Adolescent Same-Sex and Both-Sex Romantic Attractions and Relationships: Implications for Smoking

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Objectives. We examined cross-sectional and longitudinal associations between smoking and romantic attractions and relationships.

Methods. We used data from the National Longitudinal Study of Adolescent Health to assess associations of smoking at Waves I and II with same-sex, both-sex, and opposite-sex romantic attractions or relationships as determined at Wave I. We used logistic regression to predict smoking at Wave II by sexual orientation.

Results. Both adolescent boys and adolescent girls with both-sex attractions or relationships were significantly more likely than those with opposite-sex attractions or relationships to be current smokers. Adolescent boys and girls with both-sex attractions or relationships who were nonsmokers at Wave I were more likely to be current smokers at Wave II than those with opposite-sex attractions or relationships.

Conclusions. Our findings support previous research on smoking among youths who report same-sex or both-sex romantic attractions or relationships and demonstrate the increased risk bisexual youths have for smoking initiation and smoking prevalence. Tobacco use prevention programs targeting gay and bisexual youths are warranted, particularly among adolescent girls and boys who have had both-sex romantic attractions or relationships. (*Am J Public Health.* 2008;98:462–467. doi:10.2105/AJPH.2006.097980)

In a literature review, Ryan et al.[1] found that smoking among lesbian, gay, and bisexual (LGB) youths was higher than that among youths overall. The review, which included all peer-reviewed, published articles in English from 1987 to 2000, identified 4 studies that included smoking and sexual orientation. Estimated smoking rates for LGB youths ranged from 38% to 59%; national smoking rates during comparable periods ranged from 28% to 35%. Of the 4 studies identified that examined smoking by sexual orientation, 2 were statewide school-based probability surveys and 2 used nonprobability sampling to recruit youths through advertisements or community-based agencies.[2–5]

The statewide school-based surveys included the 1993 and 1995 Massachusetts Youth Risk Behavior Survey. Both were cross-sectional school-based surveys of students in grades 9 through 12.[2,3] The nonprobability-based surveys consisted of convenience samples of young adults.[4,5] Prevalence of smoking in these studies, whether defined as current, current daily, or ever smoking, was consistently higher among youths who identified as lesbian, gay, or bisexual than among students who identified as heterosexual. A recent cross-sectional study[6] of youths aged 12 to 17 years that used data from the Growing Up Today Study found that lesbian and bisexual girls were 9.7 times more likely to smoke at least weekly than their heterosexual counterparts. Gay and bisexual boys, by contrast, were not more likely to smoke than their heterosexual counterparts.

Although LGB adults, like other economically or socially marginalized people, may be more likely to smoke to manage daily stress,[7,8] additional influencing factors such as homophobia and discrimination may be more complex among LGB youths. In general, youths smoke for various reasons, including modeling (i.e., peer influence and norms), social desirability (i.e., presenting oneself in a manner that will be viewed favorably by others), access to cigarettes, risk taking, rebellion against established social norms, low self-esteem, and negative mood states.[9,10] For LGB youths, increased risk of depression, feelings of loneliness, attempted suicide, and being physically and verbally victimized may contribute to increased substance use.[11–13] Additional factors may include the role of smoking during identity formation; the stress of "coming out"; lack of support from parents, family, and friends; feelings of isolation and loneliness; and antigay harassment, victimization, and violence.[14,15] Targeted marketing by the tobacco industry may also play a role in higher rates of smoking among LGB youths.[16–18]

Given the lack of nationally representative data on adolescent smoking and sexual orientation, we examined the National Longitudinal Study of Adolescent Health (Add Health Study), a longitudinal and nationally representative survey of youths in grades 7 through 12. Using data from Waves I and II, we determined cross-sectional smoking prevalence estimates by sexual orientation and examined longitudinal data to assess the relationship between sexual orientation as determined at Wave I and the onset of smoking by Wave II.

METHODS

Study Description

The Add Health Study is a school-based study that explores the causes of health-related behaviors among youths and their outcomes in young adulthood; it includes a specific examination of how social contexts influence youths' health and risk behaviors.[19] We used data from the main in-home sample from Waves I and II of the Add Health Study, collected during the years 1994 to 1995 and 1996, respectively. Eighty high schools and 52 feeder schools provided a sample of 90 118 youths who were interviewed as part of the in-school questionnaire from September 1994 through April 1995. A subsample of 20 745 youths who answered the in-school questionnaire agreed to participate in the in-home baseline survey from April 1995 to December 1995 (Wave I). The in-home survey was more in-depth regarding the respondent's health, health-related behaviors,

emotional well-being, and family and school environment. The second wave of the survey (Wave II), conducted from April through August 1996, included 14 738 youths. Students who were in their senior year of high school during Wave I were not interviewed at Wave II, accounting for the decrease in the number of participants interviewed.

