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Prevalence of and Factors Related to Tobacco Ban Implementation in Substance Use Disorder Treatment Programs

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Abstract

This study examined the prevalence of and factors (psychological climate for change and staff attributes) related to indoor and outdoor tobacco bans for patients, employees, and visitors in U.S. substance use disorder treatment programs. Data were collected from a random sample of 1,026 program administrators. Almost all programs banned tobacco use indoors and around one third banned tobacco use outdoors. When there was no tobacco ban, the majority of programs restricted smoking to designated indoor and/or outdoor areas. Further, all psychological climate for change factors (perceived program support, perceived tobacco culture, and tobacco ban beliefs) but none of the staff attributes (percentage licensed/certified clinicians, percentage clinicians with master's degrees, total staff with education in health-related field) were significantly related to the implementation of comprehensive tobacco bans (both indoors and outdoors).

Keywords

tobacco policies; tobacco bans; implementation research; substance abuse treatment

In 1964, the first *Surgeon General's Report on Smoking and Health* illuminated and raised awareness of the dangers of smoking (U.S. Department of Health and Human Services [USDHHS], 2014). The 1970s and 1980s followed with a host of state- and local-level tobacco policies that gradually limited the ability of smokers to use tobacco in a variety of enclosed public spaces such as restaurants, bars, and non-hospitality workplaces (American Nonsmokers' Rights Foundation [ANRF], 2014; USDHHS, 2014). Because tobacco policies are enacted on the state and/or local level rather than federal level, their extensiveness and enforcement vary widely across and within states (ANRF, 2014; National Association of State Alcohol and Drug Abuse Directors [NASADAD], 2010).

Tobacco policies also comprise substance use disorder (SUD) treatment programs where indoor tobacco use is banned in most states (NASADAD, 2010). Additionally, two states

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have mandated more comprehensive tobacco policies regarding treatment programs. First, the State of New Jersey (NJ) required in 2001 that all residential SUD treatment programs provide tobacco-free indoor and outdoor environments, assess patients for tobacco use, and offer tobacco cessation treatment (Foulds et al., 2006; Williams et al., 2005). However, because these mandates were generally only monitored and not enforced, adherence varied greatly among residential treatment programs (Foulds et al., 2006; Williams et al., 2005).

Second, the State of New York (NY) implemented the most restrictive policy to date requiring all SUD treatment programs funded and certified by the NY State Office of Alcoholism and Substance Abuse Services (OASAS) to be 100% tobacco-free indoors and outdoors starting in 2008. The regulation further required treatment programs to offer tobacco cessation treatment and stated that the use and/or possession of all tobacco products by patients, employees, and visitors and in treatment program vehicles is prohibited (NY OASAS, 2008). Findings showed that similar to NJ, implementation of the regulation varied and was often not implemented 100% as mandated (Brown, Nonnemaker, Federman, Farrelly, & Kipnis, 2012; Eby & Laschober, 2013a, 2013b; Guydish et al., 2012; Laschober & Eby, 2013).

Beyond findings from NJ and NY, research is lacking on the nation-wide prevalence of tobacco bans in SUD treatment programs. The main purpose of the current study is to examine program administrator reports of the extensiveness of indoor and outdoor tobacco bans in U.S. SUD treatment programs. Additionally, this study aims to examine factors that are related to the implementation of comprehensive tobacco bans (both indoors and outdoors), drawing on elements from Simpson's (2002) conceptual model for transferring research to practice and Klein and Sorra's (1996) implementation of innovations theoretical framework.

Tobacco Use, Tobacco Policies, and Substance Use Disorder Treatment

Tobacco policies are implemented as public health efforts to provide smoke-free environments, protect non-smokers, and promote tobacco cessation among tobacco users (USDHHS, 2014). In the general population, tobacco use rates have declined from 42% in 1964 to 18% in 2014 (USDHHS, 2014). However, tobacco continues to pose a major health concern in SUD treatment programs where 65% to 87% of patients in treatment are smokers (Guydish et al., 2011; Muilenburg, Laschober, & Eby, 2014a, 2014b) and 20% (Eby & Laschober, 2014; Laschober & Eby, 2013) to 40% of SUD clinicians are smokers (Fuller et al., 2007).

