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Predictors of Voluntary Smoking Restrictions: What Factors Influence Decisions?

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PREDICTORS OF VOLUNTARY SMOKING RESTRICTIONS: WHAT
FACTORS INFLUENCE DECISIONS?

BY

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Abstract

Exposure to secondhand smoke (SHS) has been linked to adverse health effects in the general public. It is especially harmful to infants, children, the elderly, and individuals with compromised respiratory systems. Homes and workplaces are the predominant locations for SHS exposure. To combat this risk to health, smoking bans in the public sphere (e.g., restaurants, public buildings, and workplaces) are increasingly mandated by the state, but smoking bans in the private sphere (e.g., households and personal vehicles) often remain a voluntary choice, which can leave individuals near smokers unprotected from the dangers of SHS. To hone strategies for increasing voluntary restrictions, more understanding of factors associated with this choice is essential. In order to investigate predicted relationships among factors thought to be associated with voluntarily enforcing smoking restrictions in homes and cars, a structural regression analysis was conducted. As hypothesized, individual level factors such as having children in the household, being a nonsmoker, having fewer friends who smoke, having fewer household members who smoke, and being supportive of smoking restrictions in the community were related to voluntarily restricting smoking in the household and car. Also in line with hypotheses, environmental factors such as being covered by workplace smoking restrictions, having less SHS exposure in the workplace, and exposure to anti-smoking media messages were related to support for smoking bans in the community. A proposed mediating role for positive attitudes toward smoking restriction policies received limited support.

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Introduction

Tobacco use is the leading preventable cause of death in the United States. According to the National Health Interview Survey, 20.8% of U.S. adults were current cigarette smokers in 2006, and 47% percent of current smokers smoked 15 or more cigarettes per day (U.S. Department of Health and Human Services, 2007). Smoking tobacco harms nearly every organ of the body and reduces overall quality and quantity of life. It is associated with many types of cancer, heart disease, chronic obstructive pulmonary disease, stroke, and respiratory diseases (CDC, 2002; Palta, Weinstein, McGuinness, Gabbert, Brady, & Peters, 1994; U.S. Department of Health and Human Services, 1989). Results show that during 1995-1999, smoking caused approximately 440,000 premature deaths in the United States annually and contributed to approximately \$157 billion in annual health-related economic losses (CDC, 2002).

Risks of secondhand smoke.

Not only is smoking harmful to those who choose to smoke, but significant morbidity and mortality is associated with secondhand smoke (SHS) exposure. SHS is defined as “a complex mixture of gases and particles that includes smoke from the burning cigarette, cigar, or pipe pit (sidestream smoke) and exhaled mainstream smoke” (National Toxicology Program, 2000). In the early 1970s, the public became increasingly aware of the dangers of SHS after the First Report of the Surgeon General identified SHS as a health risk. The U.S. Environmental Protection Agency, the National Institutes of Health National Toxicology Program, and the International Agency for Research on Cancer have concluded that secondhand smoke is a known human carcinogen (U.S. Environmental Protection Agency, 1992; U.S. Department of

Health and Human Services, 2000; & International Agency for Research on Cancer, 2004). In addition, the National Institute for Occupational Safety and Health has declared secondhand smoke to be an occupational carcinogen (National Institute for Occupational Safety and Health, 1991). The 2000 Report of the Surgeon General concluded that health risks from SHS are completely preventable (U.S. Department of Health and Human Services, 2000).

SHS causes approximately 3,000 lung cancer deaths among U.S. nonsmokers each year, and even brief exposure can damage cells in ways that set the cancer process in motion (U.S. Department of Health and Human Services, 2006). Among adults and the elderly, SHS is especially harmful to those dealing with cardiovascular and respiratory complications. A report from Ireland demonstrated that 85% of smokers continued to smoke around patients with cardiovascular disease once the patient was discharged from the hospital and sent home (Hevey, Slack, Cahill, Newton, & Horgan, 2002). SHS causes and exacerbates respiratory complications (e.g., asthma, acute lower respiratory illness), lung cancer, and cardiovascular problems (National Cancer Institute, 1999). Because infants and children spend so much time at home, the greatest amount of SHS exposure occurs while they are in the home (Matt, Quintana, Hovell, Bernert, Song, et al., 2004). The prevalence of regular exposure to SHS in the home among children aged six years and younger declined from 27% in 1994 to 8% in 2005 (MMWR, 2007). SHS exposure is associated with numerous childhood diseases, including colic, sudden infant death syndrome, low birth weight, chronic middle ear infections, and respiratory illnesses (National Cancer

Institute, 1999; Palta, Sadek-Badawi, Sheehy, Albanese, Weinstein, McGuinness, & Peters, 2001; U.S. Environmental Protection Agency, 1992).

Taking on the tobacco industry

Almost a decade ago, several states banded together to sue the tobacco industry for its alleged cover-up regarding tobacco-related health problems. On November 23, 1998, the attorney generals who represented forty-six states, the District of Columbia, and the five U.S. territories signed the Master Settlement Agreement (MSA) along with the four major U.S. cigarette companies. Under this agreement, the tobacco companies agreed to pay the states more than \$206 billion over 25 years and to abide by certain advertising and marketing restrictions in order to be exempt from tort liability by state governments. Public health officials lobby to convince state lawmakers to distribute the MSA funds for tobacco control programs. Tobacco control programs are intended to lead to significant reductions in tobacco use, tobacco-related illness, and premature death. Combating the danger associated with SHS exposure is embedded in these efforts. Statewide tobacco control efforts advocate social norms that create a tobacco-free environment. Many strategies have been used to create an attitude of non-acceptance toward smoking and SHS. As negative attitudes toward smoking increase and intentions not to smoke become more salient in a population, there will be fewer smokers and fewer environments in which smoking is possible. Both of these changes will result in reduced exposure to SHS.

The Centers for Disease Control and Prevention put forward several recommendations as a result of successful tobacco control activities in states such as Massachusetts, California, Oregon, and Florida. Rhode Island has based much of its

tobacco control plan on these recommendations. The Comprehensive Tobacco Control (CTC) Initiative of Rhode Island is a multi-component intervention designed to create systems and personal change within communities through four major goals: “preventing the initiation of tobacco use among young people, promoting quitting among young people and adults, eliminating disparities related to tobacco use, and eliminating nonsmokers’ exposure to SHS.” The initiative strives to “change the way tobacco is promoted, sold and used while changing the knowledge, attitudes and practices of young people, tobacco users and nonusers” (Rhode Island Department of Health, 2006).

Counter-marketing big tobacco

The present proposal is concerned particularly with the issue of decreasing exposure to SHS, which can be affected by several of the strategies employed in statewide tobacco control initiatives. One recommendation set forth is a “Counter Marketing Strategy” that “promotes public awareness about the health hazards of tobacco, combats tobacco industry promotion of use, and promotes quitting” (Rhode Island Department of Health, 2006). Mass media can be used to counter the tobacco industry's promotion of tobacco use by increasing public awareness about the danger associated with SHS. As negative attitudes toward SHS exposure increase, efforts to reduce exposure should also increase (Task Force on Community Preventive Services, 2001).

Several anti-smoking media messages were sponsored by the Rhode Island Department of Health via television, radio, newspapers, magazines, and billboards. Two of these messages are particularly relevant for the issue of SHS. One depicts a

baby crying and coughing over a baby monitor with the words “Every year 300,000 babies get sick from SHS” followed by a hand reaching down and turning off the baby monitor saying... “but the tobacco industry doesn’t want to hear about it.” A second ad illustrates that a large majority of non-smokers and smokers in Rhode Island support smoke-free public workplaces and restaurants. It shows a picture of a waitress talking about how SHS is associated with an increase in serious smoking-related illnesses for people in her profession when compared to people in other professions.

