HHS Public Access

Author manuscript

J Subst Abuse Treat. Author manuscript; available in PMC 2017 August 01.

Published in final edited form as:

J Subst Abuse Treat. 2016 August ; 67: 22–29. doi:10.1016/j.jsat.2016.04.004.

Barriers and facilitators to tobacco cessation in a nationwide sample of addiction treatment programs

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Abstract

Introduction—Smoking rates among addiction treatment clients are 3–4 times higher than those of the general population. Recent studies indicate that ceasing tobacco use during treatment may improve recovery outcomes. Across the United States, publicly funded addiction treatment programs vary widely in terms of their tobacco policies and tobacco cessation services offered to clients.

Methods—The study reported here is the qualitative component of a larger study. Twenty-four programs were recruited from a random sample of publicly funded programs participating in the NIDA Clinical Trials Network. Semistructured interviews were administered by phone to program directors. ATLAS.ti software was used to facilitate thematic analysis of interview transcripts.

Findings—While all directors expressed interest in helping clients to quit smoking, they cited numerous barriers to implementing tobacco policies and services. These included *smoking culture*, *client resistance*, *lack of resources*, *staff smoking*, *and environmental barriers*. Directors also cited several factors that they believed would support tobacco cessation. These included *financial support*, *enhanced leadership*, *and state mandates against smoking in addiction treatment programs*.

Conclusion—Addiction treatment programs are beginning to place more emphasis on tobacco cessation during treatment. However, furthering this goal requires substantial infrastructural and cultural change. These qualitative study findings may help to inform Single State Agencies (SSAs) to support publicly funded addiction treatment programs in their tobacco cessation efforts. In order to maximize effectiveness, state-level policies regarding tobacco cessation during treatment should be informed by ongoing dialogue between service providers and SSAs.

Keywords

Addiction; Treatment; Tobacco; Cessation; Policy; Services

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1. Introduction

Smoking rates among addiction treatment clients are 3–4 times higher than those of the general population, routinely reaching prevalence rates of about 70% (Guydish et al., 2011). Several studies indicate that tobacco cessation during treatment may improve recovery outcomes (Prochaska, Delucchi, & Hall, 2004; Tsoh, Chi, Mertens, & Weisner, 2011). Recently, Single State Agencies (SSAs) for addiction treatment services in a few states have issued policy guidelines or mandates for tobacco-free grounds in order to encourage programs to include tobacco cessation as a treatment goal. The most comprehensive example to date is the New York State 2008 smoking ban in all state-certified addiction treatment facilities (New York State Office of Alcoholism and Substance Abuse Services (OASAS), 2008). In addition to requiring over 1000 treatment programs to have tobacco-free grounds, the policy required programs to offer tobacco cessation services to clients. Five years after the policy was initiated, smoking rates among staff decreased and clients reported smoking fewer cigarettes per day (CPD) (Pagano et al., 2015).

SSA policy guidelines, especially when tied to funding initiatives, can influence how treatment programs adopt policies and services (Chriqui, Terry-McElrath, McBride, & Eidson, 2008). Knudsen and Abraham (2012) found that programs were significantly more likely to provide medication-assisted treatment if they were located in states whose SSAs supported this. The likelihood increased if medication purchases were covered through state funding contracts. According to a study by Rieckmann, Kovas, Cassidy, and McCarty (2011), SSAs that contract directly with programs may exert more influence on adoption of evidence-based practices than SSAs that contract indirectly through counties or other sub-state level agencies.

In addition to the state policy context, program directors and administrators play a major role in the initiation and success of tobacco cessation efforts (Knudsen, Muilenburg, & Eby, 2013). Surveys of New York State program administrators concerning the SSA-mandated tobacco ban revealed positive (e.g., increased patient awareness about the health risks of tobacco use) as well as negative experiences (e.g., difficulties with policy enforcement) (Brown, Nonnemaker, Federman, Farrelly, & Kipnis, 2012; Eby & Laschober, 2013a, 2013b, 2014). One study found that predictors of adopting tobacco cessation services included financial resources, the ability to obtain reimbursement for services provided, and smoking “culture” within programs (Eby, Laschober, & Muilenburg, 2015). A survey of program administrators identified “psychological climate for change” (i.e., perceived program support, perceived smoking culture, and beliefs about tobacco bans) as a predictor of tobacco ban implementation (Muilenburg, Laschober, Eby, & Moore, 2015). These studies demonstrate the intertwining of factors related to both program administrators and SSAs in creating conditions of possibility for tobacco cessation within treatment programs.