Implementing tobacco policies in SUD treatment programs poses unique challenges (Hurt, Croghan, Offord, Eberman, & Morse, 1996). Treatment programs are often reluctant to apply tobacco cessation practices because of beliefs that quitting tobacco use during treatment for other SUDs adds stress to patients and impedes treatment success (Ziedonis, Guydish, Williams, Steinberg, & Foulds, 2006). These beliefs are contrary to findings that tobacco cessation promotes abstinence from other substances, lowers the risk for relapse, and reduces overall substance use (Baca & Yahne, 2009; Prochaska, Delucci, & Hall, 2004).

Other obstacles to tobacco cessation are beliefs that patients have no desire to quit tobacco and tobacco dependence is not as serious of a health concern as other addictions (Gulliver, Kamholz, & Helstrom, 2006). This is in contrast to findings that the majority of patients are interested in quitting tobacco (Prochaska et al., 2004; Richter, Gibson, Ahluwalia, & Schmelzle, 2001), and individuals with SUDs who smoke have higher mortality rates than non-smokers (Hurt et al., 1996).

Finally, there is also a perceived fear that patients may be reluctant to seek out or complete SUD treatment amidst mandatory tobacco bans (Prochaska et al., 2004). However, most studies do not provide evidence to support these fears (for a review of the literature see Baca & Yahn, 2009). For example, in NY State patient admission and completion rates remained stable after the implementation of the extensive tobacco ban (Tesiny, Robinson, & Nottingham, 2010). Similarly in NJ patient discharge data showed no differences between pre and post discharge, indicating that tobacco bans did not prompt patients to leave treatment early (Williams et al., 2005). Callaghan et al. (2007) also showed no decline in patients seeking or completing treatment in adolescent only programs in Canada after going tobacco-free.

Current Study

Considering nation-wide efforts and the benefits of implementing tobacco policies, it is important to examine the prevalence of tobacco bans in SUD treatment programs and factors that are associated with the implementation of tobacco bans. Thus, this study first examines program administrators' reports of the prevalence of indoor and outdoor tobacco bans for patients, employees, and visitors, in a random sample of SUD treatment programs located across the U.S.

Second, this study draws on elements from Simpson's (2002) conceptual model for transferring research to practice and Klein and Sorra's (1996) implementation of innovations framework to investigate theoretically- and empirically-based factors associated with comprehensive (both indoors and outdoors) tobacco ban implementation in these treatment programs. At the same time, we acknowledge other theoretical frameworks that may have utility in understanding the adoption and implementation of innovations (e.g., Fixsen, Naoom, Blasé, Friedman, & Wallace, 2005; Rogers, 1995).

Simpson's (2002) conceptual model for transferring evidence-based treatments (EBTs) into practice in SUD treatment programs is based on a review of the literature across disciplines such as organizational behavior (e.g., Klein & Sorra, 1996) and mental health (e.g., Corrigan, Steiner, McCracken, Blaser, & Barr, 2001; Read, Kahler, & Stevenson, 2001). The comprehensive model proposes four action steps in the transfer of treatments into practice including staff exposure via training, decisions by leaders to use the treatment, exploratory use, and routine use. The model further suggests that a number of factors at each step affect the transfer of treatments into practice (e.g., organizational and individual readiness, time and place, organizational dynamics, institutional support, reception and utility).

Specific to the implementation of EBTs, Simpson's (2002) model proposes that, among other factors, use of innovations is associated with organizational dynamics. These dynamics encompass climate for change (work environment that supports change) and staff attributes (e.g., professional development).

