

# REASONS FOR WANTING TO QUIT: ETHNIC DIFFERENCES AMONG CESSATION-SEEKING ADOLESCENT SMOKERS

**Objective:** Enhancing adolescent cessation requires an understanding of approaches that will motivate youths to quit smoking.

**Methods:** We compared reasons for wanting to quit expressed by European Americans to those of African American youths. Adolescent cessation-seeking smokers completed telephone interviews regarding their smoking behavior and reasons for wanting to quit in an open-ended format. Responses were then classified into nine categories.

**Results:** Participants included 1,268 Baltimore-area adolescents (mean age 15.6 ± 1.7 years, 60% female, 58% European American, mean Fagerström Test for Nicotine Dependence 5.8 ± 2.2). While both groups broadly cited health as the predominant reason for wanting to quit, chi-square analyses of further stratification of health into general, future, and current health concerns showed that European Americans were more likely to endorse current health reasons ( $P < .001$ ), while African Americans were more likely to state general health reasons ( $P = .004$ ). European Americans were more likely to state cost ( $P = .002$ ) or to not give a reason for wanting to quit ( $P = .008$ ), while African Americans more frequently reported a lack of positive (pharmacologic or social) reinforcement ( $P < .001$ ).

**Conclusions:** The development of culturally tailored messages may help enhance smoking cessation efforts among adolescents. (*Ethn Dis.* 2006;16:739–743)

**Key Words:** Adolescents, African American, Ethnic Differences, Reasons for Quit Attempts, Smoking Cessation, Tobacco

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## INTRODUCTION

With approximately a quarter of high-school aged children smoking cigarettes, tobacco smoking remains a substantial public health problem in youth. Ethnic differences in youth smoking are illustrated by recent surveys<sup>1</sup> indicating that, among adolescents, 25.4% of European Americans, 11.4% of African Americans, 21.6% of Hispanic Americans, and 11.2% of Asian Americans smoke. These numbers remain high despite numerous reports indicating that smoking is the most preventable cause of illness and death in the United States.<sup>1</sup>

Recent evidence of the impact of motivation on cessation outcome in treatment for adolescent smoking has emerged,<sup>2</sup> yet relatively few studies have reported the specific reasons adolescents may want to quit or engage in smoking cessation treatment. Such information would enable practitioners and researchers to tailor cessation messages to subgroups of adolescent smokers. For example, many smoking cessation studies broadly report that health is the major motivator for adolescents to quit smoking.<sup>3–6</sup> However, health is a non-specific category that may encompass a wide variety of motivations.<sup>7</sup> A general health response might include “it’s bad for me” or “it’s just not healthy,” which do not state a specific concern but instead express a vaguely perceived threat. Problems related to current health status such as phlegm production, cough, throat pain, or frequent upper respiratory infection convey a more specific and immediate concern. A response highlighting future health might reflect a fear of developing a smoking-related disease such as lung

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cancer, emphysema, coronary heart disease, or stroke.

In this regard, a study by Riedel<sup>6</sup> compiled a list of reasons adolescents state for quitting that further stratified health into future vs current health concerns. Participants could endorse multiple reasons. Concerns regarding future health were most frequently implicated for attempting to quit; three quarters of respondents stated this as their motivation, while two thirds mentioned current health. However, adolescents were prompted from a list of suggested responses (as opposed to answering in an open-ended format) and may have chosen health because it was a socially desirable answer. Also, teens were referred to the program by school personnel who caught them smoking.

The observation that knowledge of health, and the risks posed to it, is unclear and/or incomplete, especially among young smokers, tends to limit the inferences of many studies. If adolescents report health as their primary motivation for quitting, yet have a different understanding of the meaning of health, we must further probe their true reasons for wanting to quit. In

addition, because adolescents may perceive health as a socially desired response, other reasons stated for quitting smoking might generate a more accurate picture of true motivations. Previous studies have found that motivated adolescents have a higher rate of successful abstinence when cessation treatment is aligned with their smoking cessation goals.<sup>8</sup> Thus, in order to maximize enrollment in smoking cessation programs and to better support adolescents, targeting their true motivations for quitting while tailoring cessation interventions accordingly seems warranted.

Given the ethnic differences in smoking initiation, trajectory,<sup>9</sup> and cessation,<sup>10</sup> a comparison of European Americans and African Americans is warranted. Evidence shows greater disapproval of smoking in the African American community,<sup>9</sup> but little is known regarding its effects on quit attempts. Also, recent ethnic differences in the number of quit attempts among treatment-seeking adolescents have been reported.<sup>11</sup> Because of these ethnic differences, the objective of the current analysis was to examine ethnic differences in reasons stated by adolescents for wanting to quit smoking. Specifically, we assessed health reasons as relating to current, future, or general health concerns. Further, we compared European Americans and African Americans on nine different categories of reasons for engaging in smoking cessation treatment.

