



What Differentiates Underserved Smokers Who Successfully Quit From Those Who Do Not

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Abstract

Poor persons continue to smoke at high rates and suffer grave health effects. We have been working with our community partners since 2008 to help poor people in the surrounding neighborhoods stop smoking through a multi-phase CBPR intervention known as CEASE. Our study used qualitative methods to identify factors that characterized those who successfully quit smoking (doers) and those who did not (non-doers). Both doers and non-doers identified social pressure as the main reason for starting to smoke, and health as the main motivator for quitting. Although they were similar in many ways, the doers seemed to have more social support for cessation—i.e., more people in their lives who wanted them to quit and whom they wanted to protect from secondhand smoke. The non-doers offered more feedback on how to improve the cessation classes, including making them longer, reducing the class size, adding extra counseling, and using quitting partners. Both doers and non-doers reported increased self-confidence, appreciation for the cessation support they received from CEASE, and a desire that the group classes continue. Cessation is a social event and smokers with more social support appear to be more successful at quitting. Showing interest in and offering social support to poor underserved smokers in their own communities is a powerful way to help them.

Keywords Community-based participatory research (CBPR) · Peer motivator · Doer/non-doer analysis · Social capital

Background

Smoking is the single most preventable cause of death and disability. Fortunately, the prevalence of smoking among higher-socioeconomic persons in this country has fallen dramatically since the first Surgeon General’s Report on Smoking and Health was issued in 1964 [1]. At that time, 42% of adults in the U.S. (including more than 50% of men) smoked [2]. By 2015, only 15.1% of the population (36.5 million) smoked, but it continues to kill more than 480,000 Americans every year, including more than 41,000 who die from secondhand smoke [3]. Unfortunately, many of these smokers are poor, minority persons, especially the homeless and

those with behavioral health disorders. Tobacco companies know this better than anyone and target poor communities with their huge advertising and promotion budgets. In fact, research has shown that now, 40% of all cigarettes are smoked by persons with mental illness and/or substance abuse disorders [4].

Two-thirds of smokers say they want to quit, and about half of them try every year, but few succeed on their own [5]. Proving what Surgeon General C. Everett Koop told us years ago—that tobacco is the most addictive drug we know—smokers have more difficulty and less success kicking their tobacco habits than other drugs [6]. Of those who try to overcome their addictions every year, 40% are able to stop using opiates and cocaine, 18% are able to stop drinking, but only 8% succeed in quitting smoking [5].

For many years smoking cessation was simply considered an individual responsibility. Those health providers who bothered to ask their patients about tobacco use typically gave the smokers only a quick admonition to quit. But this was little fortification against the billions of dollars spent every year by tobacco companies to promote their products,

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while little support was available to help smokers overcome such a strong addiction.

Realizing the need for a much more aggressive and coordinated response, health and public health professionals began to forge a resistance movement in the 1980s. The movement discovered and advocated the four “pillars of policy” that worked to reduce smoking: increase the price (i.e., raise tobacco taxes); clean up indoor air; reduce tobacco advertising; and stop selling to minors (there were already laws in all states against sales to minors, but they typically had not been enforced) [7]. The policy approach proved to be very powerful in tobacco control and it changed much in public health in general by pulling interventions “upstream.” Policy was used to arrange the environments for individual decision-making so that the default choice was the healthy choice [8].

The success of policy in reducing overall tobacco use prevalence may have masked its uneven impact. Because persons with greater education and higher incomes quit smoking at much higher rates, it is the poorest, least educated and most vulnerable (e.g., the unemployed) who constitute the great majority of today’s smokers [2]. Unfortunately, these smokers also have the least access to resources to help them quit. Many of them do not have any form of health insurance [3]. The poorest and least connected in our country continue to suffer from a heavy burden of smoking-related death and disease. Reducing this disproportionate burden requires evidence-based and community-owned interventions that provide comprehensive and effective services at the grassroots level to those who need the most help.