Smokefree environment policies

A second recommendation set forth by the Centers for Disease Control and Prevention is a “Policy Regulatory Strategy” to create new smoking bans or policies that reduce exposure to SHS (Rhode Island Department of Health, 2006). According to the World Health Organization (2004), the enactment of policies that establish smoke-free environments is the most effective method for reducing exposure to SHS. Clean indoor air policies have been shown to be an effective way to reduce everyone’s exposure to SHS (Henson, Medina, St. Clair, Blanke, Downs, & Jordan, 2002; Pruss, Kay, Fewtresll, & Bartram, 2002). Smoking restrictions can be put into effect through laws, regulations, ordinances, and voluntary policies. Between December 31, 1998, and December 31, 2004, ten states indicated changes in the level of their smoking restrictions for private-sector workplaces, nine indicated changes in the level of their smoking restrictions for restaurants, and five states indicated changes in the level of their smoking restrictions for bars on the basis of the STATE system coding scheme. In every case, the restrictions became more stringent (CDC, 2005).

Workplace smoking restrictions that are properly enforced can have a powerful influence on the health of workers by greatly reducing the total amount of time that employees are exposed to SHS (Skeer, Cheng, Rigooti, & Siegel, 2005). In a cross-sectional telephone survey of 3650 Massachusetts adult employees who worked primarily indoors, Skeer et al. (2005) compared the odds of being exposed to SHS at work as well as the total duration of exposure to SHS based on the comprehensiveness of their workplace smoking policies. They found that among employees who were covered by a workplace smoking ban, only 19.6% reported SHS exposure at work compared to 49.9% of workers covered by a partial ban and 75.1% of those not covered by any smoking ban. Employees who were covered by partial smoking bans were exposed to SHS 1.74 times longer than those who were covered by complete workplace smoking bans. Employees with no smoking restrictions were exposed to SHS 6.34 times longer than employees covered by complete smoking bans.

Bauer, Hyland, Li, Steger, and Cummings (2005) demonstrated that demographic characteristics can often predict which individuals are protected by smoking restrictions in the workplace. Earning higher wages, having more education, being female, and being a nonsmoker were associated with working in smokefree environments. Individuals who worked in factory, service, and labor occupations were less likely to work in smokefree environments. In 2000, the proportion of adults who reported that they were covered under an official policy that restricted all smoking in their work areas ranged from 61.4% in Mississippi to 83.9% in Montana. In March 2005, the “Public Place and Worker Safety Act” went into effect in Rhode Island. This law prohibits smoking in public places and workplaces in order to protect

business owners, employees, and the general public from the negative health effects of SHS exposure. Rhode Island was the seventh state in the nation to go smokefree, following the lead of California, Connecticut, Delaware, Maine, Massachusetts, and New York.

According to a study conducted by Sargent, Shepard, and Glantz (2004), public smoking bans in Helena, Montana, were associated with a dramatic decrease in the number of health problems attributed to SHS exposure. After a 6-month public smoking ban went into effect in this geographically isolated community, there was a 40% drop in the number of admissions for acute myocardial infarction at the local hospital. Prior to the ban, 38% of the myocardial infarctions occurred in active smokers and 29% in former smokers, while 33% had never smoked at all. This data suggest that exposure to SHS is a risk factor for myocardial infarction. Protection against SHS exposure through the enactment of public smoking bans can greatly reduce this risk.

Voluntary bans: The last bastion

Tobacco control efforts in Rhode Island have largely focused on the passage and enforcement of legislated smokefree laws at the state and local levels. By creating smokefree environments in public buildings, restaurants, and workplaces through the enactment of formal policy, significant progress has been made to protect public health. In communities that have been successful in passing and enforcing smoking restrictions in workplaces and public buildings, it is time to work on increasing voluntary smoking restrictions on private property, such as in homes and personal vehicles. This study addresses questions regarding the influence of individual and

environmental factors on people's willingness to restrict smoking on personal property with the intention to identify predictors of voluntary bans in order to inform future efforts to increase voluntary restrictions on secondhand smoke exposure.

Voluntary smoking restrictions in households and personal vehicles have been operationally defined in various ways. The Rhode Island Adult Tobacco Survey, for example, asked respondents to identify which of the following rules about smoking in their homes was most similar to their own: "smoking is not allowed anywhere inside your home", "smoking is allowed in some places or at some times," or "smoking is allowed anywhere inside the home". Respondents to the survey were also asked to identify which of the following rules about smoking in their family car was most similar to their own: "smoking is never allowed in any car", "smoking is allowed sometimes in some cars", "there are no rules about smoking in the car."

The percentage of households with smoking restrictions varies widely across the country. According to the 2003 Current Population Survey conducted by the U.S. Census Bureau for the Bureau of Labor Statistics (CDC, 2007), the percentage of households with smokefree homes rules ranged from 53.4% in Kentucky to 88.8% in Utah. Kentucky, the state with the lowest prevalence of smoke-free home rules from 1992--1993, had the largest increase during the period between 1992-1993 and 2003. Utah had the smallest increase through that period because it had the highest prevalence of smoke-free home rules between 1992 and 1993.

By pinpointing factors that are related to voluntarily enforcing smoking restrictions, community organizations will be better equipped to create targeted interventions to populations that are most likely to be exposed to secondhand smoke at

home or in cars. Successful interventions should result in reduced secondhand smoke exposure, which will decrease the health disparities gap that exists between groups based on such things as socioeconomic status, race/ethnicity, and age.

Predictors of voluntary bans

Cigarette involvement. Many studies show that smoking status predicts the enforcement of smoking bans in households and vehicles. Nonsmokers and individuals who have quit smoking are more likely to enforce complete smoking bans compared to current and occasional smokers (Kegler et al., 2002; Norman et al., 1999; Okah et al., 2002; Pizacani et al., 2003; Pyle et al., 2005). Mumford, Levy, and Romano (2004) found that over three times as many nonsmokers (75%) reported that smoking was strictly banned in their home as compared to current smokers (23%). While some studies have shown that individuals who have numerous friends who smoke are less likely to enforce complete smoking bans in their households and vehicles (Kegler, 2002; Norman et al., 1999), others have failed to find this relationship (Okah et al., 2002). As the number of smokers in a particular household increases, the likelihood of there being a smoking ban decreases (Kegler et al., 2002; Okah et al., 2002; Pizacani et al., 2003; Pyle et al., 2005; Yousey, 2006). Residents of households with current smokers are thus placed at especially high risk of SHS exposure.

Recall of anti-smoking advertisements. Media campaigns that publicize a negative view of tobacco are designed in part to increase negative attitudes toward SHS exposure. Individuals who are regularly exposed to anti-smoking information from television, radio, newspapers, magazines, and billboards are expected to have

increasingly more negative attitudes toward SHS compared to those with little or no anti-smoking media exposure. As negative attitudes increase, individuals are more likely to support smoking bans in public places and voluntarily enforce bans on their personal property.

Evans, Crankshaw, Nimsch, Morgan-Lopez, Farrelly and Allen (2006) examined the relationship between exposure to anti-smoking information in the media, attitudes toward SHS, and household smoking restrictions. Individuals who were exposed to anti-smoking information held more negative attitudes toward SHS and had more stringent smoking restrictions in their homes. Social cognitions (i.e., attitudes toward SHS) mediated the relationship between media exposure and household restrictions. King, Vidourek, Creighton, and Vogel (2003) examined whether exposure to media campaigns that highlighted the dangers of SHS were associated with smokers' intentions to protect their children from SHS in the home. They found an association between an individual's having heard, read or seen anti-smoking information in the media and their intention to protect their children from SHS. They also found that smokers who had children in the house often had a personal commitment to protect their children from SHS by smoking outside.

Support for smoking bans in public places. Attitudes about the acceptability of exposing others to SHS are leading indicators of social norms regarding smoking (McMillen, Winickoff, Klein, & Weitzman, 2003). Attitudes of non-acceptance to exposing others to their SHS can lead smokers to self-regulate their behavior (e.g., choose not smoke in places where they will expose others to SHS). Nonsmokers who have unfavorable attitudes toward SHS may be more likely to ask smokers not to

smoke around them. They may also be more likely to advocate for policy changes that will increase smoking restrictions in public places.

