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ORIGINAL ARTICLE

Reactions to smoke-free public policies and smoke-free home policies in the Republic of Georgia: results from a 2014 national survey

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Abstract
Objectives We examined receptivity to public smoke-free policies and smoke-free home status among adults in the Republic of Georgia.
Methods In Spring 2014, we conducted a national household survey of 1163 adults.
Results Our sample was on average 42.4 years old, 51.1 % male, and 43.2 % urban. Current smoking prevalence was 54.2 % in men and 6.5 % in women. Notably, 42.2 % reported daily secondhand smoke exposure (SHSe). Past week SHSe was 29.9 % in indoor public places and 33.0 % in outdoor public places. The majority reported no opposition to public smoke-free policies. Correlates of greater receptivity to public policies included being older, female, and a nonsmoker. Past week SHSe in homes was 54.2 %; 38.8 % reported daily SHSe at home. Only 14.3 % reported complete smoke-free home policies; 39.0 % had partial policies. The only correlate of allowing smoking in the home was being a smoker. Among smokers, correlates of allowing smoking in the home were being male and lower confidence in quitting.
Conclusions SHSe is prevalent in various settings in Georgia, requiring efforts to promote support for public smoke-free policies and implementation of personal policies.

Keywords Tobacco control · Secondhand smoke exposure · Public health policy · Health disparities

Introduction

Cigarette smoking is a major global public health issue, with roughly 31.1 % of men and 6.2 % of women being daily smokers (Ng et al. 2014). In fact, more than six million people die every year as a consequence of tobacco smoking (World Health Organization [WHO] 2011). Unfortunately, low- and middle-income counties (LMICs) are disproportionately affected by tobacco-related diseases and deaths. Four-fifths of current smokers live in LMICs (WHO 2011). Moreover, almost half of smoking-related deaths occur in the developing world (Lopez et al. 2006).

One high-risk region for tobacco use is the area of the former Soviet Union (Roberts et al. 2012). Georgia, a former Soviet Union country and a lower middle-income country (WHO 2008), has shown a record decrease in population over recent years, mainly attributed to premature mortality and migration (Bakhturidze et al. 2008). The tobacco-related death toll in Georgia is estimated to be around 11,000 deaths per year (Bakhturidze et al. 2008). The 2012 Georgia STEPS report (WHO 2012) indicated that 53.0 % of men and 4.4 % of women were current smokers (Berg et al. 2015c). Similar to the trends of other former Soviet Union countries (Roberts et al. 2012), smoking prevalence is higher among men with lower education and lower income and those who live in smaller settlements, whereas the smoking prevalence among

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women is higher among the more educated and affluent and those who live in larger cities, potentially indicating the growing tobacco epidemic among Georgian women (Bakhturidze et al. 2008).

The growing tobacco use epidemic and high tobacco-related morbidity and mortality in Georgia may be in part due to lagging tobacco control policies and practices (American Lung Association [ALA] 2014). The WHO Framework Convention on Tobacco Control (FCTC) mandates that nations that ratify the FCTC implement a range of tobacco control policies. Public smoke-free legislation is a major evidence-based tobacco control strategy. Comprehensive smoke-free indoor air laws ban smoking of tobacco products in all indoor areas in worksites, restaurants, and bars, and do not allow for separately ventilated areas. Research strongly supports the effectiveness of public smoke-free policies in reducing secondhand smoke exposure (SHSe), the initiation of tobacco use among young people, tobacco use prevalence, tobacco-related morbidity and mortality, and healthcare costs (Centers for Disease Control and Prevention [CDC] 2012). Despite ratifying the FCTC in 2005, only a partial national smoke-free policy is in place in Georgia.