Many smokers who try to quit every year do so on their own, and many of them relapse back to smoking within 6 months [9]. More than two-thirds of quit attempts are made without any type of treatment assistance [10]. While low-income blue-collar smokers with limited formal education are just as likely as their more advantaged counterparts to try quitting, they are less likely to receive effective treatments from healthcare providers or to use products and services that have been proven to work (e.g., face-to-face counseling, clinic-based programs, medications and quit lines) [11]. Unfortunately, the smokers who need the most help have the least access to effective cessation treatments [12].

Making the job of reducing tobacco-related health disparities even more difficult is the fact that we do not know nearly enough about what messages resonate with low-income and minority target audiences, what channels reach them, and which messengers motivate them. The long-term incentives for smoking cessation and other healthy behavior changes that motivate many middle- and upper-class people are not likely to be the same for low-income individuals whose needs are much more immediate, who are surrounded by very different environments, and who have different perspectives and world views. It is critical, therefore, to better

engage these less advantaged populations in research that examines the barriers they face and explores what does and does not work to help them quit smoking and stay quit. Research that differentiates those who succeed in adopting healthy behaviors from those who do not has been called the “doer/non-doer analysis” [13].

Communities Engaged and Advocating for a Smoke-free Environment (CEASE) is part of a long-standing partnership between a historically Black university located in Baltimore, MD and two low-income neighborhoods near its campus. A Community Action Board (CAB) comprised of community activists and representatives from schools, faith-based, and non-governmental organizations determines CEASE’s specific goals and guides its operations. Since 2008, CEASE has been working with its partners to help smokers quit using interventions designed through community-based participatory research (CBPR) to serve the underserved. Over a total of four phases, the intervention varied and examined: setting (health clinic vs community venues); provider (healthcare worker vs. Peer Motivator—i.e., a trained individual who lives in the same neighborhood she serves, who has conquered her own tobacco addiction and remained smoke-free for at least a year); curriculum; type of intervention; use of nicotine replacement therapy (NRT); number of classes (ranging from one per week for 12 weeks to single sessions); and type of incentive.

The purpose of this study was to explore the experiences of participants who attended CEASE smoking cessation classes in Southwest Baltimore. A qualitative assessment was undertaken to compare, analyze, and understand the differences between those who quit smoking (doers) and those who did not (non-doers), and to document the motivators and predictors of success within this underserved population.

Methods

Background and History

Since 2008, CEASE has implemented cessation interventions in Southwest Baltimore in phases, with the lessons learned from each phase informing the subsequent phases. Results from the first three phases of CEASE are available at Sheikhattari et al. (Examining Smoking Cessation in a Community-Based vs. Clinic-Based Intervention Using Community-Based Participatory Research) [14] and Estreet et al. (Improving Participants’ Retention in a Smoking Cessation Intervention Using a Community-Based Participatory Research Approach) [15]. The lessons learned from the first three phases of CEASE include:

- A group counseling approach works as well as individual counseling, but is much more cost-effective.
- Smokers do not like going to a community health center to receive services; they much prefer neighborhood locations like schools, churches, and community centers.
- Medical personnel are not as effective in leading cessation classes as are Peer Motivators (PMs).
- The more sessions a smoker attends, the greater are his chances of quitting. Attrition is high, but retention is the best predictor of success.

Study Design and Methods

The current study is a qualitative assessment of CEASE participants based on outcome, i.e., those who successfully quit smoking (doers) and those who did not (non-doers). The study utilizes a phenomenological method of inquiry to explore the experiences of participants who completed the CEASE smoking cessation program. Prior to the beginning of the study, informed written consent was secured from all participants. This research began with individual in-depth interviews (IDI) of two PMs and six participants identified by the PMs. The IDIs were followed by an exploratory focus group discussion (FGD) with four of the PMs. The contents of the IDIs and the PM FGD were analyzed to inform the study questions and the moderator's focus group guides that were developed for all subsequent FGDs. IDIs and FGDs are powerful qualitative methods for capturing the details of complex phenomena by encouraging comprehensive and engaged conversations.

