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Cigarette, e-cigarette, and dual use during the third trimester of pregnancy in a national sample of heterosexual and sexual minority women

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Abstract

Background and Objectives: Research investigating e-cigarettes/e-products and dual use with cigarettes among pregnant sexual minority individuals in the US is lacking. This study addresses this gap using a national sample.

Methods: Two waves of national panel data (2015–2018) from the Population Assessment of Tobacco and Health study were used. The sample included 1,842 women, 237 identified as sexual minorities (n=17 lesbian, n=177 bisexual, n=43 something else), who indicated pregnancy during the past 12 months at Wave 3 or 4. Covariates included race, ethnicity, past year income, and education. Cigarette, e-cigarette, or dual use was examined during the last trimester.

Results: Sexual minorities had higher adjusted odds of cigarette use during their last trimester of pregnancy relative to heterosexual women (AOR = 1.55, 95% CI = 1.08, 2.23). Bisexual women had higher odds of smoking cigarettes during their third trimester compared to heterosexual women (AOR = 1.82, 95% CI= 1.21– 2.72). Lesbian women were more likely to use e-

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Declaration of Interest

The authors of this study have no conflicts of interest to report. The authors alone are responsible for the content and writing of this paper.

cigarettes/e-products (AOR = 9.15, 95% CI = 2.29, 36.5) and indicate dual use (AOR = 6.00, 95% CI = 1.43, 25.1) during their third trimester of pregnancy compared to heterosexual women.

Conclusions: Maternal health among U.S. sexual minority women would benefit from clinicians equipped to provide accurate information and support for FDA approved smoking cessation, information about e-cigarettes/e-products, and dual use.

Scientific Significance: This study is the first to examine cigarette, e-cigarette, and dual use during the third trimester of pregnancy using a national sample, with specific attention to differences in sexual orientation.

1.0. Introduction

Tobacco-related deaths are three times higher among US cigarette smokers compared to those who do not smoke due to increased rates of cancer, pulmonary, and cardiovascular disease[1]. Moreover, increased tobacco cessation has occurred simultaneously with increases in use of e-cigarettes/e-products[2]. E-cigarettes/e-products are marketed as harm reduction devices that aid cessation despite evidence that indicates otherwise[3,4]. Among US smokers, 68% are interested in cessation[3], however only 3–5% of those who attempt cessation without clinician support (using FDA approved methods) remain nonsmoking one year later[5]. Smokers that engage in dual (use of e-cigarettes/e-products and cigarettes) amplify their exposure to the harms of these products[6]. Switching to exclusive e-cigarette/e-product use is not highly attainable[4], in fact, e-cigarette users have lower odds (OR=0.72; 95%CI=0.57–0.91) of cessation compared to those who do not use e-cigarettes[7]. A meta-analysis of 27 studies indicates smokers who engage in dual use are less likely to quit smoking cigarettes when compared to those who do not use e-cigarettes/e-products[4]. Further, the US National Academies of Science, Engineering, and Medicine's report on public health consequences of e-cigarette/e-product use found substantial evidence that e-cigarette/e-product use increases the risk of ever using cigarettes, and moderate evidence that e-cigarette/e-product use increases frequency and intensity of cigarette smoking[6].

Misperceptions that e-cigarettes/e-products are an effective smoking cessation strategy may be uniquely harmful among groups in the US with higher prevalence of cigarette use, given the percentage of smokers interested in cessation[8]. Marginalized populations have a higher prevalence of cigarette smoking in the US[9], including sexual minorities (i.e., people who identify as lesbian, gay, bisexual)[10]. Tobacco industry marketing specifically targets sexual and gender minorities[11–13]. Among sexual minority groups, tobacco use is higher across all sexual orientation dimensions (attraction, identity, behavior) relative to heterosexual individuals[14]. Research examining use of e-cigarette/e-products among sexual minorities consistently indicates higher use of tobacco products and e-cigarette/e-products among sexual minorities relative to heterosexual individuals[15–17]. Sexual minorities also have high prevalence of e-cigarette/e-product use regardless of never or current smoking status[17]. Factors associated with e-cigarette/e-product use among sexual minority populations include substance use, sexual identity based discrimination, and earlier initiation of e-cigarette/e-product use during adolescence[17]. Examining e-cigarette/e-product use provides insight into how public health strategies might be tailored to meet the needs of sexual minorities, but little is known about e-cigarette/e-product use among sexual minorities who are pregnant.

