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Internalized Homophobia and Substance Use Among Lesbian, Gay, and Bisexual Persons

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ABSTRACT. The purpose of the study was to determine the relationship between internalized homophobia and use of alcohol, marijuana, and cigarettes, as well as problems associated with alcohol and general substance use. Participants were 207 lesbian, gay, and bisexual persons recruited at a gay pride festival in Atlanta, GA. Significant negative correlations were found for females between internalized homophobia and lifetime use of alcohol, marijuana, and cigarettes, as well as monthly use of marijuana. No significant relationships were found for males. Research and practical implications are discussed. [Article copies available for a fee from The Haworth Document Delivery Service: 1-800-HAWORTH. E-mail address: <docdelivery@haworthpress.com> Website: <<http://www.HaworthPress.com>> © 2004 by The Haworth Press, Inc. All rights reserved.]

KEYWORDS. Internalized homophobia, alcohol use, substance use, gay, lesbian and bisexual people, gender and substance use

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Alcohol problems among lesbians and gay men are said to be pandemic (Kus, 1988). Cabaj (1996) indicated that research and clinicians generally suggest higher rates of alcohol and drug use among lesbians and gay men compared with heterosexual individuals. Research from the 1970s (e.g., Fifield, Lathan, & Phillips, 1977; Lohrenz, Connelly, Coyne, & Spare, 1978; Saghir, Robins, Walbran, & Gentry, 1970) found that lesbians and gay men were three times more likely to drink heavily than heterosexual individuals. However, researchers today contend that sampling techniques utilized in these studies (e.g., sampling bar patrons) produced a highly biased sample (Abbott, 1998; Bloomfield, 1993; Skinner & Otis, 1996). Although most current research is still limited by the use of convenience samples, contemporary researchers conclude that findings from the 1970s inflated the rate of drinking among lesbians and gay men (Abbott). Instead, there may be a decreased rate of abstinence and a higher rate of moderate drinking among lesbians and gay men compared with heterosexuals (Heffernan, 1998; McKirnan & Peterson, 1989a; Skinner & Otis). Moreover, alcohol problems (e.g., alcohol dependence) may be higher for lesbians than women in general (Cochran & Mays, 2000; McKirnan & Peterson, 1989a; Mosbacher, 1993). Findings are less consistent comparing gay men with men in general (Bux, 1996, Cochran & Mays; McKirnan & Peterson, 1989a; Ryan, Huggins, & Beatty, 1999).

Another finding is that although gay men tend to drink more than lesbians, the rate of difference between them is less dramatic than the difference between men and women in general (McKirnan & Peterson, 1989a; Skinner & Otis, 1996). Likewise, although lesbians, and in some studies gay men, report more alcohol problems than the general population, alcohol problems do not differ significantly between lesbians and gay men (McKirnan & Peterson, 1989a). In contrast, men in the general population have higher rates of alcohol problems compared with women (Brady & Randall, 1999).

Investigation of marijuana use and other substances among lesbians and gay men is less common than research on alcohol. McKirnan and Peterson (1989a) and Skinner and Otis (1996) found higher rates of marijuana use among lesbians and gay men compared with women and men in general. However, rates of use between lesbians and gay men did not differ significantly. Stall and Wiley (1988) found marijuana use to be higher among gay men than heterosexual men. Research has also found that lesbians and gay men are significantly more likely to use cigarettes than their heterosexual counterparts (Cochran et al., 2001; Stall, Greenwood, Acree, Paul, & Coates, 1999; Valanis et al., 2000). How-

ever, Skinner and Otis determined that gay men were significantly less likely to use cigarettes in the past month compared with lesbians.

Regardless of the specific epidemiology of alcohol and substance use among lesbians and gay men, it is important to consider the variety of illnesses (e.g., cancer; stroke) often associated with increased use of alcohol and other substances (Khalsa, Genser, Francis, & Martin, 2002; Rankow & Tessaro, 1998; Reid, Fiellin, & O'Connor, 1999; Thun, Henley, & Calle, 2002). The link between speedier progression of HIV disease and use of substances including alcohol and cigarettes, however, is inconsistent (DiFranco, Sheppard, Hunter, Tosteson, & Ascher, 1996; Page-Shafer, Delorenze, Satariano, Winkelstein, 1996; Penkower et al., 1995; Vittinghoff et al., 2001). Furthermore, although the findings regarding the relationship between alcohol and substance use with high-risk sexual behavior are inconsistent and complex, it is clear that higher levels of alcohol and substance use are associated with eventual HIV seroconversion among gay and bisexual men (Ostrow & Shelby, 2000; Stall & Purcell, 2000).

Explanations for why lesbians and gay men may have increased use or problems with alcohol and drugs compared with heterosexuals are varied. McKirnan and Peterson (1989b) suggested that lesbians and gay men may be less subject to expectations about role changes later in life (e.g., becoming parents) that restrict excessive drinking or drug use. In addition, lesbians and gay men may use alcohol or drugs to cope with stress. Oftentimes, this stress stems from being part of a socially stigmatized group (Meyer, 1995). Lesbians may have the added burden of sexism in addition to homophobia (Skinner & Otis, 1996). Overall, women in general may have less use and problems due to more societal disapproval and stigmatization of alcohol and drug use among women (Blume, 1986). However, the lesbian and gay culture may be more approving of alcohol and drugs in general and rely more heavily on bars for socialization (Hall, 1994; Kowszun & Malley, 1996).

