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Research Letter (Word Count: 533/500)

Widening sexual orientation inequities in smoking among older adults in the United States, 2015-2019

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A recent editorial in *Tobacco Control* noted the neglect of older adults in the field of tobacco control, arguing that we must do better.[1] This research letter seeks to answer that call and amplify its message by assessing what is missed in health equity research when older adults are ignored in another area of inequity: differences in smoking by sexual orientation.[2, 3] Older lesbian, gay, and bisexual (LGB) adults often have been rendered invisible in popular culture with detrimental effects.[4] While evidence clearly shows LGB adults overall have higher risk of smoking than their heterosexual counterparts,[2] research and interventions for addressing LGB smoking inequities, with some exceptions,[e.g.][5] neglect older adults.[6] This letter examines trends in inequities in smoking between LGB and heterosexual older adults.

Methods

We used pooled data from the 2015-2019 National Survey on Drug Use and Health (NSDUH), a repeating cross-sectional, nationally representative survey of U.S. residents age ≥12. We estimated smoking prevalence for older adults aged ≥50 (N=43,956) by gender and sexual identity. Smoking was defined as having smoked in the last 30 days and having smoked ≥100 cigarettes. Following the National Center for Health Statistics guidelines for analysis of trends,[7] we used logistic regression to examine the association between continuous year (time) and smoking controlling for sexual identity (Model 1). We also tested inequities in change using an interaction between year and sexual identities (Model 2). Sensitivity analysis showed that results did not change significantly after controlling for race/ethnicity and/or income. Presented results do not include these variables. We used design-based weights and excluded respondents with missing sexual orientation (1.21%).

Results

Smoking prevalence was 15.65% among heterosexual and 20.83% among sexual minority respondents, respectively; 2.54% of respondents identified as LGB. In Model 1, there was a significant decreasing trend of smoking among all older adults: With each passing year, the odds of smoking went down (aOR 0.98, 95%CI 0.95-1.00). Heterosexual men (aOR 1.22, 95%CI 1.15-1.30), gay men (aOR 1.57, 95%CI 1.15-2.13), bisexual women (aOR 1.40, 95%CI 0.94-2.09), and lesbian women (aOR 1.58, 95%CI 1.11-2.24) had a higher likelihood of smoking than heterosexual women. In Model 2, there was a significant interaction between year and sexual identity (aOR 1.34, 95%CI 1.02-1.75). That is, the change in likelihood of smoking from 2015 to 2019 for bisexual women was significantly different than the change for heterosexual women. Figure 1 shows the predicted probabilities of smoking over time with decreasing or flat probabilities for heterosexual men and women as well as for gay and bisexual men. This was not the case for bisexual women for whom the sexual orientation inequity in smoking is worsening.

Discussion

Widening inequities in current smoking across some sexual identities among older adults indicate the importance of ensuring cessation campaigns for LGB adults are not just reaching younger adults. Limitations include self-reporting of identity and the omission of gender identity from the NSDUH. As documented in prior work, LGB older adults are at higher risk of smoking than their heterosexual counterparts,[5] and bisexual women may be at particular risk of smoking.[3] For tobacco-related inequities to get better, we must do better at identifying inequities among older adults and prioritizing the inclusion of, in particular, bisexual women for cessation interventions.

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Conflicts of Interest

The authors declare that there is no conflict of interest.

Contribution Statement

JY and JGLL developed the research question; JY conducted statistical analyses; JY and JGLL contributed equally to drafting the manuscript.

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