Original Investigation

The Relationship of Home Smoking Bans to the Physical and Mental Health of Smokers

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Abstract

Introduction: The aim of this study is to examine whether the adoption of home smoking bans is associated with the physical and mental health of smokers. Two potential pathways that link home smoking bans to smoker’s health are analyzed. The first argues that home smoking bans are positively related to physical health by encouraging smoking cessation while reducing daily cigarette consumption. The second suggests that home smoking bans have a negative relationship to smokers’ mental health by increasing marginalization and social isolation.

Methods: Data on 28,887 Canadian smokers were analyzed from the Canadian Community Health Survey, a nationally representative sample of Canadians adults. Logistic regression models analyzed the impact of home smoking bans on subjective assessments of smoker’s physical and mental health. Separate analyses were conducted on daily and occasional smokers, and additional analyses tested interactions between the presence of a home smoking ban and key socioeconomic (gender and low household income) and structural (dwelling ownership, living alone, and dwelling type) covariates.

Results: Home smoking bans were not associated with smoker’s physical health and were positively associated with smokers’ mental health. These findings were consistent for daily smokers and occasional smokers. No significant interactions between smoking bans and socioeconomic or structural covariates were observed.

Conclusions: Findings are considered with respect to the internal and external constraints that shape smoker’s behavior, particularly the influence of social norms around environmental tobacco smoke exposure and good citizenship and the role of family relationships. The implications of study findings are considered with respect to public health policy.

Introduction

Evidence of the adverse health effects associated with environmental tobacco smoke (ETS) exposure has been accumulating for many years (Ashley et al., 1998; Berridge, 1999, 2003; Eriksen, LeMaistre, & Newell, 1988; Jinot & Bayard, 1994; Sandler, Everson, & Wilcox, 1995; Tredaniel, Boiffetta, Saracci, & Hirsch, 1994; United States Department of Health and Human Services, 1986; United States Environmental Protection Agency, 1992). This evidence has provided the impetus for the establishment of smoke-free policies in many public spaces with the aim of reducing the harm from smoking—particularly to the nonsmoker (Asbridge, 2004; Brownson, Eriksen, Davis, & Warner, 1997; Jacobson, Wasserman, & Raube, 1992; Mills, Messer, Gilpin, & Pierce, 2009; Room, 2005; Schroeder, 2008; Shiell & Chapman, 2000; Stubber, Galea, & Link, 2008). As Virginia Berridge has noted, the weight of evidence for the health effects of ETS transformed it into an identifiable risk, verified by scientific facts, while noting the key source of the risk—smoking—and suggesting a course of action to remove the risk—smoke-free policies (Berridge, 1999). Today, broad sweeping smoke-free policies exist in many jurisdictions, including Belgium, England, Australia, France, United States, Japan, China, and Canada, with more limited restrictions in many other nations (Cui, Li, & Rao, 2006; International Agency for Research on Cancer, 2009).

Initially, smoke-free policies aimed to regulate key public institutions, including hospitals, educational institutions, and government offices, but more recently, the focus has been to control smoking in less public locales, including workplaces, bars, and restaurants, as well as many outdoor areas that include “buffer zones” around buildings, patios, and green spaces. The most recent smoke-free policies have been contentious because of their move away from clearly defined “public” space into what may be considered “private” places—namely, the home and motor vehicles (Akhtar, Haw, & Currie, 2009; Freeman, Chapman, & Storey, 2008; Non-Smokers’ Rights Association, 2009). As these formal restrictions on smoking have emerged, there has been a corresponding increase in the number of voluntary policies banning smoking in the home. A recent study of Canadians found that home smoking bans were present in between 71% (Quebec) and 86% (British Columbia) of Canadian homes (Ferrence et al., 2005). It has been reported that just over 30% of Canadian smokers have implemented a complete ban against smoking within the home (Ashley et al., 1998; Berridge, 1999; Eriksen, LeMaistre, & Newell, 1988; Jinot & Bayard, 1994; Sandler, Everson, & Wilcox, 1995; Tredaniel, Boiffetta, Saracci, & Hirsch, 1994; United States Department of Health and Human Services, 1986; United States Environmental Protection Agency, 1992).
Borland et al., 2006), with many others implementing partial bans; a similar proportion of smoke-free homes has been reported in the United States (Soliman, Pollack, & Warner, 2004).