Based on BRFSS 2000 survey information, the proportion of the population who thought that smoking should be completely banned in indoor work areas ranged from 66.4% in Wisconsin to 83.8% in Washington, D.C. The proportion of the population who thought that smoking should not be allowed at all in restaurants differed greatly based on smoking status (median: 25.9% for smokers versus 66.2% for nonsmokers) and indoor work areas (57.6% for smokers versus 82.1% for nonsmokers). The majority of nonsmokers tend to indicate that they are bothered by SHS in restaurants, public buildings, and around their friends (Brenner, Born, Soz, Novak, & Wanek, 1997). Yousey (2006) found that individuals in households with complete smoking bans had significantly more negative attitudes toward SHS exposure than those with partial or no smoking bans.

Workplace smoking environments. The majority of workers tend to be supportive of smoking restrictions in their work areas. Brenner et al. (1997) found that 52% of white-collar nonsmokers and more than 60% of nonsmoking blue-collar workers were bothered when smoking was allowed in their workplace. In addition, they found that smoking restrictions in the workplace are generally accepted by both nonsmokers and smokers. Mizoue, Reijula, Yamato, Iwasaki, and Yoshimura (1999) examined the relationship between the level of workplace smoking restrictions and workers' attitudes toward the restrictions. The highest support was for complete smoking restrictions at work (73.4%) and gradually decreased as the level of the restriction became more lenient. This was the case for both smokers and nonsmokers.

Only 5.5% of smokers and 2.0% of nonsmokers in their study were opposed to their present workplace smoking policy. Current smokers who work under a workplace smoking ban are more likely to report an attempt to quit smoking and a decrease in their cigarette consumption compared to smokers who do not work under a smoking ban (Farkas, Gilpin, Distefan, & Pierce, 1999; Fichtenberg & Glantz, 2002). Working under a workplace smoking restriction is therefore expected to be related to voluntarily enforcing smoking restrictions through its effects on decreasing social norms regarding cigarette use and increasing support for smoking bans.

Presence of children in the household. Studies have consistently found that individuals in households where children present are more likely to report enforcing smoking restrictions on their private property compared to those in households without children present (Norman et al. 1999; Okah et al., 2002; Okah, Okuyemi, McCarter, Harris, Catley, Kaur, & Ahluwalia, 2003; Pizacani et al. 2003; Pyle et al., 2005).

Hypotheses:

The purpose of the present study is not to generalize to Rhode Island's entire population but merely to assess whether certain factors are correlated with voluntary smoking restrictions within a large sample. It will investigate predictors of voluntarily enforcing smoking restrictions on private property. Anti-smoking media exposure, cigarette involvement, workplace smoking policies, support for smoking restrictions in the community, and presence of children in the household are expected to be related to voluntary smoking restrictions. Seven primary hypotheses will be tested. (See Figure 1 below for a visual representation of the hypothesized relationships.)

Hypotheses.

H1. Voluntary smoking restrictions will be more stringent among individuals who have greater support for smoking bans in public places.

H2: Voluntary smoking restrictions will be more stringent among those who have children in the household.

H3: Voluntary smoking restrictions will be less stringent among those with more cigarette involvement.

H4: Support for smoking bans in public places will mediate the effects of recall of anti-smoking media messages, cigarette involvement, and workplace smoking environment on voluntary smoking restrictions.

H5: Support for smoking bans in public places will be higher among those with greater recall of anti-smoking messages.

H6: Support for smoking bans in public places will be higher among those who have more stringent smoking restrictions in their workplace.

H7: Support for smoking bans in public places will be lower among those who have more cigarette involvement.

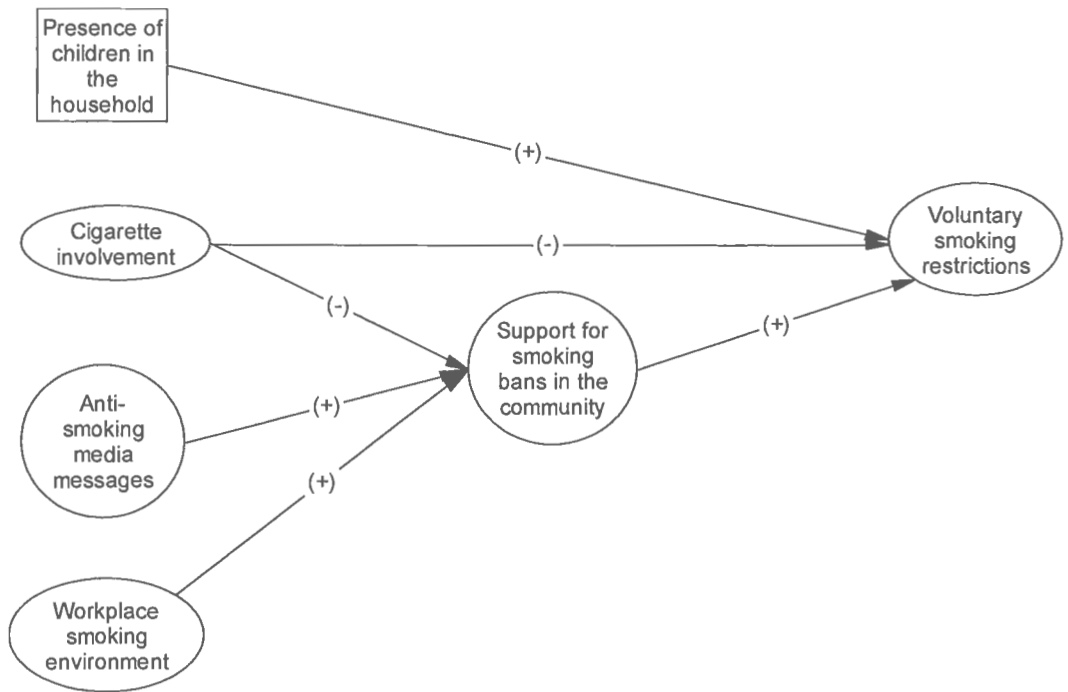


Figure 1. Proposed structural regression model

METHODS

Data

This study makes use of secondary data that were collected between February and May 2003 by the Center for Opinion Research. Surveys of 1,466 adult residents of Rhode Island were conducted through random-digit dial technique. Interviewees were asked to respond to questions from the 2003 Rhode Island Adult Tobacco Survey (ATS), which was developed by the Tobacco Control Enhancement Project (TCEP). The TCEP is funded by the Centers for Disease Control and Prevention and is a cooperative agreement with the Rhode Island Department of Health. The survey was designed to create a baseline measure of Rhode Island adults' exposure to local and statewide tobacco control programs in addition to tobacco- related knowledge, attitudes, and behaviors.

Sample characteristics

A total of 1,466 individuals responded to the survey, yielding a response rate of 62.4%. The majority of the sample was female (61.5%). Survey respondents ranged in age from 18 to 93 years with an average age of 44.8 years. The majority of individuals were between the ages of 25 and 44 (38.6%), followed by 45-64 (34.3%), 65 and older (12.8%), and 18-24 (10.7%). Fifty-three respondents (3.6%) reported no information about their age. The majority of respondents were White, Non-Hispanic (85.1%), followed by Hispanic (5.7%), Black Non-Hispanic (4.4%), and Asian/other ethnicities (2.5%). Thirty-six respondents (2.5%) provided no information about their race. In terms of educational achievement level, 39.4% of respondents were college graduates or higher. Approximately a quarter of respondents (25.0%) reported having

taken some college classes or received vocational/technical training, and 26.7% of respondents reported being a high school graduate with no further education. There were 8.9% of individuals who reported having less than a high school diploma. Approximately one-fifth (21.2%) of the sample was classified as current daily or current occasional smokers. The remaining portion of the sample consisted of 29.4% former smokers and 49.4% nonsmokers.

As part of the original TCEP study, five communities in Rhode Island were selected to receive tailored tobacco control interventions due to the large number of smokers in those communities. There are a disproportionate number of lower income, lower education, and minority populations in these five communities (Woonsocket, Pawtucket, Southside Providence, East Providence, and Central Falls) compared to the rest of the state. The Adult Tobacco Survey used for these analyses was originally designed to compare the attitudes and behaviors of respondents who live in the five intervention communities to citizens from the rest of the state.

