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Substance abuse and mental health disparities: Comparisons across sexual identity groups in a national sample of young Australian women

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ABSTRACT

A growing body of research amply documents health disparities related to substance abuse among sexual minority women. However, relatively little research has examined risk factors or predictors of substance use in this population and even less has explored differences among sexual minority subgroups. Using data from 8850 women aged 25–30 years in the 2003 survey of the Australian Longitudinal Study on Women's Health Survey (ALSWH) we compared rates of substance use (alcohol, marijuana and other illicit drugs) and potential predictors (e.g., depression, anxiety, perceived stress, lower levels of social support) across four sexual identity groups—exclusively heterosexual, mainly heterosexual, bisexual and lesbian. Using statistical weighting of the sample and controlling for demographic characteristics we fitted logistic regression models to estimate adjusted odds ratios for substance use. Compared with exclusively heterosexual women sexual minority women reported significantly higher levels of substance use—but there was notable variation among the three sexual minority subgroups. Women who identified as mainly heterosexual were significantly more likely than exclusively heterosexual women to report at-risk drinking and those who identified as bisexual were more likely to report marijuana use. Mainly heterosexual and bisexual women were also more likely to report binge drinking. Findings implicate stress as an important predictor of substance use and emphasize the need for research that more systematically examines the relationships between minority stress and substance use in sexual minority women. Findings of variations in risk across sexual minority subgroups suggest prevention and intervention strategies aimed at reducing health disparities should be targeted toward specific sexual minority subgroups.

Research on sexual minority women's substance use has advanced over the past three decades, yet a number of gaps in the literature remain. Although there is widespread consensus that sexual minority women are at higher risk for alcohol abuse than their heterosexual counterparts (Drabble, Midanik, & Trocki, 2005; Gruskin, Hart, Gordon, & Ackerson, 2001; Hillier, DeVisser, Kavanaugh, & McNair, 2003; McCabe, Hughes, Bostwick, West, & Boyd, 2009; Wilsnack et al., 2008), less is known about sexual minority women's use of drugs other than alcohol. In addition, very little research has focused on explanations for health disparities related to substance use among sexual minorities.

Among the most common explanations for health disparities among sexual minorities are those related to social stress (Hatzenbuehler, 2009; Matthews, Hughes, Razzano, Johnson, & Cassidy, 2002; Meyer, 2003). Social stress theorists posit that social conditions are a cause of stress for members of disadvantaged social groups (Aneshensel, Rutter, & Lachenbruch, 1991). Depending on available coping resources—both internal (e.g., self-esteem) and external (e.g., social support)—such stress can lead to negative health consequences. Building on social stress theory, Meyer's (2003) minority stress framework shows how social stress related to stigma, prejudice and discrimination is linked to negative health outcomes among sexual minorities. For example, in a study of family reactions to sexual orientation and gender expression among Latino adolescents, Ryan, Huebner, Diaz, and Sanchez (2009) found that family rejection was significantly associated with poorer health outcomes including high rates of depression, attempted suicide and illicit drug use. Meyer, Dietrich, and Schwartz (2008) found that older lesbian, gay men, and bisexual women and men had higher rates of mood disorders than did their younger counterparts, a difference the authors attributed to higher levels of prejudice experienced by older generations of sexual minority women and men.

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Until relatively recently most research on sexual minority women's health has focused on lesbian women. However, research findings in the past decade or so have begun to show that health risks often vary across sexual minority subgroups. Bisexual women, in particular, have been found to be at especially high risk for substance use and other negative mental health outcomes (Bostwick, Boyd, Hughes, Cranford, & McCabe, 2010; Corliss, Rosario, Wypij, Fisher, & Austin, 2008; Jorm, Korten, Rodgers, Jacomb, & Christensen, 2002; McCabe et al., 2009; Wilsnack et al., 2008). Unfortunately, bisexual women are often combined with lesbians in studies of sexual minority women because of small sample sizes (Cochran et al., 2001; Gruskin et al., 2001; Mays, Yancey, Cochran, Weber, & Fielding, 2002), a practice that can obscure differences in risk within sexual minority groups. The view that bisexuality is a distinct identity, as opposed to a transitional phase between a heterosexual and a gay/lesbian identity (or vice versa), is relatively new (Diamond, 2003; Rust, 2009).