Climate for change is also a major factor identified in Klein & Sorra's (1996) implementation of innovations theoretical framework and described as perceptions, beliefs, and attitudes toward the work environment that affect the implementation of an innovation. Climate for change can be examined on both the individual (psychological climate) and aggregate (organizational climate) level (James et al., 2008; Jones & James, 1979). Although psychological and organizational climate are related concepts, psychological climate assesses individuals' perceptions whereas organizational climate evaluates shared perceptions of the work environment (James, 1982). In this study, we are focusing on individuals' perceptions of the work environment, specifically program administrators' perceptions, because unlike other staff members, they are the decision makers and organizational leaders whose psychological climate for change perceptions are expected to be important drivers of tobacco bans in SUD treatment programs. Thus, our first hypothesis (H1) is:

H1: Psychological climate for change (i.e., program administrators' perceptions of treatment program support for tobacco cessation, tobacco culture, and beliefs about tobacco bans) is associated with the implementation of comprehensive tobacco bans.

Additionally, Simpson's (2002) model suggests that staff attributes can promote or hinder the transfer of EBTs into practice. Counselors in particular are the frontline clinicians who are generally expected to transmit research into use with their patients. However, one barrier to the implementation of practices identified in a review of the literature is counselors' lack of education and training (Ziedonis et al., 2006). In fact, the SUD treatment field is one of the few mental health care fields that does not require counselors to have at least a master's degree and be licensed and/or certified (Powell & Brodsky, 2004; Rothrauff, Abraham, Bride, & Roman, 2011; Substance Abuse and Mental Health Administration [SAMHSA], 2009). Thus, our second hypothesis is:

H2: Greater staff attributes (percentage of counselors holding a master's degree or higher, percentage of licensed/certified counselors, percentage of total workforce in the treatment program that have education in a health-related field) are associated with the implementation of comprehensive tobacco bans.

Method

Study Design and Sample

The Managing Effective Relationships in Treatment Services (MERITS III) project provided the data for the current study. The purpose of MERITS III was to longitudinally examine the effect that treatment program processes and management practices have on the adoption, implementation, and sustainability of tobacco cessation services in a national random sample of SUD treatment programs. The 2010 SAMHSA National Directory was used as the

sampling frame for MERITS III. SAMHSA required treatment facilities to be licensed, certified, or otherwise approved for inclusion in the Directory by their state substance abuse agencies. All 11,153 treatment programs listed in the Directory were located across the U.S. and included Federal, State, local government, and private facilities that offered SUD services. Detailed information on the study design has been published previously [Muilenburg et al., 2014a, 2014b].

In brief, for MERITS III potential treatment programs were selected starting in 2010 from the Directory with a random number generator. Initial brief screening phone calls were made by trained research assistants to determine whether these potential treatment programs were eligible for participation. Eligibility was based on answers provided by program administrators to a number of screening questions. Specifically, treatment programs had to provide SUD counseling services in a community setting. Treatment programs that provided only methadone maintenance, only detoxification, DUI educational programs, Veterans Administration programs, and those listed as Halfway Houses were ineligible.

Next, research assistants called the screened and qualified treatment programs to obtain a sample of programs where the program administrator agreed to participate in a structured phone interview that took about 30 minutes. The same treatment programs were contacted again in 2011 and 2012 for additional phone interviews. Treatment programs that declined to participate the following year were replaced with a random program selected from the Directory, provided that the program met MERITS III eligibility criteria. In 2012, of the 1,310 eligible treatment programs that were contacted, 1,026 program administrators completed a telephone interview (78.32% basic response rate).

Measures

Tobacco bans—First, program administrators reported whether their treatment program banned indoor tobacco use for patients (0 = *no*, 1 = *yes*), employees (0 = *no*, 1 = *yes*), and visitors (0 = *no*, 1 = *yes*). Responses to the three items were summed and then recoded as 0 = *No total indoor tobacco ban* (summed score range 0–2) and 1 = *Total indoor tobacco ban* (summed score 3). If treatment programs did not ban tobacco use indoors, administrators were also asked whether tobacco use was restricted to designated indoor areas for patients (0 = *no*, 1 = *yes*), employees (0 = *no*, 1 = *yes*), and visitors (0 = *no*, 1 = *yes*).