Outside the context of smoke-free policies in public places, the home is a significant source of SHSe (Ashley and Ferrence 1998). Smoke-free policies in personal places such as homes and cars are associated with reduced smoking among adults and a reduction of SHSe among children and nonsmoking adults sharing those spaces (Cartmell et al. 2011). Additionally, having smoke-free home policies is associated with reduced cigarette consumption, increased quit attempts, and reduced chance of relapse (Borland et al. 2006; Clark et al. 2006; Hyland et al. 2009a). Therefore, adopting smoke-free policies in personal spaces can both protect individuals living in the home from SHSe and help smokers quit. Furthermore, the implementation and enforcement of smoke-free homes may indicate that a person is more likely to support smoke-free public places (Borland et al. 2006). As such, it is critical to document the prevalence and correlates of smoke-free home policies.

Given the aforementioned literature, we used a national household survey of Georgian adults conducted in 2014 to examine participant characteristics and tobacco use rates in relation to reactions toward public smoke-free policies and the adoption of smoke-free policies in personal settings among Georgian adults.

Methods

Procedures and participants

This study was approved by the Institutional Review Boards of Emory University and the National Centers for Disease Control and Public Health in Georgia. The current survey was carried out from February to May, 2014. This study was a population-based survey of adults aged 18–64 years. A multi-stage, clustered sample design was used. The study was conducted country-wide—in the capital city and 10 regions. The most recent census data—the 2002 database—was used for sampling frame. Stratification was done by regions, and each region was divided into two strata (urban and rural), yielding 22 overall. Sample size was calculated proportionately by the number of households in the regions.

Among 22 strata, 122 clusters were formed so that at least nine interviews could be conducted in each cluster. The "random walk" method was used for selecting the households within the cluster. For households with more than two eligible adults (i.e., those aged 18–64 years), the "Kish method" used in the WHO's STEPS surveys was applied (WHO 2014). In the KISH method, all eligible participants from the household are first ranked according to age in decreasing orders (males followed by females). Then, participants are selected using the KISH table identifying the last digit of household and number of eligible participants (WHO 2014). In total, 1539 visits were performed, among which 1295 households had eligible adults residing within. A total of 1163 adults participated in the survey (response rate = 89.8 %).

Measures

The survey assessed sociodemographic characteristics, tobacco use, and reactions to various tobacco control policies, among other factors. Below we highlight each of the measures included in the current analyses.

Sociodemographic characteristics: Participants were asked to report their age, sex, number of years of education, their monthly income in Lari, their employment status (employed part-time, employed full-time, unemployed, student, homemaker, retired, unable to work or disabled, other), their relationship status (married, living with a partner, single/never married, divorced, widowed), the number of people in the home, the number of children in the home, and the number of friends out of their five closest who smoked (Berg et al. 2015a, b). Categorizations for relationship status and employment status were collapsed based on the distribution of the sample and the similarities in responses to outcome measures. Participants were also asked to report the type of setting in which they live (urban, rural).

Tobacco use: Participants were asked if they used tobacco in their lifetime and if they currently smoke tobacco on a daily basis, less than daily, or not at all. Those that reported daily smoking or less than daily smoking were categorized

as current smokers (CDC 2013). Current smokers were also asked to report the number of days in the past 30 days that they smoked and the number of cigarettes they smoked per day (CPD) (Centers for Disease Control and Prevention 2013). They were asked to report on a ten-point scale (0 = not at all to 10 = extremely) how important quitting smoking was to them and how confident they were that they could quit smoking (Biener and Abrams 1991). Finally, they were asked to report the number of times they attempted to quit smoking in the past year (CDC 2013).

Perceived harm of SHSe: Participants were asked to indicate their level of agreement to the statement, "Inhaling tobacco smoke when somebody else is smoking is harmful to you". Response options were: Strongly agree, Somewhat agree, Somewhat disagree, Strongly disagree, or Don't know (WHO 2015).