Another frequently cited reason for the incidence of alcohol and drug problems among lesbians and gay men is the existence of internalized homophobia (Anderson & Henderson, 1985; Cabaj, 1989; Coleman, Rosser, & Strapko, 1992; Deevey & Wall, 1993; Finnegan & McNally, 1987; Glaus, 1988; Kowszun & Malley, 1996; Kus, 1988). Weinberg (1972) defined homophobia as both the fear felt by heterosexuals when in near proximity to homosexuals, and the self-loathing felt by homosexuals because of their homosexuality. The latter can be classified as internalized homophobia. In addition to internalized homophobia, other authors have put forth similar terms. Brown (1986) used the term inter-

nalized oppression to describe the process by which a member of an oppressed or stigmatized group will internalize all or part of the negative stereotypes and expectations held by their culture regarding that group. Neisen (1993) preferred the term shame due to heterosexism because it places the responsibility for its occurrence on a heterosexist society. Other related terms have included self-hatred (Aiken, 1976; Deevey & Wall, 1993; McNaught, 1988) and horizontal hostility (Rosabal, 1996). According to Meyer and Dean (1998), ego-dystonic homosexuality has also been used but sometimes misused by clinicians who advocate reversal of homosexual orientation. This term has been removed from the *Diagnostic and Statistical Manual of Mental Disorders* (American Psychiatric Association, 1994). The definition of internalized homophobia has also been broadened. Nungesser (1983) and Shidlo (1994) defined the components of internalized homophobia as attitudes toward one's own homosexuality, attitudes towards homosexuality in general, attitudes towards other's homosexuality, and reaction toward others knowing of one's own homosexuality. Moreover, Szymanski and Chung (2001) described the following components of the construct for lesbians: connection with the lesbian community, public identification as a lesbian, personal feelings about being a lesbian, moral and religious attitudes toward lesbianism, and attitudes toward other lesbians. Internalized homophobia has been positively correlated with such constructs as depression (Alexander, 1986; Szymanski, Chung, & Balsam, 2001) and overall psychological distress (Meyer & Dean), and negatively correlated with self-esteem (Shidlo; Szymanski & Chung).

The focus of the current study is the relationship between alcohol and substance use and internalized homophobia. This relationship has been theorized by numerous authors (e.g., Cabaj, 1989; Coleman, Rosser, & Strapko, 1992) but never been adequately investigated. In a study focusing on sexual behavior and intimacy, Meyer and Dean (1998) found that gay men with high HIV-risk sexual behavior reported more problems with drug use and higher levels of internalized homophobia than those with lower levels of risky sexual behavior. However, internalized homophobia was assessed using an un-validated nine-item instrument. In a small sample of 17 lesbians, the amount of alcohol consumed was positively related to internalized homophobia (DiPlacido, 1998). Kus (1988) interviewed 20 recovering alcoholic gay men at least one year after sobriety and found that 100% reported they had disabilities "accepting" themselves as gay while drinking abusively. Kus theorized that this lack of self-acceptance was the predominant cause of their drinking problems. However, McKirnan and Peterson (1989b) found that sub-

stance problems were not related to conflict due to sexual orientation measured by three face-valid questions. Clearly, further validation of the relationship between substance use and internalized homophobia is needed.

The following hypotheses were proposed for the current study: (1) Based on previous, albeit limited, research (previously cited) as well as the theoretical literature, it was hypothesized that there are positive correlations between internalized homophobia and alcohol, marijuana, and cigarette use and related problems, and (2) Although research is somewhat limited and inconsistent regarding differences between lesbians and gay men, it was hypothesized that there is no significant difference between lesbians and gay men regarding rates of alcohol, marijuana, and cigarette use and related problems.

METHOD

Participants

The anonymous survey developed for this study, as described in the measures section, was distributed via a booth by the primary researcher during both days of a gay pride festival in Atlanta, GA. Participants received a copy of an informed consent which included the voluntary nature of the survey, the name and contact information of the researcher's institutional review board, and the researcher's contact information to obtain results of the survey.

A total of 215 respondents returned the survey. Five surveys were unusable due to incompleteness, and three others were excluded because the respondents identified as exclusively heterosexual, resulting in 207 usable surveys. Of the 207 participants (102 women and 105 men), 81% identified as homosexual, 16% as bisexual, and 3% as unsure. On average, lesbian and gay-identified respondents indicated higher attraction to people of the same sex, rather than the opposite sex. This was also true of bisexuals, on average. However, bisexuals indicated higher attraction to people of the opposite sex than did lesbian and gay individuals. On a 5-point scale, lesbian and gay respondents' mean scores were higher than 4.72 on affective and physical attractions for the same sex and less than 1.55 on affective and physical attractions for the opposite sex. Comparatively, bisexual respondents' mean scores on same-sex attraction items were higher than 4.42 and between 2.79 and 3.83 for the opposite-sex attraction items.

Caucasians comprised 84% of the sample, African Americans 7%, Native Americans 3%, Hispanic 2%, biracial 2%, and other 4%. The age range of the sample was 18-62, with a mean age of 31.66, a median of 30, and a standard deviation of 9.39. Levels of education completed were 3% no high school, 8% high school, 28% some college, 24% 4-year college, 12% some graduate study, and 24% graduate/professional study. Household income included 17% under \$20,000, 45% \$20,000-\$49,999, 21% \$50,000-\$79,999, and 17% \$80,000 or more. The majority of the participants (94%) resided in Southeastern states. The remaining participants lived in the Northeast (1%), Midwest (2%), West (2%) or foreign countries (1%).