Second, program administrators replied whether their program banned outdoor tobacco use for patients (0 = *no*, 1 = *yes*), employees (0 = *no*, 1 = *yes*), and visitors (0 = *no*, 1 = *yes*). Responses to the three items were summed and then recoded as 0 = *No total outdoor tobacco ban* (summed score range 0–2) and 1 = *Total outdoor tobacco ban* (summed score 3). If treatment programs did not ban tobacco use outdoors, administrators were also asked whether tobacco use was restricted to designated outdoor areas for patients (0 = *no*, 1 = *yes*), employees (0 = *no*, 1 = *yes*), and visitors (0 = *no*, 1 = *yes*).

Third, a comprehensive tobacco ban outcome variable was created by summing the scores from the total indoor tobacco ban and total outdoor tobacco ban variables. The comprehensive tobacco ban variable was then recoded as 0 = *No comprehensive tobacco ban* (summed score 0–1) and 1 = *Comprehensive tobacco ban* (summed score 2).

Psychological climate for change—Program administrators answered seven questions regarding their *treatment programs' support for tobacco cessation treatment* (Abrams et al., 2003; Fiore et al., 2008). Sample items are, “Do you provide counselor training on tobacco cessation treatment?” and “Do you assess tobacco cessation treatment in staff performance evaluations?” Response options for all items were 0 = *no* and 1 = *yes*. The variable was created by summing the number of *yes* responses.

Program administrators also responded to seven items that measured *perceptions of their treatment programs' tobacco culture* (Knudsen, Studts, Boyd, & Roman, 2010), which refers to their perceived norms regarding tobacco use and cessation. Sample items are, “Smoking is an accepted part of the staff culture at this treatment program.” and “Allowing patients to continue their smoking or other tobacco use facilitates successful treatment of their primary substance abuse issues.” Responses were recorded on a Likert-type scale ranging from 1 = *strongly disagree* to 5 = *strongly agree*. The variable was created by calculating the mean across the seven items ($\alpha = .66$).

Further, program administrators were asked to respond to three items that assessed their *beliefs about tobacco bans in treatment programs*, “Do you believe that substance abuse treatment programs should have a no smoking policy for... (a) patients, (b) employees, and (c) visitors?” Responses for each item were recorded on a Likert-type scale ranging from 1 = *strongly disagree* to 5 = *strongly agree*. The variable was created by calculating the mean across the three items ($\alpha = .89$).

Staff attributes—Program administrators reported on three staff attributes including the percentage of clinicians in their treatment program who are licensed and/or certified SUD professionals, the percentage of clinicians in their treatment program who hold at least a master's degree, and the percentage of their total workforce (including counselors, clinical supervisors, admissions personnel, aids, technicians, nurses, social workers, etc.) that have an educational background in medicine, public health, psychology, or a related field. Response options ranged from 0% to 100% for each item.

Control variables—Five control variables were included in the analysis that tested both hypotheses. Three organizational variables reported by program administrators included nonprofit status (0 = *no*, 1 = *yes*), hospital affiliation (0 = *no*, 1 = *yes*), and level of care (recoded as 0 = *residential/mixed*, 1 = *outpatient only*). Program administrators also reported on their own *tobacco use* (0 = *nonsmoker* and 1 = *smoker*). These control variables were selected because previous research has shown a link between tobacco cessation delivery and these organizational variables (Eby & Laschober, 2013b; Guydish et al., 2012; Knudsen, Studts, & Studts, 2012) as well as staff tobacco use (Ziedonis et al., 2006). We also controlled for whether a treatment program was located either in NJ ($n = 23$) or NY ($n = 62$), because they are the only two states with comprehensive mandatory tobacco policies in SUD treatment programs.