Exposure to secondhand smoke: To assess general SHSe, participants were asked, "How often do you happen to inhale other people's smoke? Almost never or rarely; Several times a week; Almost daily; Regularly, several hours a day; or Don't know" (WHO 2015). To assess exposure specific to the home setting, participants were asked, "How often does anyone smoke inside your home? Daily, Weekly, Monthly, Less than monthly, or Never." They were also asked, "During the past 7 days, on how many days: Did someone smoke tobacco products in your home while you were there? Did you ride in a vehicle where someone was smoking a tobacco product? Did you breathe the smoke from someone who was smoking tobacco products in the place where you work? Did you breathe the smoke from someone who was smoking tobacco products in an indoor public place (e.g., school buildings, stores, restaurants, and sports arenas)? Did you breathe the smoke from someone who was smoking tobacco products in an outdoor public place (e.g., school grounds, parking lots, stadiums, and parks)?" (WHO 2015). Participants were asked to list the number of days for each circumstance. They were instructed not to including times when they themselves were the smoker.

Reactions to public smoke-free policies: Participants were asked, "For each of the following places, indicate how you feel about a policy prohibiting smoking in that kind of place"—see Table 2 for the list of places (WHO 2015). Response options were: 1 = Strongly oppose, 2 = Somewhat oppose, 3 = Somewhat favor, 4 = Strongly favor, or 5 = Don't know. Those who reported "Don't know" were excluded from our analyses involving reactions to public smoke-free policies; notably, this category comprised less than 6 % of the sample across items. We operationalized responses in two ways. In Table 2, we present the proportion of respondents that reported "strongly oppose" or "somewhat oppose". We also developed a receptivity index that was a total score across items. Specifically, responses were assigned a value of 1 = Strongly oppose to 4 = Strongly favor, and we added these points across items inquiring about their responses to each item.

Smoke-free policies in personal settings. Participants were asked, "Which of the following best describes the rules about smoking inside of your home: Smoking is allowed inside of your home, smoking is generally not allowed inside of your home but there are exceptions, smoking is never allowed inside of your home, or there are no rules about smoking in your home?" Their responses were recorded as: Allowed; Not allowed, but exceptions; Never allowed; No rules; or Don't know. This measure was adapted to assess smoke-free car status.

Data analyses

Descriptive statistics were conducted. In particular, we then examined prevalence of SHSe and opposition to public smoke-free policies among current smokers versus nonsmokers in this sample. Bivariate analyses (i.e., *t* tests, ANOVAS, Chi-squared tests, and correlations) were then conducted to examine associations between participant characteristics and (1) overall receptivity to public smoke-free policy index scores; and (2) smoke-free home policy status. Finally, we conducted multivariable linear and logistic regression models examining factors associated with receptivity to public policies and smoke-free home status, respectively, using backwards stepwise entry of the correlates of interest. We conducted subanalyses regarding correlates of smoke-free home policy status among current smokers. All statistical modeling was conducted using SPSS 23.0 (IBM, Armonk, NY), and alpha was set at 0.05.

Results

Supplementary Table 1 presents data comparing our sample to the general population per the 2014 Geostat data in relation to age and gender, showing that our sample was slightly older than the general population. Our sample was on average 42.4 years old (SD 13.6), 51.1 % male, 43.2 % urban, 65.6 % married or living with a partner, and 53.0 % had children in the home (Table 1). They had an average of 12.8 years of education (SD 2.9), and 40.0 % were employed. Current tobacco use prevalence was 30.9 % (95 % confidence interval [CI] 28.2, 33.6 %) among all participants, 54.2 % (CI 50.2, 58.2 %) among men, and 6.5 % (CI 4.5, 8.5 %) among women.

The vast majority (93.5 %) agreed that inhaling someone else's smoke is harmful. In general, 42.2 % (n = 473)

Table 1 Participant characteristics (Republic of Georgia, 2014)