Evaluating the Health and Social Impact of Smoke-Free Policies

Collectively, research evidence suggests that the physical health benefits of smoking restrictions are widespread and include robust reductions in ETS-related morbidity and mortality, particularly heart disease, asthma, and other respiratory diseases, as well as improvements in indoor air quality, reductions in smoking rates, and decreases in the uptake of smoking among youth (Brownson et al., 1997; Farkas, Gilpin, Distefan, & Pierce, 1999; Proescholdbell, Chassin, & MacKinnon, 2000; Shelley, Yerneni, Hung, Das, & Fahs, 2007; Szabo, White, & Haymon, 2006; Wakefield, Banham, & Martin, 2000; Wakefield, Chaloupka, & Kaufman, 2000). However, while considerable research has focused on the association between smoke-free policies and the health and well-being of nonsmokers, far less attention has been paid to their impact on those who continue to smoke (Burgess, Fu, & van Ryn, 2009). What are the potential health and social consequences to smokers of smoke-free policies? There are at least two lines of evidence to review.

First, some concern has been raised as to whether the implementation of smoke-free policies have had consequent negative health impacts on smokers, particularly among marginalized populations such as the mentally ill or the poor (Dresler, Cherry, & Sade, 2008; El-Guebaly, Cathcart, Currie, Brown, & Gloster, 2002; Lazuras et al., 2000). To what extent smoke-free policies independently contribute to smokers’ health remains the key question (Burgess et al., 2009). The well-documented social class gradient in smoking suggests that smoke-free bans may further devalue already marginalized populations (Bayer & Stuber, 2006; Stuber et al., 2008). Smoke-free policies typically result in smokers being segregated and moved to other spaces, usually outdoors, that subject them to further marginalization and opportunities to be stigmatized (Kim & Shanahan, 2003) and may infringe on basic human rights (Chapman & Freeman, 2008; Lazuras et al., 2000). The effects may be far reaching and affect other aspects of the smokers’ personal and social life, leading to poorer overall health, particularly mental health and well-being (Verger et al., 2008).

Conversely, the potential health benefits to smokers of smoke-free policies may mimic the observed benefits in non smokers and outweigh any potential inconveniences (Lewis, Arnott, Godfrey, & Britton, 2005; Pierce & León, 2008). Smoke-free policies in the home may improve the health and well-being of smokers through limiting the number of cigarettes that are smoked per day as well as creating a culture of nonsmoking and assisting in cessation efforts for those smokers who wish to quit (Gilpin, White, Farkas, & Pierce, 1999; Grassi, Enea, Ferketich, Lu, & Nencini, 2009; Mills et al., 2009). These benefits are often hard to evaluate in the short term, particularly as they directly impact health, and thus, more nuanced analyses are required. For example, when we look at cigarette consumption rates in 2007, daily smokers in Canada averaged 15.5 cigarettes/day, a decrease of 25% from 1985 (Canadian Tobacco Use Monitoring Survey, 2007). This decline closely mirrors the rapid expansion in the number of public place restrictions on smoking enacted in Canada over this time period.

The Current Study

Building on the above literature, the aim of this paper is to explore the extent to which the presence of a home smoking ban affects the health and well-being of smokers and, if so, whether it is associated with good or poor physical and mental health. We offer two possible hypotheses: (a) that living in a home with a smoking ban will have a positive effect on the physical health of smokers and (b) that living in a home with a smoking ban will have negative effects on the mental health of smokers. We examine this relationship in both daily smokers and occasional smokers, while also considering a number of covariates likely to independently affect physical and mental health, including gender, age, income, education and location of residence, as well as smoking frequency and the presence of a chronic physical condition. We are also concerned with the extent to which certain structural conditions, such as dwelling ownership, dwelling type, and living alone, may shape any potential association between home smoking bans and the health and well-being of smokers.

