

Original Investigation

Prerelease intent predicts smoking behavior postrelease following a prison smoking ban

Laura Thibodeau, Douglas E. Jorenby, David W. Seal, Su-Young Kim, & James M. Sosman

Abstract

Introduction: More than 2 million persons are incarcerated in the United States. Most are young minority men, soon to reenter the community. The majority are also lifelong smokers with high rates of health-related problems. As prisons implement smoking bans, it is not known whether health behavior change that is mandated, rather than selected, can be maintained. The Wisconsin Department of Corrections smoking ban is a unique opportunity to investigate determinants of smoking behavior after release from prison.

Methods: A convenience sample of 49 incarcerated men near release participated in two interviews (1-month prerelease, in prison, and 1-month postrelease via telephone). Descriptive analyses and multivariate modeling were conducted to determine associations with postrelease smoking.

Results: Participants had a mean age of 36.7 years, 12.4 years of education, and a 2.3-year incarceration; 47% were Black and 41% White. They had smoked 14.5 years. Most (67%) believed that their health was improved after the smoking ban. Paired *t* tests revealed decreases in Positive and Negative Affect Scale negative affect ($p = .001$) and Patient Health Questionnaire-8 depression ($p = .009$) postrelease. Univariate analysis showed correlations of intent to smoke upon release with smoking relapse postrelease ($p = .001$), White race with smoking relapse postrelease ($p = .045$), and perceived better health since the prison smoking ban with nonsmoking on release ($p = .01$). There was a trend toward use of alcohol with smoking relapse on release ($p = .061$).

Discussion: Prerelease smoking intention predicted postrelease behavior. Belief in improved health after the prison smoking ban correlated with nonsmoking on release. Targeted relapse prevention interventions are needed for people reentering the community.

Introduction

More than 1.5 million adults are incarcerated in U.S. prisons (Bureau of Justice Statistics, 2008). In 2008, the incarceration rate was 1 of every 196 residents, surpassing any other industrialized nation (Bureau of Justice Statistics). Most persons entering correctional facilities have histories of risky health behaviors and substance abuse (Beck, Bonczar, & Ditton, 2000; Conklin, Lincoln, & Tuthill, 2000; Wilson, 2000). Tobacco smoking is a major prison health challenge. Rates of tobacco smoking among prison populations range from 70% to 80%, up to four times the national average (Conklin et al.; Marrett & Sullivan, 2005; Troscclair et al., 2005; Voglewede & Noel, 2004). Incarcerated persons also have higher rates of chronic illnesses (relative to community members) that are exacerbated by smoking, such as hypertension (24% among incarcerated vs. 18% in community), diabetes (7.0% vs. 4.8%), and asthma (8.5% vs. 7.8%) (National Commission on Correctional Health Care, 2006).

In 2006, more than 700,000 individuals were released from prison (Bureau of Justice Statistics, 2008). Most return to the community within 2 years (Bureau of Justice Statistics; Petersilia, 2000). Many are from communities where they have had limited

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access to primary medical care and prevention services (Glaser & Greifinger, 1993; Petersilia). Persons leaving prison face numerous reentry challenges, including reestablishing relationships, finding employment and housing, and dealing with addictions and mental health issues (Petersilia). Concerns regarding disease prevention and health maintenance such as smoking cessation may be less likely to receive attention from these individuals.

Smoking has been observed to be a normative part of the culture in prison, and tobacco use was tolerated by correctional authorities over time. However, the overwhelming evidence of the adverse public health effects of tobacco on both smokers and those exposed to environmental smoke, coupled with the risk of litigation by prisoners involuntarily exposed to tobacco smoke, has prompted correctional authorities to implement tobacco smoking bans to minimize both health and legal risks (Marrett & Sullivan, 2005). According to a recent survey (Kauffman, Ferketich, & Wewers, 2008) of 49 state correctional departments and the Federal Bureau of Prisons, 60% of prison systems report having total smoking bans.

As the majority of U.S. correctional institutions implement smoking bans, it is important to consider whether this mandated health behavior change can be maintained after release. The majority of smoking relapses occur within 3 months of cessation (Kenford et al., 1994). After several years of successful behavior change, the probability of maintenance increases (Cummings, Jaen, & Giovino, 1985; Garvey, Bliss, Hitchcock, Heinold, & Rosner, 1992). Prison sentences are usually at least 1 year in length. Those released after a smoking ban will potentially have a minimum of more than 3 months and likely 1 or more years of smoking cessation prior to return to the community, where they may smoke. Postrelease, they will be long past the period of peak withdrawal symptoms, as well as past the period of greatest relapse risk.