The moderator's guides developed for FGDs with doers and non-doers addressed reasons for smoking initiation, reasons for wanting to quit, reasons for attending the cessation classes, participants' experiences of favorite and least favorite aspects of the classes, and their recommendations for changes. The guides were designed to help facilitators probe important details by asking for clarifications and encouraging in-depth discussion of topics of interest. The focus group guide for doers included additional topics relevant to cessation such as difficulties in quitting, costs and benefits of quitting, and how the doers dealt with stressors in their lives when they no longer smoked.

Approval for this research was secured from Morgan State University's Institutional Review Board before individuals were recruited for in-depth interviews and subsequently, for FGDs.

Recruitment and Data Collection

The recruitment process began with phone calls to individuals included in the participant contact lists that are stored and maintained in the CEASE data archives. To be eligible for the FGDs, participants must have attended any phase of the

CEASE cessation classes. The phone conversations began by confirming the participant's identity and that s/he had attended CEASE cessation classes. Participants were then given a brief overview of the research being conducted. Self-reported smoking status was obtained at the time of the initial screening/recruitment call, and used to assign potential participants to either doer or non-doer FGDs. Participants' preferences and availability were used to schedule the FGDs, which were held in the CEASE office located in the same neighborhood as the long-term CEASE intervention. A \$25 cash incentive was offered to all FGD participants.

Focus groups were facilitated by trained PMs and the discussions were video recorded. A note-taker also attended to record written notes and observations. After each focus group, the video tapes were transcribed, and all names and other identifying factors were removed.

Most of the FGD participants were separated by smoking status, with a total of 11 doers and 35 non-doers. Altogether, 46 CEASE participants attended a total of eight focus groups. These participants ranged in age from 33 to 76 years, with a mean age of 56 years. Eighteen of them were female; 43 of them identified as Black and the remaining three identified as White (Table 1).

Data Analysis

The FGDs generated a large amount of textual information from both doers and non-doers. Transcribed documents were uploaded to Atlas.ti version 7.0 for coding and analysis [16]. Two trained research assistants independently coded two FGD sessions and then met to reconcile differences and create master code books for doers and non-doers. Those same transcripts were then recoded and all other transcripts were coded using the code books. Inter-rater reliability was established and checked throughout the coding process to ensure uniformity.

In reviewing and applying the codes, several themes and subthemes became apparent. The codes, themes and subthemes from the FGDs were compared and contrasted to identify similarities and differences between doers and non-doers.

Table 1 Description of focus group participants

Characteristics	Doers (n = 11)	Non-doers (n = 35)	Total (n = 46)
Age (mean)	53 years	58 years	56 years
Gender			
Male	5	23	28
Female	6	12	18
Race			
Black	11	32	43
White	0	3	3

Results

Reasons for Smoking

The first question asked in all FGDs was: “Why did you start smoking?” Both doers and non-doers identified social pressure, stress, and friends and family who smoked as their most common reasons (Table 2). Non-doers reported more reasons for smoking than did doers, and were more apt to “place blame” on external forces for their continued tobacco habits (e.g., continued stress, bad timing for quitting, negative effects of NRT). Both doers and non-doers identified morning coffee or breakfast as a common trigger for smoking the first cigarette of the day. A few female non-doers reported a desire to curb their weight gain as a reason for their relapse.

Non-doers also spoke openly about prior and current drug use as a trigger for smoking cigarettes. Several non-doers emphasized the addictive nature of smoking. They reported that it had been easier for them to quit illegal drugs and alcohol than it was to quit cigarettes. As one non-doer explained, “Well I kicked dope. I kicked crack. I still smoke reefer. I can’t kick these cigarettes.”

Many participants reported that addiction to nicotine played an important role in why they relapsed into smoking after previous quit attempts. Some who completed the classes as doers mentioned job loss and the abundance of tobacco advertising in their neighborhoods as reasons for

their subsequent relapse. However, stress was reported by both doers and non-doers as the main reason for smoking and the chief barrier to quitting.