Measures

A demographic questionnaire was created to identify sex, age, income, education, ethnicity, state of residence, and sexual identity. Sexual orientation was assessed using a multidimensional assessment model measuring affectional preference and physical/sexual attraction for men and women (Chung & Katayama, 1996). This multidimensional model uses four items to assess the four dimensions rated by a 5-point Likert scale. Chung, Szymanski, and Amadio (2002) found affective and physical attractions to be moderately to highly correlated, and attraction to men and women to be relatively independent. Test-retest reliability and construct validity of the items were supported in their study.

Internalized homophobia in females was measured by the 52-item Lesbian Internalized Homophobia Scale (LIHS) developed by Szymanski and Chung (2001). Items are responded to using a 5-point Likert scale from strongly disagree to strongly agree. This instrument yields an overall score and subscales for connection with the lesbian community, public identification as a lesbian, personal feelings about being a lesbian, moral and religious attitudes toward lesbians, and general attitudes toward other lesbians. Szymanski and Chung found internal consistency reliability of the total scale to be .94, and established construct validity by obtaining moderate negative correlations with self-esteem and moderate positive correlations with loneliness. Additional internal consistency reliability of .93 for the total scale was found by Szymanski, Chung, and Balsam (2001). For the purpose of the current study, the average total LIHS score was used. The range of possible scores is 1 to 7. Higher scores indicate higher internalized homophobia.

Shidlo's (1994) Revised Nungesser Homosexuality Attitudes Inventory (NHAI-R) was used to measure internalized homophobia in men.

Items are responded to using a 5-point Likert scale from strongly disagree to strongly agree. This 36-item scale yields three subscales and a total score, and measures negative attitudes about one's own homosexuality (personal homonegativity), homosexuality in general and toward other gay individuals (global homonegativity), and reaction toward others knowing about one's homosexuality (disclosure). Shidlo obtained an internal consistency reliability of .90 for the total scale. In addition, he established construct validity by finding moderate negative correlations with self-esteem and moderate positive correlations with overall psychological distress. The average total scale was utilized in the current study. The range of possible scores is 1 to 5 for the total score. Higher scores indicate higher internalized homophobia.

A drug use survey, adapted from the Center for Disease Control's Youth Risk Behavior Surveillance (Kahn, Kinchen, Williams, Ross, Lowry, Hill et al., 1998) and the Monitoring the Future study (Bachman, Johnston, & O'Malley, 1996), was used to measure lifetime, monthly, and daily use of alcohol, and lifetime and monthly use of marijuana and cigarettes. Seven options were provided for indicating lifetime consumption (from never to more than 100 times), and six options were provided for indicating monthly consumption (from none to 20-31 days a month). Six options were provided for indicating total number of drinks consumed on the days when drinking alcohol (from none to 5 or more drinks). The instrument has been shown to be reliable in its use among adolescents (Brener, Collins, Kahn, Warren, & Williams, 1995). No validity data, or reliability for adults, are available for the instruments. Unfortunately, traditional validity tests are difficult for frequency measures of substances. For example, other measures of substance use (e.g., specimen samples, proxy reports) may provide only slightly more accurate estimations to compare with frequency measures (Biemer & Witt, 1997).

Problems associated with alcohol use were measured by the 35-item Self-Administered Alcoholism Screening Test, or SAAST (Swenson & Morse, 1975). The SAAST measures the physical, social, and psychological consequences of alcohol use. Respondents indicate yes or no to each question. Davis and Morse (1987) found 88% accuracy in classifying 583 alcoholic inpatients using this instrument. They also reported the internal consistency reliability to be .81. Scores range from 0 to 35, with higher scores indicating more problems with alcohol.

Problems associated with drugs were measured by the 28-item Drug Abuse Screening Test, or DAST (Skinner, 1982). The DAST measures the physical, social, and psychological consequences of drug use. Re-

spondents indicate yes or no to each question. Staley and El-Guebaly (1990) correctly identified 93% of substance abusers and 88% of non-abusers using the scale. Langevin and Lang (1990) found internal consistency reliability to be .90. Scores range from 0 to 28. Higher scores indicate more problems with drugs.

Three items on the SAAST and one item on the DAST were changed to be more appropriate for lesbians and gay men. For example, Item 12 on the DAST was changed from "Has drug abuse ever created problems between you and your spouse?" to "Has drug abuse ever created problems between you and your spouse or partner?"

Analyses

The first hypothesis was that higher internalized homophobia is related to higher substance use and related problems. Pearson correlations were utilized to identify these relationships. Because the measures for internalized homophobia are different for females and males, this analysis was done separately for men and women.

The second hypothesis was that no differences exist between lesbians and gay men regarding substance use and related problems. Chi-square analysis was utilized to determine any differences between lesbians and gay men in lifetime, monthly, and daily use of alcohol as well as lifetime and monthly use of marijuana and cigarettes.

RESULTS

Internalized Homophobia

The mean for females on the LIHS was 2.21 with a standard deviation of .73. The range was 1.02-5.29. Internal consistency reliability obtained was .93. The reliability findings are similar to those found by Szymanski and Chung (2001). Concern that collecting data on internalized homophobia at Pride events would fail to access lesbians and gay men with higher internalized homophobia, thus potentially limiting the variance needed to find statistical significance, resulted in some additional analysis. Szymanski and Chung sampled from academic listservs and friendship networks and asked these individuals to distribute additional surveys to their lesbian friends. However, the means of their sample and the current sample did not differ significantly ($t = -.8983$, $df = 302.99$, $p < .01$). Furthermore, an F test for the equality of variances was performed to de-

termine any differences regarding variances on the LIHS between the current study and Szymanski and Chung. There were no significant differences in variances for the LIHS ($F_{.01, 303, 100} = .8823, ns$). Therefore, collecting data on the construct at Pride events is at least as valid as more common methods.

