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## **A Qualitative Examination of Barriers and Motivators to Smoking Cessation among HIV Positive African American MSM Smokers**

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### **ABSTRACT**

**Purpose:** To identify barriers and motivators to smoking cessation among HIV-positive African American men-who-have-sex with men (MSM) who smoke.  
**Procedures:** A convenience sample of smokers was recruited for this study using a range of outreach approaches. Focus groups (N = 4) were conducted that examined: quit experiences, barriers to and motivators of cessation, cultural beliefs, and community norms. Established qualitative methods were used to conduct and analyze the focus groups.

**Findings:** Participants (N = 31) reporting being diagnosed with HIV+ for M = 12 years. More than 60% reported a quit attempt in the past year. Knowledge was about effective smoking cessation treatments and the negative impact of smoking on the management of HIV was low. Barriers to smoking cessation included: low-self-efficacy, environmental, cultural, emotional, and provider factors. Motivators included: finances, health, appearance, and changing social norms.

**Conclusions:** Study findings point to a number of barriers to and facilitators of smoking cessation in this population. Study results have implications for clinical practice, outreach and awareness campaigns, and future research.

**Keywords:** MSM, Tobacco Use, HIV infection, Barriers to Cessation, Qualitative research

## INTRODUCTION

In the United States, smoking prevalence rates have declined steadily over the past three decades to a low of approximately 20% (Dube et al., 2010). However, continued efforts are needed to further assist those subpopulations that are disproportionately impacted by tobacco use (United States, 2010). For example, rates of smoking are particularly high among HIV positive (HIV+) individuals. Depending on the characteristics of the study sample (e.g., race/ethnicity, socioeconomic status, gender) smoking prevalence rates among HIV+ individuals range from 50% to 70% (Burkhalter, Springer, Chhabra, Ostroff, & Rapkin, 2005; Crothers et al., 2005; Miguez-Burbano et al., 2005; Tesoriero, Gieryic, Carrascal, & Lavigne, 2010). Historically, HIV+ smokers have not been targeted for smoking cessation interventions due to the poor disease prognosis. However, with the advent of antiretroviral therapy (ART) regimens, HIV+ individuals are now living longer and are vulnerable to both the long- and short-term impact of tobacco use (Miguez-Burbano, et al., 2005).

Based on epidemiological trends we can anticipate that racial and ethnic minorities may be especially vulnerable to the detrimental impact of smoking on HIV-related health outcomes. In the United States, African Americans represent nearly half (45%) of all new HIV infections each year (Lansky et al., 2010). Young African American men who have sex with men (MSM) are especially hard-hit, comprising more than three-quarters of new infections among young black men (Marks et al., 2009; McQuillan, Kruszon-Moran, Granade, & Feldman, 2010). Studies also suggest that low income HIV+ African Americans present to treatment with high rates of health compromising behaviors such as tobacco use (Webb, Vanable, Carey, & Blair, 2007). As such, additional research is needed to inform the development of effective smoking cessation treatment approaches in this vulnerable and underserved population of smokers (Niaura et al., 2000; Pines, Koutsky, & Buskin, 2011; Reynolds, 2009).

### Smoking and Health Consequences for HIV+ Smokers

Smoking is a significant factor in the course, management, and outcomes of patients with HIV/AIDS (Bing et al., 2000; Crothers, et al., 2005). For instance, moderate and heavy smoking has been linked to greater frequency and degree of physical health symptoms compared to HIV+ nonsmokers (Webb, et al., 2007). Among HIV+ persons, smoking has also been linked to an increased risk for the development of AIDS and non-AIDS related cancers (Pakkala & Ramalingam, 2010; Shiels, Kirk, Cole, & Poole, 2009), cardiovascular disease (Capili, Anastasi, & Ogedegbe, 2011) and respiratory and lung disease (Gingo et al., 2010). Further, tobacco use has been associated with a myriad of other negative health consequences including reduced quality of life, increased incidence of pneumonia and other AIDS defining illnesses and an increased mortality risk compared to HIV+ non-smokers (Biener & Abrams, 1991; Crothers,

et al., 2005; Helleberg et al., 2013; Miguez-Burbano, et al., 2005). The clinical and public health significance of reducing smoking among African American HIV+ MSM is further underscored when one considers that smoking may reduce the benefits of antiretroviral medications resulting in higher viral loads and infectiousness (Clifford et al., 2005).