The view of e-cigarettes/e-products by pregnant women as a harm reduction approach may contribute to use during pregnancy[18,19]. Despite harm reducing intent, these products can increase health risks, particularly if cigarettes and e-cigarettes are used concurrently[2]. Dual use of cigarettes and e-cigarettes/e-products increases exposure to carcinogens such as formaldehyde, other chemicals (e.g.; vitamin e-acetate), and nicotine[2,20]. Studies using animal models indicate e-cigarette/e-product use during pregnancy changes DNA methylation, causes birth defects, decreases birth weight, and negatively impacts development of the fetal heart and lungs[21]. It is well established that nicotine exposure during pregnancy is harmful to the maternal fetal dyad[22], but data remains limited regarding fetal harm from e-cigarette/e-product use among pregnant individuals. However, a cohort study of pregnant women who engaged in e-cigarette/e-product use indicated a five-fold higher risk for small for gestational age infants among those who used only e-cigarette/e-products compared to those with no tobacco/nicotine exposure[21]. In a large national sample of pregnant women, over 40% reported smoking cigarettes in addition to using other nicotine delivery products, with e-cigarettes being the most common additionally used product[23]. National samples show pregnant sexual minority women are five times more likely to report smoking cigarettes every day, and three times more likely to report smoking some days relative to heterosexual women[24]. The higher prevalence of smoking among pregnant sexual minority women warrants understanding of e-cigarette/e-product use among this population. There is a lack of research focused on use of cigarettes, e-cigarette/e-products, and dual use (mixed use of cigarettes, e-cigarettes/e-products) among pregnant sexual minority women (SMW). Given the paucity of studies to assess nicotine/tobacco use and e-cigarette/e-product use among pregnant SMW, this study seeks to expand our knowledge regarding cigarette and e-cigarette/e-product use during the third trimester of pregnancy among SMW and heterosexual women using national data from the Population Assessment of Tobacco and Health (PATH).

2.0. Methods

2.1. Sample

This study used data from the Population Assessment of Tobacco and Health (PATH) Study, a nationally representative panel of adults (18 years of age or older) assessed at four time points, Wave1: September/2013-December/2014; Wave 2: October/2014-October/2015; and Wave 3: October/2015-October/2016; and Wave 4: December/2016-January/2018[25]. The PATH Study used a four-stage stratified area probability sample design. Audio computer-assisted self-interviewing (ACASI) was conducted and on-screen displays and flashcards were used to aid respondents. The response rate for waves 1–4 was 78% in the adult sample. The analytic sample used for the current study consists of 1,842 women who indicated being pregnant during the past 12 months at either Wave 3 or Wave 4 (18,528 women participated at either Wave 3 or 4; 1357 were pregnant during at least one wave, 485 were pregnant at both waves). Completion of the adult survey at Wave 3 and Wave 4 was necessary given that questions about e-cigarette/product use during the last 3 months of pregnancy were included during these waves. Bivariate and multivariate analyses only include women who reached ther third trimester (73 women did not reach (n=33) or had yet to reach their third trimester (n=40)).

2.2. Measures - Cigarette and e-cigarette use during the last 3 months of pregnancy at Waves 3 and 4

The two items that assessed cigarette and e-cigarette during the last 3 months of pregnancy were included at Waves 3 and 4. These two items asked women who indicated pregnancy during the past-year the "number of cigarettes you smoked on an average day" and "how often used e-cigarettes or other electronic nicotine products" during the last trimester. The seven response options for cigarettes ranged from "none" to "41 cigarettes or more", while the six response options for e-cigarettes ranged from "did not use electronic nicotine products then" to "every day". Both items were dichotomized to reflect if they indicated any cigarette, e-cigarette, or dual use during the last three months of pregnancy at both Wave 3 and Wave 4 (time-varying outcome). Both questions had an additional response option indicating whether they "have not yet reached the last 3 months of pregnancy"; these women were excluded (n=40) from the bivariate and multivariateanalysis assessing differences in cigarette and e-cigarette use.

2.3. Measures - Sexual Identity

Sexual identity was asked at Wave 3 and 4 by asking respondents: "Do you think of yourself as: (1) Lesbian or gay, (2) straight, (3) bisexual, (4) something else." We used both the four-category sexual identity measure (using heterosexuals as the reference group) and a dichotomous measure assessing heterosexuals (i.e., straight) versus sexual minority (i.e., lesbian/gay, bisexual, and something else). These measures were treated as time-varying given that sexual identity could have changed between Wave 3 and 4.