The mean for males on the NHAI-R was 1.97, with a standard deviation of .55. The range was 1.06-3.56. Internal consistency reliability obtained was .90. No other comparative data are available for the instrument. Intercorrelations among hypothesized variables are displayed in Table 1.

Alcohol Use

Levels of alcohol use for the sample as a whole are displayed in Table 2. For females, internalized homophobia was significantly related to frequency of lifetime alcohol use ($r = -.360, p < .001$) but not to monthly or daily alcohol use. In other words, lower internalized homophobia was associated with higher lifetime use of alcohol. For males, internalized homophobia was not significantly related to lifetime, monthly, or daily alcohol use. There were no significant sex differences regarding lifetime use of alcohol ($X^2 = 9.927, df = 6, p < .128$), number of days alcohol was used within the last month ($X^2 = .805, df = 5, p < .977$), or amount of alcohol consumed on days when using alcohol ($X^2 = 4.048, df = 5, p < .542$).

Marijuana Use

Levels of marijuana and cigarette use are displayed in Table 3. For females, internalized homophobia was significantly related to lifetime ($r = -.303, p < .003$) and monthly ($r = -.263, p < .009$) use of marijuana. In other words, lower internalized homophobia was associated with higher lifetime and monthly marijuana use. For males, internalized homophobia was unrelated to lifetime or monthly use of marijuana. There were no significant sex differences regarding lifetime use of marijuana ($X^2 = 8.002, df = 6, p < .238$) or number of days marijuana was used within the last month ($X^2 = 3.937, df = 5, p < .559$).

Cigarette Use

For females, internalized homophobia was significantly related to lifetime cigarette use ($r = -.321, p < .001$) but not related to monthly use. In other words, lower internalized homophobia was associated with higher lifetime use of cigarettes. For males, internalized homophobia

TABLE 1. Intercorrelations Among Hypothesized Variables by Sex

Variable	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.
1. SAAST	--	.656***	.259**	-.047	-.188	.200*	.036	.356***	-.009	.033
2. DAST	.558***	--	.167	-.039	.067	.296**	.274**	.467***	.208*	.117
3. Alcohol Lifetme	.280**	.210*	--	.424***	.281**	.223*	.035	.367***	.162	-.180
4. Monthly	-.048	.102	.393***	--	.432***	.215*	.182	.271**	.281**	-.076
5. Daily	.195	.205*	.444***	.403***	--	.092	.167	.185	.296**	-.045
6. Cigarettes Lifetme	.395***	.420***	.409***	.207*	.335***	--	.569***	.620***	.300**	-.020
7. Monthly	.247*	.369***	.215*	.287**	.386***	.611***	--	.390***	.355***	.076
8. Marijuana Lifetme	.267**	.431***	.382***	.245*	.298**	.639***	.475***	--	.486***	-.057
9. Monthly	.150	.288**	.127	.163	.294**	.281**	.358***	.445***	--	.020
10. IH	.052	-.126	-.360***	-.046	-.190	-.321***	-.169	-.303**	-.263**	--

Note. N = 102 (females, in bold), 105 (males). SAAST = Self-Administered Alcoholism Screening Test; DAST = Drug Abuse Screening Test; IH = Internalized Homophobia (Lesbian Internalized Homophobia Scale, females; Revised [Shildo] Nungesser Homosexuality Attitudes Inventory, males).

* $p < .05$ ** $p < .01$ *** $p < .001$

TABLE 2. Use of Alcohol by Sex

	Females		Males		Total	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Alcohol Lifetime (# of times)						
0	2	2.0	4	3.9	6	3.0
1-20	5	5.0	12	11.7	17	8.4
21-100	24	24.2	17	16.5	41	20.3
100+	68	68.7	70	68.0	138	68.3
Alcohol Monthly (# of days)						
0	20	20.2	21	20.4	41	20.3
1-5	48	48.5	47	45.6	95	47.0
6-19	26	26.3	28	27.2	54	26.7
20-31	5	5.1	7	6.8	12	5.9
Alcohol Daily (# of drinks)						
0-<1	14	14.2	9	9.2	23	11.7
1-2	49	49.5	48	48.9	97	49.2
3-4	23	23.2	32	32.7	55	27.9
5+	13	13.1	9	9.2	22	11.2

Note. Percentages may not add up to 100 due to rounding error.

was not related to lifetime or monthly use of cigarettes. There were no significant sex differences regarding lifetime use of cigarettes ($X^2 = 4.617$, $df = 6$, $p < .594$) or number of days cigarettes were used within the last month ($X^2 = 4.514$, $df = 5$, $p < .478$).