Despite considerable survey research on the views of program directors and administrators regarding smoking policies within their programs, there are few qualitative studies that examine program directors’ efforts to implement organizational change related to staff and client tobacco use. One exception is a study of the effects of the New York State tobacco ban as reported by directors of publicly funded addiction treatment programs there (Eby, Sparks,

Evans, & Selzer, 2012). The most commonly reported positive outcomes were behavior changes (e.g., less smoking, increased intentions to quit) and increased awareness about the dangers of smoking and available cessation resources. The most commonly reported negative consequences were the reinforcement of maladaptive behaviors among clients (e.g., lying, “dealing” cigarettes) and difficulty enforcing the tobacco ban.

A number of studies have examined barriers to tobacco policy and service implementation within addiction treatment programs. Knudsen, Studts, Boyd, and Roman (2010) found that barriers cited by program directors included organizational culture (i.e., the belief that tobacco cessation is a low priority) and low levels of staff training related to tobacco cessation. McCool, Richter, and Choi (2005) identified low levels of staff training as the primary barrier to implementing tobacco cessation services in outpatient addiction treatment. Review papers have reported that barriers to tobacco cessation within treatment include staff attitudes toward tobacco, staff smoking, inadequate staff training in tobacco cessation, concern among staff and administrators regarding potential loss of clients, difficulty enforcing tobacco policies, and limited resources to address tobacco use (Guydish, Passalacqua, Tajima, & Manser, 2007; Ziedonis, Guydish, Williams, Steinberg, & Foulds, 2006).

The present study examines facilitators of, and barriers to, tobacco use policies and tobacco cessation services as reported by directors from a nationwide sample of addiction treatment programs participating in the NIDA Clinical Trials Network (CTN). Here, the term “tobacco use policies” refers to rules specifying where on facility grounds smoking is allowed (if at all), which kinds of tobacco products are permitted, and consequences for violating smoking rules. Recent national surveys indicate that around one-third of addiction treatment programs in the U.S. have instituted tobacco-free grounds (Muilenburg et al., 2015; Shi & Cummins, 2015). “Tobacco cessation services” can include individual or group counseling to aid clients or staff in quitting, as well as the provision of nicotine replacement therapy (NRT) or other pharmacotherapy. A recent study based on data from the National Survey of Substance Abuse Treatment Services (NSSATS) (Substance Abuse and Mental Health Services Administration, 2008) shows that 46% of U.S. addiction treatment facilities offer tobacco cessation services (Shi & Cummins, 2015). An overview of state-level policies for tobacco cessation in addiction treatment found that 22% of U.S. states (11/50) currently have established policies (Krauth & Apollonio, 2015).

2. Methods

2.1. Program Selection and Recruitment

This paper reports on a qualitative component of a larger study that included client-level survey data (Guydish et al., forthcoming). The current study is based on semi-structured interviews with directors from programs sampled for the survey component. For the parent study, a stratified random sample of publicly funded addiction treatment programs in 14 states was drawn from the NIDA CTN. The CTN is a national network of 13 research Centers or “nodes,” where each node includes one or more university partners and a number of addiction treatment programs. The population of programs in the parent study was the 2013 list of CTN-affiliated treatment programs (N = 166) identified in previous research

(Abraham & Roman, 2010; Bride, Abraham, & Roman, 2011; Olmstead, Abraham, Martino, & Roman, 2012). Eligible for inclusion were CTN-affiliated programs that were: a) publicly funded, b) moderate or large in size (at least 60 active patients), and c) willing to assign a staff liaison to coordinate data collection with the study team. Excluded were a) privately funded programs, b) adolescent programs, and c) criminal justice or hospital-based programs that would require local institutional review board (IRB) approval in addition to approval from our university IRB. We focused on publicly funded programs since more than three-fourths of all addiction treatment is provided in the public sector.

Eligible programs (N = 48) were categorized as outpatient (n = 29), inpatient/residential (n = 14), or methadone clinics (n = 5). This breakdown of programs by type is similar to the national breakdown found in the NSSATS. To recruit 25 programs—a goal that was established to attain a patient sample of roughly 1000 per study wave—and also permit a 25% refusal rate, we drew a random sample of 33 programs stratified by program type. The 33 randomly selected programs included 15 outpatient, 13 residential, and all 5 methadone programs.