Measures

There were approximately 100 items in the Rhode Island Adult Tobacco Survey. Many of the items used in this study were taken from the Behavioral Risk Factor Surveillance System (BRFSS), which was established in 1984 by the Centers for Disease Control and Prevention (CDC). The BRFSS is “a state-based system of health surveys that collects information on health risk behaviors, preventive health practices, and health care access primarily related to chronic disease and injury” (CDC, 2007).

Items for this study taken from the BRFSS include those about presence of children in the household, smoking status, number of friends who smoke, number of other smokers in the household, workplace smoking restrictions, number of hours of exposure to secondhand smoke in the workplace, and voluntary smoking restrictions in households and vehicles. Five items were developed by the TCEP to reflect exposure to specific anti-smoking media messages sponsored by the Rhode Island Department of Health. The three variables assessing support for tobacco control policy come from a larger 35-item scale called the Smoking Policy Inventory (SPI). Evidence supports the SPI instrument as being internally consistent and valid across multiple populations (Velicer, Laforge, Levesque, & Fava, 1994).

Presence of children in the household. Respondents were asked how many children under the age of 18 are currently in their household. Responses to this question ranged from zero to six. This indicator was recoded into two categories: “children are not present” or “children are present” in the household.

Cigarette involvement. Three indicator variables were used to assess cigarette involvement, namely current smoking status, number of friends who smoke, and number of smokers in the household other than the respondent. Smoking status was assessed with three categories, including current smoker, former smoker, and nonsmoker. Current smokers were defined as those who smoked at least 100 cigarettes in their lifetime and smoked at least some days in the past month. Former smokers were defined as respondents who reported having smoked at least 100 cigarettes in their lifetime but who did not smoke a whole cigarette in the past six months. Nonsmokers were defined as respondents who had not smoked at least 100

cigarettes in their lifetime. Current smokers were coded on the highest end of the scale while nonsmokers were lowest on the scale. The number of the respondent's friends who are smokers was assessed by an item that asked how many of the respondent's friends smoke. Responses ranged from zero to six. Responses were recoded into one of three categories: "none", "less than half" and "more than half". The number of smokers in the respondent's household was measured with an item that asked the respondent (not including him- or herself) how many adults (18 years or older) smoke cigarettes, cigars, or pipes who live in the household. Responses to this variable were recoded onto a 3-point scale, including "none", "one", and "two or more" other smokers in the household. Cronbach's alpha for the 3-item scale = .54.

Anti-smoking media advertisements. Five indicator variables were used to assess recall of anti-smoking media messages sponsored by the Rhode Island Department of Health. Survey respondents were read a brief description of five categories of anti-smoking advertisements and then were asked whether they recalled having heard or seen any of them within the past year or two. The five categories of ads included professionals discovering that the dangerous chemicals they try to protect themselves from are found in tobacco smoke, suggestions that parents who smoke quit for their children, promotions of "stop smoking" services to help Rhode Islanders quit smoking, warnings about negative health effects of secondhand smoke on infant and children's health, and depictions of local support for smokefree public places. Response options were "yes", "no", and "do not know." Cronbach's alpha for the 5-item scale = .58.

Workplace smoking environment. Smoking policies in the workplace were measured with two indicator variables. The first item asked how many hours per week the respondent was exposed to other people's tobacco smoke at work. The amount of time (in hours) that the respondent was exposed to secondhand smoke at work was recoded into three categories: "zero" "one hour or less" and "more than one hour" per week based on the frequency distribution. The second item asked which type of workplace smoking policy was most similar to his or her policy. It was measured on a 3-point scale. Response options included, "smoking is not allowed anywhere inside the building", "smoking is only allowed in a few designated smoking areas", and "smoking is allowed in most areas." The items on the scale were reverse coded so that more stringent restrictions were higher on the scale. Cronbach's alpha for the 2-item scale = .50.

Support for smoking bans in the community. Respondents were questioned about their opinions about several smoking policy issues. Three of these items were used to assess support for smoking bans in the community. Respondents were asked to respond to a series of questions about their support for having smoking bans in public buildings, restaurants and cafeterias, and worksites. For example, the statement, "smoking should be banned in all public buildings" was read aloud and the respondent was asked whether he/she would agree, disagree, or neither agree nor disagree with that statement. If their response was either "agree" or "disagree", they were asked whether that was "completely" or "somewhat". Final responses were on a 5-point scale and included, "completely agree", "somewhat agree", "neither agree nor disagree", "somewhat disagree", and "completely disagree." The items on this scale

were reverse coded so that greater support was higher on the scale. Cronbach's alpha for the 3-item scale = .81.

Voluntary smoking restrictions. Smoking restrictions in the household and smoking restrictions in family cars were the two indicator variables used to assess voluntary smoking restrictions. Respondents were asked which statement best described the rules about smoking inside their home. Response options were on a 3-point scale and included, "smoking is not allowed anywhere inside your home", "smoking is allowed in some places or at some times", and "smoking is allowed anywhere inside the home." The items on the scale were reverse coded so that more stringent restrictions were higher on the scale. Respondents were asked about the rules concerning smoking in their family cars. Response options included "smoking is never allowed in any car", "smoking is allowed sometimes in some cars", "there are no rules about smoking in the car", and "do not have a family car." Those who do not have a family car were excluded from analysis. The items on the scale were reverse coded so that more stringent restrictions were higher on the scale. Cronbach's alpha for the 2-item scale = .74.

Missing data

For every item in the survey, respondents were given the option of a "do not know" response. When an individual said, "do not know" to a question about friends', family members' or own smoking status, his or her response was recoded as "missing" due to the fact that estimating a response could be erroneous. The same was true for cases having to do with workplace and voluntary smoking restrictions. "Do not know" responses to questions concerning support for smoking bans in the community

were recoded as “neither agree nor disagree” due to there being a certain degree of ambiguity implied by their response. When respondents answered, “do not know” to questions dealing with their recall of anti-smoking media messages, their responses were recoded as “no” because they did not recall the message. Pairwise deletion was used in order to minimize the amount of missing data.

RESULTS

Descriptive statistics

Overall, 67.9% of all respondents reported that smoking was completely banned in their home. Among current smokers, 26.7% completely banned smoking in their home while 74.3% of former smokers and 81.9% of nonsmokers completely banned smoking in their home. In addition, 23.3% of households had at least one smoking resident other than the respondent. Among smokers, 57.7% reported that half or more of their friends were smokers, compared to 17.8% of former smokers and 12.7% of nonsmokers. In households with more than one family member, smokers were more likely to live in with a smoker compared to nonsmokers (50.6% versus 14.2%). Nonsmokers were more likely to completely or somewhat agree that smoking should be banned in restaurants and cafeterias (85.5%), public buildings (84.7%), and worksites (82.8%) compared to smokers (45.8%, 54.6%, and 46.8%, respectively). Smokers were also more likely to have been exposed to anti-smoking media messages compared to nonsmokers.

Random samples

A random selection of 50% of the entire dataset ($n = 1466$) was conducted with the EQS software system and will be referred to as the “first” sample. The remaining selection will be referred to as the “replication” sample. Frequencies for indicators from the entire dataset and both random samples are displayed in Table 1 below. Chi square difference tests on the two random samples revealed that there was only one indicator for which the two samples showed statistically significant differences. Individuals in the replication sample were significantly more likely to “somewhat

agree” that all worksites should be smokefree (16.2%) compared to individuals in the first sample (11.9%). Chi square, $df(1) = 4.77$, $p < .05$. Individuals in the first sample were slightly more likely to respond that they neither agreed nor disagreed that all worksites should be smokefree. Chi square, $df(1) = 3.26$, showing a trend toward approaching statistical significance.