There are few research reports on the effects of smoking bans in prisons. In 2005, Cropsey and Kristeller (2005) noted that smokers who continued to smoke post-ban were more nicotine dependent and reported more withdrawal symptoms, even when accounting for dependence and baseline withdrawal scores. Distressed smokers had the highest levels of withdrawal. Additionally, an analysis of intent to smoke upon release from jail found a correlation between future intent to smoke and current desire to smoke (craving) but no relationship to length of incarceration or nicotine dependence (Voglewede & Noel, 2004). Although no studies to date have reported rates of return to smoking postrelease from prison, a group of chronically ill smokers released from jail were found to have a relapse rate of 86.3% 1-month postrelease by Lincoln et al. (2009).

Prior research has identified a number of predictors of smoking relapse in the general population. Predictors previously identified include intention to quit (Etter & Sutton, 2002), negative affect, alcohol consumption, presence of other smokers in the immediate environment (Pomerleau, Adkins, & Pertschuk, 1978; Shiffman, Paty, Gnys, Kassel, & Hickcox, 1996), fewer coping skills (Cummings et al., 1985), decreased social support (Gulliver, Hughes, Solomon, & Dey, 1995), presence of medical conditions (Augustson et al., 2008), prior smoking behavior (Pomerleau et al.), and demographic factors (Hymowitz, Sexton, Ockene, & Grandits, 1991). However, during mandated or involuntary behavior change, the typical

antecedents of a chosen health behavior change may not have occurred; factors predictive of relapse in other smokers may not apply to a prison population. We therefore examined whether prerelease and postrelease measures of these factors would apply to this unique situation.

The Wisconsin Department of Corrections (DOC) implemented a ban on tobacco smoking in state prisons, effective 1 September 2006. Given the lack of research into maintenance of involuntary health behavior change, and the potential public health impact of assisting prisoners in maintaining smoking abstinence postrelease, the Wisconsin DOC smoking ban policy presented a unique opportunity to investigate possible determinants of smoking behavior after release from prison.

Methods

Participants and recruitment

Participants included 49 male prisoners from a minimum security Wisconsin state prison. Participants were within 1 month of their release and willing to participate in two confidential interviews: ≤ 1 -month prerelease and 1-month postrelease. The prerelease interview was performed face-to-face in prison, and the postrelease community assessment was performed by telephone survey. Participants were incarcerated adult (≥ 18 years) men who self-reported daily tobacco smoking prior to this incarceration or prior to the prison smoking ban. Exclusion criteria included off-site work release employment (where smoking materials were more readily accessible); inability to communicate in English; severe cognitive impairment or dementia that precluded informed consent; or physical placement in segregation prior to release, making it impossible to meet with study staff in a confidential setting. The study was approved by the Human Subjects Committee of the University of Wisconsin School of Medicine and Public Health. A Federal Certificate of Confidentiality was obtained prior to enrolling participants. All participants provided written informed consent and received a small stipend for their participation.

Procedure

Prison social services staff sent flyers advertising the study to men who were within 1 month of release from prison. Those who indicated interest were scheduled to meet face-to-face with the study interviewer in a secure and confidential room within the social services center at the prison. At this meeting, the study was explained and, if the person was eligible and wished to participate, informed consent was obtained. The first 51 respondents consented and were interviewed. Two were excluded from the analysis: One admitted during the interview that he had actually not been a regular smoker, and the other because he limited his tobacco use to chewing tobacco and did not regularly smoke cigarettes. Next, a qualitative interview was conducted and a quantitative survey completed. Postrelease contact information was obtained. All participants were offered a referral to a tobacco quitline and provided a toll-free telephone number to contact study staff in order to provide updated contact information or to obtain the tobacco quitline number after release. A telephone survey was also scheduled during this meeting to occur about 1-month postrelease.

Approximately 1-month postrelease, the study interviewer attempted to contact the participant by telephone at the

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appointed time and day. During this call, a quantitative survey was completed, and a referral to a tobacco quitline was again offered.

Measures

We assessed demographics, health behaviors, emotional state, and behavioral skills. Prerelease demographics included age, ethnic background, education, relationship status, number of children, and incarceration length. Participants were asked whether they had taken prescription medications for a health problem while in prison and whether they had received services for a substance use or emotional problem, and substance use history (injection drug use, other illicit drug use, alcohol use) and lifetime smoking history were obtained. Participants were asked about intent to smoke postrelease and rated importance and confidence around intent to remain smoke free after release (readiness to change health behavior).