Variable	*M* (SD) or *N* (%)
Sociodemographic factors	
Age (SD)	42.4 (13.6)
Sex (%)	
Male	594 (51.1)
Female	569 (48.9)
Setting (%)	
Urban	502 (43.2)
Rural	659 (56.8)
Number of years of education (SD)	12.8 (2.9)
Income per month (Lari) (SD)	637.5 (1641.9)
Employment status (%)	
Employed full- or part-time	463 (40.0)
Unemployed	358 (30.9)
Homemaker	207 (17.9)
Other	130 (11.2)
Relationship status (%)	
Married/living with partner	762 (65.6)
Other	401 (34.6)
Number of people in the home (SD)	3.8 (1.9)
Children under 18 in home (%)	
No	493 (47.0)
Yes	555 (53.0)
Number of friends who smoke (SD)	2.5 (1.9)
Tobacco use	
Lifetime tobacco use (%)	
No	662 (56.9)
Yes	501 (43.1)
Current smoker (%)	
No	804 (69.1)
Yes	359 (30.9)
Among current smokers	
Number of days smoked, past 30 (SD)	20.7 (13.5)
CPD (SD)	20.3 (9.4)
Importance of quitting (SD)	5.8 (3.5)
Confidence in quitting (SD)	4.6 (3.2)
Number of past year quit attempts (SD)	0.6 (1.3)

Smoking prevalence: 54.2 % ($n = 322/594$) in men; 6.5 % ($n = 37/569$) in women

reported SHSe almost daily or multiple times a day, with an additional 12.2 % ($n = 137$) reporting exposure several times a week.

Public smoke-free policies

In the past 7 days, participants reported SHSe an average of 0.9 (SD 1.8) days in an indoor public place and 1.1 (SD 2.0) days in an outdoor public place. The total proportion reporting SHSe at all in the past 7 days was 29.9 % ($n = 348$) in an indoor public place and 33.0 % ($n = 384$) in an outdoor public place. Participants who were employed at least part-time ($n = 402$) reported SHSe an average of 2.1 (SD 2.5) days in the workplace, with 48.3 % ($n = 194$) reporting any SHSe in the workplace in the past 7 days.

The majority of participants reported no opposition to smoke-free public policies across the various settings (Table 2). Although across all settings, smokers reported more opposition to smoke-free public policies than nonsmokers, the majority of smokers did not oppose smoke-free workplaces and offices, areas outside entrances to public places, indoor and outdoor common areas of apartments, individual apartments, indoor and outdoor school and college areas, public parks, playgrounds, and beaches, public transportation, taxis, or cars with children present. The greatest opposition among the general population and among smokers was to restaurants, bars, and outdoor areas of these two settings (ranging from 34.8 to 40.6 %).

Bivariate analyses indicated that greater receptivity to public smoke-free policies (per the receptivity index) was associated with older age ($r = 0.14$, $p < 0.001$), being female ($M = 68.7$, SD = 11.7 vs. $M = 59.0$, SD = 14.1 in males, $p < 0.001$), being married ($M = 65.0$, SD = 13.5 vs. $M = 61.8$, SD = 14.2 among those unmarried, $p = 0.001$), having fewer friends who smoke ($r = -0.39$, $p < 0.001$), and being lifetime smokers ($M = 57.0$, SD = 14.1 vs. $M = 68.8$, SD = 11.3 in never smokers, $p < 0.001$) or current smokers ($M = 53.8$, SD = 13.6 vs. $M = 68.2$, SD = 11.2 in nonsmokers, $p < 0.001$). Multivariable analyses indicated that significant correlates of being more receptive to public smoke-free policies included older age ($p = 0.001$), being female ($p = 0.006$), and not being a current smoker ($p < 0.001$; Table 3).

Smoke-free policies in personal settings

Participants reported an average of 2.5 (SD 2.9) days of SHSe in the home while present and 1.5 (SD 2.3) days of exposure in the vehicle in the past 7 days. Note that the total proportion experiencing SHSe at all in the past 7 days in the home and car was 54.2 % ($n = 630$) and 38.1 % ($n = 443$), respectively. Additionally, 38.8 % ($n = 437$) reported being exposed to smoke in their home daily, with an additional 5.0 % ($n = 56$) reporting at least weekly exposure in the home.