Alcohol Problems

The combined (female/male) internal consistency reliability for the SAAST was .89. For females, the mean score on the SAAST was 5.99, with a range of 0 to 29 and standard deviation of 6.03. Davis, Hurt, Morse, and O'Brien (1987) found a mean of 2.69 for nonalcoholic medical patients and 15.87 for alcoholics. Swenson and Morse (1975) recommended a score of 6 or less as indicative of no alcoholism, 7-9 as strong possibility of alcoholism, and 10 or more as probable alcoholism. Using these guidelines, 24% of females in the current study had at least a strong possibility of alcoholism, and 17% probable alcoholism. The mean score for males on the SAAST was 5.11, with a range of 0 to 33 and a standard deviation of 5.03. Using a cutoff of 7-9 for strong possibility of alcoholism and 10 for probable alcoholism, 24.5% of males had

TABLE 3. Marijuana and Cigarette Use by Sex

	Females		Males		Total	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Marijuana Lifetime (# of times)						
0	23	23.2	26	25.7	49	24.5
1-20	35	35.4	46	45.5	81	40.5
21-100	16	16.2	11	10.9	27	13.5
100+	25	25.3	18	17.8	43	21.5
Marijuana Monthly (# of days)						
0	81	81.8	80	79.2	161	80.5
1-5	8	8.1	14	13.9	22	11.0
6-19	5	5.1	4	4.0	9	4.5
20-31	5	5.1	3	3.0	9	4.5
Cigarette Lifetime (# of times)						
0	16	16.2	24	23.1	40	19.7
1-20	27	27.3	30	28.8	57	28.1
21-100	6	6.1	7	6.7	13	6.4
100+	50	50.5	42	40.4	92	45.3
Cigarette Monthly (# of days)						
0	60	60.6	74	70.5	134	65.7
1-5	6	6.1	7	6.7	13	6.4
6-19	5	5.1	3	2.9	8	3.9
20-31	28	28.3	21.0	20.0	49	24.0

Note. Percentages may not add up to 100 due to rounding error.

at least a strong possibility of alcoholism and 11.9% had probable alcoholism. Internalized homophobia was not significantly related to alcohol problems in females or males. There was no significant sex difference on the SAAST ($t = -1.134$, $df = 203$, ns).

Substance Problems

The combined (female/male) internal consistency reliability for the DAST was .91. For females, the mean score on the DAST was 3.78, with a range of 0 to 24 and a standard deviation of 4.66. Skinner and Goldberg (1986) found a mean of 12.8 for narcotic users seeking treatment. Staley and ElGuebaly (1990) determined that using 8 as the minimum cutoff for substance abuse allowed correct identification of 93% of substance abusers and 88% of non-abusers. In the current study, 15%

of females met the criteria for substance abuse using these guidelines. The mean score for males on the DAST was 3.39, with a range of 0 to 28 and a standard deviation of 4.87. Using a cutoff of 8, 10.8% of males met the criteria for substance abuse in the current study. Internalized homophobia was not significantly related to substance problems in females or males. There was no significant sex difference on the DAST ($t = -.506$, $df = 201$, ns).

DISCUSSION

Results of this study are intriguing, considering the widely theorized association between internalized homophobia and substance use. For females, no relationship was found between internalized homophobia and problems associated with substance use. Furthermore, a negative correlation was found between internalized homophobia and alcohol, marijuana, and cigarette use over one's lifetime, as well as marijuana use over the last month. In other words, higher rates of internalized homophobia were related to lower rates of substance use in some circumstances. These results are contrary to our hypothesis. Lower internalized homophobia has been associated with a higher likelihood of belonging to a lesbian/gay/bisexual group in females (Szymanski, Chung, & Balsam, 2001). It is quite possible that more involvement in the lesbian community, as a result of lower internalized homophobia, contributes to higher rates of use of these substances, which are popular in the community. On the other hand, substance use and problems associated with use of substances were not related to internalized homophobia in males. It is difficult to ascertain whether the difference in findings between females and males in the current study is the result of true differences in the population or the result of our utilizing different instruments to measure internalized homophobia in females and males. Additionally, the current study was correlational in nature. There are certainly known variables (such as involvement in the lesbian and gay community) and unknown variables that might have impacted on the results of the study.

Another explanation for the findings related to internalized homophobia could be the inadequacy of the instruments utilized in the study. Validity and reliability of the alcohol and drug use questionnaire among adults is not available. However, levels of alcohol, marijuana, and cigarette use among our respondents were very similar to a study using two samples from metropolitan areas in the South (Skinner & Otis, 1996). Furthermore, it is possible that the amount of times an individual uses

alcohol over their lifetime is not necessarily indicative of troubling levels of alcohol use. For example, the highest category for lifetime alcohol use was 100+ times. It is reasonable to assume that an individual drinking moderately over a period of four or five years could easily be placed in this category. However, lifetime use of alcohol was significantly correlated with problems associated with alcohol use on the SAAST, whereas monthly or daily use was not. Limitations of both the SAAST and DAST were also observed. Although psychometric properties of these instruments are available and show reasonable reliability and validity, both instruments confound past problems with current problems. This was noted when numerous participants in the study remarked to the researcher that their problems with alcohol or drugs were in the past, but these instruments did not specify a time frame in which to respond. Thus, attempting to correlate present problems with substances and present internalized homophobia becomes problematic given this characteristic of the SAAST and DAST. Moreover, many instruments measuring alcohol and drug problems have been criticized for not measuring a wide range of problematic use (Miller, Tonigan, & Longabaugh, 1995). The SAAST and DAST tend to measure more severe, dependence-type forms of problems with alcohol and drugs. Additionally, measurement of internalized homophobia is still in its infancy. The instruments used in the current study might be affected by social desirability. For example, those who have a closer connection to the lesbian and gay community might recognize endorsement of many of the relatively face-valid items as not gay-affirming, whereas those with less connection might not have this recognition and respond more honestly. Measures of internalized homophobia have been criticized for not accessing the more insidious aspects of the construct (Szymanski & Chung, 2001). Perhaps adequate measurement of internalized homophobia still alludes us.