Based on community predictors of smoking relapse, the following survey instruments were administered to participants both prerelease (in person) and postrelease (by telephone) by a trained research nurse: Positive and Negative Affect Scale (PANAS), Social Attachment subscale of the Social Provisions Scale (SPS-SAS), Patient Health Questionnaire (PHQ)-8 (depression scale), Problem Solving Scale (PSS), Fagerström Test of Nicotine Dependence (FTND), Alcohol Use Disorders Identification Test (AUDIT-C), and substance use by Drug Abuse Screening Test (DAST-10). Unless otherwise specified below, time periods elicited were for the month prior to this incarceration (prerelease) or in the time since release (generally 1-month postrelease).

The PANAS (Watson, Clark, & Tellegen, 1988) is an assessment of mood or current emotional state. It consists of two 10-item scales (positive affect and negative affect); the participant is asked to respond on a 5-point scale to “feelings” words, indicating how much he has felt this way.

The SPS-SAS is used to assess perceived adequacy and satisfaction with emotional support (Cutrona, 1989). Participants rate perceived support on 4-point scales with anchors from “strongly disagree” to “strongly agree.” After reverse scoring two items, scores are summed such that higher scores reflect greater levels of support. This four-item measure of emotional support has been found to have adequate internal consistency ($\alpha = .78$).

The PHQ-8 is an eight-item measure of depression, similar to the PHQ-9 in terms of diagnosing depressive disorders, but with scores >10 indicative of severe depression (Kroenke, Spitzer, & Williams, 2001). PHQ-8 consists of eight questions covering symptoms for diagnosing depression. Participants are asked to tell how many days in the past 2 weeks they have been bothered by each symptom from “Not at all” (0) to “Nearly every day” (3). Scores can range from 0 to 24.

The PSS contains five questions related to use of problem-solving strategies in daily life (Lin et al., 2003). It is based on PSSS (Problem Solving Skills Scale), a subscale of the Social Problem-Solving Inventory (SPSI) (D’Zurilla & Nezu, 1990). Responses are on a 5-point scale from 1 (not at all true of me) to 5 (extremely true of me).

FTND (Heatherton, Kozlowski, Frecker, & Fagerström, 1991) contains six questions, scored for between 0 and 10 points

to indicate level of addiction to nicotine. Scores of 0–3 indicate low addiction, 4–6 medium, and 7–10 high. For this scale prerelease, we asked respondents to apply the time period of “in the month prior to this incarceration.”

AUDIT-C is a three-item alcohol consumption measure (Bush, Kivlahan, McDonell, Fihn, & Bradley, 1998). Each item is scored from 0 to 4 points, with total scores ranging from 0 to 12. Prerelease, we asked respondents to apply the time period of “in the month prior to this incarceration.”

DAST-10 (Carey, Carey, & Chandra, 2003) has a yes/no format of answers to 10 questions related to use of drugs excluding alcohol. Prerelease, we asked respondents to apply the time period of “in the month prior to this incarceration.”

Postrelease information included whether the participant had served time in prison or jail since his original release, current living situation, including the type of residence he currently occupied, number of other adults and children sharing this residence, and whether there were smokers sharing this living space. Employment status was assessed. If the participant was employed, he was asked the percentage of coworkers who smoked and whether smoking was permitted onsite. Other sources of income, including disability, service utilization (physical or mental health), use of prescription medications, and perceived health status were recorded. Quit attempts and smoking history since release were obtained, along with intent to quit in the next 60 days or 6 months. Importance and confidence ratings were elicited for quitting smoking or staying quit. Participants were asked whether they supported the prison smoking ban, and what they thought would be helpful to people who wished to stay quit on release. Finally, they were asked whether a telephone-delivered smoking intervention to help maintain abstinence on release would be helpful to them and/or to others.

Data analysis

Bivariate analyses were performed to compare pre- and postrelease variables using chi-square tests for binary/categorical variables and *t* tests to compare means. Data were analyzed using SAS/STAT Version 8.0 (SAS Institute, Cary, NC). Odds ratios and 95% confidence intervals were used to study the unadjusted association among demographic, emotional, and behavioral factors and postrelease smoking behavior. Stepwise multivariate logistic regression analysis was conducted to determine independent factors associated with postrelease smoking behavior.