Methods

Data

We analyzed data from the Canadian Community Health Survey (CCHS) Cycle 3.1, a cross-sectional nationally representative sample of 132,947 individuals aged 12 years and over and living in privately occupied dwellings in 122 health regions, spanning all provinces and territories. Excluded from the sampling frame are individuals living on Indian Reserves and on Crown Lands, institutional residents, full-time members of the Canadian Forces, and residents of certain remote regions. The CCHS’ coverage is in the range of 98% in the provinces; it is about 90% in the Yukon, 97% in the Northwest Territories, and 71% in Nunavut.

Data collection was conducted by Statistics Canada between January and December of 2005. The survey collected information related to health status, health care utilization, and health determinants for the Canadian population. It achieved an 83% response rate. Most of the interviews were conducted face to face, and about 14% of the survey was conducted over the phone.

Study Population

Inclusion criteria for the current study was individuals who identified as being either a current daily smoker or an occasional smoker as measured by the CCHS question, “At the present time, do you smoke cigarettes daily, occasionally or not at all?” Individuals who answered no to the above question were excluded from analyses. This left us with an unweighted sample of 28,887 individuals.

Measures

Our primary outcome measures were the physical and mental health of Canadian smokers aged 15 and older, which were assessed by two mutually exclusive questions. Self-rated physical health was derived from the question, “In general, would you say your health is excellent, very good, good, fair, or poor?” This question has been found to be a strong predictor of objective measures of morbidity and mortality and to have good validity.
as a single-item measure of physical health (DeSalvo, Bloser, Reynolds, He, & Muntnier, 2006; Goldberg, Gueguen, Schmaus, Nakache, & Goldberg, 2001; Marmot et al., 1991; Shields & Shooothari, 2001; Singh-Monoux et al., 2006). Self-rated mental health was derived from a similar question, “In general, would you say your mental health is excellent, very good, good, fair, or poor?” These measures were dichotomized, as is common practice (DeSalvo et al., 2006), to examine fair and poor physical and mental health compared with good, very good, and excellent health.

Smoking bans within the home were measured via the question, “Are there any restrictions against smoking cigarettes in your home?” that was further qualified as to whether the restrictions reflect a total ban on smoking in the home or whether smoking is restricted to certain locations in the home or is allowed under certain conditions. A home smoking ban was viewed as present only when smoking was not permitted at all in the home.

We considered three structural conditions—dwelling ownership, dwelling type, and living alone. Respondents to the CCHS were asked whether they were home owners via the question, “Is your dwelling owned by a member of this household?” While this does not identity specifically whether the smoker is the owner, it is an attempt to separate those individuals who may live in a home they, their partner, or family member own compared with one in which they pay rent or live only as a guest or temporary visitors. Living alone was based on a question as to whether the respondent lived with other individuals and, if so, how many. This variable was then dichotomized to measure whether the respondent lived alone or with others. Dwelling type was measured in four categories as detached home, non detached home, apartment, or other.

Sociodemographic variables include respondent’s age (continuous measure in years), sex (female/male), education (continuous measure with 10 levels ranging from less than Grade 8 education to graduate degree or other degree above bachelor level), residence location (urban or rural), and household low income. Household low income was a derived variable measuring the income distribution of Canadians in decimals and is a relative measure of their household income compared with the household incomes of all other respondents. We created three categories for this variable: a category for those with a household income within the lowest 20% of the Canadian population (which we classify as low income), a category for those with a household income in the upper 80% of the Canadian population, and a category for those who did not report their household income.

We also adjusted for the potential confounding of cigarettes smoked per day and the presence of a chronic health condition as they may affect the relationship between smoking bans and physical and mental health. The number of cigarettes smoked was a continuous measure, while the presence of a chronic physical condition was derived from questions pertaining to whether the respondent has any of the following conditions: asthma, fibromyalgia, arthritis or rheumatism, high blood pressure, migraine headaches, chronic bronchitis, diabetes, heart disease, cancer, stomach or intestinal ulcers, stroke, urinary incontinence, bowel disorder, thyroid, or chronic fatigue. Individuals needed to have experienced symptoms in the past 12 months, had the condition for at least six months, and have had it diagnosed by a health professional.

