion and intervention research. In the meantime, it is incumbent on providers to consider ways in which they may enhance continuity of care for LGB individuals seeking substance abuse treatment.

Lastly, this study supports the importance of collecting sexual orientation data in electronic health records and research, as sexual orientation can be a predictor of disparities in research and in health care settings. Despite this need, sexual orientation is often not queried or reported in research literature (Flentje, Bacca, & Cochran, 2015). Querying about sexual orientation and including it in electronic health records may facilitate future LGB health disparity research, which is needed to more fully understand the specific needs of LGB clients in substance use treatment and in other settings. Further, having this information available in electronic health records may promote open dialogue between clients and ongoing/future providers, inform provider case conceptualizations, and improve therapeutic and medical referrals and recommendations.

4.2. Limitations

Data for the current study were collected from an urban area of San Francisco, potentially limiting the degree to which these results generalize broadly. Although minority stress hypotheses were largely supported, these effects might be less pronounced in this region, relative to more socially or politically conservative regions of the United States. Thus, replication is needed. The self-report nature of these data represents another potential limitation. Another consideration is that these data may only generalize to LGB substance use treatment-seeking individuals rather than LGB individuals in general. Furthermore, as this study was done with data collected for other purposes, sexual orientation categories were predetermined and limited to LGB individuals, thus did not allow for individuals to report other sexual orientations (e.g., queer). Similarly, because data was released by a county health system, some variables which may have differed by sexual orientation were not available, including the level of care that participants were seeking and received while in treatment. Regardless, this population represents an important and at-risk demographic, for which there remains a need for additional research regarding best-practices in substance use treatment settings.

4.3. Conclusions

This study is among the first to document the mental and physical health care needs of LGB individuals seeking substance use treatment, and it is the first in recent years to document ongoing mental and physical health disparities among LGB individuals seeking substance use treatment. Consistent with hypotheses, the effects reported here suggest that substance abuse treatment-seeking LGB individuals are at elevated risk for mental and physical health problems compared to heterosexuals. Additional research is needed to address how to best meet mental and physical health care needs among substance use treatment-seeking LGB individuals.

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Highlights

- We found that lesbian, gay, and bisexual individuals entering substance abuse treatment were more likely to have mental health diagnoses and current prescription psychiatric medications than heterosexual counterparts.
- Gay and bisexual men and bisexual women who were entering substance abuse treatment were more likely to be receiving mental health treatment than heterosexual counterparts, but lesbian women did not evidence a greater likelihood of receiving mental health treatment.
- Gay men and bisexual women entering substance abuse treatment were more likely to report physical health problems than heterosexual counterparts, and gay and bisexual men and bisexual women were more likely to be using healthcare services.
- One-half to nearly two-thirds of LGB individuals in substance abuse treatment have prior mental health diagnoses indicating that treatment addressing multiple disorders is particularly relevant for LGB individuals.

Table 1

Demographic Information by Sex and Sexual Orientation for Individuals Seeking Substance Abuse Treatment in San Francisco (N=13,211)

	Overall Sample (*N* = 13,211)	Male Participants (*n* = 9330)			Female Participants (*n* = 3881)		
		Heterosexual (*n*=8318)	Gay (*n*=797)	Bisexual (*n*=215)	Heterosexual (*n*=3452)	Lesbian (*n*=156)	Bisexual (*n*=273)
Age (*M, SD)*	38.10 (13.48)	39.24 (13.42)	39.81 (10.78)	39.89 (11.19)	35.70 (13.81)	36.12 (11.17)	33.44(12.16)
Race *n* (%)							
White	4,705 (35.6%)	2,779 (33.4%)	535 (67.1%)	137 (63.7%)	1093 (31.7%)	59 (37.8%)	102 (37.4%)
Black	4,844 (36.7%)	3,201 (38.5%)	81 (10.2%)	40 (18.6%)	1385 (40.1%)	56 (35.9%)	81 (29.7%)
Native American/Alaska	174 (1.3%)	86 (1.0%)	10 (1.3%)	5 (2.3%)	68 (2.0%)	2 (1.3%)	3 (1.1%)
Native Asian American/Pacific Islander	738 (5.6%)	512 (6.2%)	24 (3.0%)	4 (1.9%)	178 (5.2%)	11 (7.1%)	9 (3.3%)
Multi Racial	678 (5.1%)	332 (4.0%)	63 (7.9%)	14 (6.5%)	213 (6.2%)	12 (7.7%)	44 (16.1%)
Other race	2071 (15.7%)	1,407(16.9%)	84 (10.5%)	15 (7.0%)	515 (14.9%)	16 (10.3%)	34 (12.5%)
Ethnicity *n* (%)							
Not Hispanic	10,778 (81.6%)	6,756 (81.2%)	666 (83.6%)	194 (90.2%)	2815 (81.5%)	122 (78.2%)	225 (82.4%)
Mexican/Mexican American	1,048 (7.9%)	682 (8.2%)	52 (6.5%)	6 (2.8%)	274 (7.9%)	14 (9.0%)	20 (7.3%)
Cuban	59 (0.4%)	43 (0.5%)	5 (0.6%)	4 (1.9%)	7 (0.2%)	0 (0.0%)	0 (0.0%)
Puerto Rican	185 (1.4%)	106 (1.3%)	8 (1.0%)	2 (0.9%)	56 (1.6%)	5 (3.2%)	8 (2.9%)
Other Hispanic/Latino	1,141 (8.6%)	731 (8.8%)	66 (8.3%)	9 (4.2%)	300 (8.7%)	15 (9.6%)	20 (7.3%)
Education in years (*M, SD*)	11.92 (2.53)	11.81 (2.41)	14.07 (2.64)	12.78 (2.22)	11.65 (2.51)	12.54 (2.17)	12.21 (2.61)