Nonsmokers reported an average of 2.1 (SD 2.8) days of SHSe in the home while present and 1.0 (SD 1.8) days of exposure in the vehicle in the past 7 days. The proportion of nonsmokers reporting SHSe at all in the past 7 days in the home and car was 48.2 % ($n = 346$) and 29.4 %

Table 2 Opposition to public smoke-free policies in various settings among nonsmokers and current smokers in the Republic of Georgia, 2014

Variable	All participants $N = 1163$ [N (%)]	Nonsmokers $N = 804$ [N (%)]	Current smokers $N = 359$ [N (%)]	p value
Oppose smoke-free policies in[a]				
Workplaces	133 (12.1)	49 (6.4)	84 (25.2)	<0.001
Offices	126 (11.5)	49 (6.4)	77 (23.3)	<0.001
Areas outside entrances to public places	278 (26.0)	121 (16.1)	157 (48.9)	<0.001
Restaurants	373 (34.8)	147 (19.8)	226 (68.9)	<0.001
Bars, pubs, clubs	393 (36.7)	166 (22.3)	227 (69.2)	<0.001
Outdoor seating areas of restaurants, bars, pubs, clubs	434 (40.9)	196 (26.6)	238 (73.0)	<0.001
Indoor common areas of apartments	251 (24.2)	105 (14.4)	146 (47.4)	<0.001
Outdoor common areas of apartments	254 (23.8)	99 (13.3)	155 (47.7)	<0.001
Within individual apartments	245 (23.9)	118 (16.5)	127 (41.1)	<0.001
Indoor areas on school grounds	80 (7.3)	43 (5.7)	37 (11.0)	0.002
Outdoor areas on school grounds	97 (8.9)	53 (7.0)	44 (13.1)	0.001
Indoor college or university buildings	84 (7.7)	49 (6.4)	35 (10.4)	0.021
Outdoor areas on college campuses	124 (11.4)	65 (8.6)	59 (17.7)	<0.001
Bus and train stops	320 (29.9)	141 (18.9)	179 (55.1)	<0.001
Public parks, playgrounds, beaches	287 (26.6)	131 (17.3)	156 (48.1)	<0.001
Outdoor events like concerts, sporting events, festivals	365 (33.9)	166 (22.1)	199 (61.2)	<0.001
In public transportation	138 (12.6)	65 (8.5)	73 (21.9)	<0.001
In taxis	165 (15.3)	61 (8.1)	104 (32.1)	<0.001
In cars with children under 18	115 (10.7)	51 (6.8)	64 (19.8)	<0.001

[a] On a scale of 1 = strongly favor to 4 = strongly oppose, % indicating 3 = oppose or 4 = strongly oppose

($n = 204$), respectively. Additionally, 29.9 % ($n = 223$) of nonsmokers reported SHSe in their home daily, with 4.1 % ($n = 32$) reporting at least weekly exposure in the home.

The following responses were given in relation to smoke-free home policies: 14.3 % ($n = 160$; CI 12.3, 16.3 %) never allowed; 38.0 % ($n = 426$) not allowed, but exceptions; 34.3 % ($n = 385$) allowed; 12.2 % ($n = 137$) no rules; and 1.2 % ($n = 13$) don't know. The following responses were given in relation to smoke-free car policies: 5.6 % ($n = 63$; CI 4.3, 6.9 %) never allowed; 14.9 % ($n = 167$) not allowed, but exceptions; 15.9 % ($n = 178$) allowed; 7.6 % ($n = 85$) no rules; 1.3 % ($n = 15$) don't know; and 54.7 % ($n = 613$) don't own a car.