Data Analysis

Descriptive statistics were computed to assess the prevalence of tobacco bans indoors and outdoors. Descriptive statistics were also conducted to examine all study variables and

control variables based on whether or not a treatment program implemented a comprehensive tobacco ban. Correlation analysis was performed to examine the intercorrelations among all study variables. Logistic regression was conducted by including all variables in one step to test both hypotheses.

Results

Prevalence of Tobacco Bans

Tobacco bans in SUD treatment programs varied depending on whether the ban pertained to indoor or outdoor tobacco use (see Table 1). Almost all treatment programs banned indoor tobacco use for patients (99.02%), employees (99.80%), and visitors (99.22%), reflecting a *total indoor tobacco ban* of 98.05%. In the very few treatment programs that did not ban indoor tobacco use, 66.67% restricted tobacco use to designated indoor areas for patients, 50% for employees, and 75% for visitors.

Further, at least one third of treatment programs banned outdoor tobacco use for patients (34.86%), employees (41.11%), and visitors (36.63%), representing a *total outdoor tobacco ban* of 32.46%. As a result, a *comprehensive indoor and outdoor tobacco ban* for patients, employees, and visitors was also implemented in 32.46% of treatment programs. In treatment programs that did not ban outdoor tobacco use, the vast majority restricted tobacco use to designated outdoor areas for patients (88.76%), employees (86.52%), and visitors (86.53%).

Descriptive Statistics of All Study Variables by Comprehensive Tobacco Ban Implementation

Table 2 shows the descriptive results of the independent variables by treatment programs that did not and those that did implement comprehensive tobacco bans. Pertaining to psychological climate for change, perceived program support for tobacco cessation treatment ranged from an average of 2.21 (no comprehensive ban) to 3.53 (comprehensive ban), perceived program tobacco culture ranged from an average of 2.16 (comprehensive ban) to 2.54 (no comprehensive ban), and tobacco ban beliefs ranged from an average of 3.61 (no comprehensive ban) to 4.31 (comprehensive ban).

Regarding staff attributes, the percentage of licensed and/or certified clinicians ranged from an average of 80.77% (comprehensive ban) to 82.06% (no comprehensive ban) and percentage of clinicians with at least a master's degree ranged from an average of 49.52% (no comprehensive ban) to 55.56% (comprehensive ban). The percentage of the entire workforce at the treatment program with education in a health-related field ranged from an average of 67.59% (no comprehensive ban) to 72.59% (comprehensive ban).

Table 3 shows the descriptive results of the control variables by comprehensive tobacco ban implementation. Of the treatment programs that reported comprehensive tobacco ban implementation, 82.42% were non-profit programs, 64.86% offered only outpatient care, 10.51% were affiliated with a hospital, 6.91% had program administrators who smoked, and 19.22% were located in NY or NJ. Of the treatment programs that reported no comprehensive tobacco ban implementation, 68.47% were non-profit programs, 55.99%

offered only outpatient care, 2.02% were affiliated with a hospital, 11.40% had program administrators who smoked, and 3.03% were located in NY or NJ.

Examination of the intercorrelations among all study variables (not shown) indicated that comprehensive tobacco ban implementation was significantly correlated with each of the three psychological climate for change factors, the percentage of counselors with at least a master's degree and the percentage of all staff with education in a health-related field, and all of the control variables. Intercorrelations among variables ranged from .00 to -.46, suggesting no multicollinearity issues.

H1: Relationship between Psychological Climate for Change and Comprehensive Tobacco Ban Implementation

As shown in Table 4, all psychological climate for change factors were significantly related with the implementation of comprehensive tobacco bans, supporting H1. Programs in which program administrators perceived greater program support for tobacco cessation treatment had 1.17-fold higher odds of comprehensive tobacco ban implementation. Programs in which program administrators had greater positive tobacco ban beliefs had 1.85-fold higher odds of comprehensive tobacco ban implementation. Programs in which program administrators perceived a greater tobacco culture had .52-fold lower odds of comprehensive tobacco ban implementation. Also displayed in Table 4 are findings that none of the staff attributes were significantly related to the implementation of comprehensive tobacco bans, which is counter to H2.

