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The association of sexual orientation with self-rated health, and cigarette and alcohol use in Mexican adolescents and youths

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ABSTRACT

Evidence of health inequities associated with sexual orientation has been gathered for industrialized countries. The situation for lesbians, gay males, and bisexuals (LGB) from middle- or low-income countries may be worse than those in industrialized nations. Here, we analyze the relationship of sexual orientation with self-rated health and cigarette and alcohol use among a representative sample of Mexican adolescents and youths between the ages of 12 and 29 years, in order to explore whether this association is mediated by discrimination and violence. Three dimensions of sexual orientation (affective attraction, sexual behavior, and identity) were assessed. The outcomes were self-rated health and cigarette and alcohol use. Compared to heterosexuals, LGB youths more frequently smoked ≥6 cigarettes per day, reported having experienced family violence, having crimes perpetrated against them, and having experienced violations of their rights. Among males, gays and bisexuals exhibited a higher risk of poor health than heterosexuals. Compared to heterosexual women, lesbians and bisexual women were more likely to consume alcohol. Many differences in self-rated health and substance use according to sexual orientation were explained by having experienced discrimination and violence. We concluded that lesbian and bisexual females have a higher prevalence of cigarette and alcohol use. It is necessary to develop policies and programs aimed at the reduction of substance abuse among LGB youths (focusing on females who engage in sexual contact with persons of the same gender) and to work against discrimination and violence experienced by LGB people, particularly against non-heterosexual males.

Introduction

Several reports indicate higher rates of alcohol and cigarette use among lesbians, gay males, and bisexuals (LGB) than among their heterosexual counterparts. An explanation for this difference lies in the experiences of prejudice, discrimination, and violence faced by LGB youths which could, lead to stress responses. For example, the rates of physical violence and sexual harassment among LGB youths in Mexico City were 16% and 23% (Ortiz-Hernández, 2006), respectively, whereas the rates among the general population were 7.4% and 5.4% (Medina-Mora et al., 2005). Furthermore, 58% of these LGB youths also reported experiencing verbal abuse.

This violence could yield injury or psychological reactions that manifest as posttraumatic stress disorder. In addition, the violence and discrimination can reaffirm internalized homophobia because LGB youths may blame themselves for the violence they experienced, interpreting it as punishment for their socially unacceptable behavior (Garnets, Herek, & Levy, 1992). Use and abuse of substances could be a (maladaptive) way of coping with the social stress generated by homophobia-related stigma and prejudice because drugs can alleviate emotional distress and enhance one's mood (Sinha, 2001). Social stress can trigger neural and endocrine responses that include chronic activation of the hypothalamic–pituitary–adrenal axis, producing elevated levels of the glucocorticoids associated with symptoms of depression (McEwen, 1998).

In industrialized countries, differences in cigarette and alcohol use among adults of different sexual orientations have been analyzed (Bloomfield, 1993; Burgard, Cochran, & Mays, 2005; Cochran, Keenan, Schober, & Mays, 2000; Cochran & Mays, 2000; Diamant, Wold, Spritzer, & Gelberg, 2000; Drabble, Midanik, & Trocki, 2005; Eisenberg & Wechsler, 2003; Gilman et al., 2001; Gruskin & Gordon, 2006; Gruskin, Hart, Gordon, & Ackerson, 2001; Jorm, Korten, Rodgers, Jacomb, & Christensen, 2002; Mays & Cochran, 2001; Sandfort, Bakker, Schellevis, & Vanwesenbeeck, 2006; Tang et al., 2004; Valanis et al., 2000). To a lesser extent these same data have been gathered in reference to adolescents and

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youths in industrialized nations (Durant, Krowchuk, & Sinal, 1998; Faulkner & Cranston, 1998; Garofalo, Wolf, Kessel, Palfrey, & Durant, 1998; McCabe, Hughes, Bostwick, & Boyd, 2005; Robin et al., 2002; Russell, Driscoll, & Truong, 2002; Ziyadeh et al., 2007). In most of these studies, representative samples of states or countries, including sexual orientation indicators, have been analyzed (Ryan, Wortley, Easton, Pederson, & Greenwood, 2001). This method of data collection overcomes the limitations imposed by the use of convenience samples drawn from the gay community.

In addition to there being limitations to several of these studies, they fail to sufficiently explore some aspects of the relationship between sexual orientation and health. In some studies (Faulkner & Cranston, 1998; Garofalo et al., 1998), gay and bisexual males (GBM) and lesbians and bisexual females (LBF) were included as a single group. Others showed that the relationship between sexual orientation and substance use is stronger in females than in males (Cochran et al., 2000; Cochran & Mays, 2000; Drabble et al., 2005; Eisenberg & Wechsler, 2003; Ford & Jasinski, 2006; Gilman et al., 2001; Gruskin & Gordon, 2006; Mays & Cochran, 2001; Russell et al., 2002). Some studies did not consider gender differences due to their small sample size or because the data solely concerned females (Bloomfield, 1993; Burgard et al., 2005; Diamant et al., 2000; Gruskin et al., 2001; Valanis et al., 2000) or males (Durant et al., 1998).