Bivariate analyses indicated that those without complete smoke-free policies (vs. with complete policies) were younger ($M = 41.9$, SD = 13.3 vs. $M = 45.7$, SD = 14.2, $p = 0.001$), were more likely to be male (52.3 vs. 47.7 % in females, $p < 0.001$), had more friends who smoke ($M = 2.6$, SD = 1.9 vs. $M = 1.9$, SD = 1.8, $p < 0.001$), and were more likely to be lifetime smokers (87.6 vs. 78.8 % in never smokers, $p < 0.001$) or current smokers (91.1 vs. 78.9 % in nonsmokers, $p < 0.001$; Table 3). Multivariable analyses indicated that the only significant correlate of allowing smoking in the home was being a current smoker ($p < 0.001$; Table 3). Among current smokers, those without complete home smoke-free policies (versus complete policies) on average smoked more days in the past 30 ($M = 21.6$, SD = 13.1 vs. $M = 11.8$, SD = 14.5, $p < 0.001$), smoked more CPD ($M = 20.6$, SD = 9.4 vs. $M = 14.3$, SD = 8.7, $p = 0.005$), and reported lower confidence in quitting ($M = 4.4$, SD = 3.2 vs. $M = 7.3$, SD = 3.3, $p < 0.001$). Multivariable analyses indicated that significant correlates of not having a smoke-free home policy among current smokers were being male ($p < 0.001$) and lower confidence in quitting ($p = 0.004$; Table 3).

Discussion

Overall, current findings indicate that SHSe is a critical public health problem in Georgia. Despite the fact that over 93 % of participants believed SHSe is harmful, over four-tenths were exposed daily, with an additional 12 % being exposed several times a week. Moreover, current smoking estimates were similar to those found in the 2012 Georgia STEPS report (WHO 2012) of 53.0 % in men and 4.4 % in women (Berg et al. 2015c). This high smoking prevalence most certainly has implications for levels of SHSe among nonsmokers. A recent study (Oberg et al. 2011) found that, worldwide, SHSe caused 603,000 deaths (about 1.0 % of

Table 3 multivariable regression models identifying correlates of receptivity to public smoke-free policies and allowing smoking in the home (Republic of Georgia, 2014)

Variable	Coefficient	95 % CI	*p* value
Receptivity to public smoke-free policies among all participants[a]			
Age	0.10	0.04, 0.16	0.001
Sex			0.006
Male	Ref	–	
Female	2.64	0.76, 4.51	
Current smoker			<0.001
No	Ref	–	
Yes	−12.94	−14.99, −10.88	
	OR	95 % CI	*p* value
Allowing smoking in the home among all participants[b]			
Current smoker			<0.001
No	Ref	–	
Yes	3.28	1.95, 5.51	
Allowing smoking in the home among current smokers[c]			
Sex			<0.001
Male	Ref	–	
Female	0.53	0.38, 0.75	
Confidence in quitting	0.77	0.65, 0.92	0.004

[a] Adjusted R-squared = 0.290

[b] Nagelkerke R-square = 0.048

[c] Nagelkerke R-square = 0.129

worldwide mortality), with nearly half of those deaths in women and over a quarter of them in children. As such, Georgia represents a country with significant risk related to morbidity and mortality related to SHSe.

Public settings were a significant source of SHSe, with a quarter to a third of participants reporting at least a day a week of SHSe in the workplace and in public settings. This is not surprising given the weak public smoke-free policies in place in Georgia. However, it is important to note that public sentiment supports greater public smoke-free policy implementation. Indeed, the majority of both nonsmokers and smokers reported no opposition to smoke-free public policies across most settings. Predictors of being more receptive to public smoke-free policies included being older, female, and a nonsmoker, similar to findings in other countries (Hyland et al. 2009b; Thrasher et al. 2010a, b).

The greatest opposition among the general population and among smokers was to smoke-free restaurants, bars, and outdoor areas of these two settings. Bars and restaurants are two public settings that have proven to be a challenge for passing smoke-free legislation (Loomis et al. 2013). In Georgia, only partial smoke-free policies apply to these settings such that a nonsmoking section is required in these establishments. Some of the common concerns about passing complete smoke-free policies in these settings include the rights of business owners to dictate the rules in their establishments, the rights of individuals to smoke in these settings, and their impact on business. However, in relation to the former two points, individual rights must be protected within the context of ensuring the rights of nonsmokers and protecting public health (Feldman and Bayer 2004). In relation to the latter point, evidence suggests that smoke-free policies do not have an adverse economic impact on businesses and may have a positive impact in some contexts (International Agency for Research on Cancer 2009; CDC 2012).