#### Factors Associated with Smoking among HIV+ Persons

A Socio-Ecological Model (Duncan, Jones, & Moon, 1996) is a useful heuristic for understanding the factors that may contribute to smoking behaviors among HIV+ persons. According to this framework, health outcomes stem from factors that operate at the level of the individual, community, and society (Duncan, et al., 1996). Individual level determinants such as demographic, psychosocial variables, and cognitive variables are known contributors to smoking initiation and maintenance (United States, 2010). For example, among men in the general population individual level variables associated with smoking include younger age (Hyland et al., 2004; Lampinen, Bonner, Rusch, & Hogg, 2006), belonging to a racial or ethnic minority group, and lower income or education level (United States, 2010). Psychosocial factors also influence smoking behaviors including heavy alcohol consumption (Hashimoto et al., 2001; McKirnan, Tolou-Shams, Turner, Dyslin, & Hope, 2006) and the presence of depressive symptoms (Breslau & Johnson, 2000; McKirnan, et al., 2006). Smoking behaviors are also influenced by cognitive factors such as smoking-related knowledge (Song & Glantz, 2008), expectancies (Ashare et al., 2007), and stage of readiness for cessation (Prochaska & Velicer, 1997).

Individual level predictors of smoking behaviors specifically examined among HIV+ individuals has shown that fatalism related to their HIV status (Reynolds, Neidig, & Wewers, 2004), higher rates of alcohol and marijuana use (Burkhalter, et al., 2005; Galvan et al., 2002; Gritz, Vidrine, Lazev, Amick Iii, & Arduino, 2004), elevated rates of depression and other psychiatric co-morbidities (Pence, Miller, Whetten, Eron, & Gaynes, 2006; Reynolds, et al., 2004), and misinformation regarding perceived benefits of smoking in raising T-cell counts and/or helping to fight infections (Shuter & Bernstein, 2008) all contribute to a greater likelihood of smoking.

Community level factors or factors associated with the experienced social environment (Whitehead, 1991) have also been demonstrated or hypothesized to contribute to the elevated smoking prevalence rates among HIV+ persons. These factors include elevated stress associated with social stigma due to sexual orientation and HIV status (Meyer, 2003; Venable, Carey, Blair, & Littlewood, 2006), more permissive social-network norms related to smoking (Ryan, Wortley, Easton, Pederson, & Greenwood, 2001), fewer deterrents to smoking (Levy, Ross, Powell, Bauer, & Lee, 2007) and less support to quit smoking (Luker, Chalmers, Caress, & Salmon, 2007). Societal or institutional factors associated with

smoking behaviors include less access to health care in general and health promotion services such as smoking cessation (Niaura, et al., 2000).

#### Specific Aims

To date, the available research on smoking among HIV+ MSM has primarily been conducted with White gay male smokers. Consequently, little is known about the factors associated with smoking in the populations who are most disproportionately burdened by HIV infection including racial/ethnic minority men. Guided by the Socio-Ecological Model (Whitehead, 1991), the purpose of this study was to examine barriers to and motivators of quitting among HIV+ African American MSM that operate at the level of the individual, community and society.

### **METHODS**

#### Recruitment and Enrollment

This study was conducted at a community-based health center specializing in provision of health and social services to gay, lesbian, bisexual, and transgender populations in Chicago. Data were collected as part of a larger project aimed at developing a culturally targeted smoking cessation intervention for HIV- infected African American MSM smokers. Participants were recruited using a range of strategies including referrals from medical providers, posted flyers, internet postings, and word of mouth. Interested individuals were screened for eligibility via the telephone and those who met eligibility requirements were scheduled for one of four focus groups. Eligibility criteria included: a) male gender, b) aged 21 years of age or older, c) African American race/ethnicity, d) HIV-positive (self-report), and e) primary attraction to men or both men and women, and f) current smoking (smoke 3 or more days per week). Number of days smoking was included as an eligibility criterion to ensure that participants were regular smokers who would be better able to discuss factors associated with being a smoker. Of the 40 potential participants screened for participation, 37 were eligible and agreed to participate in the study (93%). Of those who were both interested and eligible, 31 attended one of four scheduled focus groups (83.7%). We asked all volunteers how they learned about the project. The Institutional Review Boards (IRB) of the University of Chicago and Howard Brown Health Center (HBHC) approved the research protocol described in this report.

#### Focus Group Procedures

Focus groups are a useful tool for identifying important constructs and mechanisms to target interventions (Denzin & Lincoln, 1998; Morse, 1994), particular with references to populations about which very little information exists (Matthews, Sellergren, Manfredi, & Williams, 2002; Matthews et al., 2000; Patton, 1987). A total of four focus groups were completed with 6 to 9

participants in attendance at each focus group session. As participants arrived for each scheduled focus group session, informed consent was obtained by research staff members and participants completed a brief (5-10 minute) self-administered paper-and-pencil survey measuring demographic characteristics (i.e., age, education, income, sexual orientation), smoking behaviors (i.e., number of cigarettes smoked daily, readiness to quit), quit attempts (i.e., number of quit attempts in the past 12 months), and future plans to quit smoking (i.e., stage of readiness to quit). The survey data were collected to obtain descriptive data on study participants and measurements of current smoking behaviors.