2.4. Measures - Covariates

For the analyses we also included several covariates that were measured at Wave 3 and 4 and included *race* (White, Black, Other), *ethnicity* (Non-Hispanic versus Hispanic), *age* (18–20, 22–25, 26–29, 30–33, 34 and older), *past-year income* ($24,999 and lower, $25,000-$74,999, $75,000 and higher), and *educational level* (less than high school, high school only, some college, college degree or higher). All covariates were treated as time-varying.

2.5. Analyses

The analysis is divided into two sections. First, descriptive statistics are provided for both heterosexual and sexual minority women who indicated being pregnant during the past 12 months at either Wave 3 or 4. Differences were assessed between these two groups using design-based Rao-Scott Chi-Square tests. The sample was aggregated for Wave 3 and 4 for ease of presentation (maximum values were used – see Table 1). Second, binary logistic regression models were fitted using the generalized estimating equations (GEE) methodology with an exchangeable correlation structure to assess the association between sexual identity and using cigarettes/e-products during the last trimester of pregnancy[26,27]. Models with and without covariates are provided along with the unadjusted odds ratio (OR), adjusted odds ratio (AOR) and 95 % confidence intervals. All analyses used weights (wave 4 weights) and designated variables to account for the complex sampling design. Stata 15.0 was used for all analyses. Sample sizes may vary given that listwise deletion was used when estimating these models in Stata. Listwise deletion was used given the low amount of item

missingness that ranged from a low of .5% (education) to a high of 3.5% (income). Item missingness for the main outcomes was 2.1% and 2.9% for cigarette and e-cigarette use during the third trimester, respectively.

3.0. Results

Among the sample of young women who were pregnant at Wave 3 and 4, 91.5% (n=1590) identified as heterosexual while 0.5% (n=17) identified as lesbian, 5.5% (n=177) as bisexual, and 2.5% (n=43) as something else. Table 1 shows the pregnant women who identified as sexual minorities were typically younger, had less income, lower levels of education, and were more likely to indicate lifetime use of either cigarettes or e-cigarette/e-product use when compared to their heterosexual peers.

Table 2 provides the unadjusted and adjusted results from the GEE analyses assessing how sexual minority status is associated with cigarette and e-cigarette/e-product use during the third trimester of pregnancy. Accordingly, 25.9% of sexual minority women indicated cigarette use during the third trimester of their pregnancy (compared to 13.3% of heterosexual women), 5.1% indicated e-cigarette/e-product use during the third trimester of their pregnancy (compared to 2.6% of heterosexual women), and 3.0% indicated dual use during their third trimester of their pregnancy (compared to 1.7% of heterosexual women). Overall, sexual minorities had higher odds (AOR = 2.29, 95% CI = 1.61,3.27) of indicating using cigarettes during their third trimester of pregnancy when compared to heterosexuals in the fully adjusted models. No statistically significant differences were found between sexual minorities and heterosexuals with respect to e-cigarette/e-product use or dual use in the fully adjusted models.

Table 3 provides the unadjusted and adjusted results of the GEE analyses assessing the association of sexual minority identity with cigarette and e-cigarette/e-product use during the third trimester of pregnancy. First, lesbian women had higher odds of e-cigarette/e-product use (AOR = 9.15, 95% CI = 2.29,36.5) and dual use (AOR = 6.00, 95% CI = 1.43,25.1) during the third trimester of pregnancy when compared to heterosexuals. Second, bisexual women had higher odds of cigarette use (AOR = 1.82, 95% CI = 1.21,2.72) when compared to heterosexuals.

4.0. Discussion

This study found substantial variation with respect to cigarette and e-cigarette/e-product use in the third trimester between heterosexuals and sexual minorities that identified as lesbian or bisexual. For instance, lesbian women were more likely to use e-cigarettes/e-products and indicate dual use during their third trimester of pregnancy relative to heterosexual women, while bisexual women were more likely to use cigarettes during their third trimester of pregnancy when compared to their heterosexual peers. These findings are consistent with other national studies that have found that lesbian and bisexual women have higher rates of cigarette use and DSM-5 tobacco use disorders when compared to heterosexual women[14].