Results

Prerelease

Forty-nine men were included in the final analysis. They ranged in age from 19 to 60 years (mean 36.7). They had 8–19 years of education (mean 12.4). Length of sentence was 9 months to 19 years (mean 2.3 years). The race/ethnicity of the sample was diverse and representative of the prison’s inmate population (47% Black and 41% White). The number of children per participant ranged from 0 to 9 (mean 2.2). The most commonly reported relationship status was single (59.2%).

Current health status, service utilization during this incarceration, and substance use history in the month prior to this

incarceration were obtained. Twenty-eight participants (42.9%) had received services for alcohol, drug, or emotional problems during this incarceration. Twenty (40.8%) were taking a prescription medication for a health problem.

Participants initiated smoking between ages 8 and 32 years (mean 15.5) and had smoked 2–40 years (mean 14.5) (Table 1). Most (85.7%) had previously attempted to quit smoking at least one to five times, but significant variability in previous “quit” attempts was observed. The length of smoking “quit” for each participant reporting a “quit” ranged from 0 to 252 months (mean 40.5). Fourteen (28.6%) accepted the toll-free number for the Wisconsin Tobacco QuitLine. FTND mean score for smoking behavior in the month prior to this incarceration was 4.31. Ten participants (20%) reported smoking since the ban. Asked whether they intended to smoke upon release, 11 (22%) answered “yes,” 33 (67%) answered “no,” and 5 (11%) were unsure (Table 2). Thirty-three (67.3%) considered their health status to be improved since the smoking ban. DAST-10 scores for drug use in the month prior to this incarceration ranged from 0 to 10 (mean = 4.57) and AUDIT-C from 0 to 12 (mean = 6.52). Current emotional state was assessed using SPS-SAS social support scale (range = 8–16, mean = 12.9); PANAS, consisting of a positive affect scale (range = 22–48, mean = 37) and a negative affect scale (range = 10–36, mean = 24.5); PHQ-8 depression scale (range = 0–10, mean = 6.22); and PSS (range = 8–23, mean = 18.3).

Postrelease

Forty-four participants (89.8%) completed 1-month postrelease surveys by telephone. Of the five who did not complete surveys, two were lost to follow-up and three were reincarcerated within the first month. Surveys were completed 14–70 days after release (mean 29 days). Two who completed surveys had spent 1 or more days in jail since their original release. Most were living in someone else’s home or apartment (56.8%); others (27.3%) were

in temporary living placements, their own homes, or apartments (13.6%); and one participant was in an inpatient drug treatment facility. More than half were not working but were looking for employment (51%), five were not working and not seeking work, eight were working part-time, and nine were working full time. Few (13.6%) received other income outside work, such as Social Security Disability Insurance or child support.

Twenty-eight (63.6%) participants considered their health status improved since release, 10 (22.7%) rated it unchanged, and 6 (13.6%) reported it to be worse. Sixteen (36.4%) had received services for alcohol, drug, or emotional health problems in the community. Twelve (27.3%) were taking a prescription medication for a health problem. One reported substance use excluding alcohol during this postrelease time period. The mean alcohol use score was less than 2 of 12 on the AUDIT-C, with 21 (48%) reporting alcohol use since release.

Twenty-seven participants (61%) reported abstinence from cigarettes 1-month postrelease. Of those smoking (39%), FTND mean score was 3.4. On average, each participant was living with two smoking adults; 53% reported they were not allowed to smoke indoors. Forty-two percent of employed participants were allowed to smoke at work either indoors or outdoors; 55% of coworkers smoked.

Seventeen postrelease participants (35%) supported the prison smoking ban. Forty participants (91%) thought a program to help people remain quit on release from prison would be helpful and 37 (84%) thought it would be helpful to them, personally. Asked whether they would seriously consider quitting smoking or staying quit within the next 60 days, 34 (77%) said yes; when the same question was asked with a 6-month time frame, 38 (86%) said yes. Eight participants (18%) accepted a quitline referral postrelease.

Comparisons

Participants who completed postrelease emotional state measures had mean scores of 12.57 on SPS-SAS, 38.05 on PANAS positive affect, 20.73 on PANAS negative affect, 4.39 on PHQ-8, and 20.14 on PSS. Paired (two tailed) *t* tests to compare pre- and postrelease mean scores revealed significant decreases in PANAS negative affect ($p = .001$) and PHQ-8 depression ($p = .009$) scores postrelease. FTND scores were lower (4.31 vs. 3.4) for a comparison of the 17 postrelease smokers. Similarly, at 1-month postrelease, the number of respondents reporting alcohol and other substance use was small.

