Closing Tobacco-Related Disparities
Using Community Organizations to Increase Consumer Demand

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Background: Individuals living in poverty are more likely to smoke, and they suffer disproportionately from tobacco use. Strategies used to deliver tobacco-cessation interventions often fail to reach smokers living in poverty. Providing tobacco interventions to smokers when they present to community organizations is a potential strategy, but the acceptability and effectiveness of such interventions is unknown.

Methods: In this 2007 pilot study, 295 smokers seeking emergency assistance from the Salvation Army in Wisconsin were randomly assigned to either a very brief (30-second) smoking intervention condition or to a control no-intervention condition. All participants completed a follow-up survey at the end of their visit assessing their satisfaction with the community agency, interest in quitting, and motivation to quit.

Results: This brief intervention increased the likelihood that smokers would seek help when they decided to quit (61% vs 44%, $p<0.05$) but did not affect intention to quit in the next 6 months or perceived difficulty of quitting. The intervention was well received by both participants and Salvation Army staff.

Conclusions: Smokers in this pilot study found it acceptable to have their smoking addressed when seeking services from a community agency. Such interventions may need to be more intense than the one used in this study in order to achieve the goal of increased motivation to quit. Community agencies should consider including brief tobacco-dependence interventions as a secondary mission to improve their clients' health.

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Introduction

Tobacco-related disparities are well documented. Nationally, smoking prevalence among those living in poverty or of low educational attainment is about twice that of the general population.[1–4] Tobacco use is associated with poor health and diminished quality of life,[5–8] and it is a significant cause of premature death among those living in poverty.[9,10]

Many interrelated factors give rise to this disparity.[11–13] For many, smoking is normative and more accepted.[4] Smokers living in poverty are less likely to have health insurance and access to health care, limiting access to effective tobacco-dependence treatments.[14–16] They also have less information about the need to quit and effective ways to quit.[16–20] Their attempts to quit are more likely to fail, partly due to misperceptions about treatment and a lower sense of self-efficacy.[21–25] The poor are also targeted by tobacco companies as pliable tobacco purchasers.[26] Finally, the prevalence of mental illness and substance abuse disorders, conditions associated with higher tobacco-use rates, is higher among the poor.[27–29]

Despite initiatives to reduce disparities, little progress has been achieved.[30,31] Ceci and Papierno[32] argue that closing a disparity gap requires interventions unique to the disparate population.[32] To date, tobacco-dependence treatment efforts have emphasized interventions through the healthcare delivery system.[33] However, the healthcare delivery system does not serve the poor as well as it does other populations.[30,34]

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Community agencies (community assistance programs, transitional living facilities, drop-in mental health centers) are potential access points. These agencies often have established personal and regular contact with this population. It is unknown (1) whether such organizations would be willing to adopt smoking cessation as a secondary mission; and (2) whether interventions conducted by these agencies would have a beneficial impact. Brief interventions have been shown to be effective in other settings[33] but have not been tested in community agencies to determine whether they are consistent with agencies' primary missions, would be welcomed by their constituents, or would affect the likelihood of constituents' returning for services. This pilot study evaluated whether a very brief tobacco intervention, designed to increase consumer demand for treatment conducted in a community agency, affected smokers' perception of that agency, their satisfaction with and willingness to return for further services, and changes in motivation to quit.

Methods

Subjects

Subjects were a convenience sample of 295 smokers seeking emergency assistance from the Salvation Army in two eastern Wisconsin communities in 2007.

Procedures

A community-based participatory research process was used to develop the intervention and conduct the study, involving both the Salvation Army and the University of Wisconsin Center for Tobacco Research and Intervention. Salvation Army staff participated in a 2-hour training at their workplace that included study background, procedures to obtain verbal consent, survey administration, and practicing the intervention.

Participants were recruited at the end of regular visits to the Salvation Army to receive assistance. Trained Salvation Army staff asked adult clients (aged ≥18 years) if they smoked cigarettes. All self-identified smokers were invited to participate in this study. Staff reported that very few of those eligible did not consent. Those that provided verbal consent to the Salvation Army staff were randomly assigned, using a random number generator, to either the brief intervention (n=147) or a no-intervention control group (n=148).