More recently, researchers have begun to describe another sexual minority subgroup—women who identify as 'mainly' or 'mostly' heterosexual (Austin, Conron, Patel, & Freedner, 2006; Thompson & Morgan, 2008). Several researchers have found that this group is also at substantially higher risk than women who identify as exclusively heterosexual for a range of health risks, including substance use (Austin, Conron, Patel, & Freedner, 2007; Corliss et al., 2008; Fergusson, Horwood, Ridder, & Beautrais, 2005; Wilsnack et al., 2008; Ziyadeh et al., 2007). Research exploring the meaning of various identity labels suggests that similar to bisexual identity, mainly heterosexual may be a distinct identity category for many sexual minority women (Austin et al., 2006; Thompson & Morgan, 2008). For example, in a study that used in-depth qualitative interviews to explore how participants interpreted the identity label "mostly heterosexual," Austin et al. (2006) found that adolescents and young adults who described themselves using this label believed that it reflected the relative balance of strength or frequency of their attraction to individuals of same-sex versus the opposite-sex. Thompson and Morgan (2008) used both quantitative and qualitative methods to examine the behavioural components and identity development experiences of female college students who identified as "mostly straight." On almost all behavioural variables mostly straight women fell between and were distinctly different from exclusively straight women and from lesbian and bisexual women. Mostly straight women were also distinctly different from exclusively straight women but similar to lesbians and bisexual women on several quantitative measures of identity.

Researchers have posited that bisexual women's heightened risk may be caused by isolation and marginalization from both heterosexual and lesbian and gay communities (Herek, 2002; Israel & Mohr, 2004; Jorm et al., 2002; Rust, 1993). Women who identify as mainly heterosexual may similarly feel less a part of a recognized and visible community, more isolated, and more stigmatized than exclusively heterosexual or lesbian women.

Given these findings it is important to examine and compare substance use and related risk factors across sexual identity subgroups rather than simply compare heterosexual and non-heterosexual women, or heterosexual, lesbian and bisexual women. Understanding which groups of sexual minority women are at greatest risk for negative health outcomes is essential to the development and effective targeting of health promotion and prevention programs, and ultimately to the amelioration of health disparities experienced by sexual minorities.

Therefore, consistent with previous research findings and theoretical perspectives on social stress, we hypothesized that sexual minority women will report higher rates of substance use, as well higher rates of predictors of substance use, than exclusively heterosexual women. We also hypothesized that substance use and its predictors will vary among sexual minority groups, with bisexual and mainly heterosexual women showing higher risk than lesbian women.

Using data collected as part of a large national study of women's health, the Australian Longitudinal Study on Women's Health (ALSWH), we compared rates and predictors of substance use (at-risk drinking, binge drinking, marijuana use, use of illicit drugs other than marijuana) in exclusively heterosexual, mainly heterosexual, bisexual and lesbian women.

Methods

Study participants

The sample includes participants from the youngest cohort in the ALSWH, a prospective study that began in 1996 with the goal of tracking the health of women in three age cohorts (aged 18–23, 45–50 and 70–75 at baseline) for at least 20 years. We chose to focus on the youngest cohort because it was the only age cohort in which both illicit drug use and sexual identity was assessed. The ALSWH research team randomly selected the sample from the database of Medicare Australia, the universal provider of basic health insurance (covering all citizens and permanent residents) with intentional oversampling of women living in rural and remote areas. The ALSWH team has surveyed the younger cohort ($N = 14{,}247$ at baseline) five times over 14 years (1996, 2000, 2003, 2006 and 2009) using self-completed mail questionnaires. We chose to analyse data from the third (2003) rather than the fourth (2006) or fifth (2009) surveys of the younger cohort because the question regarding sexual identity was not asked in the later surveys. The response rate for survey 1 was estimated at 40%–41%. Comparisons with demographic data from the Australian Census indicated that the young women were reasonably representative of the female population in this age group, except for some over-representation of women who were married or in de facto relationships, and women with tertiary education (Brown et al., 1998). Despite intensive efforts to track and locate respondents, only 68% of the original younger sample completed the wave 2 survey and 64% completed the wave 3 survey. As noted by Lee et al. (2005), the younger cohort had high levels of mobility, including extended trips outside Australia, and many did not have telephone listings or voter's registration. Detailed information about study recruitment, response rates and other aspects of the research design and methods has been reported elsewhere (Brown et al., 1998; Lee et al., 2005). We excluded women who indicated that they were unsure of their sexual orientation, did not want to answer the question or did not respond to the question. Thus, our analyses focus on responses from 8850 women surveyed in 2003 who identified as exclusively heterosexual, mainly heterosexual, bisexual, mainly lesbian or exclusively lesbian. The current study was reviewed and approved by the University of Illinois Institutional Review Board.

Measures

Substance use outcomes

Alcohol use. Women were asked how often they usually drank alcohol (never, less than 1 day/week, 1–2 days/week, 3–4 days/week, every day), and how many drinks they usually had on the days when they drank alcohol (1–2 drinks/day, 3–4/day, 5–8/day or 9 or more/day). Frequency and quantity responses were combined and women were categorized according to their level of risk associated with alcohol use. Those who did not drink or who drank rarely were classified as no risk. Women who consumed fewer than 15 standard drinks per week were classified as low risk, and those who consumed