## METHODS

This report was based on data obtained from telephone interviews that screened participants for eligibility for a combined nicotine replacement and counseling cessation study for adolescent smokers who were motivated to quit smoking. The screening protocol was approved by the National Institute on Drug Abuse institutional review

board with a waiver of informed consent. The phone interview required no physical contact with participants and recorded information anonymously. Also, because many teens smoke without their parents' knowledge, obtaining parental consent to ask about this behavior might have impeded the collection of accurate data.

## Recruitment and Participants

Adolescents learned of the smoking cessation treatment trial through radio, television, and print advertisements (as well as word-of-mouth) broadly targeted to 13- to 17-year-old youth in Baltimore, Maryland, who wanted to quit smoking. Volunteers seeking enrollment in a smoking cessation trial (assessing the efficacy of the nicotine patch and gum in combination with cognitive behavioral group therapy) underwent a 20-minute telephone screening interview conducted by trained research staff, led by a clinical social worker. Callers were asked for permission to record their answers and save them anonymously for research purposes. In addition to determining eligibility for participation in the cessation trial, the interview also explored smoking history, demographic characteristics, and general health status (physical and psychological).

## Measures

In order to assess adolescents' motivation to quit, participants were asked questions concerning demographic information and their reasons for wanting to quit smoking. The question "What is your ethnic origin?" was used to determine ethnicity. Participants could endorse one of the following categories: 1) African-American (not Hispanic, North African, or Middle East origin); 2) Native American, Alaskan Native, or Canadian Eskimo; 3) Asian or Pacific Islander; 4) White/European American (not Hispanic, North African, or Middle Eastern origin); 5) Latino/Hispanic; or 6) other ethnicity. For data on

reasons for wanting to quit, adolescents were simply asked, "Why do you want to quit?" Participants could provide any number of reasons. Participants mentioning health were prompted to further specify their reasons. The interviewers recorded the full content of respondents' answers.

## Data Analysis

The sample size was formally established for the treatment trial. No separate power analysis was calculated for the current analysis. All volunteers for the treatment trial with variables of interest were included (94.4% of total callers); the remaining population was 1.5% American Indian, .3% Asian/Pacific, .6% Latino/Hispanic, 3.2% other ethnicity. Chi-square tests were used to analyze categorical demographic variables, and *t* tests were used for continuous variables. Responses to the inquiry regarding reasons for quitting were coded and stratified into nine categories; health, social influence/peer pressure (eg, "parents want me to quit," "boyfriend wants me to quit"), aesthetics (eg, "teeth are yellow," "smells bad"), cost, lack of positive reinforcement (eg, "not getting anything out of it," "tired of smoking"), performance (eg, "I want to play sports," "can't run anymore"), mastery/self-efficacy (eg, "don't want to be addicted"), setting an example (eg, "want to be a good role-model for my sister"), and don't know/other. Health-related reasons were then further stratified into three categories: current health concern (eg, coughing up phlegm, throat irritation), future health concern (eg, don't want to get emphysema, lung cancer, etc), and general health concern (eg, "it's bad for me"). Categories were not mutually exclusive. Ethnic categories were determined by participant self-report. Ethnic differences in responses regarding reasons to quit smoking were compared by using chi-square analysis. Significance for all analyses was set at

**Table 1. Sample demographics**

N=1268	African American (n=529)	European American (n=739)	P value
Participants (%)	42	58	
Mean age in years (SD)	15.8 (± 1.7)	15.5 (± 1.5)	ns
Female (%)	60	61	ns
Male (%)	40	39	ns
Mean cigarettes per day (SD)	11.2 (± 8.2)	16.0 (± 8.6)	<.001
Mean Fagerström score (SD)	5.2 (± 2.3)	6.3 (± 2.0)	<.001

SD=standard deviation.

**Table 2. Health category by ethnicity**

Reason	African American (n=309)	European American (n=454)	P value
Current health	30%	46%	<.001
Future health	23%	19%	.192
General health	47%	37%	.004

**Table 3. Reasons stated for wanting to quit smoking by ethnicity (N=1268)**

Reason	African American (n=529)	European American (n=739)	P value
Health	60.9%	64.8%	.084
Cost	10.8%	16.5%	.002
No reason given	5.9%	9.7%	.008
Performance	7.6%	8.1%	.400
Aesthetics	8.7%	7.6%	.268
Lack of positive reinforcement	11.7%	4.5%	<.001
Social influence/peer pressure	6.6%	7.2%	.395
Mastery/self efficacy	5.5%	4.2%	.176
Setting an example	.8%	1.1%	.390
Don't know/other	1.1%	1.1%	.567

$P<.05$ . All statistical analyses were conducted by using SPSS version 12.0.0 (SPSS, Chicago, Ill).

## RESULTS

### Sample Description

A total of 1347 adolescents participated in the telephone interview, of which 1,268 had data for the variables of interest (were African American or European American). The sample was predominately female. Participants had a mean age of 15.6 years ( $\pm 1.7$ ), and 58% identified themselves as European Americans, while 42% self-identified as African American (see Table 1).