Table 1. Frequencies for Indicator Variables for Total Sample and Two Random Samples

Variables	Original Sample (N-1466)		First Sample (N-733)		Replication Sample (N-733)	
	n	%	n	%	n	%
Children are present in the household	580	39.6	303	41.3	277	37.8
Smoking status						
Nonsmoker	719	49.4	354	48.7	365	50.1
Former Smoker	428	29.4	217	29.8	211	29.0
Current Smoker	308	21.2	156	21.5	152	20.9
Number of friends who smoke						
None	277	18.9	141	19.3	136	18.6
Less than half	841	57.5	416	57.0	425	58.1
Half or more	344	23.5	173	23.7	171	23.4
Number of other smokers in the household						
None	1123	76.7	564	76.9	559	76.4
At least one	342	23.3	169	23.1	173	23.6
Recall of media advertisements						
Chemical ad	988	67.4	490	66.9	498	67.9
Parent ad	1009	68.8	495	67.5	514	70.1
Server ad	999	68.1	510	69.6	489	66.7
Child ad	1044	71.3	537	73.3	507	69.3
Policy ad	650	44.3	313	42.7	337	46.0
Workplace policy						
No ban	72	7.1	34	6.8	38	7.4
Partial ban	219	21.5	121	24.1	98	19.0
Full ban	727	71.4	347	69.1	380	73.6

<u>Variables</u>	<u>Original Sample</u> (N-1466)		<u>First Sample</u> (N-733)		<u>Replication</u> <u>Sample</u> (N-733)	
Hours of SHS exposure at work						
2 hours or more	168	16.6	90	18.0	78	15.1
1 hour or less	104	10.3	45	9.0	59	11.5
0 hours	742	73.2	364	72.9	378	73.4
Support for bans in public buildings						
Completely disagree	119	8.1	64	8.7	55	7.5
Somewhat disagree	164	11.2	83	11.3	81	11.1
Neither agree/disagree	52	3.5	30	4.1	22	3.0
Somewhat agree	197	13.4	86	11.7	111	15.1
Completely agree	934	63.7	470	64.1	464	63.3
Support for bans in worksites						
Completely disagree	143	9.8	71	9.7	72	9.8
Somewhat disagree	169	11.5	80	10.9	89	12.1
Neither agree/disagree	69	4.7	42	5.7	27	3.7
Somewhat agree	206	14.1	87	11.9	119	16.2*
Completely agree	879	60.0	453	61.8	426	58.1
Support for bans in restaurants/cafeterias						
Completely disagree	164	11.2	91	12.4	73	10.0
Somewhat disagree	149	10.2	70	9.5	79	10.8
Neither agree/disagree	38	2.6	19	2.6	19	2.6
Somewhat agree	155	10.6	74	10.1	81	11.1
Completely agree	960	65.5	479	65.3	481	65.6
Household smoking restrictions						
Smoking is allowed everywhere	217	14.9	111	15.2	106	14.5
Smoking is allowed in some places or at some times	249	17.1	120	16.5	129	17.7
Smoking is not allowed anywhere	992	68.0	497	68.3	495	67.8
Private car restrictions						
There are no rules about smoking	261	18.1	128	17.8	133	18.4
Smoking is allowed sometimes or in some cars	247	17.1	117	16.3	130	18.0
Smoking is never allowed in any car	934	64.8	475	66.0	459	63.6

Confirmatory factor analysis

A confirmatory factor analysis was conducted on the first randomly selected half of the dataset in order to test the actual fit of the factor structure model to the observed data. Goodness-of-fit indices showed satisfactory values. Bentler-Bonnet Non-Normed Fit Index (NNFI) = 0.96 and Comparative Fit Index (CFI) = 0.97. The root mean square error of approximation (RMSEA) = .03, indicating that the model adequately fit the sample population. The average absolute standardized residual (AASR) = .02, also indicating close fit. The Chi-Squared-to-degree of freedom ratio fell within the recommended range of 1-3. Chi square = 137, $df(80) = 1.71$. Factor loadings between latent variables and their respective indicators are displayed in Table 2 below. The majority of factor loadings were large while some were small to medium.

Table 2. Factor Loadings from Latent Variables to Indicators for First Random Sample

<u>Item</u>	<u>Factor</u>				
	<u>Cigarette Involvement</u>	<u>Media exposure</u>	<u>Workplace Environment</u>	<u>Support for bans</u>	<u>Voluntary restrictions</u>
Smoking status	0.61				
Friends who smoke	0.48				
Household smokers	0.48				
Chemical ad		0.43			
Parent ad		0.50			
Server ad		0.51			
Child ad		0.56			
Support ad		0.34			
Work policy			0.56		
SHS exposure			0.56		
Public places				0.77	
Worksites				0.75	
Restaurants				0.71	
Home ban					0.76
Car ban					0.78

A confirmatory factor analysis was conducted on the replication sample in order to test for a similar factor structure. Goodness-of-fit indices again showed satisfactory values. NNFT = 0.97; CFI = 0.98, RMSEA = 0.03, AASR = 0.02, indicating close fit. The Chi Square-to-degrees of freedom ratio fell within the recommended range of 1-3. Chi square = 129, df(80) = 1.61. Table 3 shows factor loadings between latent variables and indicators for the replication sample.

Table 3. Factor Loadings from Latent Variables to Indicators for Second Random Sample

<u>Item</u>	<u>Factor</u>				
	<u>Cigarette Involvement</u>	<u>Media exposure</u>	<u>Workplace Environment</u>	<u>Support for bans</u>	<u>Voluntary restrictions</u>
Smoking status	0.68				
Friends who smoke	0.59				
Household smokers	0.47				
Chemical ad		0.49			
Parent ad		0.55			
Server ad		0.41			
Child ad		0.52			
Support ad		0.37			
Work policy			0.51		
SHS exposure			0.70		
Public places				0.82	
Worksites				0.76	
Restaurants				0.79	
Home ban					0.75
Car ban					0.76

Factor loadings were comparable across the two samples. Correlations among the five factors for the first sample are shown in Table 4 and for the replication sample in Table 5 below.

Table 4. Interrelationships Among All Factors for First Random Sample

Correlations	1	2	3	4	5
1 Cigarette Involvement		.19*	-.59*	-.64*	-.93
2 Media Exposure			.03	.10	-.09
3 Workplace Smoking Environment				.31*	.37*
4 Support for Smoking Restrictions					.65*
5 Voluntary Smoking Restrictions					

Note. * Correlation is significant at the .05 level (2-tailed).

Table 5. Interrelationships Among All Factors for Second Random Sample

Correlations	1	2	3	4	5
1 Cigarette Involvement		.12*	-.37*	-.62*	-.86*
2 Media Exposure			.04	.14*	-.02
3 Workplace Smoking Environment				.34*	.30*
4 Support for Smoking Restrictions					.58*
5 Voluntary Smoking Restrictions					

Note. * Correlation is significant at the .05 level (2-tailed).

Structural regression analysis

A structural regression analysis was conducted on the first sample in order to test the fit of the proposed model to the data. Fit indexes revealed a less than satisfactory match to the data. NNFI = 0.91 and the CFI = 0.93, which fell below the preferred value of .95 or higher. The Chi Square-to-degrees of freedom ratio approached reaching the higher end of the recommended range of 1-3. Chi square = 252, $df(98) = 2.57$. The regression coefficients for the proposed model for the first sample are shown in Figure 2 below.