Another possible explanation for the findings related to internalized homophobia could be limitations in the sample. It is likely that events celebrating lesbian, gay, and bisexual pride would attract those with lower levels of internalized homophobia. Yet for women, levels of internalized homophobia are similar to those obtained by Szymanski and Chung (2001). However, it is possible that the current study failed to tap into individuals with concurrent higher internalized homophobia and higher substance use and problems associated with use. It is possible that individuals with these concurrent issues do not attend Pride events. Moreover, different findings might occur if individuals in clinical populations were sampled.

Our second hypothesis, that there is no significant difference between lesbians and gay men regarding rates of alcohol, marijuana, and cigarette use and related problems, was supported. Although the current sample did not contain a heterosexual comparison group, the lack of differences found between lesbians and gay men is troubling. Research consistently shows that males have higher substance use and substance problems compared with females. Moreover, similar research generally shows no differences between gay men and heterosexual men. Therefore, the results of our study likely show the significance of substance use and substance problems for lesbians.

The practical implications of the current study are difficult to discuss given the contradictory nature of the current results compared to past empirical findings and the theoretical literature. Typically, it is suggested that decreasing internalized homophobia would positively impact on recovery from alcohol and substance problems (Anderson & Henderson, 1985; Cabaj, 1996). However, the current study found no connection between internalized homophobia and problematic substance use. Future research on this topic could benefit from the utilization of instruments more sensitive to current, and a wider range of, problematic use of substances. Focusing on one substance (e.g., alcohol) might have allowed us to do so. The constraints of the study (e.g., convenience sample; location of the data collection at a festival) prevented us from assessing the use of and problems related to multiple substances with a lengthy survey. Therefore, our study might have been too ambitious in its scope. Furthermore, varied sampling procedures could produce a more diverse sample. Moreover, McClelland (1997) suggested that "oversampling" extreme cases can increase variance without markedly increasing sample size. Locating additional samples with high levels of current substance problems, for example, could help clarify the relationship between substance issues and internalized homophobia. Before this relationship is clarified, practical implications of the current findings seem premature.

REFERENCES

- Abbott, L. J. (1998). The use of alcohol by lesbians: A review and research agenda. *Substance Use and Misuse*, 33, 2647-2663.
- Aiken, B. A. (1976). The stroke economy and gay people. *Transactional Analysis Journal*, 6, 21-27.
- Alexander, R. A. (1986). *The relationship between internalized homophobia and depression and low self-esteem in gay men*. Unpublished doctoral dissertation, University of California at Santa Barbara, California.

- American Psychiatric Association (1994). *Diagnostic and statistical manual of mental disorders* (4th ed.). Washington, DC: Author.
- Anderson, S. C., & Henderson, D. C. (1985). Working with lesbian alcoholics. *Social Work, 30*, 518-525.
- Bachman, J. G., Johnston, L. D., & O'Malley, P. M. (1996). *Monitoring the Future: A continuing study of the lifestyles and values of youth, 1994* [Computer file]. Ann Arbor, MI: University of Michigan, Survey Research Center.
- Biemer, P.P., & Witt, M. (1997). Repeated measures estimation of measurement bias for self-reported drug use with applications to the National Household Survey on Drug Abuse. *NIDA Research Monograph, 176*, 439-476.
- Bloomfield, K. (1993). A comparison of alcohol consumption between lesbians and heterosexual women in an urban population. *Drug and Alcohol Dependence, 33*, 257-269.
- Blume, S. B. (1986). Women and alcohol: A review. *Journal of the American Medical Association, 256*, 1467-1470.
- Brady, K. T., & Randall, C. L. (1999). Gender differences in substance use disorders. *Addictive Disorders, 22*, 241-252.
- Brener, N. D., Collins, J. L., Kahn, L., Warren, C. W., & Williams, B. I. (1995). Reliability of the Youth Risk Behavior Survey Questionnaire. *American Journal of Epidemiology, 141*, 575-580.
- Brown, L. S. (1986). Confronting internalized oppression in sex therapy with lesbians. *Journal of Homosexuality, 12* (3/4), 99-107.
- Bux, D. A. (1996). The epidemiology of problem drinking in gay men and lesbians: A critical review. *Clinical Psychology Review, 16*, 277-298.
- Cabaj, R. P. (1989). AIDS and chemical dependency: Special issues and treatment barriers for gay and bisexual men. *Journal of Psychoactive Drugs, 21*, 387-393.
- Cabaj, R. P. (1996). Substance abuse in gay men, lesbians, and bisexuals. In R. P. Cabaj & T. S. Stein (Eds.), *Textbook of homosexuality and mental health* (pp. 783-799). Washington, DC: American Psychiatric Press.
- Cochran, S. D., & Mays, V. M. (2000). Relation between psychiatric syndromes and behaviorally defined sexual orientation in a sample of the U.S. population. *American Journal of Epidemiology, 151*, 517-523.
- Cochran, S. D., Mays, V. M., Bowen, D., Gage, S., Bybee, D., Roberts, S. J. et al. (2001). Cancer related risk indicators and preventive screening behaviors among lesbians and bisexual women. *American Journal of Public Health, 91*, 591-597.
- Coleman, E., Rosser, B. R., & Strapko, N. (1992). Sexual and intimacy dysfunction among homosexual men and women. *Psychiatric Medicine, 10*, 257-71.
- Chung, Y. B., & Katayama, M. (1996). Assessment of sexual orientation in lesbian/gay/bisexual studies. *Journal of Homosexuality, 30* (4), 49-62.
- Chung, Y. B., Szymanski, D. M., & Amadio, D. M. (2002, March). *Empirical Validation of a Multidimensional Model for Assessing Sexual Orientation*. Paper Presented at the American Counseling Association Annual Conference, New Orleans.
- Davis, L. J., Hurt, R., Morse, R. M., & O'Brien, P. (1987). Discriminant analysis of the self-administered alcoholism screening test. *Alcoholism and Clinical Experimental Research, 11*, 269-273.