The research team then contacted the CTN node where each program was affiliated, and the coordinator in each node contacted the selected programs to assess their initial interest. At this stage, 6 programs were found to be no longer active in the CTN, 1 program declined participation, 1 was a passive refusal, and 1 program was not needed to meet patient recruitment goals for the survey. The final sample for the qualitative study included directors from 8 outpatient, 9 residential, and 7 methadone programs (N = 24) (See Table 1 for interviewee characteristics).

Although the NIDA CTN is a large system, there may be few CTN-affiliated treatment programs in any single state. Identification of programs by state and program type (methadone, residential, outpatient) could permit identification of specific programs by persons within the CTN network. To protect program identities, we refer to programs by program type and region. A summary of tobacco policy and services by program type within regions is included in Table 2.

2.2. Data Collection

For the qualitative study reported here, the first author conducted semi-structured interviews by telephone with one director from each participating program between November 2014 and April 2015. Directors were asked about program and client characteristics; tobacco use prevalence; tobacco cessation services provided; tobacco-related program policies; directors' attitudes toward tobacco cessation during treatment for substance abuse; and barriers and facilitators to implementing tobacco policies and services within their programs. Interviews lasted about one hour, and were digitally recorded and transcribed. Interviewees received a $50 gift card for participating in the study. All research activities were approved by the University of California, San Francisco IRB.

2.3. Data Analysis

Thematic analysis (Boyatzis, 1998) of interview transcripts was informed by grounded theory (Glaser & Strauss, 1967), according to which salient themes are identified through

repeated review of textual data. The first author reviewed and open-coded interview transcripts in order to create a preliminary coding taxonomy. The second author also open-coded interview transcripts to identify each program's level of tobacco-free policies and tobacco cessation services. At this stage, inter-rater agreement (Miles & Huberman, 1994) was 0.77. The first author then uploaded the transcript files into ATLAS.ti software and applied codes electronically to the text (Muhr, 2013). Using the ATLAS.ti "network" function, she created a visual representation of connections between primary codes and their "neighbor" codes (i.e., codes which had been applied to the same section of text as each primary code at least once during the coding process). This process, described by other health services researchers (Foley & Timonen, 2015; Joffe, 2012), provided an initial thematic map of the relationships between primary and subordinate codes, and was followed by an in-depth review of the indicated passages to assess their relevance to the study's research questions. During this review, an additional subtheme labeled "environmental barriers" was identified and added post-hoc to the coding taxonomy. Finally, the first author selected passages that exemplified the most frequently mentioned barriers and facilitators to implementing tobacco policies and services.

3. Findings

3.1. Barriers

3.1.1. Not part of addiction treatment culture—The most commonly cited barrier to implementing both tobacco bans and tobacco cessation services was the traditional lack of attention to tobacco use within addiction treatment culture. As the director of a methadone program in the South explained:

> One of the barriers is that behavioral health clinicians are not really… schooled and trained to address nicotine addiction in that context. So it's not part of the culture. Another barrier is that people are coming to us with…what they see as their presenting problems, and nicotine is usually not on their list. They might separately say, yeah, I know smoking is a problem, but it's not one of the reasons they would knock on our door. So we have the culture from the staff, how they were trained in schools, on the one hand, and we have the culture of the clientele, both of those work against smoking cessation.

The director of a western outpatient clinic asserted that addiction to any substance, including nicotine, should be conceptualized as an integrated disorder involving every aspect of health:

> …[W]e're very resistant to change in substance abuse services, and we really do see tobacco as a very separate thing. I mean, it's really interesting to have these conversations with addiction specialists, where it's like – addiction to nicotine really is seen as something entirely different, outside the addiction world…really? It's a chemical, it's a chemical you put in your body, it has very high addiction qualities to it, and your clients who are trying to get recovery tend to use this product a lot, primarily because of their addiction to this thing called nicotine!

This director felt that his program was well positioned to promote tobacco cessation because its services included primary health care. Due to the separation of "physical" and

"behavioral" health services within the U.S. health care system, he said, directors who wish to promote tobacco cessation are often discouraged based on the challenges of dealing with a "totally different system" that requires not only knowledge of billing and insurance coverage for services outside the organization, but also the resources (e.g., staff time, transportation) to link clients to these services.