After completion of the self-administered portion of data collection, participants were guided through the focus group process, which was conducted according to standardized methodology established by Krueger ((Krueger, 1994). This method includes using trained moderators (N = 3) to guide the structured discussion, conducting immediate post-session facilitator debriefing to highlight important findings, and careful review of transcribed audiotapes. The moderator's guide covered the following broad topic areas: general and culturally specific triggers for smoking, smoking contexts, community norms associated with tobacco use, previous quit experiences, barriers and facilitators to smoking cessation, and minority specific stressors (i.e., discrimination and social stigma and factors that may decrease motivation for quitting). Each focus group lasted 1 ½ to 2 hours and was audio recorded and professionally transcribed. The final sample for both the questionnaire and focus groups included 31 adult African American HIV male smokers. Saturation (i.e., the point at which no additional themes are generated in subsequent rounds of data collection; (Krueger & Casey, 2000; Morse, 2000) was reached in themes and participant opinion with our sample of 31 participants. Participants were compensated \$25 for completion of the smoking questionnaire and for focus group attendance.

## **RESULTS**

### Data Analysis

Focus group audio recordings were transcribed verbatim and analyzed according to the methods of Framework Analysis (Ritchie & Spencer, 2002). The accuracy of the transcripts was verified by research team members by reviewing each focus group transcription while listening to the audiotape session. Qualitative data transcribed from the focus group sessions were coded and managed using a computer software package, QSR NUD-IST NVivo 8.0 (Richards, 2000). Literature reviews, investigators' a priori understandings, the moderators' guide and the qualitative text itself informed the process of the thematic identification (Shontz, 1985). While keeping the original evaluation questions in mind, statements were sorted, categorized and arranged into themes. When necessary, themes were modified or further broken down into subthemes.

Thematic analysis of the participant responses focused on the general agreement among participants in each group (e.g., was this attitude or belief held by other members in the same focus group), consistency of findings across groups (e.g., was this attitude or belief also reported by participants in the study who were in different focus groups), and concordance among the assessments of observers (e.g., was there agreement among observers about that attitude or belief that was being expressed). Two independent raters reviewed the transcripts for key themes and the consistency of responses among participants and across groups. Coding categories were then used to summarize key ideas in the combined focus groups as described by Stewart and Shamdasani (Stewart & Shamdasani, 1998). This iterative process resulted in a systematic and exhaustive analysis of the data.

#### Demographic and Smoking Characteristics

The final sample for focus groups consisted of 31 participants (see Tables 1 and 2). The mean age of participants was 41.1 years old (SD=9.9). Forty-five percent of the sample reported having a high school education or less. Participants had been diagnosed with HIV infection for an average of 11.6 years (SD=6.8) at the time of the study. The majority of participants were sexual minority men including 74% who reported only same sex partners and 16% who reported both male and female partners. Nearly three-fourths (71%) of the sample were daily smokers with the mean number of cigarettes smoked per day at 10.0 (SD = 14.9). Sixty-one percent of the sample reported smoking a cigarette within 5 minutes of waking up (an indicator of addiction). Sixty-seven percent of the sample reported making a serious quit attempt in the previous 12 months (see Table 2).

**Table 1**

*Demographic Characteristics of Focus Group Participants (N =31)*

Characteristics	N (%)
Age Mean = 41.1 (SD=9.9)	
21-29	4 (12.9)
30-39	8 (25.8)
40-49	13 (41.9)
50 and older	6 (19.3)
HIV+ Mean years = 11.6 (SD = 6.8)	
Linked to medical care	27 (87.0)
Taking HIV meds	25 (80.6)
Primary sexual attraction	
Opposite sex	1 (3.2)
Same sex	23 (74.1)
Both sexes	5 (16.1)
Refused	2 (6.4)
Education	
Less than high school	5 (16.1)
High school diploma	9 (29.0)
Vocational / Some college	11 (35.4)
College degree	6 (19.3)
Insurance coverage	
None	10 (32.2)
Private (paid by employer)	3 (9.6)
Government (Medicaid/Medicare)	18 (58.0)
Self-reported health	
Excellent	8 (25.8)
Very good	3 (9.6)
Good	14 (45.1)
Fair/Poor	6 (19.3)
Employment status	
Unemployed	21 (67.7)
Part-time	4 (12.9)
Full-time	4 (12.9)
Unemployed – students status	2 (6.5)

**Table 2**  
*Smoking Characteristics of Participants (N =31)*

Smoking Variables	Total*N (%)
Age Regular Smoking M = 18.2 (SD = 3.2)	
Days/week smoked in last year	
Daily	22 (70.9)
5-6 days/wk	6 (19.3)
3-4 days/wk	1 (3.2)
1-2 days/wk	1 (3.2)
< 3 times/month	0 (0)
Missing	1 (3.2)
Cigarettes smoked/day (median)	10.0 (SD = 14.3)
Smoke within 5 minutes of Waking	19 (61.2)
Smoke mentholated brand	26 (83.8)
Made a serious quit attempt in past 12 months	21 (67.7)
Stage of Readiness to Quit	
Often think about quitting but no plans	8 (25.8)
Plan to quit in next 30 days	7 (22.5)
Plan to quit in next 6 months	9 (29.0)

Note: \*Doesn't sum to 100% due to rounding

### **Summary of Qualitative Results**

Key qualitative findings are described below and are organized according to two categories: barriers and motivators that operate at the level of the individual, community, and society. Illustrative comments from focus group participants are included where appropriate.