- Davis, L. J., & Morse, R. M. (1987). Age and sex differences in the responses of alcoholics to the self-administered alcoholism screening test. *Journal of Clinical Psychology, 43*, 423-430.
- Deevey, S., & Wall, L. J. (1993). How do lesbian women develop serenity? In P. N. Stern (Ed.), *Lesbian health: What are the issues* (pp. 109-118). Washington, DC: Taylor & Francis.
- DiFranco, M. J., Sheppard, H. W., Hunter, D. J., Tosteson, T. D., & Ascher, M. S. (1996). The lack of association of marijuana and other recreational drugs with progression to AIDS in the San Francisco Men's Health Study. *Annals of Epidemiology, 6* (4), 283-289.
- DiPlacido, J. (1998). Minority stress among lesbians, gay men, and bisexuals: A consequence of heterosexism, homophobia, and stigmatization. In G. M. Herek (Ed.), *Stigma and sexual orientation: Understanding prejudice against lesbians, gay men, and bisexuals* (pp. 138-159). Thousand Oaks, CA: Sage.
- Fifield, L. H., Lathan, J. D., & Phillips, C. (1977). *Alcoholism in the gay community: The price of alienation, isolation, and oppression*. Los Angeles: Gay Community Services Center.
- Finnegan, D. G., & McNally, E. B. (1987). *Dual identities: Counseling chemically dependent gay men and lesbians*. Center City, MN: Hazelden.
- Glaus, K. O. (1988). Alcoholism, chemical dependency, and the lesbian client. *Women and Therapy, 8*, 131-144.
- Hall, J. M. (1994). The experiences of lesbians in alcoholics anonymous. *Western Journal of Nursing Research, 16*, 556-576.
- Heffernan, K. (1998). The nature and predictors of substance use among lesbians. *Addictive Behaviors, 23* (4), 517-528.
- Kahn, L., Kinchen, S. A., Williams, B. I., Ross, J. G., Lowry, R., Hill, C.V. et al. (1998). Youth risk behaviors surveillance—United States, 1997. *Morbidity and Mortality Weekly Report CDC Surveillance Summaries, 47* (3), 1-89.
- Khalsa, J. H., Genser, S., Francis, H., & Martin, B. (2002). Clinical consequences of marijuana. *Journal of Clinical Pharmacology, 42* (11), 7S-10S.
- Kowszun, G., & Malley, M. (1996). Alcohol and substance misuse. In D. Davies & C. Neal (Eds.), *Pink therapy: A guide for counsellors and therapists working with lesbian, gay, and bisexual clients*. Buckingham: Open University Press.
- Kus, R. (1988). Alcoholism and non-acceptance of gay self: The critical link. *Journal of Homosexuality, 15*, 25-41.
- Langevin, R., & Lang, R. A. (1990). Substance abuse among sex offenders. *Annals for Sex Research, 3*, 397-424.
- Lohrenz, L. J., Connelly, J. C., Coyne, L., & Spare, D. E. (1978). Alcohol problems in several midwestern homosexual communities. *Journal of Studies on Alcohol, 39*, 1959-1963.
- McClelland, G. H. (1997). Optimal design in psychological research. *Psychological Methods, 2*, 3-19.
- McKirnan, D. J., & Peterson, P. L. (1989a). Alcohol and drug use among homosexual men and women: Epidemiology and population characteristics. *Addictive Behaviors, 14*, 545-553.