A few directors expressed concern that tobacco cessation during treatment for addiction to other substances might threaten recovery, as reflected in this comment by the director of a methadone program in the South:

> I guess I've heard – you don't want them to quit everything at the same time, because it just puts too much stress, and kind of prioritizing which things are more important – well, it's – I think that nicotine is an important issue, and if people try to stop using something that they're addicted to, that is less, in their minds, than opiates or something else, I think it does put more stress, and it makes them more vulnerable.

This director appeared to struggle with the idea of treating nicotine dependence as another type of addiction, pointing out that clients tended to view tobacco products as less harmful than opiates. She expressed support for "triage," or focusing first on getting clients off of opiates, then addressing the use of substances she perceived as less immediately life-threatening.

3.1.2. Client resistance/lack of readiness—A frequently mentioned barrier to tobacco cessation was clients' "resistance" or "lack of readiness" to quit. As the director of a northeastern outpatient program explained:

> The clients are usually not so interested in doing anything about it at the beginning of treatment. We have to wait till they're engaged a little more fully, or they feel, "I want to deal with the other drugs, I don't want to give this up yet. " It's really kind of just their resistance to doing anything about it, is the only barrier.

Some directors expressed concern that going tobacco-free would cause their client census to drop. An exchange between the interviewer and the director of a residential program in the South illustrates this point:

> PD: A barrier is just maybe either clients choosing not to come here for treatment, or leaving treatment.
>
> I: Because they can't smoke there?
>
> P: Correct.
>
> I: So you've seen that happen?
>
> P: We definitely saw it happen with another large provider here in town, another non-profit. They went non-smoking, and they ended up going back to smoking because of that. And then it creates – when they were no-smoking, we had a higher number of calls where people were looking for help, where they were specifically asking, am I allowed to smoke there – just sort of shopping for a treatment center

> where you could smoke. And so they ended up going back to smoking. It didn't work. My hope is that at some point the state will mandate that all licensed programs, or at least programs that get any state money, have to be non-smoking. Because then we can all do it at the same time. Then you don't run into people avoiding your particular treatment center because they can't smoke.

This comment demonstrates the importance of supportive policy environments for programs' success in becoming tobacco-free. If no comprehensive tobacco ban has been issued by substance abuse authorities at the city, county, or state level, programs may choose not to prohibit smoking due to the possibility of losing clients to the competition. In our sample, however, none of the programs with tobacco-free campuses reported having lost clients as a result of the policy change. A residential program director in a different southern state reported on her experience one year after implementing smoke-free grounds (her state's SSA did not have a tobacco ban in place):

> I think we anticipated that it was going to be quite a backlash, when we implemented our smoke-free policy, because you know, a healthy size of our population had been smokers, or are smokers… the backlash didn't turn out as badly as we thought, because people said – oh, people are gonna go through their nicotine withdrawal and they'll be ranting and raving and – it wasn't as bad as we thought. We made it through.

Other program directors who had attempted to implement smoking bans reported difficulty with enforcement. A residential program director in the Midwest described her experience:

> I went to the county commission and I got the grounds deemed tobacco-free. But then I had huge problems with clients sneaking in their cigarettes and hiding them and smoking within the facility and – it was almost impossible. We were constantly taking people's cigarettes away, and the toilet seats had big black marks all over the rim of them, and –it's a never-ending battle…I mean, we gave it our best shot, it was a couple of years, and then finally, we just had too many people that were leaving the facility against medical advice, and so we ended up with pretty much the command staff input of having a designated smoking area.

At the time of our interview, the SSA in this state had not mandated tobacco-free grounds in addiction treatment programs.

3.1.3. Lack of resources—A commonly cited barrier was a lack of resources to implement tobacco cessation services. The director of an outpatient program in the South summarized the need for NRT funding:

> Out patient, I would say, it's more of just – it's not a priority. The resources to pay for any support, like – if there were resources to pay for nicotine patches or some other kind of – the gum or something, to help these people – because most of our clients can't even – barely afford $5 co-pay. So a lot of them don't have the funding at all to pay for their own [NRT] – if they want to go that route – and most of them do – they want to go off the withdrawals – they want to decrease versus stop cold, completely cold turkey.

Several program directors reported that they relied on clients' insurance to cover NRT products. However, this meant that NRT was not available to all clients since coverage varied according to their individual plans. In some states, patients were referred to "quit lines" (Tinkelman, Wilson, Willett, & Sweeney, 2007) which could supply them with nicotine gum or patches for a short period of time.

