Cigarette smoking is one of the leading preventable causes of morbidity and mortality worldwide (Baker, Brandon & Chassin, 2004). Cigarette smoking, the most common form of tobacco use, has been shown to cause a variety of medical conditions, including cardiac disease, pulmonary disease, vascular disease, and a range of cancers. In addition, habitual cigarette smoking,
from psychological and mental health perspectives, is a particularly common, high base-rate substance use disorder. Nicotine, the chemical substance underlying tobacco dependence, produces all the markers of addictive drugs. These include: [1] tolerance, the decrease in drug effects after repeated use; [2] withdrawal, the physical symptoms produced by the discontinuation of the drug including dysphoria, anxiety, inability to concentrate, weight gain, and sleep disruption; and [3] continued use despite knowledge of its harmful effects and despite efforts to quit.

Because of its role in physical and mental health, cigarette smoking is considered a critical global health issue. In the Philippines, the impact of cigarette smoking on health has been recognized in state policies like the Tobacco Regulation Act of 2003 (RA 9211) which aims to promote Filipino public health by restricting smoking in public spaces, regulating tobacco promotion and advertising, and requiring labels on all tobacco products such as the well-known “Government warning: Cigarette smoking is dangerous to your health.” Despite such policies (which have not gone uncriticized; see Alechnowicz & Chapman, 2004), cigarette consumption in the Philippines is linked to levels of poverty, with research commissioned by the World Health Organization (Baquilod et al., 2008) showing that for poor Filipinos, tobacco expenditures (comprising 2.5% of monthly household expenses) exceed their spending on clothing (2.3%), education (1.4%), and ironically, health care (0.9%).

Cigarette Smoking Among Filipino Youth

Initiation to tobacco has been found to commonly begin in adolescence and young adulthood, when individuals have heightened vulnerability to nicotine’s dependence potential (Baker, Brandon, & Chassin, 2004). This points to the importance of reliable information regarding the prevalence of cigarette smoking among young people.

Population-based findings about cigarette smoking among young Filipinos are available in the third Young Adult Fertility and Sexuality Survey (Cruz & Berja, 2004; Cabigon, 2004; Virina, 2010). Results from this nationally representative study of Filipinos ages 15 to 24 years old indicate that 47% of Filipino youth have tried smoking. About one in five young Filipinos (21%) self-identified as being a current smoker at the time of the study.

Differentials in cigarette smoking behavior have also been

Among the most salient findings were disparities in terms of gender, age, marital status, schooling status, education, and work status. Cigarette smoking among Filipino youth is a highly gendered behavior, with 64% of men having tried smoking, compared to only 30% of women. Similarly, one out of three young Filipino men (37%) currently smokes, a much higher proportion than among women, only 6% of whom are current smokers. These findings show that the most striking disparity in cigarette smoking among Filipino youth is structured along gender—that for every young Filipina smoker, there are six young Filipino men currently smoking with her.

Disaggregating along the remaining status variables yielded other notable, but smaller, disparities. Older respondents, those from 20 to 24 years, were more likely to be current smokers (27%) than respondents still in their teens (17%). Smoking was also disproportionately lower among those who are married (only 16% currently smoking), and among those still in school at the time of the survey (only 14% currently smoking). Finally, Filipino youth with only elementary-level education attainment or lower, and those currently working had disproportionately higher prevalence rates of cigarette smoking (both 33% and 33%). (For a more extensive discussion of these associations at the national level, see the original YAFS reporting; Cruz & Berja, 2004).

A Lesbian, Gay, Bisexual, and Transgender Health Lens

The examination of gender disparities in health, typically by demonstrating significant statistical differences between women and men in terms of prevalence of health risk outcomes, is an important development in social and public health research (Bird & Rieker, 1999). However, an exclusive emphasis on gender differences fails to consider the interplay of gender with other status variables, implicitly framing women and men as distinct, homogeneous categories of individuals who engage in uniformly distinct behaviors and are at uniformly distinct levels of risk. That is, when evidence for gender
differences in health behaviors is found (as in the case of cigarette smoking), variations within groups come to mind less easily and it is tempting to think that men simply just smoke more than women. The analysis of intersectionality—the notion that statuses, identities, and category memberships are multiple and intersect to form relations and outcomes beyond their univariate origins (McCall, 2005)—challenges these conclusions by sensitizing researchers to questions such as who is included in this category of “women” and in this category of “men”? (Cole, 2009).