- McKirnan, D. J., & Peterson, P. L. (1989b). Psychosocial and cultural factors in alcohol and drug abuse: An analysis of a homosexual community. *Addictive Behaviors, 14*, 555-563.
- McNaught, B. R. (1988). Overcoming self-hate in gays. In G. W. Albee, J. M. Joffe, & Dusenbury, L. A. (Eds.), *Prevention, powerlessness, and politics: Readings on social change*. Newbury Park, CA: Sage Publications.
- Meyer, I. H. (1995). Minority stress and mental health in gay men. *Journal of Health and Social Behavior, 36*, 38-56.
- Meyer, I. H., & Dean, L. (1998). Internalized homophobia, intimacy, & sexual behavior among gay and bisexual men. In G. M. Herek (Ed.), *Stigma and sexual orientation: Understanding prejudice against lesbians, gay men, and bisexuals* (pp. 160-186). Thousand Oaks, CA: Sage.
- Miller, W. R., Tonigan, J. S., & Longabaugh, R. (1995). *The drinker inventory of consequences (DrInC): An instrument for assessing adverse consequences of alcohol abuse test manual*. National Institute on Alcohol Abuse and Alcoholism Project Match Monograph Series Volume 4. Rockville, MD: U.S. Department of Health and Human Services.
- Mosbacher, D. (1993). Alcohol and other drug use in female medical students: A comparison of lesbians and heterosexuals. *Journal of Gay and Lesbian Psychotherapy, 2*, 37-48.
- Neisen, J. H. (1993). Healing from cultural victimization: Recovery from shame due to heterosexism. *Journal of Gay and Lesbian Psychotherapy, 2*, 49-63.
- Nungesser, L. G. (1983). *Homosexual acts, actors, and identities*. New York: Praeger.
- Ostrow, D. G., & Shelby, R. D. (2000). Psychoanalytic and behavioral approaches to drug-related sexual risk taking: A preliminary conceptual and clinical integration. In J. R. Guss & J. Drescher (Eds.), *Addictions in the gay and lesbian community* (pp. 123-139). New York: The Haworth Press, Inc.
- Page-Shafer, K., Delorenze, G. N., Satariano, W. A., & Winkelstein, W. (1996). Comorbidity and survival in HIV-infected men in the San Francisco Men's Health Survey. *Annals of Epidemiology, 6* (5), 420-430.
- Penkower, L., Dew, M. A., Kingsley, L., Zhou, S. Y., Lyketsos, C. G., Wesch, J. et al. (1995). Alcohol consumption as a cofactor in the progression of HIV infection and AIDS. *Alcohol, 12* (6), 547-552.
- Rankow, E. J., & Tessaro, I. (1998). Cervical cancer risk and Papanicolaou screening in a sample of lesbian and bisexual women. *The Journal of Family Practice, 47* (2), 139-143.
- Reid, M. C., Fiellin, D. A., & O'Connor, P. G. (1999). Hazardous and harmful alcohol consumption in primary care. *Archives of Internal Medicine, 159* (15), 1681-1689.
- Rosabal, G. S. (1996). Multicultural existence in the workplace: Including how I thrive as a lesbian feminist. In A. L. Ellis & E. D. B. Riggle (Eds.), *Sexual identity on the job: Issues and services* (pp. 17-28). New York: Harrington Park Press.
- Ryan, C. M., Huggins, J., & Beatty, R. (1999). Substance use disorders and the risk of HIV infection in gay men. *Journal of Studies on Alcohol, 60*, 70-77.
- Saghir, M. T., Robins, E., Walbran, B., & Gentry, K. (1970). Homosexuality: IV. Psychiatric disorders and disability in the female homosexual. *American Journal of Psychiatry, 127*, 147-154.

- Shidlo, A. (1994). Internalized homophobia: Conceptual and empirical issues in measurement. In B. Greene & G. M. Herek (Eds.), *Lesbian and gay psychology: Theory, research, and clinical application* (pp. 176-205). Thousand Oaks, CA: Sage.
- Skinner, H. A. (1982). The drug abuse screening test. *Addictive Behaviors*, 7, 363-371.
- Skinner, H. A., & Goldberg, A. E. (1986). Evidence for a drug dependence syndrome among narcotic users. *British Journal of Addiction*, 81, 479-484.
- Skinner, W. F., & Otis, M. D. (1996). Drug and alcohol use among lesbian and gay people in a southern U. S. sample: Epidemiological, comparative, and methodological findings from the trilogy project. *Journal of Homosexuality*, 30 (3), 59-91.
- Staley, D., & El-Guebaly, N. (1990). Psychometric properties of the drug abuse screening test in a psychiatric population. *Addictive Behaviors*, 15, 257-264.
- Stall, R. D., Greenwood, G. L., Acree, M., Paul, J., & Coates, T. J. (1999). Cigarette smoking among gay and bisexual men. *American Journal of Public Health*, 89, 1875-1878.
- Stall, R., & Purcell, D. W. (2000). Intertwining epidemics: A review of research on substance use among men who have sex with men and its connection to the AIDS epidemic. *AIDS and Behavior*, 4 (2), 181-192.
- Stall, R., & Wiley, J. (1988). A comparison of alcohol and drug use patterns of homosexual and heterosexual men: The San Francisco men's health study. *Drug and Alcohol Dependence*, 22, 63-73.
- Swenson, W., & Morse, R. (1975). The use of the self-administered alcoholism screening test (SAAST) in a medical center. *Mayo Clinic Proceedings*, 50, 204-208.
- Szymanski, D. M., & Chung, Y. B. (2001). The internalized homophobia scale for lesbians: A rational/theoretical approach. *Journal of Homosexuality*, 41 (2), 37-52.
- Szymanski, D. M., Chung, Y. B., & Balsam, K. F. (2001). Psychosocial correlates of internalized homophobia in lesbians. *Measurement and Evaluation in Counseling and Development*, 34, 27-38.
- Thun, M. J., Henley, S. J., & Calle, E. E. (2002). Tobacco use and cancer: An epidemiological perspective for geneticists. *Oncogene*, 21 (48), 7307-25.
- Valanis, B. G., Bowen, D. J., Bassford, T., Whitlock, E., Charney, P., & Carter, R. A. (2000). Sexual orientation and health: Comparisons in the Women's Health Initiative sample. *Archives of Family Medicine*, 9, 843-53.
- Vittinghoff, E., Hessol, N. A., Bacchetti, P., Fusaro, R. E., Holmberg, S. D., & Buchbinder, S. P. (2001). Cofactors of HIV disease progression in a cohort of homosexual and bisexual men. *Journal of Acquired Immune Deficiency Syndromes*, 27 (3), 308-314.
- Weinberg, G. (1972). *Society and the healthy homosexual*. Boston: Alyson.