Most programs in our sample were unable to obtain state funding for the staff training and time needed to implement tobacco cessation counseling groups. As a result, cessation groups were difficult to sustain. In some cases, programs received short-term assistance from universities or other research organizations conducting on-site groups as part of their clinical trials. A few programs had obtained free or low-cost cessation materials from the American Lung Association or other nonprofit anti-tobacco organizations. Directors reported more difficulty obtaining insurance reimbursement for cessation counseling groups than for NRT. The director of a methadone program in the South observed that in order to bill clients' insurance, counselors leading tobacco cessation groups needed to have a clinical plan and objectives in place:

> I know that they have had nicotine support groups here before…it wasn't called a nicotine support group, necessarily, but the topic was more around the health issues surrounding nicotine. Because to bill for those services…it would have to be more along the lines of your traditional treatment planning type objectives or goals, surrounding things like coping skills, clinical issues, and so forth. It couldn't just be a support group.

She described, as did other directors, an increasing tendency for insurance companies to only reimburse for program services incorporating evidence-based practices—which were difficult to offer without resources for continual staff training.

3.1.4. Staff smoking—According to program directors, and consistent with the literature (Fuller et al., 2007; Guydish et al., 2007), staff smoking and attitudes toward smoking can be powerful influences on client smoking. Directors of residential programs, in particular, emphasized that clients' seeing staff smoke made it more difficult to persuade them to quit. The director of a methadone program in the Northeast commented:

> I think one of the barriers, too, is, making sure you get the buy-in of the staff. Because we're trying to encourage people to stop smoking, and just like what we said earlier, when staff's outside smoking, it's kind of hard, us saying, "oh, you should definitely stop smoking and go to the group," when they're seeing their counselor smoking.

Nearly all programs in our sample without tobacco-free grounds had mandated separate smoking areas for clients and staff. Staff members were often present in client smoking areas in order to enforce smoking rules (e.g., no electronic cigarette use)—or, in one case, to light clients' cigarettes since they were not allowed to carry lighters or matches—but clients and staff could not smoke together.

An outpatient program director in the West noted that staff resistance to smoking bans may reflect fears about job security based on their own smoking status:

> The fact that we have high rates of smoking within addiction services at the staff level is a barrier, because I think a lot of the staff see it as a challenge for themselves because they're current smokers. I think they're less likely to support initiatives of quitting because then they get really fearful, like they'll start saying things like, "well, wait a minute, does this mean that [our program] now will come up with some policy that they won't hire people who smoke?"

Estimates of addiction treatment staff smoking in the literature range from 14 to 40 percent (Guydish et al., 2007). The director quoted above reported that twenty-two percent of his staff were current smokers. Eight of the twenty-four programs in our sample reported that 40 percent or more of their staff were current smokers, and there were no programs whose staff were entirely tobacco-free. The issue of job security being threatened by one's smoking status was also raised by a midwestern residential program director whose staff were required to sign a declaration stating that they were tobacco-free prior to hiring. Despite this policy—which was imposed by the government agency in which the program was embedded—this director reported that nearly 20 percent of her staff were current smokers.

3.1.5. Environmental barriers—Some respondents described their programs' physical layout and location as factors in the success or failure of tobacco policies. A residential program director in the Northeast described a smoking shed that had been constructed on campus to shelter smokers during "inclement weather." In addition, the residential program shared its grounds with outpatient clients who were permitted to smoke. Both features of the program's physical layout derailed its efforts to become tobacco-free. In this program, staff spent so much time policing client smoking that the director eventually reversed the smoking ban.

Characteristics of the neighborhoods surrounding program facilities also influenced efforts to decrease or prohibit smoking within programs. For example, the director of an outpatient program in the Northeast felt that the "roll-your-own" tobacco shop located two blocks from the program encouraged clients to smoke due to its proximity, and by offering a cheaper alternative to highly-taxed packs of cigarettes. A residential program director in a western state described a different neighborhood challenge to implementing tobacco-free grounds:

> …what we don't want to see is us prohibiting smoking on our site and then pushing it out into our neighbors' yards. … there's a child care facility right across the street. Next to [that] there is an elderly assisted living home, and then next to [that] there is a flower shop and a motel. And so I went and talked to all those proprietors and just sort of said, "hey, we're making some changes, and if you see this, or you're having a problem with people standing on the corner, smoking – this is my contact information, these are my program manager and director, please let us know, we want to be good neighbors."

Urban versus rural settings also impacted programs' decisions to go tobacco-free. Two rural residential program directors were reluctant to enforce tobacco-free policies because their campuses were located in areas that lacked wide sidewalks or nearby parks where clients could be technically off-grounds but still in view of program staff and protected from traffic.