An important but traditionally overlooked variable in health social research is sexual orientation (Institute of Medicine, 2011; Mayer, et al., 2008; Meyer, 2001). Gender disparities in health are increasingly well known; however, it was only at the beginning of the century that the intersections of gender and sexual orientation were being analyzed in order to examine the issues, dynamics, and politics of lesbian, gay, bisexual, and transgender (LGBT) public health (Boehmer, 2002). This growing body of research has begun to provide empirical evidence that though LGBT populations worldwide are diverse in terms of gender, age, class, ethnicity, religion, and nationality, there are significant patterns of disparities in LGBT health outcomes vis-à-vis the general population (Institute of Medicine, 2011; Mayer et al., 2008). This has been shown in health outcomes such as breast cancer among lesbians, HIV infection among gay and bisexual men, and infectious diseases in general (Dean et al., 2004), mood affective disorders among lesbian and gay adults (Meyer, 2003), depression among same-sex attracted Hong Kong Chinese youth (Lam et al., 2004), substance abuse among bisexually attracted adolescents in the US (Russell, Driscoll, & Truong, 2002), alcohol use among Thai women who have sex with other women (German et al., 2008), and suicide risk among young adult lesbian, gay, and bisexual Filipinos (Manalastas, 2008, 2009).

**Smoking Among Lesbian, Gay, and Bisexual Populations**

One stream of research in LGBT health has focused on the disparities in tobacco use among lesbian, gay, and bisexual populations, relative to the general population. There is now growing empirical evidence, at least in the West, that sexual-minority (i.e., lesbian, gay, and bisexual) populations have significantly higher smoking rates than heterosexual counterparts. Although initial studies were limited by the use of non-representative samples, usually focusing on urban gay
men (e.g., Stall et al., 1999), recent work has utilized more rigorous methods, including multiple measures of sexual orientation and tobacco use, population-based sampling techniques that include and allow for comparison among gay, lesbian, bisexual, and heterosexual respondents (Tang et al., 2004; Gruskin & Gordon, 2006; Gruskin et al., 2007), and most importantly, meta-analysis (Ryan et al., 2001; Marshal et al., 2008; Lee, Griffin, & Melvin, 2009). The overall robust finding across all these studies is that lesbian, gay, and bisexual adults and adolescents are indeed at higher risk for cigarette smoking, compared to the general population (Sell & Dunn, 2008).

Although research on smoking among transgender populations is still lacking (Dean et al., 2004; Grossman & D’Augelli, 2006), the current findings on LGB tobacco use and other disparities in LGBT well-being sensitize us to health concerns of sexual and gender minorities, as well as the subsequent implications for intervention and public health promotion beyond simplistic comparisons between men and women. Methodologically, investigation of LGB health disparities vis-à-vis general populations requires research designs that incorporate between-groups comparisons (i.e., LGB individuals versus non-LGB counterparts in the general population). In addition, despite the overall disparity in smoking as a health risk behavior found in the global LGB health literature, the diversity within LGB populations should not be glossed over either, lest LGB populations become essentialized as a homogenous set of “victims” defined primarily or solely by their sexual orientation, without taking into account intersections with gender, age, class, and other variables. Methodologically, this requires collecting data from samples large enough to permit within-group comparisons (Mayer et al., 2008).

In this paper, I re-analyze nationally representative data in order to determine any disparities in cigarette smoking among young adult LGB Filipinos as well as possible correlates of such health risk behaviors, using both between-groups and within-groups analyses.