Table 1 provides descriptive statistics for all measures, both for the complete CCHS 3.1 sample of the Canadian population and for the study sample of Canadian smokers.

**Analysis**

Logistic regression methods were employed to assess the relationship between the physical and mental health of smokers and the presence of a home smoking ban. Separate analyses were conducted for daily smokers ($n = 21,688$) and occasional (7,199) smokers. Data analysis was conducted using Stata 11 and employed the survey commands to account for the complex sampling design, and the “subpop” command was used for subgroup analysis to provide correct SEs. Sampling weights and bootstrap methods were employed, as provided by Statistics Canada, to adjust for unequal probabilities of selection and to estimate 95% CIs. All the analyses were conducted at the Atlantic Research Data Centre, located at Dalhousie University, to maintain confidentiality of the data. This study was approved by the Human Research Ethics Board, Dalhousie University, Halifax, Nova Scotia, Canada.

**Results**

At Table 1 indicates, relative to the entire study population, fewer smokers report having a home smoking ban, particularly daily smokers. In terms of mental and physical health, the relationship is not as clear. While a higher proportion of daily smokers indicates that they have fair or poor mental and physical health, occasional smokers report the reverse; occasional smokers report better overall health as indicated by a lower percentage reporting fair or poor mental and physical health relative to the entire study population. Tables 2 and 3 describe unadjusted and adjusted logistic regression results of mental and physical health status and its association with home smoking bans and other covariates for Canadian daily and occasional smokers aged 15 years and older. As is evident in the unadjusted models, daily (odds ratio [OR] = 0.25, $p < .05$) and occasional (OR = 0.29, $p < .10$) smokers who lived in a home with a smoking ban were significantly less likely to report poor/fair mental health. These associations remained significant after adjusting for sociodemographic factors (age, gender, low income, education, and urban residence), structural conditions (dwelling type, dwelling ownership, and living alone), and other covariates (number of cigarettes smoked per day and the presence of a chronic physical condition). As a main effect, poor/fair mental health was significantly less likely among daily smokers who lived in a nondetached home or apartment and significantly more likely among smokers who had a chronic physical condition and who smoked more cigarettes per day. Main effects for occasional smokers included significantly decreased odds of poor/fair mental health among females and increased odds of poor/fair mental health among those with a low household income and those who had a chronic physical condition.

Table 3 reports on poor/fair physical health. Unlike poor mental health, home smoking bans were not significantly related to poor/fair physical health for either daily or occasional smokers. Significant correlates of poor/fair physical health among daily and occasional smokers were older age, household
low income, having a chronic physical condition, lower education, and dwelling ownership.

Additionally, we estimated a series of models to test for interactions between having a home smoking ban and specific sociodemographic (female and low income) and structural covariates (dwelling type, dwelling ownership, and living alone) on the odds of having poor/fair mental and physical health. There were no significant interactions.

### Discussion

The primary aim of this study was to explore the extent to which having a home smoking ban was associated with smokers’ physical and mental health. We suggested two possible directions for this relationship. For the first, we argued that the presence of a home smoking ban might have a positive association on the physical health of smokers. Our analyses show that for both daily and occasional smokers over the age of 15 years, the presence of a home smoking ban was not associated with their self-reported physical health. Evidence of the effectiveness of smoking bans on reducing smoking rates while increasing cessation attempts is well documented (Fichtenberg & Glantz, 2002; Mills et al., 2009), yet observational studies have noted smokers who engage in compensatory smoking behaviors by smoking “harder” in outside spaces (Chapman, Haddad, & Sindhusake, 1997). This compensatory smoking may work to minimize some of the benefit of home smoking bans on reducing exposure while, in turn, limiting improvements in physical health.