Their program grounds extended to the edge of a highway, and both directors expressed concern that clients and staff could be hit by a car while crossing the highway to smoke.

A program's physical layout could also be leveraged to support tobacco policies. An outpatient program director in the West described changing the environment to promote nonsmoking:

> We did this beautiful gazebo structure, installed more comfortable seating arrangements, with a table so that folks could sit around the table and have conversations, but the catch was that no more smoking was allowed there…our non-smokers really didn't feel comfortable going and congregating there because they were going to be exposed to second-hand smoke. And now it's just a clean, tobacco-free space where people can come and relax, check in with each other, talk, communicate, offer support, and not have a cigarette in their hand.

3.2. Facilitators

3.2.1. Financial Support—Many program directors cited financial support for tobacco cessation services and medications as a facilitator for increasing client quit rates. They usually discussed financial resources they did not currently receive, but that they believed would help efforts to curb smoking. A program director from an outpatient clinic in the South commented:

> [I've been] thinking about ways to incentivize clients' participating. I don't know what – having resources, our clients for the most part don't have resources, when you start thinking about it. When I stopped smoking years ago, I used nicotine gum and I used this and that, and that's expensive stuff. …And making alternative things, like the gum and the other things… the lozenges, making that patch…more accessible to people.

Like several respondents in the sample, this director spoke of her own quit attempts when reflecting on resources that might help clients quit. An outpatient director in the Northeast commented:

> I think if there were some type of financial support, that we might be able to provide our clients with – like being able to help them to purchase other means of getting nicotine, like the electronic cigarette, like the gum and stuff like that. I think that that might be a little bit more of an incentive for them to follow through on it, because I know they tend to get expensive, whereas although cigarettes are expensive, they see just going out and buying a loose cigarette as something that's more financially doable than just spending $20 on an electronic cigarette.

This program director referred to conventional NRT products, and also referred to the electronic cigarette, or "e-cigarette." She was in the minority of respondents in terms of expressing support for clients' use of e-cigarettes. Most programs in the sample discouraged or even prohibited clients from using e-cigarettes on-site due to the potential for substituting synthetic marijuana liquid for nicotine liquid in the device.

3.2.2. Enhanced leadership—Another common response was the need for stronger leadership and support for tobacco cessation inside the organization. One director of a methadone clinic in the South commented:

> It always helps to have some champions. … And sometimes those champions could be clients – patients themselves – or it could be staff who just believe and want to put a lot of energy into it, and that then tends to reflect and spread.

Several directors used the term "champions" to describe tobacco cessation advocates, usually drawn from clients or staff. Others were in favor of creating new positions within the organization to address tobacco cessation, like this director of a methadone clinic in the Northeast:

> Well, I think if we were able to get – let's say, for example, we're able to take one PAC [patient action committee] guy or girl, and support half their time, and that the curriculum would be available through the FDA or something, that person would become our nicotine expert. I would like that. So you'd have maybe – pick up a half-time recovery specialist that would be promoting it throughout our operation… They could maybe even do some peer support groups on it.

This director mentioned that a similar strategy had been used in the past to fund recovery specialists to provide special services to clients with HIV/AIDS. He thought that using an existing model (a part-time recovery specialist recruited from former clients) would help institutionalize a client–staff bridge position with emphasis on tobacco cessation. In these examples, directors conceptualized "leadership" and "champions" as an organic, participatory model of leadership involving clients and para-professional staff who worked closely with clients.

3.2.3. State-level tobacco cessation mandates—Only seven program directors reported that their state's SSA had tobacco policy guidelines or mandates (see Table 2). On one end of a policy continuum described by interviewees, SSAs might issue recommendations for implementing tobacco-free grounds, or they might provide tobacco cessation training materials. These are examples of SSA policy levers, but are based on "plans and standards" (Rieckmann et al., 2011, p. 8) rather than enforceable regulations. Such non-regulatory guidelines were described by directors in three states. In the middle of the continuum were SSA stipulations that programs allocate a certain percentage of state dollars to tobacco cessation services, as in one western state. This would be a financial mechanism or "purchasing lever." At the far end of the continuum were SSA-mandated tobacco bans and/or cessation services, which programs had to implement in order to maintain state funding or avoid "corrective actions" (Oregon Health Authority, 2013). These mandates, which were present in two states, incorporated both policy and purchasing levers.