Measures

Same-sex romantic attractions or relationships among youths were measured on the basis of responses to 4 questions in Wave I. Two questions each regarding attractions and relationships were asked. To assess romantic attractions, all respondents were asked, "Have you ever had a romantic attraction to a female?" and "Have you ever had a romantic attraction to a male?" Respondents could answer yes or no. On the basis of the respondent's sex and the answers to the questions on attraction, romantic attraction was categorized as same sex only (attraction to the same sex only), both sexes (attraction to both the same sex and the opposite sex), or opposite sex only (attraction to the opposite sex only).

To assess romantic relationships, respondents were asked about (1) their 3 most recent relationships during the preceding 18 months and (2) the sex of their partners. On the basis of respondents' sex and the sex of their past relationship partners, romantic relationships were grouped as same sex only (relationships with the same sex only), both sexes (relationships with the same sex and opposite sex), or opposite sex only (relationships with the opposite sex only). We used logistic regression to assess sexual orientation and smoking by looking at relationships and attractions separately. Both logistic regressions were significant for the both-sex group. Because the results did not differ, we have combined the 2 groups.

Smoking status for Waves I and II was based on the answers to 2 questions: "Have you ever tried cigarette smoking, even just 1 or 2 puffs?" and "During the past 30 days, on how many days did you smoke cigarettes?" A current smoker was defined as someone who reported having smoked on at least 1 of the 30 days preceding the survey.

Demographics of interest were determined at Wave I and included sex, romantic attractions or relationships, age, race/ethnicity, family income, and parental education. In reporting demographic information as well as building a logistic regression model, we limited participants to those aged at least 12 years and no older than 19 years. Two age groups were formed: 12 to 14 years and 15 to 19 years (findings did not differ when age was treated as a continuous variable). Race/ethnicity, which was based on answers to questions regarding race and Hispanic origin, was reported as White, Black, Hispanic, Asian, or other. Family income, defined as the total income received by the family as reported by the parent in the Add Health Study's Parent Questionnaire, was represented by 4 categories: less than $20 000, $20 000 to $34 999, $35 000 to $54 999, and $55 000 or more.

Parental education, defined as the highest level of education attained by either parent as reported in the Parent Questionnaire, was also represented by 4 categories: less than 12th grade, 12th grade or general equivalency diploma (GED), some college, and college and above. When information on parental education was missing, we used the youth's response to questions regarding the highest level of education attained by the residing adult functioning as the youth's parent.

Statistical Analyses

Of the 20 745 participants, 3627 were excluded because of missing data (1821 were missing data that included sampling weight, 84 fell outside the age range, 14 were missing data on age, 2 were missing data on sex, and 1706 did not provide information on romantic attractions or relationships, responded "none" to questions on romantic attractions or relationships, or their information was missing). An additional 4515 had missing information on other demographic variables that were used in the model and were therefore not included in the analysis. The resultant analytic sample therefore included 12 603 participants (6203 boys and 6400 girls). These sample sizes were consistent with those of previous studies.[20,21] Response rates for Waves I and II were 78.9% and 88.2%, respectively.

Logistic regression models were fit for each wave to determine if smoking status differed across sexual orientation categories. The dependent variable for these models was smoking status at Waves I and II, with the independent variable being sexual orientation (i.e., same-sex, opposite-sex, or both-sex attractions or relationships) defined at Wave I. There were separate models for adolescent boys and girls, both of which controlled for race/ethnicity (White, Black, Hispanic, Asian, or other) and age.[12–14,15–19] Parental education and family income were also controlled for, as previous literature has demonstrated an association between these variables and smoking.