Subjects assigned to the intervention received a 30-second "ALSO" (Ask, Link, Share, Offer) intervention that asked if they smoked; linked smoking to the agency's primary mission; shared health information about tobacco use; and offered self-help material (Table 1). This intervention was developed specifically for this pilot study to determine whether a very brief tobacco-dependence intervention is acceptable to Salvation Army clients. Written information was then provided about how to quit, using cessation medicines, the Wisconsin Tobacco Quitline, and Medicaid smoking cessation benefits. Subjects then completed an anonymous, self-administered, 15-minute survey written at the 6th-grade level, and received a $15.00 gift card. Staff read the survey questions and responses to those few who could not read. Control subjects completed the same survey and received the gift card and written cessation information after they completed the survey.

Table 1. The ALSO intervention

Ask	Ask, *Do you currently smoke?*
Link	Link smoking to the agency's primary mission in order to establish credibility: *Our agency cares about your health. I know we're working with you today to arrange for emergency assistance, but I don't want to pass up the opportunity to help you with your health.*
Share	Share information: *Did you know that quitting smoking is probably the single most important thing you can do for your health—and the health of those around you? Did you know that, on the average, smokers die 6 years sooner than nonsmokers? Not only do smokers die younger, but they are also more likely to have nagging and painful health conditions that make it difficult day in and day out.*
Offer	Offer help and ask permission to follow up: *I want to give you some valuable information about quitting. Did you know that even though quitting is hard, there are many ways to do it that work? There are some strong medicines that really help. And there is a telephone number you can call for personal coaching about how to quit. And it's free to anyone who lives in Wisconsin. Is it OK if I ask you about your smoking when you come back?*

ALSO, Ask, Link, Share, Offer

Measures

The survey comprised 13 items (Table 2). Five items elicited demographic and smoking history information. Five items asked for subjects' opinions about the service just received from the Salvation Army and how they felt about being asked about smoking during their visit. The last three items measured aspects of quitting: intention to quit in the next 6 months, likelihood of asking for help to quit, and difficulty of quitting.

Salvation Army staff delivering the intervention also completed a brief survey regarding their experiences with the study and beliefs about conducting a tobacco intervention as part of the Salvation Army mission. Data were analyzed using chi-square and t tests. The University of Wisconsin IRB reviewed and approved all study procedures.

Table 2. Group differences (% unless otherwise indicated)

	Intervention	Control	Significance
BACKGROUND/DEMOGRAPHIC DIFFERENCES			
Average (years)	40.1	39.0	$t=-0.82$, $p<0.45$
Gender (female)	53	45	$\chi^2=1.49$, $p<0.30$
Average number of years smoked	20.8	20.1	$t=-0.51$, $p<0.65$
Time to first AM cigarette (minutes)			
≤5	56	42	$\chi^2=7.49$, $p<0.10$
6–30	28	35	
31–60	10	14	
>60	5	9	
Typical number of daily cigarettes			
≤10	24	30	$\chi^2=1.94$, $p<0.50$
11–20	49	45	
21–30	17	18	
≥31	10	7	
PERCEPTIONS OF THE SALVATION ARMY			
Average overall opinion (1 [worst] to 10 [best] scale)	9.7	9.6	$t=-0.21$, $p<0.85$
Will you return for more services?			
Definitely not	<1	1	$\chi^2=2.27$, $p<0.50$
Probably not	4	8	
Probably yes	47	42	
Definitely yes	48	49	
OK to be asked about smoking?			
Definitely not	1	2	$\chi^2=5.69$ $p<0.25$
Probably not	6	5	
I'm not sure	16	26	
Probably yes	39	32	
Definitely yes	38	34	
OK to be asked at next visit?			
Definitely not	2	2	$\chi^2=1.03$, $p<0.90$
Maybe not	8	8	
Maybe it's OK	31	36	
Definitely it's OK	59	55	
Think about being asked?			
None of their business	3	6	$\chi^2=4.23$, $p<0.25$
Should focus on my other needs	4	8	
It's for my own good	41	41	
They really care for the whole me	49	45	
Other	3	1	

(continued on next page)

Results

Demographics and Background

There were no differences between experimental and control subjects in age, years smoked, gender, daily smoking, or time to first morning cigarette (Table 2).