Despite these exceptions, there was generally support for public smoke-free policies. Given these findings, it is important to consider why tobacco control policies, specifically comprehensive smoke-free policies, are not largely adopted in Georgia. Many possible explanations exist. One might be that constituents are not highly engaged with their lawmakers (Berg et al. 2015c), which is critical in advancing tobacco control legislation (Flynn et al. 1997). This is particularly important given the importance of lobbying for influencing public policy, whether the influence comes from the public health community or the tobacco industry (Schmidt et al. 2014; Berg et al. in press). Another explanation may stem from policymakers' misconceptions about the negative health impacts of SHSe or the economic and public health benefits of smoke-free policies (Flynn et al. 1998; Thrasher et al. 2015; Berg et al. in press). These misconceptions can be easily addressed, as noted above. Finally, policymakers' decisions may be influenced more by their own personal

attitudes and interests than the interests and opinions of citizens (Songer et al. 1986; Hahn et al. 1999).

Over half of our sample reported SHSe in the home in the past week, and nearly four-tenths reported SHSe in the car. Moreover, four-tenths reported being exposed to smoke in their home daily. These estimates were quite similar among nonsmokers exclusively. These findings reflect the fact that only 14.3 % reported that smoking was never allowed in their home and only a tenth of car owners reported that smoking was never allowed in their car. As such, personal settings are a significant source of SHSe, which is concerning given the aforementioned levels of exposure in public settings as well.

Multivariable analyses indicated that the only significant predictor of allowing smoking in the home was being a smoker. This is not in line with prior research in other countries indicating that household smoking bans are more common in households with children or more nonsmoking adults (Berg et al. 2006; Pizacani et al. 2008). Additionally, current smokers without complete smoke-free home policies were more likely to be male and had lower confidence in quitting. Smoke-free home policies have been associated with higher confidence in quitting (Borland et al. 2006; Cartmell et al. 2011). Unfortunately, unlike prior research (Borland et al. 2006; Clark et al. 2006; Hyland et al. 2009a, b), our sample did not demonstrate more recent quit attempts among those with complete smoke-free home policies. Indeed, overall cessation attempts in this sample are quite low, which may reflect overall social norms and related tobacco control policies are not having a significant impact on societal level interest in cessation and cessation promotion. These findings might suggest potential intervention targets involving the importance of cessation and the impact of SHSe on children and nonsmokers.

Current findings have important implications for research and practice. Research should examine the processes that impede the adoption of comprehensive public smoke-free policies and voluntary adoption of such policies in personal settings in Georgia. Relatedly, determining ways in which community engagement and coalition building can be fostered are critical in advancing smoke-free policy legislation (Schmidt et al. 2014). For public health practitioners, our findings suggest that Georgians are supportive of public smoke-free policies. Thus, this empirical evidence should be leveraged toward garnering political will to implement such policies, particularly within the context of the significant public health costs of SHSe-related morbidity and mortality in Georgia.

Limitations

Study limitations include the potential lack of generalizability, the use of self-report measures, and the cross-sectional nature of this data, limiting our ability to determine the directionality of the relationships documented and the number of correlates examined. Moreover, odds ratios may overestimate the true associations among variables when the prevalence of the condition under study (e.g., allowing smoking in the home) is high. Despite these limitations, these findings are important given the dearth of published research on correlates of receptivity to public smoke-free policies and implementation of voluntary smoke-free policies in individual homes and cars among adults in Georgia and potentially other former Soviet Union countries.

Conclusions

In Georgia, efforts must promote smoke-free policies, particularly among male smokers, to reduce SHSe, smoking rates, and ultimately the related morbidities and mortality. Georgians are experiencing high levels of SHSe both in public and private settings. While they are in support of adopting more rigorous public smoke-free policies, legislation has yet to adopt such policy. Moreover, the limited voluntary implementation of smoke-free policies in homes and cars warrants intervention efforts. These findings may also be relevant to other former Soviet Union countries where smoking prevalence, disparities in prevalence among the sexes, and tobacco control policies are similar.

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