To determine the relation between smoking and romantic attractions or relationships over time, the model for Wave II was limited to those who were nonsmokers at Wave I. Prevalence of smoking by sexual orientation was estimated with both univariate and multivariate models through the use of frequencies weighted for age, sex, and race; χ^2 tests; and logistic regression analyses, which were stratified by sex. Differences between estimates were considered significant at the $P<.05$ level. Goodness-of-fit in the logistic regression models was tested with the Hosmer–Lemeshow goodness-of-fit statistic.[22] Statistical analyses and results were obtained with SUDAAN (Research Triangle Institute, Research Triangle Park, NC), which takes the complex sampling design and the unequal weighting of responses into account when calculating standard errors for prevalence estimates.[23] Prevalences and distributions were obtained with the CROSSTAB procedure, which also produced results from the χ^2 test, whereas the odds ratios and P values from the logistic models were attained through the LOGIST procedure.

RESULTS

Less than 8% (7.4%) of the adolescent respondents reported both-sex romantic attractions or relationships and less than 1% (0.66%) reported same-sex attractions or relationships, with a higher percentage of boys (8.1%) than girls (6.7%) reporting both-sex attractions or relationships ($P<.05$; Table 1). Compared with youths of other races, White youths made up a larger proportion of youths with opposite-sex attractions or relationships (68.1% of total) than of youths with both-sex (63.2%) or same-sex (68.1%) attractions or relationships. Statistical comparisons based on sexual orientation, age, and sex were limited to both-sex and

TABLE 1—Distribution of Sexual Orientation, by Sex: US Adolescents in Grades 7 Through 12, National Longitudinal Study of Adolescent Health Wave I, 1994–1995

	Same Sex Only, No. (%)	Both Sexes, No (%)	Opposite Sex Only, No. (%)
Male	54 (0.68)	638 (8.1)	7664 (91.3)
Female	62 (0.64)	592 (6.7)	8153 (92.7)
Overall	116 (0.66)	1230 (7.4)	15 817 (92.0)

Note. For a definition of sexual orientation categories, see the "Measures" subsection of "Methods". Sample sizes are unweighted; percentages are weighted for age, sex, and race.

TABLE 2—Selected Sample Demographic Characteristics, by Gender and Sexual Orientation: US Adolescents in Grades 7 Through 12, National Longitudinal Study of Adolescent Health Wave I, 1994–1995

	Males				Females			
	Same Sex Only, %	Both Sexes, %	Opposite Sex Only, %	P^a	Same Sex Only, %	Both Sexes, %	Opposite Sex Only, %	P^a
Race/ethnicity (n = 17 156)				<.01				.12
White	42.1	63.2	68.1		41.8	65.4	68.3	
Black	33.9	16.8	15.0		27.0	14.4	15.9	
Hispanic	14.3	16.1	11.4		27.7	12.6	11.3	
Asian	6.1	1.7	3.6		1.8	4.6	3.1	
Other	3.6	2.2	2.0		1.8	3.1	1.4	
Age, y (n = 17 163)				.88				<.01
12–14	34.4	30.0	30.4		30.9	24.4	33.4	
15–19	65.6	70.0	69.6		69.1	75.6	66.6	
Grade (n = 16 798)				.14				<.01
7	12.7	14.5	15.0		6.2	10.7	16.1	
8	24.3	21.8	16.6		22.9	12.1	16.0	
9	15.3	13.6	18.0		20.6	16.9	17.5	
10	26.3	16.2	15.9		15.2	16.2	17.9	
11	9.6	16.3	17.0		12.5	20.6	15.5	
12	11.8	17.6	17.4		22.6	23.5	17.0	
Parental education (n = 14 547)				<.01				.05
Less than 12th grade	36.6	14.7	10.5		28.1	12.7	10.9	
Completed 12th grade or received GED	29.3	30.7	25.6		32.3	28.6	26.9	
Some college	16.0	26.8	32.3		21.9	27.1	31.5	
College and above	18.1	27.9	31.6		17.6	31.6	30.8	
Family income, $ (n = 12 772)				.01				.33
<20 000	35.1	22.6	19.3		37.4	21.3	21.4	
20 000–34 999	24.9	26.1	21.8		23.3	24.0	21.6	
35 000–54 999	6.5	25.6	29.1		20.1	22.9	27.0	
≥55 000	33.6	25.8	29.9		18.6	31.8	30.1	

Note. GED = general equivalency diploma. For a definition of sexual orientation categories, see the "Measures" subsection of "Methods". Percentages are weighted for age, gender, and race.
[a]$P < .05$ (χ^2).

opposite-sex romantic attractions or relationships because sample sizes for same-sex attractions or relationships were too small (<20).