Reasons for Wanting to Quit and Quitting

One of the most common reasons for wanting to quit offered by both doers and non-doers was their own health or the declining health or recent death of a friend or family member from cigarettes. As one of the non-doers explained, “That’s my fear. My fear, I am gonna’ be on that oxygen. I’m gonna’ be that woman dragging the oxygen tank down the street. I am so scared of that, but not scared enough to stop. Tell me how crazy that is!” Another frequently mentioned reason for wanting to quit was encouragement from friends and family. A few of the doers and non-doers said that the odor of smoking made them want to quit. As one doer expressed, “I’m a [seamstress] ... I make baby clothes ... And then the smell—even though I stopped smoking, the smell in my house was getting into my fabric and that was, you know, I noticed that and that was something that was gonna’ stop.”

Most non-doers identified the cost of cigarettes as the main reason for wanting to quit. Some mentioned self-determination, i.e., trying to prove to themselves that they could stop smoking, as a reason for wanting to quit. Doers often referred to encouragement from PMs as reasons for quitting. Many doers reported that the use of NRT was an important factor in helping them quit. As one doer said, “I use the patches a lot and I think that’s what really kicked it for me

Table 2 Similarities and differences between doers and non-doers

Themes	Similarities Both groups	Differences	
		Doers	Non-doers
Reasons for smoking	Social pressure Stress Family/friends who smoke	Job loss Advertisements	Prior/current drug use Enjoy smoking
Reasons wanting to quit/quitting	Health Encouragement from friends/family Smell/odor of smoking	NRT helped PMs Well-being of others	Cost of cigarettes Self-determination ^a
Reasons for attending class	Knowledge from class Incentives Desire to quit	Friend/family/PM encouragement/support	Desire to quit
Impact of the classes and various tools from classes	Self-confidence Increased knowledge	Positive health changes	Seeking support Wanting to volunteer Decreased smoking Started praying
Class feedback/recommendations	Class enjoyment ^b Knowledge from class	PM support system Providing more NRT More participants ^c	NRT helped Quitting partners Separate classes by gender

This is not an exhaustive list. The similarities and differences are ordered from most common to least common

^a“Self-determination” refers to the participants wanting to prove to themselves that they could quit smoking

^b“Class enjoyment” refers to the participants not wanting the classes to end

^c“More participants” refers to those in the classes wanting to recruit their family and friends who smoke

because you know the will power ... and even medical issues knowing that I could heal faster if I stopped. But the patches really, really helped.”

Reasons for Attending Cessation Classes

Most participants in both groups indicated that they attended the classes because they were interested in gaining knowledge and information about smoking. Many doers and non-doers indicated that what they learned increased their interest in both quitting and attending classes. Some doers and non-doers said they initially attended the cessation classes to obtain the monetary incentives. As one doer expressed, “Me, what attracted me ... you think you getting something for free (laughter) ... like you can get \$5 if you sign up—all you got to do is sign up.”

A few participants from both groups said that the main reasons for attending classes included their desire to quit and wanting to be “healthier” by not smoking. As one non-doer put it, “I been wanting to stop. I wanna’ stop bad.” Some doers identified encouragement from their friends, family, and PMs as reasons for attending the smoking cessation classes. “What really helped me because [the Peer Motivator] kept popping up at my house like ‘I know you ain’t smoking, I know you ain’t smoking.’” Some doers also indicated that they did not want others to be around their tobacco smoke any more.

Impact of Tools Acquired from the Classes

Most doers and non-doers indicated that their participation in the classes increased their self-confidence that they could quit. Most participants expressed appreciation for what they had learned from the classes. For some doers quitting was a life-changing experience. One doer said, “I didn’t really feel good about myself until I quit cigarettes. I was like if I can do that I can do anything, you know, so it boosted my confidence, my self-esteem.” Many doers and non-doers mentioned that the classes made them smarter. Non-doers said that because of the classes they had learned how to use various methods (e.g., prayer and meditation) to cope with stress and smoke less. Even though non-doers did not succeed in quitting completely, they reported more changes after completing the classes, and listed more reasons than the doers for wanting to continue utilizing the tools, knowledge, and other resources they got from the classes. This may have been because most non-doers still wanted to quit. What they learned helped non-doers in seeking support and trying harder to quit. One non-doer said, “I would say I would like to try harder. Before I went to the class I really didn’t care. I learned a lot so that gives you willpower to try to do more to stop yourself from smoking.” A few non-doers

also reported using NRT more and wanting to volunteer in smoking cessation programs.