Regarding the control variables, non-profit treatment programs had 2.20-fold higher odds, outpatient only treatment programs had 1.75-fold higher odds, and hospital-affiliated treatment programs had 4.30-fold higher odds of comprehensive tobacco ban implementation. Additionally, treatment programs located in NJ/NY had 3.87-fold higher odds of comprehensive tobacco ban implementation. Finally, there was no significant relationship between program administrators' tobacco use and comprehensive tobacco ban implementation.

Discussion

The goals of this study were twofold. First, we investigated the prevalence of the implementation of indoor and outdoor tobacco bans in SUD treatment programs. Second, we examined the relationship between psychological climate for change, staff attributes, and implementation of comprehensive tobacco bans (both indoors and outdoors) in these treatment programs, drawing on elements from Simpson's (2002) conceptual model of transferring research into practice in SUD treatment and Klein and Sorra's (1996) implementation of innovations theoretical framework.

Prevalence of Tobacco Bans

Our findings indicate that close to 100% of treatment programs ban indoor tobacco use for patients, employees, and visitors. These findings are most likely explained by tobacco policies that generally restrict tobacco use in enclosed public spaces including SUD treatment programs (ANRF, 2014; USDHHS, 2014). Thus, these wide-spread indoor

tobacco bans may provide safer and cleaner environments, as intended by indoor tobacco policies (USDHHS, 2014), for patients seeking treatment, employees working at these treatment programs, and individuals who visit these facilities for a variety of reasons.

However, of the very small number of treatment programs that did not ban indoor tobacco use (1.95%), 50% to 75% restrict tobacco use to designated indoor areas. That means that in 25% to 50% of the minority of treatment programs that do not ban indoor tobacco use, patients, employees, and/or visitors are allowed to smoke indoors without apparent restrictions. This implies that some individuals continue to be directly and indirectly exposed to second-hand smoke.

Regarding the prevalence of outdoor tobacco bans, only one third of treatment programs totally ban tobacco use outdoors. Of the programs that allow outdoor smoking, the vast majority restrict tobacco use to designated outdoor areas. Currently, opinions and evidence regarding the benefits and reasonableness of outdoor tobacco bans are divided and ambiguous (Bloch & Shopland, 2000; Potera, 2013). However, a review of the literature concluded that there are high levels of second hand smoke present in some designated outdoor tobacco use areas and adjacent indoor tobacco-free areas (Sureda, Fernandez, Lopez, & Nebot, 2013). This suggests a need for more public health and organizational efforts to also promote tobacco-free outdoor environments, particularly in SUD treatment where high patient tobacco use rates continue to pose serious morbidity and mortality risks (SAMHSA, 2011).

In light of the recent increase in state-level outdoor tobacco bans (ANRF, 2014), it will be important to monitor whether and how these outdoor policies affect SUD treatment programs. For example, studies will be needed to continue evaluating changes in the prevalence and extensiveness of outdoor tobacco bans. As such, results pertaining to the prevalence of outdoor tobacco bans from our study of random SUD treatment programs may serve as a benchmark for future research investigating tobacco policies and the implementation of tobacco bans in SUD treatment programs.

Relationship between Psychological Climate for Change, Staff Attributes, and Comprehensive Tobacco Ban Implementation

Findings from this study show that psychological climate for change factors, including program administrators' perceptions of greater treatment program support for tobacco cessation, perceptions of lower tobacco culture within the treatment program, and more positive beliefs about tobacco bans, are positively related to the implementation of comprehensive tobacco bans. These findings are in accordance with Simpson's (2002) conceptual model and Klein and Sorra's (1996) theoretical framework that proposes that climate for change is a major factor in the implementation of innovations.