### **Individual Level Barriers to Smoking Cessation**

#### **Stage of Readiness to Quit Smoking**

*"I said, look, I already gave up the crack, the heroine, all that other crap. Can I please have my cigarettes?"*

*"I don't know . . . . I can't foresee myself not having cigarettes."*

*"I think I am ready to stop and I never had a desire to quit before."*

Self-rated stage of readiness for quitting is strongly associated with actual changes in smoking behaviors (Biener & Abrams, 1991). Stage of readiness



includes four stages: precontemplators (i.e., not at all interested in quitting), contemplators (i.e., considering quitting but have not made any actual behavior changes), action (i.e., have set a quit date or have taken steps toward quitting) and the maintenance stage (i.e., have actually quit smoking). The percentage (52%) of smokers interested in quitting in our sample was somewhat lower than smokers in the general population (70%) or other samples of HIV+ smokers (63%; (Fiore & Jaen, 2008; Marmy, Bahrs, & Martinez, 2002). A small minority of participants was in the precontemplation stage and not interested in quitting. Many individuals in this group expressed resentment in response to pressures to quit smoking after they have already given up what were perceived to be more serious substances. Nevertheless, the majority of participants were in the contemplation phase, that is, they reported seriously considering a quit attempt within the next six months. Many of the participants in this stage reported a growing desire to be smoke free. Others had been making changes in their smoking behaviors such as reducing the number of cigarettes smoked daily. Those participants expressed a sense of urgency about quitting, yet were frustrated by their difficulties in achieving complete abstinence.

#### Low Self-Efficacy for Quitting

*“I tried to stop but I don’t really think it is possible.”*

*“I’ve been trying to quit smoking for six or seven years now.”*

*“You have been smoking for 25 years and you can’t just quit in 30 days.”*

Across each of the focus groups, members consistently reported difficulty with low self-efficacy for smoking cessation. The majority of smokers described a long history of their own failed quit attempts and observing others around them struggle with smoking cessation and was extremely pessimistic about their ability to quit and remain abstinent. Low self-efficacy was also expressed among those who were interested in quitting. For them, anxiety about setting a hard and fast quit date was high. They were concerned and perhaps realistic about the difficulties they would encounter in trying to quit due to multiple factors including high nicotine dependency and withdrawal symptoms, reliance on smoking for stress management, few deterrents to smoking, and high environmental exposure to tobacco. Participants felt that smoking cessation treatments would need to be scheduled for a longer time period in order to help them be successful in their quit attempts.

#### Coping with Stress

*“It’s stress [in response to a question about the reasons for smoking].”*

*“No sooner my boyfriend and I got into an argument I started right back (smoking).”*

Smoking in response to emotional stress is well-established within the smoking cessation literature. Similarly, individuals in our focus groups were consistent in their description of emotional stress as the primary reason for using tobacco. While some participants linked their experiences of stress with their health and HIV status, many more discussed smoking as a means of coping with general life stressors such as financial and relationship issues. Relationships were described as particularly salient stressors and primary reasons for relapse following previous quit attempts.

#### Substance Use

*“If you’re out with your crew, you are gonna be having a drink or two. You are all going to be going out and celebrating so you smoke.”*

*“If I don’t stop drinking and/or smoking pot, it would be a miracle to stop smoking.”*

In addition to the social element, frequent attendance in bars has also been associated with smoking in the LGBT communities (Matthews, Hotton, DuBois, Fingerhut, & Kuhns, 2011). Our participants spoke of the strong associations between drinking and other drug use and their tobacco use. For them, drinking and smoking went together as a conditioned association. In addition, they spoke of generally poor health decision-making while drinking. While some participants felt they would not have to give up drinking in order to quit, the majority of participants generally agreed that alcohol use would be a huge risk factor for smoking.