It should also be highlighted the overall prevalence of sexual minority women (SMW) (i.e., the combined measure for lesbian, bisexual, and other) in the last trimester of pregnancy was

nearly double that of heterosexuals in this sample; consistent with studies using national samples that have found that SMW are more likely to smoke during pregnancy[24,28]. However, larger sample sizes of SMW and subgroups are needed to expand research evaluations of the health and needs of this population during pregnancy. Increased risk for cigarette use among SMW is congruent with research guided by the minority stress model that clearly indicates discrimination and stress leads to worse health outcomes and increased tobacco use among sexual minorities[29–32]. Moreover, this study found that bisexual women had nearly twice the odds of smoking cigarettes during their third trimester of pregnancy when compared to heterosexual women but no differences were found in relation to use of e-cigarettes/e-products, or dual use. While the lack of differences in use of e-cigarettes/e-products, or dual use among bisexual women during pregnancy contrasts with previous research among a national sample of pregnant women that found those who smoke cigarettes have a much higher (38.9%) prevalence of using e-cigarettes/e-products when compared to those who formerly smoked (0.1%) or do not smoke cigarettes (0.3%), this study relied on measures of cigarette and e-cigarette/e-product use during the third trimester and may not be directly comparable[33].

Moreover, pregnant women who self-identified as lesbian in this sample were significantly more likely to use e-cigarettes/e-products or engage in dual use during their third trimester relative to those identifying as heterosexual. In national samples of non-pregnant women, lesbian women are less likely to use tobacco compared to bisexual women[14, 34–36]. It is possible women identifying as lesbian in this sample may have been using e-cigarette/e-products and engaging in dual use at higher rates in attempts to quit smoking cigarettes during pregnancy.. Given higher rates of uninsured status, lack of consistent healthcare[37,38], lack of cultural competence within the healthcare system[39], and higher unmet medical needs[38,40,41], it is possible pregnant women who identify as lesbian might create models of harm reduction that fall outside FDA recommended smoking cessation as this would require interfacing with a healthcare system from which they are largely excluded. Health policy, systems, and clinicians require a transformation that includes education and training to directly addresses the needs of minoritized and marginalized populations to work towards equity in healthcare delivery and outcomes.

The findings from this study contribute to evidence that pregnant SMW would benefit from additional preconception and pregnancy related support from the health system[24,28]. Pregnant SMW, like other marginalized populations in the US, experience worse maternal and infant health outcomes[42]. Of the 705,000 same-sex couples in the US, 86,000 female same sex couples are raising biologically conceived children but research regarding their maternal and infant health outcomes is still gaining momentum in the scientific literature[43]. Nationally representative data indicate SMW experience higher rates of miscarriage, stillbirth, and low birth weight infants compared to heterosexual women[42]. Equitable reproductive health is generally lacking for SMW, who have reduced odds of ever receiving cervical cancer screening and sexually transmitted infection tests[44] and higher prevalence of mistimed or unwanted pregnancy[45,46]. Mistimed or unwanted pregnancy is associated with late entry into prenatal care, which may be more likely among SMW driven by disparities in culturally competent interactions with clinicians[47]. Preconception health, or support from the healthcare system to take necessary steps in planning for a healthy pregnancy is

poor among SMW[24,28]. Improving preconception health (which includes smoking cessation support), and early entry into prenatal care may be appropriate goals to reduce harms from smoking, e-cigarette/e-product, and dual use among this population. However, given that SMW are less likely to have insurance or consistent sources of healthcare[24,37], general access may be a priority issue to address these inequities.

4.1. Limitations

While the current study has many notable strengths, several limitations need to be discussed. First, prevalence rates among heterosexual identifying pregnant women who smoked cigarettes during their last trimester (13.3%) in the PATH were higher than a recent evaluation of maternal cigarette smoking using the National Health Interview Survey Data (8.0%)[33] or Behavioral Risk Factor Surveillance survey data (4.6% every day, 3.7% some days)[24]. While this may reflect differing approaches to asking cigarette smoking during pregnancy questions in these surveys, it should be recognized that the prevalence of cigarette use among pregnant women is slightly higher in the PATH when compared to other national U.S. surveys. Second, the analysis relied on self-reported measures of cigarette and e-cigarette/e-product use during a specific time frame (i.e., last three months of pregnancy) and is susceptible to recall bias. Third, the sample sizes for pregnant women who identified as lesbian, bisexual, and something else were relatively small making it difficult to assess smaller differences between heterosexuals and differences between different sexual minority groups (i.e., sample sizes were small for pregnant lesbian women, but differences were substantial when compared to heterosexuals). Small sample sizes for pregnant women who identified as lesbian, bisexual, and something else also prevented additional analyses of whether these individuals were more likely to quit smoking prior to their third trimester of pregnancy. In addition, the use of the ‘something else’ category referencing sexual identity may not accurately represent individuals who identify as sexual minorities[48]. Finally, we recognize sexual identity is a limited representation of sexual orientation, which encompasses domains of identity, attraction, and behavior. Despite these limitations, this is one of the only national studies that can assess whether heterosexual or sexual minority women used cigarettes or e-cigarettes/e-products in the third trimester of pregnancy among women in the U.S. population.