However, contrary to expectations (Simpson, 2002), we did not find a relationship between staff attributes (percentage of certified and/or licensed counselors, percentage of counselors with at least a master's degree, and percentage of total workforce in the treatment program that had an educational background in a health-related field) and the implementation of comprehensive tobacco bans. Ziedonis et al. (2006) also identified lack of training,

especially in tobacco cessation treatment, as a main barrier to the implementation of EBTs. Laschober, Eby, and Muilenburg (in press) further found that counselors with greater skills related to tobacco use and cessation were more likely to implement the 5 A's (ask, advise, assess, assist, and schedule follow-up contact) for tobacco cessation than other counselors. Thus, our non-significant findings are surprising and deserve further investigation into other types of staff attributes (e.g., adaptability, efficacy) that may be related to the implementation of comprehensive tobacco bans.

Finally, although not part of our hypotheses, it is worth noting the significant relationships between the control variables pertaining to treatment program characteristics (nonprofit status, outpatient only level of care, hospital-affiliated program) and comprehensive tobacco bans. Similar relationships have been noted in prior research (Eby & Laschober, 2013; Guydish et al., 2012; Knudsen et al., 2012). These findings also highlight the complexity and multiple factors that are associated with the implementation of innovations and the need for further studies to continuously test, revise, and expand theoretical and conceptual models.

Limitations and Conclusions

There are limitations of this study that need to be considered when generalizing the findings, despite the use of a random, nationally representative sample of SUD treatment programs. The cross-sectional design limits the findings to discussions of relationships between psychological climate for change factors, staff attributes, and organizational characteristics and the implementation of comprehensive tobacco bans. For example, we cannot speculate whether psychological climate for change affects or influences tobacco ban implementation.

Findings further need to be discussed in light of program administrator reports regarding the implementation of various tobacco bans and their perceptions of psychological climate for change. It is possible that reports are biased (e.g., inflated prevalence of tobacco bans, underreported tobacco culture) and may differ from observational studies that document the actual implementation of tobacco bans, treatment program support for tobacco cessation, and the tobacco culture within the treatment program, which is a suggested focus for further research. Additionally, qualitative studies may help explain why a small minority of treatment programs do not ban indoor tobacco use while others implement comprehensive tobacco bans.

This study provides insights into the prevalence of and factors related to comprehensive tobacco bans in SUD treatment programs. We find that approximately one third of treatment programs implement comprehensive tobacco bans that encompass indoor and outdoor bans for patients, employees, and visitors. We further find that psychological climate for change but not staff attributes are significantly associated with the implementation of comprehensive tobacco bans. Findings may help program administrators, researchers, and policy makers to tailor programs aimed at expanding and improving staff perceptions about the treatment program climate and the implementation of tobacco bans in SUD treatment programs.

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Table 1

Prevalence of Tobacco Bans in Substance Use Disorder Treatment Programs (N = 1,026)

	No [f, (%)]	Yes [f, (%)]
Total indoor tobacco ban for patients, employees, and visitors	20 (1.95)	1,006 (98.05)
Indoor tobacco ban for		
patients	10 (0.98)	1,015 (99.02)
employees	2 (0.20)	1,023 (99.80)
visitors	8 (0.78)	1,014 (99.22)
No indoor tobacco ban but tobacco use restricted to designated indoor areas		
patients	3 (33.33)	6 (66.67)
employees	1 (50.00)	1 (50.00)
visitors	2 (25.00)	6 (75.00)
Total outdoor tobacco ban for patients, employees, and visitors	693 (67.54)	333 (32.46)
Outdoor tobacco ban for		
patients	667 (65.14)	357 (34.86)
employees	603 (58.89)	421 (41.11)
visitors	647 (63.37)	374 (36.63)
No outdoor tobacco ban but tobacco use restricted to designated outdoor areas		
patients	75 (11.24)	592 (88.76)
employees	81 (13.48)	520 (86.52)
visitors	87 (13.47)	559 (86.53)
Comprehensive indoor and outdoor tobacco ban	693 (67.54)	333 (32.46)