We also suggested an alternative pathway by which a home smoking ban might have a negative association with smokers’ mental health through experiences of marginalization, stigma,
and stress brought on by having to smoke outside the home. Contrary to our assumption, we found that daily and occasional smokers who lived in a home with a smoking ban were less likely to experience fair or poor mental health. One plausible explanation for the lack of a relationship between home smoking bans and negative mental health may reside in our inability to specifically measure smokers’ feelings of marginalization and stigma. Future research should look to explore this issue further employing more explicit measures of stigma and marginalization. Nonetheless, the finding of positive mental health effects and negative physical health outcomes is consistent with recent research by other authors. This finding offers further support for the idea that restricting home smoking may have other benefits besides reduced exposure to secondhand smoke.

### Table 2. Logistic Regression of Poor Mental Health on Home Smoking Restrictions of Canadian Daily and Occasional Smokers Aged 15 and Older (ORs and 95% CIs presented; sample weights and bootstrapping methods applied)

<table>
<thead>
<tr>
<th>Variables</th>
<th>Daily smokers</th>
<th></th>
<th>Occasional smokers</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Unadjusted OR</td>
<td>Adjusted OR</td>
<td>Unadjusted OR</td>
<td>Adjusted OR</td>
</tr>
<tr>
<td>Home smoking ban</td>
<td>0.25 (0.07–0.86)*</td>
<td>0.36 (0.13–0.99)*</td>
<td>0.29 (0.07–1.24)</td>
<td>0.44 (0.22–0.89)*</td>
</tr>
<tr>
<td>Female</td>
<td>2.98 (0.68–13.0)</td>
<td>2.78 (0.75–10.2)</td>
<td>0.31 (0.07–1.31)</td>
<td>0.39 (0.20–0.78)*</td>
</tr>
<tr>
<td>Age</td>
<td>1.01 (0.98–1.04)</td>
<td>0.98 (0.97–1.00)</td>
<td>0.99 (0.95–1.02)</td>
<td>0.98 (0.96–1.01)</td>
</tr>
<tr>
<td>Household low income</td>
<td>1.20 (0.28–5.14)</td>
<td>1.32 (0.73–2.37)</td>
<td>7.00 (2.17–22.5)**</td>
<td>2.83 (1.55–5.14)**</td>
</tr>
<tr>
<td>Education</td>
<td>1.16 (0.83–1.61)</td>
<td>1.14 (0.91–1.42)</td>
<td>0.98 (0.72–1.34)</td>
<td>1.08 (0.94–1.24)</td>
</tr>
<tr>
<td>Urban residence</td>
<td>1.72 (0.55–5.42)</td>
<td>2.36 (0.74–7.55)</td>
<td>0.47 (0.16–1.35)</td>
<td>1.00 (0.43–2.36)</td>
</tr>
<tr>
<td>Chronic physical condition</td>
<td>7.91 (2.34–26.6)**</td>
<td>7.60 (2.91–19.8)**</td>
<td>5.70 (1.91–16.9)**</td>
<td>3.56 (1.58–8.02)**</td>
</tr>
<tr>
<td>Cigarettes smoked per day</td>
<td>1.04 (1.01–1.07)**</td>
<td>1.04 (1.01–1.06)**</td>
<td>1.14 (0.98–1.32)</td>
<td>1.05 (0.96–1.17)</td>
</tr>
<tr>
<td>Dwelling type</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Detached home</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
</tr>
<tr>
<td>Nondetached home</td>
<td>0.36 (0.07–1.76)</td>
<td>0.37 (0.13–1.00)</td>
<td>0.99 (0.11–8.46)</td>
<td>0.70 (0.12–3.94)</td>
</tr>
<tr>
<td>Apartment</td>
<td>0.69 (0.18–2.65)</td>
<td>0.44 (0.21–0.91)*</td>
<td>5.65 (1.68–18.9)**</td>
<td>1.51 (0.64–3.55)</td>
</tr>
<tr>
<td>Other</td>
<td>0.68 (0.17–2.60)</td>
<td>0.65 (0.28–1.51)</td>
<td>5.56 (1.20–25.7)*</td>
<td>1.94 (0.61–6.15)</td>
</tr>
<tr>
<td>Own dwelling</td>
<td>1.08 (0.26–4.53)</td>
<td>0.94 (0.55–1.62)</td>
<td>0.18 (0.06–0.51)**</td>
<td>0.73 (0.37–1.44)</td>
</tr>
<tr>
<td>Live alone</td>
<td>1.07 (0.34–3.38)</td>
<td>0.96 (0.48–1.92)</td>
<td>3.13 (1.24–7.89)*</td>
<td>0.85 (0.44–1.64)</td>
</tr>
<tr>
<td>F-statistic</td>
<td>F (14, 486) = 10.84</td>
<td></td>
<td></td>
<td>F (14, 486) = 1.97</td>
</tr>
</tbody>
</table>