Impact on Smokers' Perception of the Community Agency

There were no significant differences between the intervention and control groups on questions about the Salvation Army (Table 2). The vast majority of subjects, regardless of condition assignment, were highly satisfied with the service provided by the Salvation Army (M=9.67 on a 0–10 scale), and 93% stated they would definitely or probably return for usual Salvation Army services. Across both conditions, participants appreciated being asked about their smoking: 47% reported they were glad to be asked about their smoking as it indicated the Salvation Army really cared about them, including their health. An additional 41% did not mind being asked about their tobacco use, as they felt the questioning was for their own good.

Impact on Quitting

More smokers (61%) who received the ALSO intervention thought that they would probably or definitely ask for help in quitting when they decided to quit than control subjects (44%). There were no differences between intervention and control participants in intention to quit or perceived difficulty of quitting (Table 2).

Staff Perceptions

The five Salvation Army staff members conducting the study strongly agreed that clients wanted to quit smoking, and needed help quitting, and that this intervention complemented the mission of the Salvation Army. They disagreed that asking about tobacco use frustrated, angered, or alienated clients or that tobacco-related activities would drain resources from their core mission.

Table 2. Group differences (% unless otherwise indicated) *(continued)*

	Intervention	Control	Significance
Impact on quitting			
Intend to quit in next 6 months?			
Definitely not	6	7	χ^2=0.91, p<0.95
I don't think so	12	13	
I might	34	35	
Probably yes	22	22	
Definitely yes	27	23	
How hard is it for you to quit?			
Impossible	5	4	χ^2=1.23, p<0.90
Very hard	48	44	
Hard	35	41	
Easy	10	8	
Very easy	2	2	
Will you ask for help?			
Definitely	3	7	χ^2=10.79, p<0.05
Probably	8	17	
Maybe	27	32	
Probably	35	27	
Definitely	26	17	

Discussion

This study demonstrates that a community agency can provide a very brief tobacco intervention without impairing clients' perceptions of the agency or interfering with the staff's ability to serve the agency's core mission. The vast majority of smokers thought it appropriate to be asked about their smoking, as did staff.

This brief intervention had an immediate effect of increasing the level of intention to seek help when smokers decide to quit. This effect on the likelihood of seeking help is significant in light of the brevity of the intervention, and it holds promise to increase consumer demand for evidence-based treatment. Consistent with the recommendations of Ceci and Papierno,[32] the current findings suggest that community agencies should be encouraged to adopt tobacco-dependence interventions to help address this disparity.

This pilot study is subject to several limitations. The percentage of eligible smokers that declined to participate in this study is unknown, potentially affecting the generalizability of the findings. Also, the increase in expressed likelihood of seeking help to quit may have resulted from a demand characteristic of having received the intervention just before completing the survey. Contamination (control subjects asking for and receiving advice about their smoking from Salvation Army staff) cannot be ruled out, although training was designed to limit such contamination. Last, it is not known whether subjects called the quitline or sought any other treatment as a result of this intervention.

Future research is required to further investigate these findings and identify effective tobacco-dependence intervention(s) for delivery by community agencies. Research could focus on the feasibility of interventions to directly provide treatment versus interventions designed to increase consumer demand. The brief 5A's intervention recommended for healthcare settings[33] delivered in a community agency might also include a motivational intervention for those not interested in quitting, or address other factors that serve as barriers to evidence-based treatment, such as perceptions that smoking is normative. Such research should also study the trade-off

between increasing the intensity of the intervention and decreasing its practicality for community agencies. Finally, future studies should include follow-up measures to determine the impact of intervention on quit attempts and use of evidence-based treatment.

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