For adolescent boys, the prevalence of smoking was significantly ($P<.01$) higher among those with both-sex romantic attractions or relationships (36.7%) than among those with opposite-sex attractions or relationships (29.2%). For adolescent girls, the prevalence of smoking was significantly ($P<.01$) higher among those with both-sex attractions or relationships (47.9%) than for those with same-sex (16.2%) or opposite-sex (29.1%) attractions or relationships. This finding also held for girls aged 15 to 19: smoking was more prevalent among those with both-sex romantic attractions or relationships (52.2%; $P<.01$) than among those with same-sex (21.5%) or opposite-sex (32.9%) attractions or relationships (Table 3).

Overall, 30.0% of respondents reported current smoking at Wave I (data not shown). All differences in smoking by age were statistically significant. Whereas overall current smoking prevalence was similar for adolescent boys (29.2%) and girls (29.1%) with opposite-sex romantic attractions or relationships, among those with both-sex attractions or relationships, a higher percentage of girls (47.9%) than boys (36.7%) were likely to be current smokers (Table 3).

The full logistic regression models for Waves I and II are presented in Table 4. At both waves, the odds of being current smokers were greater for adolescent boys and girls with both-sex romantic attractions or relationships than for those with opposite-sex attractions or relationships. At Wave I, the odds ratios of boys and girls with both-sex romantic attractions or relationships being current smokers were 1.42 (95% confidence interval [CI]=1.07, 1.88; $P=.02$) and 2.23 (95% CI=1.64, 3.02; $P\leq.01$), respectively, compared with the odds ratios of those with opposite-sex romantic attractions or relationships. At Wave II, the odds ratios of boys and girls with both-sex romantic attractions or relationships being current smokers were 1.30 (95% CI=0.85, 1.99; $P=.23$) and 1.81 (95% CI=1.16, 2.81; $P<.01$), respectively, compared with the odds ratios with opposite-sex attractions or relationships.

DISCUSSION

Research to date has consistently demonstrated higher rates of smoking among LGB youths than among heterosexual youths.[1] Most of these studies used cross-sectional data. Our study was undertaken to examine the relation between sexual orientation and smoking initiation at one point in time as well as over time.

TABLE 3—Current Smoking, by Sexual Orientation, Gender, and Age: US Adolescents in Grades 7 Through 12, National Longitudinal Study of Adolescent Health Wave I, 1994–1995

	Same Sex Only			Both Sexes			Opposite Sex Only			
	No. Adolescents, Unweighted	No. of Current Smokers,[a] Unweighted	%	No. Adolescents, Unweighted	No. of Current Smokers,[a] Unweighted	%	No. Adolescents, Unweighted	No. of Current Smokers,[a] Unweighted	%	*P*[b]
Males										
Age, y										
12–14	14	1	9.4	142	35	26.7	1753	305	17.1	.08
15–19	40	12	24.6	486	160	41.0	5826	1812	34.4	.05
Total	54	13	19.4	628	195	36.7	7579	2117	29.2	<.01
Females										
Age, y										
12–14	16	1	5.0	105	32	34.4	2164	435	21.5	.07
15–19	44	9	21.5	481	212	52.2	5938	1688	32.9	<.01
Total	60	10	16.2	586	244	47.9	8102	2123	29.1	<.01

Note. For a definition of sexual orientation categories, see the "Measures" subsection of "Methods". Percentages are weighted for age, sex, and race.
[a]A current smoker was defined as someone who reported having smoked on at least 1 of the 30 days preceding the survey.
[b]$P < .05$ (χ^2).

A recent study by Austin et al.[6] used cross-sectional nationwide data from the 1999 Growing Up Today Study. The study, which included children of participants in the Nurses' Health Study II, assessed the prevalence of tobacco use among 10 685 adolescent girls and boys. They found that lesbian/bisexual girls (42.9%) were more likely to report smoking in the past month than were heterosexual girls (9.3%); this was also true for gay/bisexual boys (14.6%) compared with heterosexual boys (8.2%). They reported that whereas the odds of smoking among gay and bisexual boys did not statistically differ from those among heterosexual boys, the odds of smoking among lesbian and bisexual girls were 6 times greater than were those among heterosexual girls.