### **Community-Level Barriers to Smoking Cessation**

#### Community Environmental Factors

*“Black folks, instead of buying a pack, they’ll go and buy loose squares all day like 3 for \$1.00.”*

*“I think advertisement has had a very big impact on our community. I cannot go into our community without seeing the Newport signs.”*

Examining the environmental factors that contribute to health risk behaviors has been identified as an important area of research (Hatzenbuehler, Wieringa, & Keyes, 2011). As illustrated by the quotations above, participants reported a range of environmental factors that serve as barriers to smoking cessation. Participants specifically cited the high levels of smoking in the largely low-income and segregated African American communities in which they reside. Members noted a number of consequences associated with the ubiquitous presence of cigarettes. For example, smoking is perceived to be the “norm” and thus, they encounter few deterrents to smoking in their living, social, or community settings. Focus group participants reported that the majority of their

friends were also current smokers. Those participants who were interested in making a quit attempt reported limited support for their cessation desires. Temptation to smoke was high when socializing and they reported easy access to cigarettes by “bumming” from a friend or buying “loose squares” from the local convenient stores or from community members who sell tobacco products illegally. Participants linked the strong brand preference to direct targeting and marketing from the tobacco industry. They pointed to advertisements of different types of cigarettes in the gay male community compared to their own communities, the preponderance of Newport advertisements, and free “give-aways” at bars and free coupons in the mail. Similar to the smokers in the general population, living with a partner who smokes was cited as a significant barrier to cessation.

#### Social Factors

*“I smoke to fit in at the bar”.*

*“I smoke to pick up older men.”*

*“Truth be told, I don’t know if I have the where-with-all to go and hang out with my friends and have a couple of beers . . . . and then they go to step out (to smoke a cigarette) that I could just sit there. I just don’t see that happening.”*

A range of social was reported as barriers to smoking cessation. Historically, bars have been an important social venue for the gay community and a means for meeting both friends and intimate partners. As such, a number of social issues associated with the “bars” were noted. Participants reported smoking to feel more relaxed and to “fit in” socially. Younger men reported smoking as a means for looking more mature and as a way to attract older men. Because of the social pressure of being viewed as popular, participants reported that it would be hard to be left alone at a table while their friends went out for a smoke break. Some men reported starting to smoke as a way of “seeming cool” or to “fit in” with their peer group.

#### Cultural Factors – Sexual Orientation

*“For my age group, it (smoking) was part of the culture for gay men.”*

*“Smoking doesn’t fit the picture of MSM. When I think of MSM, the word that comes to mind is working hard and jogging.”*

*“I smoke to attract older men.”*

Anti-tobacco advocates suggest that the tobacco industry has successfully marketed smoking as part of the “gay cultural image.” We asked participants about perceived associations between smoking and the gay culture. Many participants agreed that smoking has been associated with personal characteristics such as “masculinity”, “sexy”, and “rebellious”; however, they were mixed in

terms of whether they thought smoking was associated with being a gay male or the gay male community. The older study participants suggested that when they were younger smoking was very much associated with the “gay life.” However, younger study participants felt that smoking was antithetical to current gay male culture. For them, the image of a gay male was one of fitness and health consciousness; especially White gay males. Both younger and older smokers alike reported a heightened self-consciousness and embarrassment about being a smoker when they were in predominantly White gay male neighborhoods or establishments.

#### Cultural Factors – Race

*“It seems everyone in the black community smokes.”*

*“And Black for me is Newports or Kools”*

Discussions of cultural factors also centered on smoking and the African American community. As noted earlier, participants perceive smoking to be highly normative and that patterns of tobacco purchasing differ based on race (i.e., purchasing loose cigarettes). Another difference noted was the preference for smoking mentholated cigarettes, and in particular two brands of mentholated cigarettes – Newports and Kools. The participants described that cigarette brands are now highly racialized, that is, Newports are seen by African Americans as the “black cigarette.” One participant spoke about being teased because he smoked a brand that was outside of the two preferred brands in the African American community. Responses from focus group participants suggest a perception that smoking specific types of cigarettes is a part of an urban black identity to a stronger degree than they associated smoking with current gay male culture.

#### Minority Stress

*“Because you get bashed both physically and verbally in certain areas of the south side because you are gay.”*

Across each of the focus groups, participants reported high levels of life stress and the use of smoking to help alleviate or cope with stress. The sources of stress were varied and included general life stress as well as issues related to minority stress. The men reported elevated stress associated with both their sexual orientation and HIV status and contextualized their experiences of discrimination in terms of place and time. For example, men described the homophobia that they experience in their racially segregated communities. While many acknowledged that the discrimination had improved, many echoed the sentiment that gay men needed to be able to “fight to survive”. In addition, the men have experiences of rejection and exclusion based on their smoking status when they are in the White gay male community. Smoking as a means for coping with stress is commonly reported in the literature. Similarly, our participants

identified the lack of other effective means for managing stress as a key barrier to readiness for smoking cessation and as a primary cause of relapse.