Table 2

Descriptive Statistics of Independent Variables by Comprehensive Tobacco Ban

Independent Variable	Comprehensive Tobacco Ban ¹	
	No (<i>n</i> = 693)	Yes (<i>n</i> = 333)
Psychological Climate for Change [<i>M</i> (<i>SD</i>)]		
Perceived program support ²	2.21 (1.89)	3.53 (1.99)
Perceived tobacco culture ³	2.54 (0.59)	2.16 (0.53)
Tobacco ban beliefs ³	3.61 (1.04)	4.31 (0.73)
Staff Attributes ⁴ [<i>M</i> (<i>SD</i>)]		
% Clinicians licensed/certified	82.06 (26.76)	80.77 (27.82)
% Clinicians master's degree or higher	49.52 (36.05)	55.56 (35.40)
% Staff health field education	67.49 (30.67)	72.59 (29.83)

*Note.*¹ Comprehensive indoor and outdoor tobacco ban for patients, employees, and visitors.² Scale ranged from 0–7.³ Scale ranged from 1–5.⁴ Scale ranged from 0–100.

Table 3

Descriptive Statistics of Control Variables by Comprehensive Tobacco Ban

Control Variable	Comprehensive Tobacco Ban ^I	
	No (n = 693)	Yes (n = 333)
Profit Status [f, (%)]		
Non-profit program	469 (68.47)	272 (82.42)
For-profit program	216 (31.53)	58 (17.58)
Level of Care [f, (%)]		
Outpatient only program	388 (55.99)	216 (64.86)
Mix of outpatient and inpatient program	305 (44.01)	117 (35.14)
Hospital-Affiliation [f, (%)]		
Program affiliated with a hospital	14 (2.02)	35 (10.51)
Program not affiliated with a hospital	679 (97.98)	298 (89.49)
Program Administrator Smoking Status [f, (%)]		
Smoker	79 (11.40)	23 (6.91)
Non-smoker	614 (88.60)	310 (93.09)
Treatment Program Location [f, (%)]		
Located in NJ or NY	21 (3.03)	64 (19.22)
Not located in NJ or NY	672 (96.97)	269 (80.78)

Note.^I Comprehensive indoor and outdoor tobacco ban for patients, employees, and visitors.

Table 4

Logistic Regression Results: Relationship between Comprehensive Tobacco Ban Implementation, Psychological Climate for Change, and Staff Attributes¹

	<i>OR</i>	95% CI
Psychological Climate for Change		
Perceived program support (0–7 scale)	1.17***	[1.07, 1.27]
Perceived tobacco culture (1–5 scale)	-.52***	[-.38, .70]
Tobacco ban beliefs (1–5 scale)	1.85***	[1.53, 2.24]
Staff Attributes (0–100 scale)		
% Clinicians licensed/certified	1.00	[.99, 1.00]
% Clinicians master's degree or higher	1.00	[1.00, 1.01]
% Staff health field education	1.00	[1.00, 1.01]
Control Variables (0 = <i>no</i> , 1 = <i>yes</i>)		
Non-profit program	2.20***	[1.50, 3.24]
Outpatient only program	1.75**	[1.25, 2.46]
Hospital-affiliated program	4.30***	[2.11, 8.80]
Program administrator smokes	.94	[-.52, 1.70]
Located in NJ/NY	3.87***	[2.18, 6.88]
Intercept	-3.16***	--
Likelihood Ratio χ^2	265.99***	--
<i>df</i>	11	

Note.

¹ Comprehensive indoor and outdoor tobacco bans for patients, employees, and visitors (0 = *no*, 1 = *yes*).

 $p < .001$.