Only one program in our sample, an outpatient clinic in the Northeast, had implemented an SSA-mandated tobacco ban. That director recounted that her program had begun to prepare for the ban a few years before it became mandatory, and she did not report any problems with implementation. In a residential program in the West, however, the director reported difficulty with implementing tobacco cessation requirements:

> The state was pretty clear about – we're going to help fund your program, but you can't smoke. But the only thing they really did to help support that was put a web page up saying, "you can access help by accessing these services"…there was little help that they could do (*sic*), other than sending us information packets. So it might be better if there was more of a service that the state might provide, by coming out and saying, well, this is what the other providers are doing, or this is what helped… it's just about partnering up and kind of sharing some of the resources with us.

While a residential program director in the South emphasized the importance of SSA-mandated tobacco bans to facilitate program-level implementation, the director quoted above indicated that the ban in his state was insufficient without concrete procedures and resources to promote cessation. Instead of banning tobacco use, this director focused on incentivizing clients to quit smoking by providing rewards such as certificates and special leisure activities for those who attended a tobacco cessation group and managed to quit smoking for at least 30 days.

4. Discussion

Tobacco use is gaining increased emphasis within addiction treatment programs in accordance with findings that clients are more likely to die from tobacco-related causes than from their primary addiction (Bandiera, Anteneh, Le, Delucchi, & Guydish, 2015; Hurt et al., 1996), and that treatment outcomes are improved among clients who quit smoking concurrently (Tsoh et al., 2011; Winhusen et al., 2014). SSAs for substance abuse treatment in several states [e.g., New York (Pagano et al., 2015), New Jersey (Williams et al., 2005), Oregon and Utah (Marshall, Kuiper, & Lavinghouze, 2015)] have made strides toward banning tobacco use and mandating cessation services in treatment programs.

Thematic analysis of semi-structured interviews identified several themes regarding barriers to implementing policies and services. These included smoking culture, client resistance, insufficient resources for NRT and staff training, staff smoking, and environmental barriers. According to directors' explanations of these barriers, the "smoking culture" prevalent in many addiction treatment settings is linked to both staff and client resistance to cessation. Previous studies have also identified the first four barriers (Brown et al., 2012; Eby et al., 2012; Eby et al., 2015; Guydish et al., 2007; Knudsen et al., 2010; Koch & Breland, 2015), but do not discuss barriers related to programs' physical environments. Environmental barriers have implications for implementing and enforcing tobacco bans as well as encouraging clients to stop smoking. As described by respondents in our sample, neighborhood characteristics such as tobacco availability (e.g., price, proximity of tobacco outlets to program) and the "NIMBY" ("not in my backyard") factor can negatively impact efforts to promote tobacco cessation and tobacco-free grounds. The physical layout of the treatment facility can also make it difficult for programs to maintain tobacco-free grounds while also protecting clients' safety (e.g., from nearby traffic). However, as one respondent described, the physical layout can be manipulated in ways that discourage smoking and create appealing smoke-free spaces.

Directors' views on factors facilitating tobacco policies and services concerned financial support for NRT, enhanced leadership, and SSA mandates for tobacco-free grounds and tobacco cessation services. These facilitators are intertwined since SSA mandates may include purchasing levers for NRT and other therapeutic agents, and financial support for tobacco-related staff positions; and because SSA support for tobacco cessation can lend legitimacy to program leaders' efforts in this area. These facilitators have also been identified by other studies. Programs located in states with tobacco-free regulations for addiction treatment facilities, or states where >30% of substance abuse treatment facilities are voluntarily smoke-free, are more likely to implement tobacco bans and cessation services (Shi & Cummins, 2015). In our sample, program directors in states without SSA mandates mentioned these as a potential facilitator more often than directors in states where mandates are currently in place. Another recent study found that having financial resources specifically dedicated to tobacco cessation predicted programs' adoption of tobacco cessation counseling and pharmacotherapy services (Eby et al., 2015). Similarly, leadership has been identified as a cornerstone of implementing organizational change to promote tobacco cessation (Santhosh et al., 2014; Ziedonis et al., 2006). Respondents in our study referred to enhanced training of existing staff, and also commented on the potential advantages of trained peer mentors. Peer mentorship, in combination with professionally-led tobacco cessation counseling, has proven successful for helping persons with mental illness to quit smoking (Dickerson et al., 2016).