Problem

The goals of this study are twofold: [1] to determine the prevalence of tobacco use in the form of cigarette smoking among Filipino lesbian, gay, and bisexual young adults using available nationally representative data, and [2] to examine any disparities in cigarette smoking among sexual minority Filipino youth versus the general population. In addition, I explore possible correlates of cigarette smoking among the LGB Filipino
young adult population available in the dataset.

**METHOD**

**Dataset**

The Young Adult Fertility and Sexuality Study (YAFS3) is a nationally representative interview-based survey of $N = 16,963$ Filipino young adults (8,041 men and 8,922 women) ages 15 to 24 years old conducted by the University of the Philippines Population Institute in 2002. This dataset remains the most comprehensive source of information on Filipino young adults that combines measures of sexual minority status and indicators of health behaviors, including those related to sexual and physical health, based on a national sample.

**Measures**

**Sexual Orientation.** Status as lesbian, gay, bisexual, or heterosexual was assessed in three ways in the survey: [1] same-sex attraction, [2] same-sex sexual behavior, and [3] same-sex romantic relationships. No self-identification items (i.e., asking respondents if they considered themselves to be “gay,” “heterosexual,” or whatever sexual identity label) were available in the data. Because of extremely low affirmative responses for same-sex romantic relationships item for both women (2%) and men (2%), for the sexual behavior item for women (<1%), and for the attraction item for men (4%), sexual minority status was operationalized using the attraction item for female respondents and the sexual behavior item for male respondents. Specifically, the attraction item asked respondents “With which sex did you ever have a crush on?” with response options “exclusively opposite sex,” “exclusively same sex,” or “both sexes.” In order to achieve statistical power, female respondents who answered the second and third options were combined and classified as sexual minority respondents, i.e., lesbian/bisexual. On the other hand, the sexual behavior item asked male respondents who were sexually active “Was any of your sexual contact with another man?” Men who answered yes were classified as sexual minority men, i.e., gay/bisexual. In the final analytic samples, 998 women reported same-sex attractions and were classified as lesbian/bisexual (12% of the Filipina women), while 359 men reported same-sex sexual behavior and were classified as gay/
bisexual (15% of the Filipino men).

*Cigarette smoking.* Three measures related to cigarette smoking were examined. The first item asked respondents if they had ever tried smoking cigarettes (yes or no). A second, follow up item probed into self-reported status as a smoker by asking “Are you currently smoking cigarettes regularly?” (yes regularly, yes sometimes, and no). The third measure asked current smokers to estimate how many sticks on average they consumed in a day. In addition, one item asked respondents who were currently or formerly smoking at what age they first tried cigarettes, to provide information on the developmental onset of this health risk behavior.

*Demographic variables.* Other background variables included in this analysis include age (a continuous variable, measured in years), student status (if respondent’s main activity in the past three months was studying), and marital status (married or single).

*Other factors.* In addition to sociodemographic variables, I explored the possible impact of risk factors that may serve as drivers of substance use behaviors such as cigarette smoking, as outlined in the minority stress model (Meyer, 2003). According to this framework, minority groups such as LGBT youth and adults experience two classes of stress that impact on their health and well-being: minority stress (e.g., from lived experiences of stigma and discrimination) and from normative stressors (i.e., factors that are not specific to the minority group but may be experienced by all individuals, such as major life events, hassles, conflict, etc.). Stressful experiences such as being bullied or harassed for one’s sexual orientation are hypothesized to be linked to risk behaviors such as cigarette smoking, which may serve as a means of mitigating stress, a way to bond and seek social support and acceptance in light of social marginalization (Remafedi, 2007). Thus in this analysis, I looked into three stress-related predictors of smoking: [1] feeling unsafe in the past three months, [2] experiences of being threatened in the past three months, and [3] experiences of violence (i.e., physically assaulted by someone) in the past three months.