5.0 Conclusions

It is established in the literature that SMW are more likely to smoke cigarettes or use nicotine products than heterosexual women [4,16,35,36,49] this is directly and indirectly influenced by their marginalization in US society[29–32], social norms, and tobacco industry[11–13,50]. This study expanded this premise to include information about cigarette, e-cigarette/e-product, and dual use among SMW during the third trimester of pregnancy, finding a higher prevalence overall in cigarette smoking relative to heterosexual women and within group differences in cigarette smoking, e-cigarette/e-product use, and dual use.

The evidence is clear that use of e-cigarettes/e-products are harmful during pregnancy and pregnant women need accurate information about the risks associated with e-cigarette/e-product use[21]. For pregnant women in marginalized communities, including SMW, access

to prenatal care or healthcare in general is limited[24,37,38,40,41]. Accurate information and support for FDA approved smoking cessation, information about e-cigarettes/e-products, and dual use could potentiate improvements in SMW maternal and infant health. Despite this, clinicians have room to improve their inquiry about e-cigarette/e-product use during pregnancy[18]. In a small cohort study of pregnant women, clinicians were significantly less likely to ask women about e-cigarettes in relation to use during pregnancy, less likely to advise them not to use e-cigarettes, and less likely to share information about effects of e-cigarettes in comparison to cigarettes[18]. Future research should explore gaps in clinician knowledge and information exchange with patients about e-cigarettes/e-products using nationally representative samples. Attention should also focus on quit attempts of cigarettes and e-cigarettes/e-products among pregnant SMW, who may be making attempts at cessation without adequate resources and support.

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Table 1:

Sample characteristics of pregnant women in the past 12 months

Pregnant women in the past 12 months (Wave 3 and Wave 4) [a]	**Full Sample (n = 1842)**	**Heterosexual (n = 1590)**	**Sexual minority (n = 237)**	**p-value** [b]
	n(%)	**n(%)**	**n(%)**	
Race				
White	1181 (72.2)	1042 (73.4)	135 (66.7)	p=.175
Black	365 (14.0)	307 (14.0)	55 (14.8)	
Other	233 (13.8)	187 (12.6)	41 (18.6)	
Hispanic Ethnicity				
Non-Hispanic	1368 (75.4)	1178 (76.1)	180 (69.7)	p=.132
Hispanic	466 (24.6)	407 (23.9)	55 (30.3)	
Age				
18 to 21	377 (8.0)	301 (7.2)	74 (18.0)	**p<.001** [b]
22 to 25	476 (16.1)	395 (15.2)	79 (28.0)	
26 to 29	382 (21.5)	336 (21.7)	41 (20.5)	
30 to 33	268 (22.8)	243 (23.9)	22 (14.2)	
34 and older	339 (31.6)	315 (32.0)	21 (19.2)	
Income				
$24,999 or lower	886 (37.3)	729 (34.6)	151 (64.0)	**p<.001** [b]
$25,000 to $74,999	584 (33.5)	521 (33.6)	59 (28.9)	
$75,000 and higher	307 (29.2)	287 (31.8)	19 (7.1)	
Education				
Less than high school	352 (12.9)	275 (11.7)	72 (23.0)	**p<.001** [b]
High school only	474 (23.4)	406 (22.6)	66 (33.7)	
Some college	669 (32.0)	586 (32.2)	79 (35.0)	
College degree or higher	341 (31.7)	321 (35.5)	18 (8.2)	
Sexual Identity [c]				
Heterosexuals	1590 (91.5)	--	--	
Lesbian	17 (0.5)	--	--	
Bisexual	177 (5.5)	--	--	
Something else	43 (2.5)	--	--	
Lifetime Cigarette Use				
No	473 (42.2)	431 (42.9)	36 (24.4)	**p<.001** [b]
Yes	1331 (57.8)	1561 (57.1)	194 (75.6)	
Lifetime E-Cigarette Use				
No	725 (62.8)	665 (64.1)	54 (43.9)	**p<.001** [b]
Yes	1057 (37.2)	875 (35.9)	175 (56.1)	

Notes: n = unweighted sample size; Percentages incorporate wave 4 survey weights for the longitudinal sample; Sample sizes may vary due to missing data.