Note. OR = odds ratio.
*p < .05; **p < .01.

### Table 3. Logistic Regression of Poor Physical Health on Home Smoking Restrictions of Canadian Daily and Occasional Smokers Aged 15 and Older (ORs and 95% CIs presented; sample weights and bootstrapping methods applied)

<table>
<thead>
<tr>
<th>Variables</th>
<th>Daily smokers</th>
<th></th>
<th>Occasional smokers</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Unadjusted OR</td>
<td>Adjusted OR</td>
<td>Unadjusted OR</td>
<td>Adjusted OR</td>
</tr>
<tr>
<td>Home smoking ban</td>
<td>1.42 (0.23–8.53)</td>
<td>2.43 (0.42–14.0)</td>
<td>0.31 (0.07–1.23)</td>
<td>0.76 (0.49–1.20)</td>
</tr>
<tr>
<td>Female</td>
<td>1.67 (0.48–5.79)</td>
<td>1.05 (0.44–2.48)</td>
<td>0.53 (0.13–2.18)</td>
<td>0.68 (0.43–1.08)</td>
</tr>
<tr>
<td>Age</td>
<td>1.04 (1.00–1.08)*</td>
<td>1.02 (0.99–1.05)</td>
<td>1.04 (1.00–1.09)*</td>
<td>1.02 (1.01–1.03)**</td>
</tr>
<tr>
<td>Household low income</td>
<td>2.11 (0.68–6.55)</td>
<td>1.84 (1.14–2.95)*</td>
<td>5.88 (2.11–16.3)</td>
<td>1.81 (1.11–2.94)*</td>
</tr>
<tr>
<td>Education</td>
<td>0.93 (0.75–1.15)</td>
<td>0.95 (0.84–1.08)</td>
<td>0.88 (0.63–1.17)</td>
<td>0.85 (0.76–0.95)**</td>
</tr>
<tr>
<td>Urban residence</td>
<td>1.10 (0.46–2.65)</td>
<td>1.07 (0.55–2.08)</td>
<td>0.34 (0.14–0.82)*</td>
<td>0.85 (0.55–1.33)</td>
</tr>
<tr>
<td>Chronic physical condition</td>
<td>10.3 (3.87–27.7)**</td>
<td>7.99 (5.05–12.6)**</td>
<td>21.6 (8.12–57.5)</td>
<td>11.9 (5.43–26.0)**</td>
</tr>
<tr>
<td>Cigarettes smoked per day</td>
<td>1.00 (0.94–1.06)</td>
<td>1.01 (0.99–1.03)</td>
<td>1.14 (1.03–1.26)**</td>
<td>1.03 (0.98–1.09)</td>
</tr>
<tr>
<td>Dwelling type</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Detached home</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
</tr>
<tr>
<td>Nondetached home</td>
<td>0.48 (0.12–1.97)</td>
<td>0.56 (0.21–1.48)</td>
<td>0.71 (0.08–5.73)</td>
<td>0.36 (0.09–1.42)</td>
</tr>
<tr>
<td>Apartment</td>
<td>1.13 (0.40–3.16)</td>
<td>0.83 (0.51–1.37)</td>
<td>3.61 (1.20–10.8)*</td>
<td>0.94 (0.42–1.65)</td>
</tr>
<tr>
<td>Other</td>
<td>1.03 (0.35–3.01)</td>
<td>1.01 (0.55–1.84)</td>
<td>4.94 (1.42–17.1)*</td>
<td>0.93 (0.38–2.27)</td>
</tr>
<tr>
<td>Own dwelling</td>
<td>0.74 (0.25–2.16)</td>
<td>0.66 (0.49–0.88)**</td>
<td>0.23 (0.09–0.61)**</td>
<td>0.55 (0.30–0.99)*</td>
</tr>
<tr>
<td>Live alone</td>
<td>1.57 (0.67–3.69)</td>
<td>1.04 (0.76–1.43)</td>
<td>4.81 (2.08–11.1)**</td>
<td>1.12 (0.71–1.78)</td>
</tr>
<tr>
<td>F-statistic</td>
<td>F (14, 486) = 16.99</td>
<td></td>
<td></td>
<td>F (14, 486) = 8.27</td>
</tr>
</tbody>
</table>