Our findings were similar to theirs in that adolescent girls and boys who reported both-sex romantic attractions or relationships were significantly more likely to be current smokers and to smoke at follow-up than were those with same-sex or opposite-sex attractions or relationships. Our findings were also consistent with previous statistics[1] showing smoking rates for LGB youths ranging from 38% to 59%, compared with 28% to 35% for youths overall during comparable periods. Taken together, our findings and those of Austin et al. present compelling evidence that bisexual youths are more likely to smoke and are at greater risk for smoking initiation than their heterosexual counterparts; our findings indicate that this is particularly true for girls reporting both-sex romantic attractions or relationships.

Further research is needed as to why smoking rates may be higher among LGB youths in general and bisexual girls in particular. Although the literature to date on smoking and sexual orientation is consistent and convincing, additional analyses of longitudinal studies such as the Add Health Study and the Growing Up Today Study may further explain the relation between sexual orientation and smoking.

LGB youths experience greater daily stress associated with homophobia, discrimination, and feelings of not belonging, which is reflected in greater risks of violence,[14,15,20] depression, and attempted suicide,[11–13,24] all of which may be associated with a greater risk of substance abuse.[3–6,21,25] According to Anda et al.[26] in their study of adverse childhood events, the Adverse Childhood Events (ACE) study, adults and youths may use tobacco and other substances as a way of self-medicating the underlying pain associated with adverse childhood experiences or depression. Although Anda et al. may not have considered antigay harassment and violence when formulating their theory on adverse childhood experiences, which included physical, mental, and emotional abuse, it seems particularly applicable to LGB youths. LGB youths may be at a greater risk of adverse experiences from family, friends, peers, and society because of their sexual orientation.[13–15]

Our study has several limitations. First, as it was a longitudinal survey, students who were in their senior year of high school during Wave I were not interviewed at Wave II, which accounts for the decrease in the number of participants interviewed. Second, the Add Health Study does not include a sexual orientation identity variable, which necessitated the use of proxy measures determined through questions on romantic attractions and relationships. Third, to date there is no accepted standard methodology for assessing sexual orientation. Although Laumann et al.[27] have presented sentinel work on sexual orientation, which included the 3 elements of identity, behavior, and attraction, there remains no standard measure of sexual orientation for youths or adults.

In addition, the studies of sexual orientation and health risk behaviors are particularly challenging given the dynamics of adolescent culture and self-identification.[28] Categories routinely used in surveys may not resonate or adequately capture youths' feelings or behaviors. Although same-sex attractions and relationships were assessed in the current study, sexual orientation identity and behavior were not, thereby limiting direct comparison with previous studies on smoking and sexual orientation. However, regardless of which measure is selected, and whether it is based on sexual orientation identity, behavior, or same-sex romantic attractions or relationships, research consistently finds higher rates of smoking for these youths than for their heterosexual peers. Fourth, romantic attractions to or relationships with those of the same sex or both sexes may have been underreported because of continued associated stigmas and social undesirability.

Last, our data was collected in 1994 and 1995, and as such it may not reflect current prevalence rates of smoking among LGB youths. However, the most recent review of the literature on this topic, conducted in 2001,[1]

TABLE 4—Adjusted Odds Ratios (AORs) and 95% Confidence Intervals (CIs) for Current Smoking,[b] by Sexual Orientation: US Adolescents in Grades 7 Through 12, National Longitudinal Study of Adolescent Health Wave I, 1994–1995, and Wave II, 1996