### Reasons for Quitting

Close to two thirds of the total sample identified health as their reason for trying to quit smoking. The overall category of health was stated more frequently by European Americans, but the difference was not significant. However, further stratification of health reasons into general health, current health, and future health revealed substantial differences between the two ethnic groups. Significantly more European Americans than African Americans cited current health as their reason for wanting to quit. General health was cited by African Americans significantly more frequently than European Americans; however, no difference in fre-

quency of reporting future health emerged (see Table 2).

From the original nine categories, cost and lack of positive reinforcement emerged as significantly associated with ethnicity; European American adolescents reported cost significantly more than African Americans. European Americans more frequently gave no reason for wanting to quit. Lack of positive reinforcement was endorsed more by African American adolescents, who indicated that a lack of positive physiological and/or social feedback motivated their attempt at smoking cessation significantly more than for European Americans ( $P<.001$ ) (see Table 3).

## DISCUSSION

This study of the reasons adolescent smokers give for seeking cessation treatment corroborates<sup>3</sup> and extends<sup>6,7</sup> previous reports that health is the most frequently endorsed reason for attempting to quit smoking. Within given responses related to health reasons, significantly more European Americans endorsed current health than African Americans. This finding contrasts that of a report by Riedel et al,<sup>6</sup> which found that African Americans were seven times more likely to implicate current health concerns than Caucasian adolescents. One possible explanation for this variation is that the previous study used a checklist format to probe such reasons. The current study used an open-ended question format that did not limit or direct participants' thinking, thereby allowing greater freedom of response.<sup>12</sup> Another possibility is that participants in the Riedel et al study were referred to a treatment protocol after being caught smoking and were not necessarily motivated to quit. This difference could suggest that reasons for wanting to quit among adolescent smokers may differ depending on stage of change.<sup>13</sup>

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*The social meaning associated with smoking drives adolescent behavior more than knowledge of health effects.*<sup>16</sup>

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One explanation for fewer current health concerns by African Americans may be related to a later mean age of smoking onset in this group.<sup>10</sup> Additionally, African Americans in this sample smoked fewer cigarettes per day, possibly because of slower rates of nicotine metabolism.<sup>14</sup> The lower frequency and duration of smoking among African American adolescents at this early time point may have actually delayed the onset of perceivable health harm, thus generating fewer current health concerns.

General health was stated more frequently by African Americans than European Americans. Although African American adolescents, as a group, did not share the same degree of immediate concerns as their European American counterparts, most African American smokers still recognized smoking as harmful.

Beyond the immediate health concerns associated with smoking, such as decreased physical fitness and respiratory function (coded under performance), adolescents may generally have little basis for perceiving the future health effects of smoking, as their anticipation of the effects of present behavior on health and well-being in the distant future might be considerably limited.<sup>15</sup> The social meaning associated with smoking drives adolescent behavior more than knowledge of health effects.<sup>16</sup> Furthermore, some adolescents associate health-related behaviors with meanings independent of the health outcomes associated with these behaviors.<sup>16</sup> Though stated as their main reason for quitting, teenagers' knowledge of the ill effects of smoking might

not necessarily be their primary motivation for initiating cessation. Therefore, non-health-related reasons (eg, cost and lack of positive reinforcement), despite their lower frequency of response, may actually be more meaningful, especially when coupled with health as a reason for wanting to quit.

Illustrating this latter point, raising the excise for tax on cigarette purchase seems to deter adolescent smoking;<sup>17-20</sup> increased cigarette prices are associated with both a decrease in the prevalence of Caucasian adolescent smokers and a reduction in their cigarette consumption. Consistent with previous small and large sample reports, our results from this clinical sample show a greater proportion of European American adolescents, as compared to African American adolescents, responding that cost motivated their attempt to quit smoking.<sup>5,21</sup>

Absence of both social and physiological reinforcement proved to motivate African Americans more than European American adolescents. Similarly, Orleans et al<sup>22</sup> found that the anticipated increase in social reinforcement after smoking cessation was a great motivator for engaging in cessation treatment among adult African American smokers. Less approval of smoking within the African American community may account for the delayed onset of smoking in African American adolescents.<sup>9</sup> In a study comparing African American smokers with smokers of other ethnicities, African Americans reported less pleasure and fewer perceived health concerns from smoking.<sup>23</sup>

The generalizability of findings from the current study is limited by our use of a sample of highly addicted youths who wanted to participate in a smoking cessation trial, which may have influenced expression of current health concerns. Additionally, many participants reported current respiratory and allergy problems. However, all presented effects remained significant after

controlling for self-reported respiratory problems (data not shown). Also, as mentioned, health (as a socially desirable response) might have been stated to satisfy perceived expectations of the research staff.<sup>7</sup> However, probing beyond health with an open-ended question allowed us to elicit ethnic differences that might inform culturally specific recruitment messages; our open-ended format may have, however, discouraged youth from reporting reasons other than health, which adolescents might not have perceived as appropriate or desirable responses.

Nonetheless, the current study aids our understanding of ethnic differences in motivation for wanting to quit among adolescent smokers. Our findings point to a need for cultural tailoring of messages that support attempts to quit smoking in adolescents. How retention and success rates of adolescents in cessation treatment might be increased by appropriate tailoring of motivational messages to youth should be further assessed.

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