Table 2

Physical and Mental Health Problems, Risks, Care, and Service Utilization by Sex and Sexual Orientation for Individuals Seeking Treatment in San Francisco (N=13,211)

	Male Participants			Female Participants		
	Heterosexual	**Gay**	**Bisexual**	**Heterosexual**	**Lesbian**	**Bisexual**
Mental Health Problems and Service Utilization						
Prior mental health diagnosis	2153 (27.0%)	499 (64.6%)	127 (61.4%)	1229 (38.1%)	75 (50.7%)	142 (55.9%)
Taken prescribed medication for mental health in past 30 days	1108 (13.7%)	380 (48.7%)	74 (35.7%)	743 (22.2%)	50 (33.3%)	84 (31.5%)
Receiving mental health treatment[a]	576 (19.1%)	147 (48.4%)	30 (41.1%)	392 (27.4%)	24 (35.8%)	41 (39.0%)
Recent mental health assessment[a]	965 (31.9%)	155 (51.0%)	36 (49.3%)	452 (31.6%)	25 (37.3%)	48 (45.7%)
Psychiatric hospital or facility	236 (2.9%)	55 (7.1%)	11 (5.3%)	120 (3.6%)	8 (5.3%)	12 (4.5%)
Physical Health Problems and Service Utilization						
Physical health problems in previous 30 days	1761 (21.7%)	253 (32.4%)	65 (31.4%)	785 (23.5%)	39 (26.0%)	83 (31.1%)
Receiving physical health care	1037 (34.3%)	211 (69.4%)	42 (57.5%)	608 (42.5%)	31 (46.3%)	57 (54.3%)
Recent physical health assessment[a]	1517 (50.2%)	212 (69.7%)	44 (60.3%)	765 (53.5%)	34 (50.7%)	58 (55.2%)
ER visits in previous 30 days	863 (10.6%)	85 (10.9%)	30 (14.5%)	352 (10.5%)	15 (10.0%)	37 (13.9%)
Hospital overnight stays	433(5.3%)	47 (6.0%)	16 (7.7%)	179 (5.4%)	5 (3.3%)	14 (5.2%)

[a]For these descriptives, only a subset of participants were available (n=5000) due to changes in data collection practices

Table 3

Results of Logistic Regression Analyses Using Sexual Orientation to Predict Mental and Physical Health Problems and Service Utilization (Separate Analyses by Sex) Among Individuals Seeking Substance Abuse Treatment in San Francisco (N=13,211), Adjusted for Age, Race, and Ethnicity with Heterosexual as Reference (N=13,211)

	Male Participants		Female Participants	
	Gay	Bisexual	Lesbian	Bisexual
	$_{adj}$OR (99% CI)	$_{adj}$OR (99% CI)	$_{adj}$OR (99% CI)	$_{adj}$OR (99% CI)
Mental Health Problems and Service Utilization				
Prior mental health diagnosis	4.00 (3.23, 4.94)*	3.56 (2.42, 5.23)*	1.86 (1.22, 2.83)*	2.26 (1.59, 3.20)*
Taken prescribed medication for mental health in past 30 days	4.99 (4.04, 6.16)*	2.95 (1.99, 4.37)*	1.87 (1.20, 2.91)*	1.79 (1.24, 2.60)*
Receiving mental health treatment[a]	3.38 (2.43, 4.71)*	2.59 (1.37, 4.90)*	1.64 (0.86, 3.13)	1.97 (1.13, 3.45)*
Recent mental health assessment[a]	1.96 (1.42, 2.71)*	1.82 (0.97, 3.39)	1.42 (0.75, 2.67)	2.10 (1.22, 3.61)*
Psychiatric hospital or facility	2.21 (1.47, 3.35)*	1.66 (0.73, 3.79)	1.67 (0.69, 4.00)	1.36 (0.61, 3.04)
Physical Health Problems and Service Utilization				
Physical health problems in previous 30 days	1.42 (1.14, 1.77)*	1.41 (0.94, 2.11)	1.24 (0.78, 1.99)	1.70 (1.18, 2.47)*
Receiving health care	4.25 (3.00, 6.04)*	2.61 (1.38, 4.96)*	1.22 (0.66, 2.27)	1.83 (1.07, 3.13)*
Recent physical health assessment[a]	2.10 (1.49, 2.97)*	1.40 (0.74, 2.66)	0.90 (0.48, 1.66)	1.19 (0.70, 2.04)
ER visits in previous 30 days	0.81 (0.59, 1.11)	1.18 (0.69, 1.99)	1.18 (0.63, 2.20)	1.52 (0.93, 2.47)
Hospital overnight stays	0.92 (0.61, 1.40)	1.29 (0.64, 2.57)	0.76 (0.27, 2.10)	1.11 (0.53, 2.33)

*Indicates an analysis where $p<.01$;

[a]for these analyses, only a subset of participants were available (n=3397 for males and n=1612 for females) due to changes in data collection practices