Since doers had successfully quit smoking, they offered additional information about how they felt about quitting and how they had succeeded in doing so (Table 3). Most doers reported health-related benefits from quitting. As one doer said, “Well, I would say my health, ‘cause every time I go to doctor’s ... I say, no, I don’t smoke no more, I stopped smoking for around four years and everything. And it’s the best thing.” A large proportion of doers also emphasized the monetary benefits of quitting. As one doer explained, “I was wondering why I was having more money (laughter). I didn’t realize it was the cigarettes till ‘bout at least 3 months.” However, the doers also reported drawbacks and challenges. Many of them mentioned increased cravings for cigarettes. They explained how hard it was to stop the habit, and how difficult it was now to be around others who smoked. One of the main drawbacks to quitting reported by some female doers was the subsequent weight gain. As one female participant said, “Yep, when you stop smoking, that’s when you gain all your weight ‘cause you have a better appetite.”

One of the main differences between doers and non-doers was that doers actively pursued other activities to replace or take their minds off smoking. As one doer mentioned, “Substitute those things for something else that wouldn’t trigger me to want a cigarette and sewing kept my hands busy from doing like this [smoking motion with an empty hand]. Keep my hands busy doing something.” Some participants reported exercising more, and praying and meditating frequently to cope with their new lives as ex-smokers. Most doers said that it took them at least a week, and several said it took longer, to truly decide if they were going to stay quit. “I’d say like the first week, the first week. I knew I had my mind made up after the third session.”

Table 3 Additional themes from doers

Themes	Doers
Benefits of quitting	Health Saving money
Drawbacks/difficulties of quitting	Cravings/habit Other smokers (previously smoked with) Food, eating, weight gain
Alternatives to smoking/stress management tools	Hobbies Exercise Prayer/mantra
Time it took to quit	1 week 5 or 6 weeks At least 12 weeks

This is not an exhaustive list. The items are listed from most common to least common

Class Feedback and Recommendations

Almost all participants—doers and non-doers—indicated that they enjoyed the classes. A comment from one participant was typical: “It was good. It was an all-around good experience. I don’t have no complaints.” Most participants believed that the classes were useful and helped them gain new knowledge. The doers especially appreciated the Peer Motivator support system and reported wanting to recruit their smoking friends and family members for participation.

The non-doers provided more feedback and recommendations than the doers. Non-doers generally wanted the classes to be better organized, including starting on time. They wanted more counseling, less talk about smoking, larger incentives, and to have NRT distributed at the beginning of classes. Some non-doers suggested pairing “quitting partners.” Some non-doers wanted smaller classes. Most participants wanted the classes to continue longer than they did. As one non-doer said, “If it was something that we had to do again, we would have made it a little longer than 12 weeks, and that was the truth about it.” One female participant believed that separating men and women might improve the class dynamic. Most doers reported being very comfortable in the classes because nobody was “judged.” They saw the PMs as role models who actively supported their efforts. Some doers recommended providing more NRT and having more classes so that more people could join and benefit from them.

Discussion

Both doers and non-doers began smoking for similar reasons, including social pressure from other smokers and stress—specifically stressful life events such as losing a job. Prior research has associated high levels of stress among persons of lower SES with starting to smoke, increasing the number of cigarettes they smoke, and being less successful at quitting [17]. Doers in this research identified smoking portrayed in the media and cigarette advertisements as reasons why they had started to smoke. Tobacco companies know very well who their current and potential customers are and use tobacco outlet window advertisements and coupon distribution to target low-SES communities and individuals [18]. Tobacco retailers are much more numerous and more prominent in lower-SES neighborhoods [19].