### **Societal Barriers to Smoking Cessation**

#### **Access to Treatment**

*'I did the cold turkey and stopped for 2 weeks.'*

*"He (the doctor) knows I smoke. He tells me to quit but doesn't tell me how."*

*'My doctor suggested I stop smoking. He says my cells have to work to repair my lungs so bad that they don't have time do anything else.'*

Despite disproportionate levels of tobacco usage and more severe health burdens from tobacco-related disease, access to evidence based treatments are limited for African Americans and almost non-existent for HIV+ smokers (Fiore & Jaen, 2008). In general, African Americans may experience heightened barriers related to access to transportation and childcare costs (Woods et al., 2002), medical mistrust (Woods, et al., 2002), perceived stress (Lacey et al., 1993), and knowledge (Fagan et al., 2004) and acceptability of effective treatment interventions (Audrain-McGovern, Hughes Halbert, Rodriguez, Epstein, & Tercyak, 2007; Mazas & Wetter, 2003). In addition, inclusion of African Americans is limited, thereby, limiting knowledge about effective smoking cessation treatment options for this population. Previous studies of smokers report that a significant proportion of smokers (22%) endorsed the belief that smoking helps to fight infections (Shuter & Bernstein, 2008). The smokers in our sample were aware of the general risks associated with smoking. However, they were uniformly surprised to learn that smoking reduces the effectiveness of anti-retroviral medications.

Another barrier to smoking cessation treatment for HIV+ smokers is that the majority of their health care is focused on HIV treatment. Participants reported limited assistance with general health promotion concerns that were unrelated to HIV, such as smoking cessation. However, participants were mixed in their assessment as to whether their providers advised them to quit smoking and to what degree the provider helped them access evidence based treatments. A factor that may have also contributed to previous failed quit attempts among group participants was the limited use of evidence based treatments such as nicotine replacement therapies (NRT). Consistent with African American smokers in general (Fu et al., 2008), acceptance of NRT as a means for improving quit outcomes was limited.

### **Individual-Level Motivators of Smoking Cessation**

#### **Physical Health**

*“I don’t go to the hospital as often when I’m not smoking.”*

*“Smoking might kill my body quicker than HIV.”*

*“I found my blood pressure raised by smoking these (cigarettes).”*

*“But I have been told a million times – you’re liver is gonna turn to garbage. But I still pick up a cigarette everyday in the morning. I pick it up in the afternoon.*

*“If you look at it, my father died of lung cancer.”*

Participants were aware of the negative consequences of smoking on their health in general and to a lesser degree the impact of their smoking on the management of their HIV infection. Many participants reported periods of abstinence and were able to link those periods of abstinence with fewer hospitalizations and respiratory illnesses. The majority of participants were also living with other chronic illnesses such as diabetes and hypertension. They appeared knowledgeable about the relationship between smoking and lung cancer as well as the negative consequences for the management of their other chronic illness. As a result of this knowledge and personal experience with health problems caused by or exacerbated by smoking, several participants were strongly motivated to quit smoking. Yet, others were not. A family history of smoking related deaths seemed to heighten awareness of smoking related risks but did not appear to be a strong motivator to quit smoking.

#### **Personal Appearance**

*“It makes me look older.”*

*“I just abhor the smell of smoke.”*

*“You have to look good and smell good.”*

Concerns about personal appearance were also presented as reasons for quitting smoking. Participants discussed how smoking makes them appear older by contributing to yellowing teeth and wrinkles. The men in the focus groups reported minimal pressure to be a non-smoker in their home communities; however, participants described taking measures to avoid smelling like “a smoker” when they were going out to social events or to church. Participants indicated distain for the smell of cigarettes coming from other smokers, in cars, or on their clothing. Although pressure to quit was minimal, participants seemed to have concerns about the social consequences of smelling like a smoker.

#### **Financial Costs**

*“I want to quit smoking because the cost of cigarettes is too high.”*

*“I figure I’m spending, oh wow, about \$1500 -\$2000 dollars a year on cigarettes. That’s crazy.”*

Similar to the general population, the high cost of smoking served as a salient motivator for quitting. The majority of participants were unemployed and living on vary limited resources. Several participants discussed strategies for obtaining cigarettes when resources were low. As mentioned, participants frequently bought two or three cigarettes at a time from local convenient stores or neighbors known to sell cigarettes from their homes. Raising taxes on cigarettes has been shown to be a central public health approach to reducing smoking prevalence rates, especially among the youth and lower income smokers. However, it is clear that additional efforts will be required at point of purchase locations to prevent the sale of single or “loose squares” and to address the “black market” sell of cigarettes.