Other studies focused on high school students (Durant et al., 1998; Faulkner & Cranston, 1998; Garofalo et al., 1998; Robin et al., 2002) or postsecondary students (Eisenberg & Wechsler, 2003; Ford & Jasinski, 2006; McCabe et al., 2005), altogether excluding those not registered in educational institutions. This may imply selection bias, as dropping out of school is higher among LGBs because they encounter problems in educational settings more frequently than do heterosexual youth (Russell, Seif, & Truong, 2001). This could result in the underestimation of differences in substance use according to sexual orientation because LGB school dropouts may encounter prejudice more frequently, making them at higher risk for substance abuse. In other studies, samples from cities or states have been examined (Bloomfield, 1993; Burgard et al., 2005; Diamant et al., 2000; Durant et al., 1998; Faulkner & Cranston, 1998; Garofalo et al., 1998; Gruskin et al., 2001; Gruskin & Gordon, 2006; Jorm et al., 2002; Lock & Steiner, 1999; Robin et al., 2002; Tang et al., 2004) without considering regional differences or town size (e.g., rural vs. urban), therefore their findings are not suitable for generalization on the country level. Some of these studies were carried out in cities or states where there are visible gay communities (e.g., California) or institutional arrangements that promote LGB rights (e.g., Vermont), and these situations could reduce differences among individuals with different sexual orientations. However, these situations are uncommon in most places.

Another drawback is that the majority of studies only included one sexual orientation indicator: identity (i.e., the group to which individuals considered themselves to belong) (Diamant et al., 2000; Garofalo et al., 1998; Gruskin et al., 2001; Gruskin & Gordon, 2006; Jorm et al., 2002; Lock & Steiner, 1999; Mays & Cochran, 2001; Robin et al., 2002; Sandfort et al., 2006; Tang et al., 2004; Ziyadeh et al., 2007) or sexual behavior (i.e., indicated by the gender of the sexual partner) (Burgard et al., 2005; Cochran et al., 2000; Cochran & Mays, 2000; Durant et al., 1998; Eisenberg & Wechsler, 2003; Faulkner & Cranston, 1998; Ford & Jasinski, 2006; Gilman et al., 2001; Valanis et al., 2000). In a few studies, two or more sexual orientation indicators (Drabble et al., 2005; McCabe et al., 2005) or an indicator of affective attraction (McCabe et al., 2005; Russell et al., 2002) were evaluated. Sexual orientation included at least the following two dimensions: the psychological component (including aspects such as erotic attraction, sexual fantasies, affections, and identity) and the behavioral component (which could encompass all forms of sexual encounters) (Sell, 1997). It is important to assess the various facets of sexual orientation because they may be associated differently with health problems.

Due to socioeconomic and cultural differences, negative attitudes toward homosexuality are likely to be more frequent in middle- and low-income countries than in industrialized ones. Therefore, it is foreseeable that health disparities associated with sexual orientation are greater among the former set of nations. In industrialized countries, the proportion of persons who think that homosexuality is never a justifiable behavior is lower than in Latin American nations. Whereas in The Netherlands the rate stands at 7.0%, in Sweden it is 8.4%, in Canada it is 25.3%, and in the U.S. it is 31%. On the other hand, in Chile it is 35.1%, in Mexico it is 48.3%, in Peru it is 55.8%, and in Venezuela it is 61.1% (World Values Survey, 2007). These attitudes correspond to institutional arrangements supporting LGB rights: while same-sex marriage is legal in The Netherlands, Canada, Belgium, Switzerland, England, and the state of Massachusetts in the U.S., few Latin American countries (e.g., Brazil, México and Argentina) have registered same-sex partnerships, and even these do not have rights equal to those of heterosexual couples. In Uruguay and Costa Rica, same-sex couples have the right to health benefits only (IGLHRC, 2007).

The World Health Organization (WHO) defined adolescents as persons aged 10–19 years old, while the term youth refers to individuals between the ages of 10 and 24 years (WHO, 2005). In Mexico, government policy defines youths as inhabitants between 12 and 29 years of age (IMJ & SEP, 2006). In 2005, 32.7% of Mexicans were youths (INEGI, 2005).

In México, there is little information concerning the proportion of individuals with homoerotic desires, and the actual data refer to males only. In Mexico City, 2.1% of adult males reported bisexual behavior during their lifetime and 0.4% reported only male sexual partners (Izazola-Licea, Gortmaker, Tolbert, de Gruttola, & Mann, 2000). A proportion of the subjects maintained same-gender sexual behavior but do not assume a homosexual identity. Among the Mexico City males who were married or living in a consensual heterosexual relationship, 2% reported same-gender sexual behavior at least once in their lifetime (Izazola-Licea et al., 2000).

The rate of alcoholism in a convenience sample of LBFs was higher than the reported data for women in the general population (Ortiz-Hernández & García Torres, 2005); however, there was not a reference group of heterosexual women. To our knowledge, there is no data for cigarette consumption among Mexican LGBs. For these reasons, our objectives were to analyze the relationship between sexual orientation, self-rated health, and cigarette and alcohol use among Mexican youths; to examine whether this association is modified by gender; and to explore the role of discrimination and violence as mediators of such relationships.

Materials and methods

We analyzed the 2005 National Youth Survey (NYS) database (IMJ & SEP, 2006). For sampling, Mexico was divided in five regions and five strata were defined according to town size. In each region, census tracts were selected with size-proportional probability and distributed among the states and strata. In each census tract, a random four-block sample was selected, three households were randomly chosen within each block, and one subject aged 12–29 years was chosen for each household. If there were two or more eligible respondents, the individual whose birthday was closer to the date of the interview was chosen as a study subject. The populations of three cities, eight states, and one county with the highest amount of inhabitants and where the local authorities contributed for field work were over-sampled. At the end of the field work,