Predictors

Univariate logistic analysis identified associations among demographic factors, behavioral variables, standardized survey measures, and postrelease smoking (Table 2). Race/ethnicity was the only significant demographic variable. White race correlated with smoking relapse ($p = .045$). A trend was seen toward use of alcohol correlating with smoking on release, but this was not significant ($p = .061$). Participants who reported better pre-release health since the prison smoking ban were less likely to report smoking postrelease ($p = .01$). Finally, prerelease intention to smoke was strongly correlated with postrelease smoking ($p = .001$). None of the prerelease emotional state measures (PANAS, SPS-SAS, PHQ-8), behavioral skills measures (PSS and SPSI), nor prerelease FTND correlated with postrelease smoking.

Table 1. Prerelease participant characteristics

| <i>N</i> = 49 | Range | Mean | Number (%) |
|---|-----------|------|------------|
| Age (years) | 19–60 | 36.7 | |
| Education (years) | 8–19 | 12.4 | |
| Length of sentence (years) | 0.75–19.0 | 2.3 | |
| Race/Ethnicity (White vs. non-White) | | | |
| Black | | | 23 (46.9) |
| White | | | 20 (40.8) |
| Hispanic/Latino | | | 3 (6.1) |
| Native American | | | 2 (4.1) |
| Refused | | | 1 (2.0) |
| Age began smoking (years) | 8.0–32.0 | 15.5 | |
| Years smoked regularly | 2.0–40.0 | 14.5 | |
| Longest quit (months) | 0.0–252.0 | 40.5 | |
| Number of previous quit attempts (>24 hr) | | | |
| Never | | | 7 (14.3) |
| 1–5 times | | | 20 (4.1) |
| 6–20 times | | | 10 (20.4) |
| Countless times | | | 12 (24.5) |

Table 2. Pre- and postrelease attitudes and behaviors among participants

| | Prerelease mean | Prerelease number (%) | Postrelease mean | Postrelease number (%) | Paired <i>t</i> tests (two tailed) | Logistic regression to predict smoking relapse postrelease (Wald chi square) |
|-------------------------------------|-----------------|-----------------------|------------------|------------------------|------------------------------------|--|
| PANAS (negative affect) | 24.49 | | 20.73 | | 3.575 ($p = .001$) | |
| PHQ-8 Depression Scale | 6.22 | | 4.39 | | 2.746 ($p = .009$) | |
| Better health since smoking ban | | 33 (67.3) | | | | 6.582 ($p = .01$) |
| Intend to smoke on release? | | | | | | 11.664 ($p = .001$) |
| Yes | | 11 (22.4) | | | 0.001 | |
| No | | 33 (67.3) | | | | |
| Unsure | | 5 (10.2) | | | | |
| Smoked since release? | | | | | | |
| Yes | | | | 17 (38.6) | | |
| No | | | | 27 (61.4) | | |
| Accepted QuitLine Referral | | 14 (28.6) | | 8 (18.2) | | |
| Serious about quitting/staying quit | | | | | | |
| Next 6 months | | | | | | |
| Yes | | | | 38 (86.4) | | |
| No | | | | 6 (13.6) | | |
| Next 60 days | | | | | | |
| Yes | | | | 34 (77.3) | | |
| No | | | | 10 (22.7) | | |

Note. PANAS = Positive and Negative Affect Scale; PHQ-8 = Patient Health Questionnaire-8.

Discussion

This is the first study to assess smoking relapse in men who experienced a statewide prison smoking ban. In this study, postrelease intentions to smoke were highly predictive of reported postrelease behavior (Table 2). For the 33 (67%) participants who either desired to remain smoke free after release or who were uncertain, 82% reported abstinence the first month outside a smoke-free prison environment.

Participants were comparable to the population of men reentering the community after release from Wisconsin State Prisons. Most were non-White, less than 40 years old, and had been incarcerated less than 3 years. They reported an average of 12.4 years of education. This may be attributed to Wisconsin's strong promotion of High School Equivalence Degree programs for incarcerated individuals. Most were single and reported a mean of 2.2 children.

Relatively low rates of substance use were reported in our sample postrelease. However, much of the relapse literature focuses on jail populations, where lengths of stay are significantly shorter and there is less treatment during incarceration compared with prison. Treatment was received by 43% of our participants during incarceration. Pelissier et al. (2001) found that differing levels of supervision, as well as whether a person completed substance use treatment during incarceration, significantly affected time to relapse on release. In their study, 29% had evidence of substance use 6-months postrelease.