A few patterns emerged in directors' responses. For instance, directors of residential programs reported more barriers to implementing tobacco cessation efforts than directors of outpatient and methadone programs. This is likely due to the fact that clients in the latter programs do not reside on-site, and thus are not subject to the same drastic reduction in tobacco use as clients in residential programs with tobacco-free grounds. Additionally, methadone programs reported more facility in providing NRT or other pharmacotherapy to clients since they had medical doctors on-site who could prescribe these directly. Residential and some outpatient programs tended to be more removed from the medical system and have less knowledge about the possibility of obtaining reimbursement through Medicaid for these products. Rural programs reported more difficulty in enforcing tobacco bans and obtaining resources for cessation than programs in urban locations.

This study was based on a random sample of CTN-affiliated programs that represent diversity in terms of geographic location, program type, and the status of SSA tobacco-related guidelines and mandates in each state. However, findings are not generalizable due to the small sample size and to the fact that programs participating in the NIDA CTN may have different characteristics from non-CTN treatment programs (Ducharme & Roman, 2009). Our analysis relies on self-report from directors and thus does not take into account the views of other staff members or clients. Finally, the pre-determined, non-purposive nature of the sample may have constrained the level of variability among selected programs' policies and services.

The findings presented here can inform policy development regarding the most effective ways to assist addiction treatment programs in their tobacco cessation efforts. It is important for SSA policymakers to receive feedback from providers about implementation barriers

encountered “on the ground.” Variation in local contexts can complicate efforts to implement uniform measures all over the state, as was the case with rural programs in this sample. At the same time, having the support of an SSA tobacco-free mandate can bolster local programs’ initiatives; examples of failed attempts to go smoke-free in the absence of such mandates were provided by directors from two states in our study. These findings may also be useful to other program directors and administrators who are contemplating similar efforts. Common fears about losing clients to other programs after going tobacco-free may be allayed through the dissemination of experiences such as the one recounted by the residential program director in the South. Last, key informant data such as those presented here demonstrate the diversity of policy and funding environments with which addiction treatment programs must engage in order to address tobacco use. In order to maximize effectiveness, state-level policies regarding tobacco cessation during treatment should be informed by ongoing dialogue between local service providers and SSAs.

Acknowledgments

The authors would like to thank the NIDA Clinical Trials Network for assistance with our sample, as well as the programs that participated in this study. This study was supported by grant P50 DA 009253 from NIDA, and by grant R01 DA 036066 from NIDA and the Food and Drug Administration Center for Tobacco Products. The content is solely the responsibility of the authors and does not necessarily represent the official views of the NIH or the Food and Drug Administration.

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Table 1

Interviewee Characteristics (N = 24).

Characteristic	N (%)
Age (n = 22)	
M (SD)	51 (10.9)
Gender (n = 24)	
Female	14 (58.3)
Race/Ethnicity (n = 22)[1]	
White	20 (83.3)
Native American	2 (8.3)
African American	1 (4.2)
Latino/Hispanic	1 (4.2)
Education (n = 23)	
Some college	3 (13.0)
Bachelor's degree	4 (17.4)
Master's degree	13 (56.5)
Doctoral degree	3 (13.0)
Current smoker (n = 23)	
Yes	4 (17.4)
In recovery from substance abuse (n = 22)	
Yes	2 (9.1)

Note. Due to missing data, the denominators for each characteristic may vary; the *n* is noted in each case.

[1] Interviewees were able to choose more than one category for race/ethnicity.

Table 2

Program Characteristics (N = 24).

		Program policies		Program services		SSA Tobacco Guidelines?
		Tobacco ban	Conseq. for violation[2]	Psychosocial[3]	NRT	Yes
Region/Type	N					
Northeast						
Resid.	1	–	1	–	1	–
OP	3	1	–	2	2	1
MMT[1]	2	1	–	1	2	1
South						
Resid.	4	1	4	3	3	–
Outpatient	3	–	1	–	–	2
MMT	4	2	–	1	3	–
Midwest						
Resid.	2	–	1	–	–	1
Outpatient	–	–	–	–	–	–
MMT	–	–	–	–	–	–
West						
Resid.	3	–	3	2	2	2
Outpatient	1	–	–	1	1	–
MMT	1	1	–	–	–	–
TOTAL	24	6	10	10	14	7

[1] "MMT" is "methadone maintenance therapy."

[2] "Consequences for violation" refers to whether a program enforces consequences for client and/or staff tobacco policy violations.

[3] "Psychosocial" refers to individual or group counseling for tobacco cessation.