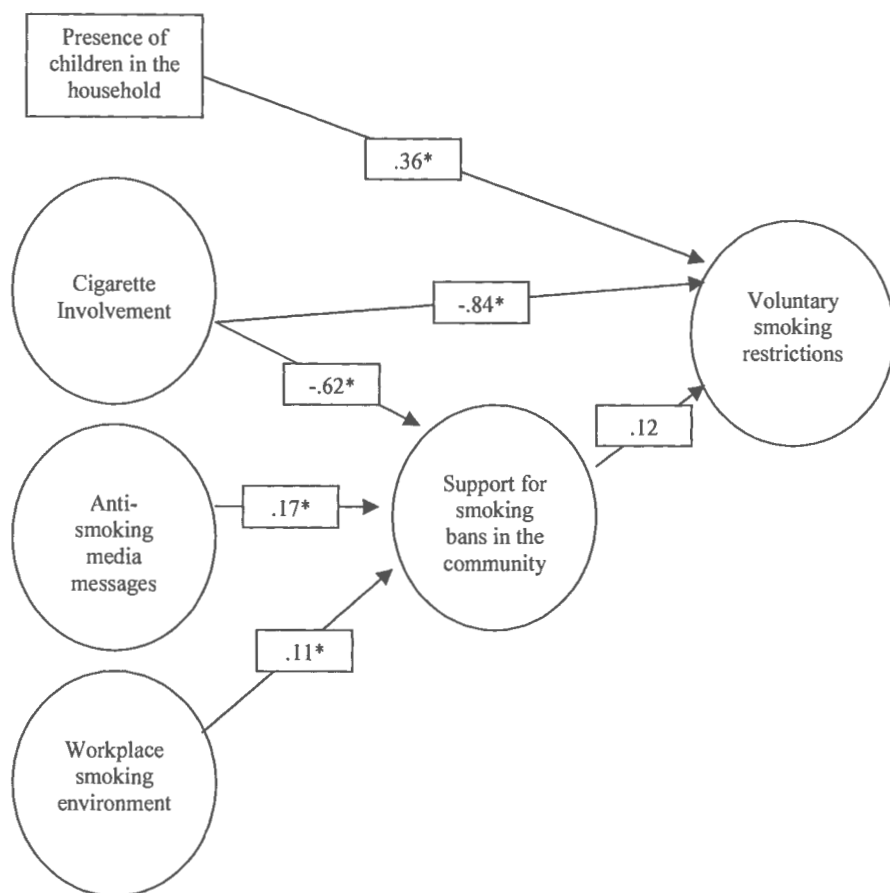


Figure 2. Structural Regression Model on First Random Sample

In order to test for a better fitting model, the correlation coefficients among factors in the confirmatory factor analysis were reexamined. Due to the statistically significant correlations between cigarette involvement and media exposure (.19) and cigarette involvement and workplace smoking environment (.59), these variables were allowed to correlate when re-testing the fit of the model to the data. After examining the fit indices, the modified structural model was determined to be a good fit to the

data. NNFI = .95, CFI = .96, RMSEA = .04, and AASR = .03. The Chi Square-to-degrees of freedom ratio fell well within the recommended range of 1-3. Chi square = 181, $df(96) = 1.88$. R-squared for presence of children in the household, cigarette involvement, and support for bans in the community on voluntary smoking restrictions = .96. R-squared for cigarette involvement, anti-smoking media messages, and workplace smoking environment on support for smoking bans in the community = .44. Structural regression coefficients and factor correlations for the first sample are depicted in Figure 3 below.

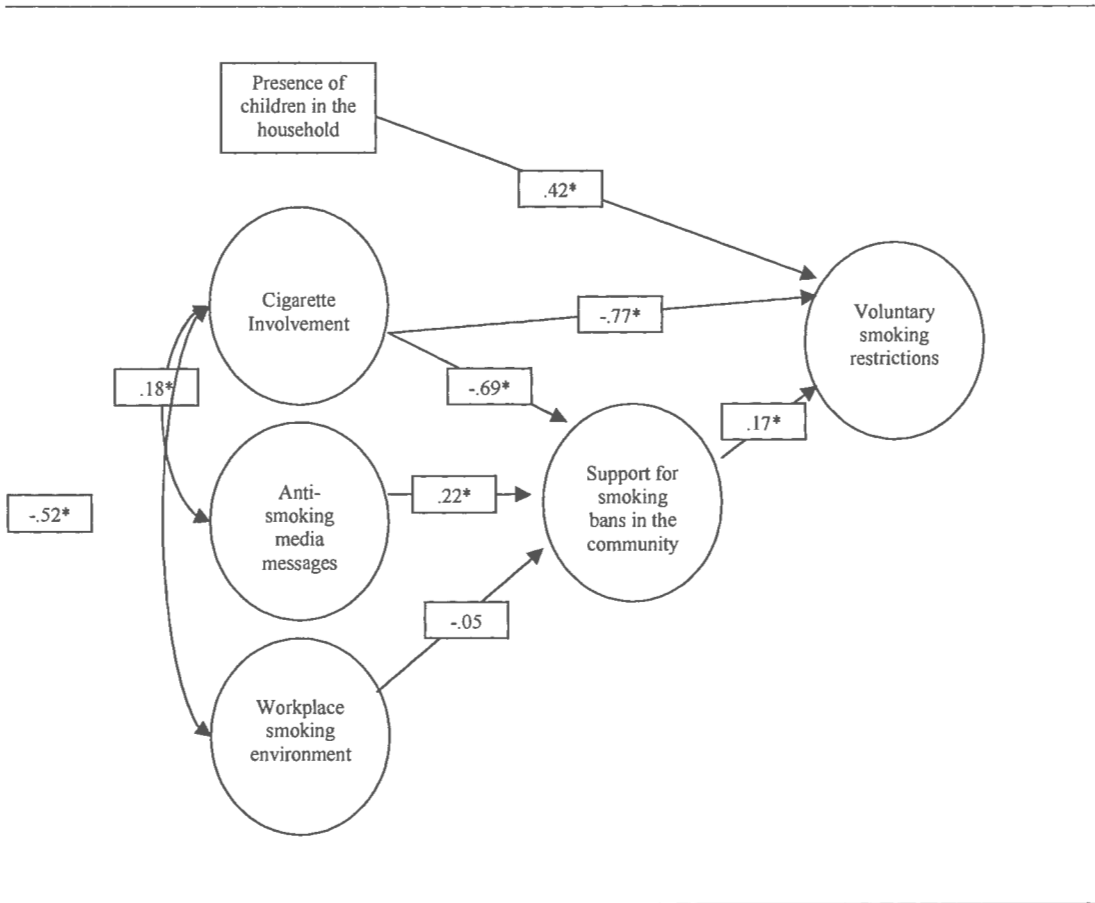


Figure 3. Structural Regression Model on First Sample with Correlations

The structural regression analysis was conducted on the replication sample in order to test for replication. Fit indices again showed a satisfactory fit of the model to the data. NNFI = .97, CFI = .98, RMSEA = .03, and AASR = .02. The Chi Square-to-degrees of freedom ratio fell well within the recommended range of 1-3. Chi square = 148, $df(96) = 1.54$. R-squared for presence of the children in the household, cigarette involvement, and support for smoking bans in the community on voluntary smoking restrictions = .73. R-squared for cigarette involvement, anti-smoking media messages, and workplace smoking environment on support for smoking bans in the community = .43. Structural regression coefficients and factor correlations for the replication sample are depicted in Figure 4 below.