On average, smoking was initiated at age 15, similar to that reported elsewhere (Voglewede & Noel, 2004) and participants had been smoking almost 15 years before the prison smoking ban. Most had attempted at least one quit, and almost 80% reported wanting to quit or stay quit within the next 60 days

after release. Almost 65% believed their health had improved since the smoking ban.

The high level of reported nonsmoking in this study is especially significant considering the barriers to continued smoking abstinence postrelease. Participants reported an unstable financial and housing environment on reentry. Most were unemployed, and more than 80% were either living in temporary housing or in someone else's home or apartment. Most lived or worked with other smokers. More than 10% were either reincarcerated or spent at least 1 day in jail within the first month. Financial and emotional stressors (Petersilia, 2000), as well as a return to an environment where old smoking cues are once again encountered, have been shown to be strong predictors of late relapse in other populations (Cummings et al., 1985). In a recent study of relapse to smoking postrelease, Lincoln et al. (2009) found much lower rates of nonsmoking at 1 month (14%). However, Lincoln et al. studied chronically ill smokers with high rates of Hepatitis C who were released from jail, where average incarceration lasted 2 months. Our study followed a general prison cohort where the average length of incarceration exceeded 2 years. These differences highlight the need for further study.

In this study, smoking intent prerelease was a powerful predictor of postrelease smoking. In a study of smoking intent in a jail population, Voglewede and Noel (2004) also found that future intent to smoke predicted current need to smoke. Depression did not predict smoking on release, consistent with findings that depression history predicted smoking 1 month but not 6 months postquit (Japuntich et al., 2007). In addition, FTND scores in the months preceding incarceration did not predict smoking on release. This may be attributable to the length of incarceration and time lapse since symptoms of physical nicotine dependence. It may also be due to faulty recall of smoking behavior in the community. The number of respondents reporting

postrelease alcohol and other substance use was too small to allow valid analysis. A belief in improved health status after the prison smoking ban was significantly correlated with nonsmoking status on release. Since incarceration is a time when people frequently express interest in making positive health behavior changes (Gaiter & Doll, 1996), this perception of improved health is logical and an important potential point of intervention in future programming for this population.

Although this study capitalized on a unique public health event, it does have several possible other limitations. There was a high level of reported nonsmoking at 1 month. This may be due to selection bias as the sample was men responding to a flyer soliciting participation in a study of the prison smoking ban; this may have been more appealing to those intent on not resuming smoking postrelease. A "quit" may have been classified differently; while some believed abstinence that was chosen was a quit, others considered abstinence related to incarceration to be included. The short time period before follow-up, small sample size, and social desirability may account for the observed outcome. Additionally, biochemical confirmation of self-reported abstinence was not undertaken; however, there were few perceived incentives for participants to lie about their smoking behavior, and 20% admitted to smoking in prison after the smoking ban.

Prisons have the potential to make important contributions to public health by providing prevention services to this hard-to-reach high-risk population. The period before release presents an important opportunity to reach and motivate these individuals to maintain smoking abstinence on return to the community (Catz, Sosman, Crumble, & Scheuerell, 2002; Morrow & Group, 2009). Although there is evidence that transitional interventions can reduce substance use or sexual risk behaviors among men leaving correctional settings (Wexler, Magura, Beardsley, & Josepher, 1994), the effect of prison reentry interventions on men's smoking behavior has not been the subject of published reports. Participants in this study reported acceptance for the idea of a smoking relapse prevention program around the time of release. The lack of other available programming to maintain and/or enhance health for those being released makes such a service offering particularly important. The observed relationship between improved health status and non-smoking postrelease may provide a useful motivational element for such programs. If the decreases in negative affect upon release observed in the present study are robust, they could serve as additional motivators, particularly for persons who use smoking to manage emotions.

Research suggests that determinants of early and late smoking relapse may differ, and we have not yet identified treatments specifically to address late relapse risk (Piasecki, Fiore, McCarthy, & Baker, 2002). Observing a population of formerly incarcerated persons for a longer follow-up interval would provide an ideal opportunity to identify correlates of late relapse and test interventions to assist in maintaining abstinence after release. The high rates of retention and acceptance for relapse-prevention programs found in this study show that this strategy can be feasible.

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Declaration of Interests

L.T. has no competing interests. D.E.J. has received research support from the National Institute on Drug Abuse, the National Cancer Institute, Pfizer, Inc., and Nabi Biopharmaceuticals. He has received support for educational activities from the National Institute on Drug Abuse and the Veterans Administration. D.W.S., J.M.S., and S.-Y.K. have no competing interests.

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