Both doers and non-doers mentioned that smoking was harder to quit than illegal drugs, which many persons in both groups had succeeded in quitting. In fact, increased cigarette smoking may be a way of dealing with the adverse effects of quitting illegal drugs [20, 21]. Both doers and non-doers identified the first cup of coffee in the morning as a strong cue for the first cigarette of the day

[22]. The strongest incentive for quitting for both doers and non-doers was the adverse effects of cigarettes on their health. This finding is consistent with previous research showing that smokers’ desire to quit stems primarily from knowing the deleterious effects of tobacco use and wanting to improve their own health [23–25]. Most non-doers also specifically mentioned the cost of cigarettes (the average price per pack in Maryland is currently \$7.75) as an incentive to quit; this has also emerged as one of the most frequently cited reasons for quitting [23, 24]. It was poignant that several non-doers mentioned self-determination as a reason they wanted to quit, even though they had not succeeded in doing so. Previous research has found self-determination to be an important precursor to successfully quitting [26, 27]. The doers credited their use of NRT and the ongoing encouragement from PMs. This confirms previous findings that nicotine replacement therapy and social support help smokers quit [28, 29].

Although participants noted that financial incentives to attend cessation classes served as initial inducements, both doers and non-doers identified what they learned in the classes as increasing their interest and desire to participate. This confirms previous research findings that enjoying cessation classes increases smokers’ chances of quitting [30]. Both doers and non-doers credited encouragement from their family and friends, and not wanting to expose nonsmokers around them to secondhand smoke as inducements for participation. These factors also confirm previous research findings that social support and the well-being of others encourage smokers to join cessation programs [28, 31].

Both doers and non-doers expressed appreciation for what they had learned, and credited the classes with giving them increased self-confidence. Compared to the doers, non-doers reported more changes from the classes, and more reasons to continue using the knowledge and tools they had acquired. A few of the non-doers even expressed a desire to teach cessation classes in the future. This seems to reflect a desire among non-doers to continue trying and, hopefully, to eventually succeed in quitting. A substantial number of doers noted how much more disposable cash they had since quitting smoking. Doers also reported diverting their attention to other habits, including exercise, prayer and meditation. There is evidence that behavioral activation can facilitate smoking cessation [32]. Behavioral activation is a brief intervention approach that seeks to provide clients contact with more valued environments through systematic efforts to increase rewarding experiences/enjoyment of daily activities, which may simultaneously reduce negative affect and improve positive affect. In the present study, the increased rewarding experiences included exercising more, and praying and meditating frequently to cope with their new lives as ex-smokers. Drawbacks reported by doers included the difficulty they now had in being around

others who smoke, and, as reported by some female doers, the weight they had gained since quitting.

Non-doers provided more recommendations for changing the classes than doers did. They seemed to want more attention, including more and smaller classes. Doers expressed their appreciation for not being judged, and for the support they got from the PMs.

Our study had limitations. By its nature, community-based work can be disorganized because communities do not stand still, and far fewer factors can be “controlled” in real life than in laboratory research. For example, being a Peer Motivator was only part-time work, so several of the PMs exited the project when they secured better employment. Fortunately, the great benefits of using people to lead the cessation classes who live, work, play, and pray in the neighborhoods they served far outweighed the loss of control over specific variables.

Conclusion

Our qualitative study discovered that the most common feedback from both doers and non-doers was their appreciation for the opportunity to participate in this community-based cessation effort, and a desire that it go on longer and reach out to more smokers. Even though the majority of focus group participants did not successfully quit smoking, it is worth noting that nearly every participant (doers and non-doers) wanted the classes to continue and expand. The people CEASE touched clearly appreciated the effort and the attention, even if they had not succeeded in quitting their tobacco habits. For many of these smokers, CEASE became the social capital they needed to conquer the most addictive drug we know.

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Compliance with Ethical Standards

Conflict of interest The authors whose names are listed immediately above certify that they have no affiliations with or involvement in any organization or entity with any financial interest (such as honoraria; educational grants; participation in speakers’ bureaus; membership, employment, consultancies, stock ownership, or other equity interest; and expert testimony or patent-licensing arrangements), or non-financial interest (such as personal or professional relationships, affiliations, knowledge or beliefs) in the subject matter or materials discussed in this manuscript.

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