**ANALYSIS**

Descriptive and cross-tabulation analyses were conducted in order
to test the hypothesis of differences in cigarette smoking in Filipino LGB versus heterosexual populations. Between-groups comparisons were gender-disaggregated (i.e., lesbian/bisexual women were compared to heterosexual women, gay/bisexual men to heterosexual men) following canonical practice in LGBT health research (Institute of Medicine, 2011). Separate logistic regression models to determine odds ratios (ORs and 95% confidence intervals), with ever-smoking and current smoking as binary outcome variables, were ran to examine differences in cigarette smoking among lesbian/bisexual women versus heterosexual women, after controlling for possible confounding demographic variables. Similar regression models were constructed for the gay/bisexual versus heterosexual men. In addition, I explored possible correlates of ever-smoking and current smoking among sexual-minority youth in gender-disaggregated logistic regressions, using a within-groups design (i.e., excluding non-LGB respondents and focusing only on the lesbian/bisexual female and gay/bisexual male subsamples). For all logistic regression analyses, Wald χ² tests were used to determine statistical significance of predictors.

RESULTS

Cigarette Smoking Prevalence

Lesbian, gay, and bisexual Filipino youth had significantly higher cigarette smoking prevalence than their heterosexual counterparts (see Figure 1). More than a third of lesbian and bisexual Filipinas had tried smoking (36%), significantly higher than heterosexual women who had a rate of ever-smoking of 27%, χ² = 37.5 (df = 1), p < .001, φ = .06. Gay and bisexual Filipino men had an ever-smoking prevalence rate of 88%, not significantly higher than heterosexual counterparts (86%).

Among those who had tried smoking, a quarter of lesbian and bisexual women were current smokers (24%), disproportionately higher compared to 17% of heterosexual women who self-identified as current smokers, χ² = 11.2 (df = 1), p < .001, φ = .07. In contrast, both gay/bisexual and heterosexual men had similar, high rates of current smoking, 71% versus 69%, respectively (see Figure 2).
Figure 1. Rates of ever-tried smoking among Filipino young lesbian, gay, and bisexual women and men versus heterosexual counterparts.

Figure 2. Rates of current smoking among Filipino young lesbian, gay, and bisexual women and men versus heterosexual counterparts.
Currently smoking lesbian and bisexual women also reported consuming more sticks per day \((M = 5.2 \text{ sticks}, 95\% \text{ CI} = 3.5-6.9)\) than heterosexual women \((M = 3.9 \text{ sticks}, 95\% \text{ CI} = 3.4-4.5)\). Men who were current smokers reported even higher numbers of sticks consumed, whether they were gay/bisexual \((M = 7.8 \text{ sticks}, 95\% \text{ CI} = 6.9-8.8)\) or heterosexual \((M = 7.6, 95\% \text{ CI} = 7.3-8.0)\).

Finally in terms of age of first trying smoking, lesbian and bisexual women did not differ significantly compared to heterosexual counterparts. Lesbian and bisexual women reported beginning smoking at a mean age of 16.2 years \((95\% \text{ CI} = 15.9-16.6)\), while heterosexual women first tried smoking at a mean age of 16.5 years \((95\% \text{ CI} = 16.4-16.7)\). In contrast, gay and bisexual men had their first cigarette at mean age of 15.8 \((95\% \text{ CI} = 15.5-16.1)\), slightly earlier than heterosexual men, who reported having theirs at mean age of 16.2 \((95\% \text{ CI} = 16.1-16.3)\).

The disparities in cigarette smoking based on a sexual orientation x gender intersection were confirmed by logistic regression analysis. After controlling for age, marital status, and student status, being lesbian/bisexual was associated with higher likelihood of ever-trying to smoke \((OR = 1.61, 95\% \text{ CI} = 1.40-1.86)\). That is, Filipina youth who reported same-sex attractions had 61% higher odds of having tried smoking. Lesbian and bisexual women were also more likely to be current smokers than heterosexual counterparts who had also tried smoking \((OR = 1.61, 95\% \text{ CI} = 1.23-2.11)\), even after controlling for background variables.

**Correlates of Smoking Among LGB Youth**

I explored a number of correlates of cigarette smoking among lesbian, gay, and bisexual youth by running further regression analyses using only the lesbian/bisexual female and the gay/bisexual subsamples and excluding non-LGB respondents. Predictors included were: age, student status, marital status, feelings of being unsafe, experiences of threat, and experiences of violence.