Note. OR = odds ratio.
*p < .05; **p < .01.
The health benefits conferred on smokers who have a home smoking ban may also be indirect and associated with acting in a social desirable manner. For instance, Curry and Marlatt (1985) identified a group of smokers who expressed a great deal of social concern over their smoking. They were individuals who held an implicit desire not to let other people down in their attempts to quit smoking or who did not want to harm or upset others by continuing to smoke (Curry & Marlatt, 1985). In terms of positive reinforcement, smokers with a home smoking ban may wish to be seen as good citizens or good family members, in that they are conforming to broader social norms and regulations around the health effect of ETS exposure (Stuber et al., 2008). Highly conscientious smokers may be motivated by external regulations as well as their own internalized notions of responsibility and obligation. Alternatively, it may be that smokers living in homes with smoking bans may be conferred mental health benefits through an avoidance of conflict (Burgess et al., 2009; Chapman & Freeman, 2008). By agreeing to smoke outside, smokers may be hoping to evade disagreements with nonsmoking family members who view ETS unfavorably and see smoking as pollution that invades personal space (Farrimond & Joffe, 2006) while also seeming to be doing something to combat their tobacco addiction.

Poland (2000) has taken this notion further in describing what he calls the “considerate smoker”—the smoker who employs risk management strategies in their day-to-day interactions when smoking in public places. In describing the notion of consideration, Poland finds the example of smokers being considerate as a means of feeling better about their smoking: “The growing salience of ‘consideration’ as a stance to be emulated is surely a more or less direct response to the perceived social unacceptability of smoking, and an attempt to smooth down the sharp edges of criticism and distain” (Poland, 2000, p. 5). Though Poland’s work applies to smoking in public places, it makes equivalent sense in reference to how smokers in private spaces, such as in the home or personal vehicles, may engage in similar risk management strategies.

Two potential limitations of this study should be noted. First, the data are cross-sectional, and as such, we cannot account for ordering of the associations between measures of health and the adoption of smoking bans in the home. For instance, it may be that healthier individuals were more likely to choose to ban smoking in the home. Second, we have attempted to control for a number of potential confounders in the study, but there may be others that we were unable to address as they were absent from the dataset; thus, the issue of residual confounding is still present. In particular, a measure of smoker compliance would have been beneficial in exploring the direct association of smokers’ health and home smoking bans.

To sum, in this paper, we set out to explore whether the presence of home smoking bans shaped the subjective assessments of smokers’ physical and mental health. While we found no relationship on physical health, smokers living in a home with a smoking ban reported better mental health than those who lived in homes without a ban. While nearly 7 in 10 Canadian homes are smoke free, the adoption of such bans in the homes of smokers remains more elusive.

From a tobacco control perspective, smoke-free environments are essential locations for reducing exposure to ETS, initiating smoking cessation, and improving smokers’ health. The paradox, however, is that for many smokers, the home remains a last bastion—particularly among lower status smokers—whose public space continues to shrink while their experiences of marginalization continue to rise. Exclusion from most public space has left many smokers uncomfortable with smoking in public (Lazuras et al., 2000), despite the best intentions of those in public health (Cui et al., 2006). Finding novel ways to encourage improvement in the health of smokers—as well as in those who they live with—without imposing further regulations on private spaces or personal autonomy remains a key public health challenge.

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**Declaration of Interests**

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**References**


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