### **Community-Level Motivators of Smoking Cessation**

#### **Shifting Social Norms**

*“When I go out places and start smoking I get this ‘stink eye’ from people.”*

*“Wherever I go there is at least one person who is giving the nasty looks because of me smoking.”*

*“I can’t tell you the number of times I have been rejected because of being a smoker. You know what I am saying?”*

*“To this day a lot of people don’t really know [that I smoke].”*

As a result of environmental smoking policies, the general public has a growing awareness of the detrimental health consequences of second hand smoke on theirs and their children’s health. However, research suggests that African Americans typically have fewer restrictions on indoor smoking compared to Whites (Gilman, Abrams, & Buka, 2003). Despite the greater tolerance for smoking among African Americans, study participants were aware of shifting cultural norms about smoking and smokers. Participants consistently linked being a smoker as being a barrier to dating desired partners. Based on the growing negative sentiment around smoking, many described being a “closeted smoker”, that is that they work hard to keep their smoking hidden from others. The shame about being a smoker seemed to be both a barrier and facilitator to smoking cessation. For some, feelings of shame about still being a smoker after many others in the general public have quit motivated their desire to quit. However, feelings of guilt, shame and remorse following lapses generated negative mood states that made it difficult to initiate another quit attempt.

## **DISCUSSION**

Addressing persistent tobacco use in population subgroups disproportionately impacted by smoking is a significant national priority (United States, 2010). Over the past decade, there have been increasing calls for the development of smoking-cessation intervention for HIV-positive individuals. Studies suggest that more than half (63%) of all HIV+ smokers report a strong desire to quit smoking (Mamary, et al., 2002). However, reducing smoking prevalence rates among HIV positive smokers who are at risk for poor general and HIV-related health outcomes will require efforts on multiple fronts. To be effective, smoking cessation treatment programs must take into consideration the individual, community and societal level determinants of tobacco use. Based on study themes identified, additional efforts should be placed on three broad areas to reduce smoking-related health disparities among this subpopulation: clinical practice, outreach, and research.

### Implications for Clinical Practice

Several individual level determinants of smoking were identified that are directly amenable to intervention. The majority of study participants were aware of the general health risks associated with smoking. Alarming, few were aware that smoking reduces the effectiveness of anti-retroviral medications and increases the likelihood of AIDS related cancers. Further, many HIV+ men and women may minimize the impact of smoking on their health (Feldman, Minkoff, & Schneider, 2006; Reynolds, et al., 2004). Clinical providers will need to specifically educate HIV positive smokers and their care-takers about the detrimental impact of smoking. Shuter and colleagues (2012) reported that some HIV- infected individuals mistakenly believe that smoking helps them fight their HIV infection (Shuter & Bernstein, 2008). Educational messages provided by clinicians should address this misinformation. In addition, targeted messages should aim to counteract the low self-efficacy for quitting and the limited knowledge about effective smoking cessation treatments. HIV positive smokers appear to be motivated to quit smoking by both health and non-health related reasons. Educational messages should be developed for HIV+ smokers that increase awareness of the health risks of smoking and appeal to non-health related concerns such as personal appearance.

Consistent education about the detrimental impact of smoking on general and HIV+ related health outcomes should be integrated into routine HIV care. A sizable minority of smokers in our sample were not interested in quitting. Efforts to increase motivation to quit will be important precursors to engagement in a serious quit attempt for smokers not currently considering a quit attempt. Routine assessment of smoking status and readiness should be conducted by health care providers and case managers and other social service providers.



The majority of participants did report planning a quit attempt within the next six months. To help support these efforts, motivational enhancement and guidance on preparing for a quit attempt are appropriate targets for education and counseling. Participants reported an average of 4 prior and unsuccessful quit attempts and were pessimistic about their ability to become non-smokers. Among study participants, use of evidenced-based smoking cessation treatment approaches was generally low. Treatment approaches such as counseling or nicotine replacement significantly improve quit outcomes (Fiore & Jaen, 2008). As such, counseling from health care providers should also include specific advice to quit smoking, prescription of nicotine replacement therapies (NRT), and linking patients to free stop smoking treatments options such as state supported quit-lines (Fiore & United States. Tobacco Use and Dependence Guideline, 2000). Limited knowledge about the importance of NRT, misinformation about harms associated with the use of NRT, and specific barriers to wearing the patch (i.e., skin irritations), was also common and should be directly addressed by providers to increase acceptance and adherence to NRT.

#### Implications for Outreach and Awareness Campaigns

Community-level variables were also strongly associated with smoking behaviors. Smoking was viewed as a pervasive and normative behavior in the low-income and highly segregated African American communities in which the study participants resided. The USDHHS (2011) has identified the important role of community and social support networks in bolstering quitting motivation and improving treatment outcomes among HIV-positive smokers. Consistent with this position, public health campaigns that focus on shifting cultural norms among African American smokers in general will be critical to improving cessation among HIV+ smokers. To increase their level of saliency, media campaigns should focus on specific cultural norms and experiences along with general smoking cessation principles. For example, materials that address the impact of smoking on other chronic conditions, the implications of exposure to environmental and second hand smoking on themselves and their families highlight the harms associated with mentholated cigarettes, and raise awareness about the role of the tobacco industry in targeting African American communities.