Logistic regression indicated that increasing age \((OR = 1.17, 95\% \text{ CI} = 1.05-1.32)\) and experiences of violence \((OR = 1.66, 95\% \text{ CI} = 1.15-2.39)\) were significantly associated with having tried cigarette smoking among lesbian and bisexual Filipina youth. Likewise, being older \((OR = 1.17, 95\% \text{ CI} = 1.05-1.32)\) and having experienced violence \((OR = 2.21, 95\% \text{ CI} = 1.21-4.03)\) were also predictors of current smoking among lesbian and bisexual Filipina youth.
Parallel regression runs for the gay/bisexual male subsample did not indicate any significant associations between cigarette smoking (ever or current) and the predictors, suggesting that other factors need to be investigated to account for tobacco use among young Filipino gay/bisexual men.

DISCUSSION

Nationally representative data showed that sexual orientation is a significant factor in disparities in cigarette smoking among Filipino youth. In particular, lesbian and bisexual Filipina women smoke at significantly higher rates than the general population of young women. Filipina lesbian and bisexual young adults were more likely to have ever-trying smoking, to be current smokers, and among current smokers, to smoke more sticks per day than heterosexual counterparts.

Likewise, young gay and bisexual Filipino men had very high rates of cigarette smoking comparable to heterosexual men, and were the group in the gender x sexual orientation intersectionality analysis that had the highest rates of ever-smoking (88% of gay/bisexual youth had tried smoking) and of current smoking (72% of ever-smoking gay/bisexual youth are current smokers). Young Filipino gay/bisexual smokers smoked their first cigarette at the earliest age of all the sexual orientation subgroups (before age 16) and smoke the most number of sticks per day (an average of almost eight sticks daily).

These findings provide first evidence from the Philippines for what has been shown in the global LGBT health literature—that cigarette smoking is a significant health issue for sexual-minority populations (Clarke et al., 2010; Gruskin et al., 2001, 2007). Lesbian, gay, and bisexual Filipino youth are at significant risk for tobacco use. Young lesbian and bisexual Filipinas smoke at disproportionately higher levels than heterosexual women, while young gay and bisexual Filipinos comprise a critical subgroup with extremely high cigarette smoking prevalence. And because cigarette smoking is a causal factor in a number of diseases in later life, we can expect to see further disparities in health outcomes and disease burden among lesbian, gay, and bisexual Filipinos as they move from youth to adulthood and midlife (Baquild et al., 2008).
Intersections and Interventions

Many strides have been made in the recognition of gender as a variable that structures public health outcomes, and the examination of gender disparities and differences in health is now common practice in health research. However, a next important step is to unpack social categories like the binary of gender by addressing intersectional questions (McCall, 2005). More concretely, intersectionality can be analyzed by answering three questions as suggested by Cole (2009): [1] who are included in this category?, [2] what role does inequality play?, and [3] where are there similarities?

Cigarette smoking among Filipino youth has been shown to be highly gendered (Cruz & Berja, 2004; Virina; 2010); young Filipina women smoke less than young Filipino men. Findings from the current analysis, however, indicate that within the category of young Filipina women, lesbian and bisexual women have significantly higher smoking rates. That is, it is young heterosexual Filipina women who are smoking least, compared to men and other women. Likewise, young Filipino men have very high rates of cigarette smoking, including young gay and bisexual Filipino men. Through the examination of disparities along sexual orientation, research focusing on LGBT health can be one way of unpacking dominant modes of social categorization like gender, to identify who are being included (implicitly and explicitly) in traditional analytic categories we use.