[a]**For the sample characteristics only (for ease of presentation)**, all estimates were aggregated between Wave 3 and Wave for to reflect the maximum score/score. For instance, the highest income level that a respondent indicated at either Wave 3 or Wave 4 was selected. With respect to sexual identity the maximum value was selected based on the following values: 0 = heterosexual, 1 = lesbian, 2 = bisexual, 3 = something else. It should be noted that this aggregation strategy will ultimately determine who was consistently "heterosexual" and who indicated that they were a "sexual minority" at either Wave 3, Wave 4, or both.

[b]Differences between heterosexuals and sexual minorities were estimated using design based Rao-Scott chi-square tests for categorical outcomes.

[c]Percentages of sexual minorities by Wave were the following: Wave 3 – 92.3% heterosexual, 0.5% lesbian, 4.8% bisexual, 2.4% something else; Wave 4 – 92.3% heterosexual, 0.6% lesbian, 5.7% bisexual, 1.6% something else

Table 2:

Assessing differences between pregnant sexual minority and heterosexual women

	Cigarettes use in third trimester					E-cigarettes in third trimester					Dual use in third trimester				
	n = 1692			n = 1574		n = 1675			n = 1555		n = 1657			n = 1540	
Sexual Identity	**%**	**OR**	**95% CI**	**AOR**	**95% CI**	**%**	**OR**	**95% CI**	**AOR**	**95% CI**	**%**	**OR**	**95% CI**	**AOR**	**95% CI**
Heterosexual	13.3%	Reference		Reference		2.6%	Reference		Reference		1.7%	Reference		Reference	
Sexual Minority	25.9%	2.29***	(1.61,3.27)	1.55*	(1.08,2.23)	5.1%	2.13*	(1.07,4.25)	1.30	(.643,2.63)	3.0%	1.94	(.825,4.59)	.903	(.395,2.06)

Notes: n = unweighted sample size; Analyses incorporate wave 4 survey weights for the longitudinal sample; OR = odds ratio; AOR = adjusted odds ratio; 95% CI = confidence interval; Sample sizes may vary due to missing data; All adjusted analyses control (all variables were treated as time-varying) for race, Hispanic ethnicity, respondent's age, past-year income, education level, and wave of survey (i.e., Wave 3 or Wave 4).

* p<.05

*** p<.001.

Table 3:

Assessing differences between pregnant lesbian, bisexual, 'other' identified and heterosexual women

	Cigarettes use in third trimester					E-cigarettes in third trimester					Dual use in third trimester				
	n = 1692			n = 1574		n = 1675			n = 1555		n = 1657			n = 1540	
Sexual Identity	**%**	**OR**	**95% CI**	**AOR**	**95% CI**	**%**	**OR**	**95% CI**	**AOR**	**95% CI**	**%**	**OR**	**95% CI**	**AOR**	**95% CI**
Heterosexual	13.3%	Reference		Reference		2.6%	Reference		Reference		1.7%	Reference		Reference	
Lesbian	17.2%	1.92	(.642,5.76)	1.76	(.520,5.98)	15.2%	**6.60** **	(1.84,23.6)	**9.15** **	(2.29,36.5)	9.3%	**6.38** **	(1.73,23.5)	**6.00** *	(1.43,25.1)
Bisexual	33.7%	**2.96** ***	(2.01,4.34)	**1.82** **	(1.21,2.72)	6.0%	2.39 *	(1.05,5.43)	1.19	(.508,2.78)	3.4%	2.10	(.716,6.20)	.701	(.233,2.10)
Other	10.4%	.962	(.403,2.29)	.769	(.308,1.91)	0.8%	.364	(.051,2.57)	.355	(.047,2.65)	0.8%	.538	(.071,4.06)	.519	(.065,4.14)

Notes: n = unweighted sample size; Analyses incorporate wave 4 survey weights for the longitudinal sample; OR = odds ratio; AOR = adjusted odds ratio; 95% CI = confidence interval; Sample sizes may vary due to missing data; All adjusted analyses control (all variables were treated as time-varying) for race, Hispanic ethnicity, respondent's age, past-year income, education level, and wave of survey (i.e., Wave 3 or Wave 4).

* p<.05

** p<.01

*** p<.001