Motivators of smoking cessation were mainly consistent with those findings reported from other studies of current smokers. Financial costs, health reasons, and concerns about one's personal appearance are all commonly cited reasons for wanting to quit smoking. Each of these themes has been capitalized on as part of mass media anti-smoking campaigns directed toward the general population. The five strategies outlined by Kreuter and colleagues (2003) is an example of a framework that could be used to culturally target outreach campaigns and to increase the relevance of these messages to the target population (Kreuter, Lukwago, Bucholtz, Clark, & Sanders-Thompson, 2003).

The strategies include the use of (1) peripheral strategies, that is the use of culturally appropriate packaging, including images and exemplars with similar individuals; (2) evidential strategies that enhance the perceived relevance by presenting evidence of impact of smoking on the target population; (3) linguistic strategies, that is using language (vernaculars and idioms) that is consistent with that used by the target population; (4) constituent-involving strategies such as using spokespersons who are members of the target population; and finally, (5) sociocultural strategies, that is, discussing smoking-related risks within the context of the broader cultural environment.

Smoking as a means for coping with stress due to stigma was commonly reported. Stress associated with being a member of a stigmatized minority group is associated with a range of health compromising behaviors such as drinking, smoking and engagement in risky sexual behaviors (Hatzenbuehler, 2009; Hatzenbuehler, Nolen-Hoeksema, & Erickson, 2008). Directly addressing the emotional and human costs to members of the African American community as a result of anti-gay bias will be necessary to address one of the root causes of elevated rates of tobacco among this subgroup.

#### Implications for Future Research

Institutional factors also served as barriers to smoking cessation and should be addressed as part of future research initiatives. For example, despite disproportionate levels of tobacco usage and more severe health burdens from tobacco-related disease (CDC, 2005), adequate representation of African Americans in most smoking cessation clinical trials has been lacking. While there have been some improvements in minority enrollment into smoking cessation clinical trials, the majority of studies are hindered by low representation of non-Whites. Barriers to enrollment include difficulty in minority recruitment and retention, low program completion and follow-up rates, and lower acceptance of and adherence to pharmacological treatments (Dickerson, Leeman, Mazure, & O'Malley, 2009). African Americans may experience heightened barriers related to access to transportation and childcare costs (Woods, et al., 2002), medical mistrust (Woods, et al., 2002), higher rates of ineligibility due to comorbid health conditions (King, Cao, Southard, & Matthews, 2011), and knowledge (Fagan, et al., 2004), lowered rates of acceptance of effective treatment interventions (Dahm et al., 2009). There is a critical need to improve recruitment and retention of African American smokers in treatment trials in order for conclusions to be drawn regarding efficacy of particular treatments for this underserved subgroup and to reduce their health disparities in tobacco-related disease and mortality.

A high percentage of HIV+ smokers report a strong desire to quit (63%) (Mamary, et al., 2002). The few extant studies of smoking cessation interventions among HIV+ smokers have shown promise (e.g., (Elzi et al., 2006; Lazev, Vidrine, Arduino, & Gritz, 2004; Vidrine, Arduino, Lazev, & Gritz, 2006;

Wewers, Neidig, & Kihm, 2000). However, our results suggest that factors associated with race and sexual orientation may provide formidable barriers to smoking cessation among HIV+ African Americans who are MSM. Culturally targeting educational and intervention programs has been shown to increase the effectiveness of health promotion interventions in general (Kreuter, Strecher, & Glassman, 1999) and smoking in particular (Fiore & Jaen, 2008). While our group and others have examined culturally competent treatment in ethnic/racial minority smokers (Matthews, Conrad, Kuhns, Vargas, & King, 2013; Matthews, Sánchez-Johnsen, & King, 2009; Webb, de Ybarra, Baker, Reis, & Carey, 2010), there is a paucity of research examining smoking cessation outcomes treatments for HIV+ MSM smokers and/or racial and ethnic groups within this population. The public health relevance of greater inclusion of HIV+ and other minorities in smoking cessation trials may reduce racial disparities in outcomes, and ultimately reduce tobacco-related disease burden among these underserved populations.

#### Study Limitations

Several limitations of the study methodology should be noted. While a focus group approach is an excellent exploratory method to identify important constructs and intervention targets, it would be helpful to extend these findings to the development of larger scale data collection methods, including survey research methods. In addition, our study included a small sample of the target population, thus future studies should be conducted to determine how these findings may apply within a larger and more representative sample of African American HIV+MSM. Although the experiences of African American MSM were the particular focus of this study, future studies should also examine the factors associated with smoking behaviors and cessation among HIV+ African American women who smoke.

#### **CONCLUSION**

Smoking is a significant threat to the overall health of HIV+ persons. As members of a highly stigmatized minority group, they also experience unique and formidable barriers to smoking cessation. Study findings have important implications for development of culturally targeted education, outreach and smoking cessation treatment programs for this subpopulation.

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