The succeeding question of inequality is more difficult to answer, but previous work in LGBT health provides initial insight into how gender and sexual orientation interact to structure groups’ access and use of social, economic, and political resources that can promote health and well-being. For instance, LGBT populations often face disproportionate levels of stressors in the form of social stigma, prejudice, and discrimination at both structural (e.g., absence of protections against discrimination, denial of rights like marriage) and personal levels (e.g., violence, anti-LGBT harassment, name-calling, and negative stereotyping). These stressors produce minority stress (Meyer, 2003) and join the normative stressors of daily life and have been associated with increased cigarette smoking (Ryan et al., 2001). Historically important social spaces for LGBT communities may also be linked to the practice of smoking, such as lesbian and gay bars where LGBT people go with less fear of exclusion and discrimination (Lee, Griffin, & Melvin, 2009). Because of restrictive gender norms that frame tobacco use as an “unfeminine” behavior, some lesbian
and bisexual women may also view cigarette smoking as a form of resistance to heterosexist male control over the female body (as suggested by Remafedi, 2007). Finally, there is evidence, at least in developed countries, that the tobacco industry specifically targets the LGBT market via advertising, corporate sponsorships, and promotional events (Ryan et al., 2001; Washington, 2002). Though these factors remain speculative and cannot be established definitively by the present analysis, they provide testable hypotheses for further empirical work.

The last intersectionality question, that of similarities, is no less important because it permits the departure from viewing social categories as fundamentally defining certain groups (for instance, minorities like LGBT populations) and from framing—and reifying—them as homogenously disadvantaged others. The present findings, for example, indicate that Filipino sexual-minority youth are not uniform when it comes to smoking prevalence: Filipino gay and bisexual male youth still out-smoke their lesbian and bisexual female counterparts. In fact, the results suggest that young gay and bisexual Filipino men have more in common with heterosexual men than with lesbian and bisexual women when it comes to smoking.

This finding implies that interventions for smoking prevention and cessation targeted toward young Filipino men should also take into account the diversity in sexual orientation among male youth and be cautious not to exclude gay and bisexual youth (Meyer, 2001). Likewise, women’s health promotion efforts would do well to systematically address disparities experienced by lesbian and bisexual women, including health risks associated with higher tobacco use.

**Caveats and Next Steps**

Limitations in the current analysis should be kept in mind. First, measurement of sexual orientation status was limited to single-item self-report measures. The differential operationalizations—attraction for women and sexual behavior for men—were used in light of statistical power issues (i.e., inadequate response distributions for a single common measure of sexual orientation). Future studies should consider recent advances in assessing sexual orientation in large-scale surveys (Sell & Dunn, 2008; SMART, 2009). Similarly, more standardized measures of cigarette smoking can be used to allow for comparability and trends analysis with global health data (e.g., the CDC definition of “current smoking” as having smoked at least 100
sticks in one’s lifetime and currently smoking every day or on some days).

Second, the current study focused on health disparities across sexual orientation. Limitations in the dataset did not permit analysis of cigarette smoking among transgender youth, who are still largely invisible in systematic health research even within the global LGBT health research agenda (Dean et al., 2004; Grossman & D’Augelli, 2006; Ryan, 2003). And though population-based surveys such as YAFS3 provide for nationally representative data on prevalence rates, the relatively small size of LGB subsamples still limit the kinds of statistical analysis that can be performed, e.g., disaggregating and comparing gay versus bisexual men as well as lesbian versus bisexual women (SMART, 2009). More directed studies on LGBT smoking, using targeted oversampling, designs that explore disparities among lesbian, gay, and bisexual subpopulations, and more in-depth, qualitative methods (Clarke et al., 2010; Horn, Kosciw & Russell, 2009), can provide us with more nuanced information about the contexts, intersections, and inequalities associated with cigarette smoking among LGBT Filipinos.

CONCLUDING NOTE

Much of what has been studied in the literature on lesbian, gay, bisexual, and transgender health in the past has focused almost exclusively on sexual health, particularly sexually transmitted infections (Boehmer, 2002). If health is truly a state of overall well-being, then research on Filipino LGBT health should now expand to include domains such as mental and physical health going beyond HIV or STIs, including critical behaviors such as cigarette smoking and even smoking cessation (Remafedi & Carol, 2005; Sussman, Sun & Dent, 2006), to enable evidence-based promotion of well-being for Filipinos of all gender identities and sexual orientations.

NOTE

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