	Males[a]		Females[b]	
	Current Smoking,[c] AOR[d] (95% CI)	*P*[e]	Current Smoking,[c] AOR[d] (95% CI)	*P*[e]
	Wave I (Full Model)			
Age, y				
12–14 (Ref)	1.00		1.00	
15–19	2.46 (2.00, 3.02)	<.01	1.93 (1.55, 2.40)	<.01
Race/ethnicity				
White (Ref)	1.00		1.00	
Black	0.46 (0.37, 0.59)	<.01	0.21 (0.16, 0.28)	<.01
Hispanic	0.64 (0.46, 0.88)	.01	0.47 (0.33, 0.67)	<.01
Asian	0.46 (0.32, 0.68)	<.01	0.35 (0.17, 0.69)	<.01
Other	1.60 (0.94, 2.71)	.08	0.54 (0.34, 0.86)	.01
Family income, $				
<20 000 (Ref)	1.00		1.00	
20 000–34 999	1.03 (0.79, 1.33)	.84	0.85 (0.66, 1.09)	.20
35 000–54 999	0.78 (0.59, 1.04)	.10	0.83 (0.65, 1.06)	.13
≥55 000	0.80 (0.61, 1.04)	.10	0.89 (0.69, 1.14)	.35
Parental education				
Less than 12th grade (Ref)	1.00		1.00	
Completed 12th grade or recieved GED	1.19 (0.84, 1.69)	.32	1.00 (0.71, 1.42)	.99
Some college	1.25 (0.89, 1.75)	.2	0.92 (0.65, 1.30)	.64
College and above	0.92 (0.64, 1.31)	.62	0.71 (0.49, 1.03)	.07
Sexual orientation				
Same sex	0.87 (0.28, 2.71)	.80	0.67 (0.27, 1.66)	.40
Both sexes	1.42 (1.07, 1.88)	.02	2.23 (1.64, 3.02)	<.01
Opposite sex (Ref)	1.00		1.00	
	Wave II (Full Model)			
Age, y				
12–14 (Ref)	1.00		1.00	
15–19	1.14 (0.90, 1.45)	.28	0.89 (0.69, 1.14)	.35
Race/ethnicity				
White (Ref)	1.00			
Black	0.59 (0.39, 0.88)	<.01	0.28 (0.18, 0.43)	<.01
Hispanic	0.86 (0.58, 1.26)	.43	0.85 (0.60, 1.21)	.37
Asian	0.47 (0.28, 0.80)	<.01	0.67 (0.37, 1.24)	.20
Other	0.95 (0.40, 2.30)	.92	0.54 (0.25, 1.16)	.11
Family income				
<20 000 (Ref)	1.00		1.00	
20 000–34 999	1.37 (0.99, 1.88)	.06	1.12 (0.81, 1.54)	.48
35 000–54 999	1.16 (0.80, 1.68)	.42	0.83 (0.60, 1.11)	.20
≥55 000	1.04 (0.72, 1.50)	.85	0.79 (0.50, 1.25)	.31
Parental education				
Less than 12th grade (Ref)	1.00		1.00	
Completed 12th grade or received GED	0.63 (0.41, 0.98)	.04	1.34 (0.85, 2.12)	.21
Some college	0.72 (0.46, 1.14)	.16	1.35 (0.82, 2.22)	.24
College and above	0.72 (0.45, 1.16)	.18	1.21 (0.65, 2.23)	.55

Continued

suggests that smoking prevalence rates among LGB youths have remained consistent.

Our findings contribute to the existing literature on smoking among LGB youths and present data that show that sexual orientation is directly related to smoking initiation over time. These data, taken together with existing literature on this topic, continue to point to the need for addressing disproportional smoking initiation by LGB youths. Youths reporting both-sex romantic attractions or relationships are more likely to start to smoke than their heterosexual peers. Tobacco use prevention programs targeting LGB youths are warranted, particularly among girls who have had both-sex romantic attractions or relationships. ■

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Contributors

A. Easton wrote the first draft of the article. A. Easton and R. Sell jointly conceptualized the study. K. Jackson and D. Comeau conducted all analyses. P. Mowery advised on methodology and statistical analyses. A. Easton, K. Jackson, P. Mowery, and R. Sell jointly reviewed and revised the article and provided responses to all reviewer comments.

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Note. The findings and conclusions in this report are those of the authors and do not necessarily represent the views of the funding agency.

Human Participation Protection

Institutional review board approval was not required as this was a secondary data analysis.

TABLE 4—*Continued*

Sexual orientation				
Same sex	1.30 (0.40, 4.22)	.66	1.02 (0.32, 3.28)	.97
Both sexes	1.30 (0.85, 1.99)	.23	1.81 (1.16, 2.81)	.01
Opposite sex (Ref)	1.00		1.00	

Note. GED = general equivalency diploma. For a definition of sexual orientation categories, see the "Measures" subsection of Methods.
[a]n = 6203 at Wave I; n = 3281 at Wave II.
[b]n = 6400 at Wave I; n = 3470 at Wave II.
[c]A current smoker was defined as someone who reported having smoked on at least 1 of the 30 days preceding the survey. At Wave II, a current smoker was someone who smoked at Wave II but not at Wave I.
[d]AORs were calculated from a logistic regression model that adjusted for age, race/ethnicity, family income, and parent education.
[e]$P < .05$ (χ^2).

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