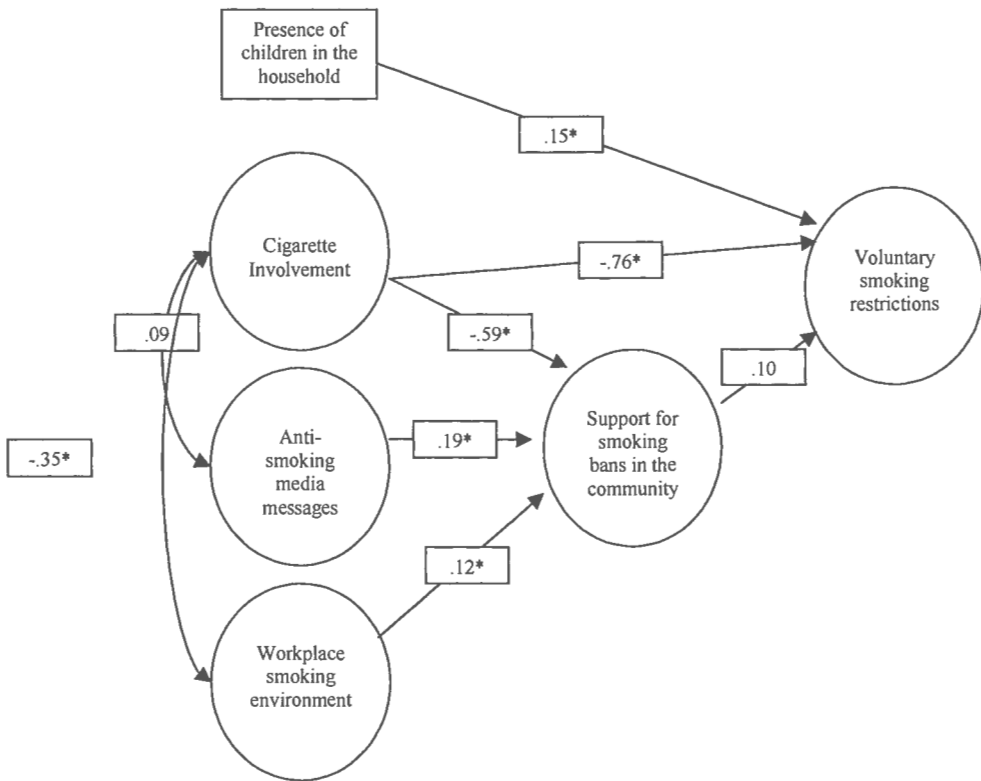


Figure 4. Structural Regression Model on Replication Sample with Correlations

An examination of the regression coefficients in the two samples' models indicated differences between the two samples. In the first sample, the correlation (.05) between workplace smoking environment and support for smoking bans in the community was not statistically significant, whereas in the replication sample the correlation (.12) was significant at $p < .05$. Chi square difference tests were conducted on the two samples for several demographic and attitudinal variables in order to explore why the difference between the samples on these factors might exist. A significant difference on the employment status variable was identified. There were

72 homemakers in the entire sample. The replication sample had significantly fewer homemakers ($n=27$) compared to the first sample ($n=45$). Chi square, $df(1) = 4.50$, $p<.05$. There was also a significant difference between the two samples with regard to support for smoking bans in the community. Individuals in the replication sample were more likely to agree that smoking should be banned in worksites compared to the first sample. Chi square, $df(1) = 4.97$, $p<.05$.

Although the following variables were not of central concern in this study, differences were also found between the two samples on two “social norm” indicator variables. There was a statistically significant difference between the two samples with regard to the perceived number of adults in the community who are smokers. Twice as many individuals ($n=33$) in the first sample reported that almost all adults in the community were smokers compared to the replication sample ($n=16$). Chi square, $df(1) = 5.90$ ($p<.02$). Significantly more individuals in the first sample ($n=167$) compared to the replication sample ($n=121$) perceived that laws against selling cigarettes to minors were “sometimes” enforced as opposed to “often” or “very often” enforced. Chi square, $df(1) = 7.35$ ($p<.02$).

DISCUSSION

This study tested the relation of voluntarily restricting smoking in homes and cars with “individual” and “environmental” level factors. It was hypothesized that voluntary restrictions would be associated with individual level factors such as having a supportive attitude toward policies that restrict smoking in the community, having children in the household, being a nonsmoker, having fewer friends who smoke, and having fewer household members who smoke. Environmental level factors such as coverage under stringent workplace smoking restrictions and recall of anti-smoking media messages were hypothesized to be related to voluntary smoking restrictions through their effects on increasing support for bans in the community.

All of the hypothesized directional relationships were supported in the structural regression model, but some of the regression coefficients were not statistically significant. The fit indices of the proposed model showed a slightly less than satisfactory fit to the data, so correlations between factors were re-examined to determine how the fit of the model could be improved. Due to a moderate correlation between cigarette involvement and recall of anti-smoking media messages and a high correlation between workplace smoking environment and cigarette involvement, these variables were allowed to correlate when re-running the model. This improved the model for both samples as evidenced by multiple fit indices.

The presence of children in the household was positively related to voluntarily enforcing smoking restrictions in the household and car, which goes along with findings from past research (Norman et al., 1999; Okah et al., 2003). Many individuals take measures in places where they can control to limit children’s exposure

to secondhand smoke. There was a strong negative relationship between cigarette involvement and voluntary smoking restrictions. Current smokers and individuals with more friends and household members who smoke were less likely to restrict smoking in their homes and cars. These findings are supported by past research (Kegler et al., 2002; Norman et al., 1999; Okah et al., 2002; Pizacani et al., 2003; Pyle et al., 2005). A strong negative relationship was found between cigarette involvement and support for smoking bans in the community. It is not surprising that current smokers and individuals with large social networks of smokers are less supportive of having personal freedom to smoke whether they choose taken away.

Individuals who recalled more anti-smoking media messages were more supportive of smoking restrictions in the community. It is not clear whether the media messages increased individuals' support for bans or whether individuals who were more supportive of bans happened to be more aware of anti-tobacco messages. In the replication sample, there was a positive relationship between having a workplace smoking ban and supporting smokefree bans in the community, but this relationship was not found in the first sample. Although the two samples were selected randomly, individuals in the first sample were significantly less likely to agree that smoking should be banned in worksites. Individuals in the first sample were also slightly less likely to be covered by complete smoking restrictions at work and they reported more secondhand smoke exposure, which showed a trend toward significance.

Post hoc analyses of differences between the two samples on demographics, attitudes, and knowledge revealed that there were significantly more individuals in the

first sample with inaccurate social norms toward tobacco. More individuals in the first sample thought that all members of their community were smokers, and fewer believed that laws against selling cigarettes to minors were regularly enforced. Finally, the first sample (as previously mentioned) had significantly more homemakers compared to the replication sample, which could have had an effect on the relationship between workplace smoking environment and support for smoking bans. The positive relationship between support for bans and voluntary bans was significant in the first sample but not the second. This may be due to the fact that there was more variability in the support variable (for worksite bans) in the first sample compared to the second, which increased the chance of finding a significant relationship.

In the replication sample, the relationship between support for smoking restrictions and voluntary bans did not reach statistical significance. A possible explanation for this is that more of the variance was accounted for by the relation between workplace smoking environment and support for bans in the replication sample. When the structural model was tested on the entire dataset, the correlation between support for bans and voluntary bans reached statistical significance as in the first sample. The relationship between workplace smoking environment and support for bans in the community was positive and significant in one sample but not in the other. A possible explanation for the lack of relationship in one sample is that there was a significantly larger number of homemakers (and therefore fewer workers) which resulted in a lack of statistical power to find a significant relationship among workplace smoking environment and support for smoking restrictions in the community. Individuals in that sample were also less supportive of workplace

smoking restrictions compared to the second sample. The hypothesized positive relationship between recall of anti-smoking media messages and support for smoking restrictions in the community was supported in both samples.

A confirmatory factor analysis tested the proposed structural relationships between latent variables and their assigned indicators. As predicted, the latent variable “cigarette involvement” loaded highly on its three indicator variables, namely, smoking status, number of friends who smoke, and number of other smokers in the household. This finding is consistent with past research that smokers are more likely to live in households with other smokers and have more friends who smoke compared to nonsmokers (Kegler, 2002; Norman et al., 1999; Okah et al., 2002). The latent variable “support for smoking bans in the community” loaded highly on its three indicators, namely, support for bans in restaurants/cafeterias, public places, and worksites. “Anti-smoking media messages” had low to moderate loadings on the five variables that assessed recall of anti-smoking media messages. This is likely due to the fact that there were a variety of media messages that were designed to promote cessation services, highlight the dangers of smoking around children, and increase support for smokefree policies for public places. The messages were also delivered through a variety of outlets such as television, radio, newspapers, and billboards over an extended period of time. Therefore, recalling a televised media campaign about the dangers of secondhand smoke may have had little bearing on recalling a billboard campaign about cessation services.

The factor loadings from workplace smoking environment to its indicators, workplace smoking policy and hours of secondhand smoke exposure were of moderate

strength. This may have been due to the fact that some workers were unaware of their workplace smoking policy before the smokefree law went into effect in 2005, which is evidenced by discrepancies between smoking restrictions that workers reported being covered by and the number of hours they reported being exposed to secondhand smoke at work. As predicted, “voluntary smoking restrictions” loaded highly on household bans and car bans. Past research has shown these two variables to be highly correlated. The majority of individuals who ban smoking in their cars also ban smoking in their homes (Norman et al., 1999).

The current study highlights the degree to which smoking status, household characteristics, smoking restrictions at work, exposure to anti-smoking media campaigns, and support for smoking bans in the community influence decisions to voluntarily restrict smoking in one’s personal environment. Policies that restrict smoking in public places decrease the prevalence of smoking and inaccurate social norms about tobacco use. Media campaigns that emphasize health hazards associated with tobacco use can also help increase negative attitudes toward smoking and secondhand smoke exposure. Individuals’ decisions to voluntarily restrict smoking on their personal property are influenced by a combination of environmental and individual level factors, some of which were revealed in this study.

Limitations

There are limitations to conducting secondary data analyses. There may be other variables that are associated with voluntarily enforcing smoking in homes and cars, but it was not possible to add these variables to the dataset. For the initial study, many residents in intervention communities were interviewed before those in the rest

of the state, which affected the demographic make up of the two random samples. There were more individuals interviewed in Providence and Pawtucket in the first sample compared to the replication sample along with more Hispanic women and homemakers. These differences may have affected other variables of interest in the study leading to differences between the two structural models.

A structural equation model analysis on this data cannot imply causality. Funding agencies may be interested in whether exposure to anti-smoking media messages increase personal restrictions on smoking in homes and cars. Policy makers may want to know whether policies that restrict smoking in workplaces increases voluntary restrictions on smoking. Questions about whether anti-smoking media messages and workplace bans lead to increases in negative attitudes toward secondhand smoke, greater support for smoking restrictions in public places, and more accurate social norms with regard to smoking cannot be answered due to the cross-sectional design. Temporal ordering, association between variables, and isolation of effects are required for making causal attributions (Bollen, 1989). It is also unclear whether people who have greater support for bans are more likely to seek out smokefree workplaces or whether working in a smokefree workplace leads to increased support over time.

Future Directions

Different models with mediational pathways and direct effects other than those in this study could be tested to investigate whether there are other structural pathways between these variables. The models could be tested on individuals of different age groups, race/ethnic background, gender, income levels, and educational achievement

to test for differences. It would be of interest to investigate whether there are differences among employed, unemployed, homemakers, students, and retired individuals on support for smoking bans and voluntary restrictions on smoking. It would be important to determine whether having accurate social norms for tobacco affects attitudes toward tobacco policies and voluntary smoking restrictions. Differences among populations groups on demographic, knowledge, and attitudinal variables could help identify how best to target these population groups for interventions to increase voluntary smoking restrictions.

APPENDIX

Survey items

1. How many children under 18 are in your household?

- (0-15) Children under 18 in household
- (98) Do not know
- (99) Refused

2. Have you smoked 100 or more cigarettes in your lifetime?

- (1) Yes
- (2) No
- (8) Do not know
- (9) Refused

3. Have you smoked a whole cigarette within the last 6 months?

- (1) Yes
- (2) No
- (8) Do not know
- (9) Refused

4. Do you smoke cigarettes every day or some days or not at all?

- (1) Every day
- (2) Some days
- (3) Not at all
- (8) Do not know
- (9) Refused

5. How many of your friends are smokers? Would you say...

- (0) None
- (1) Very few
- (2) Less than half
- (3) About half
- (4) More than half
- (5) Almost all
- (8) Do not know
- (9) Refused

6. How many cigarette smokers currently live in your household?

- (0) None
- (1-7) Smokers in household
- (8) Do not know
- (9) Refused

We are now going to describe anti-smoking ads you may have seen or heard in the past year or two. For each one, we will ask you if you recall any of the categories of advertisements in the past year or two.

7. Do you recall a series of ads that feature professionals who discover that the dangerous chemicals they try to protect themselves from are found in tobacco smoke? These include: a chemist in a lab wearing a breathing mask, an undertaker with chemicals he uses for embalming like formaldehyde, and a field chemist dressed in a yellow head-to-toe protective uniform using equipment to measure harmful chemicals from cigarette smoke.

Have you seen ads like these in the past year or two?

- (1) Yes
- (2) No
- (8) Do not know
- (9) Refused

8. Do you recall ads suggesting that parents who smoke should quit for their children? These include: an African American woman who says she tried to quit for herself but finally succeeded for her young son and now urges other girlfriends to quit too; two young boys in baseball uniforms with the words, "If you tried quitting for yourself, try quitting for them."

Have you seen ads like these in the past year or two?

- (1) Yes
- (2) No
- (8) Do not know
- (9) Refused

9. Do you recall ads promoting "stop smoking" services to help Rhode Islanders quit smoking? These include: ads with people holding cell phones in their hands featuring the telephone quitline number at 1-800-try-to-stop; ads saying "check this out" with the internet address for www.trytostop.org; commercials featuring a females jazz singer in a club crooning, "You made me love you" followed by information on who to contact if you want to quit smoking.

Have you seen ads like these in the past year or two?

- (1) Yes
- (2) No
- (8) Do not know
- (9) Refused

10. Do you recall ads featuring the negative health effects of secondhand smoke on infant and children's health? For example: an ad of a baby crying and coughing over a baby monitor with the words, "Every year 300,000 babies get sick from secondhand smoke" followed by a hand reaching down and turning off the baby monitor saying... "But the tobacco industry doesn't want to hear about it."

Have you seen an ad like this one in the past year or two?

- (1) Yes
- (2) No
- (8) Do not know
- (9) Refused

11. Do you recall ads showing local support for smokefree public places? These include: an ad showing that a large majority of non-smokers and smokers in Rhode Island support smoke-free public workplaces and restaurants; a picture of a waitress talking about how secondhand smoke is associated with an increase in serious smoke-related illnesses for people in her profession when compared to people in other professions.

Have you seen ads like these in the past year or two?

- (1) Yes
- (2) No
- (8) Do not know
- (9) Refused

12. Thinking about the past 7 days, about how many hours a week were you exposed to other people's tobacco smoke when you were at work?

- (0) None at all
- (1) One hour or less
- (2-96) Hours of exposure at work
- (97) Says "Do not work"
- (98) Do not know
- (99) Refused

13. I am going to read you're a list of typical workplace smoking policies. Please tell me which one is most like the policy at your workplace...

- (1) Smoking is not allowed anywhere inside the building.
- (2) Smoking is only allowed in a few designated smoking areas.
- (3) Smoking is allowed in most areas.
- (8) Do not know
- (9) Refused

Now we are going to ask about your opinions on smoke smoking policy issues. For each of the following items please indicate whether you Agree, Disagree, or Neither Agree nor Disagree with the statement.

14. Smoking should be banned in all public buildings. Would you agree, disagree, or neither agree nor disagree?

Is that completely or somewhat?

- (1) Completely agree
- (2) Somewhat agree
- (3) Neither agree nor disagree
- (4) Somewhat disagree, or
- (5) Completely disagree?
- (8) Do not know
- (9) Refused

15. All work sites should be smoke-free. Would you agree, disagree, or neither agree nor disagree?

Is that completely or somewhat?

- (1) Completely agree
- (2) Somewhat agree
- (3) Neither agree nor disagree
- (4) Somewhat disagree, or
- (5) Completely disagree?
- (8) Do not know
- (9) Refused

16. Smoking should be banned in all public buildings. Would you agree, disagree, or neither agree nor disagree?

Is that completely or somewhat?

- (1) Completely agree
- (2) Somewhat agree
- (3) Neither agree nor disagree
- (4) Somewhat disagree, or
- (5) Completely disagree?
- (8) Do not know
- (9) Refused

17. Which statement best describes the rules about smoking inside your home? Do not include decks, garages, or porches. Would you say...

- (1) Smoking is not allowed anywhere inside your home.
- (2) Smoking is allowed in some places or at some times. OR
- (3) Smoking is allowed anywhere inside the home.
- (8) Do not know
- (9) Refused

18. What are the rules about smoking in your family cars? Would you say...

- (1) Smoking is never allowed in any car.
- (2) Smoking is allowed sometimes in some cars.
- (3) There are no rules about smoking in the car.
- (4) Do not have a family car
- (8) Do not know
- (9) Refused

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