



# Why Do Low Income Patients Use Tobacco?: A Mixed-Methods Study

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## Introduction

Tobacco smoking is the leading cause of preventable diseases and deaths in the United States, resulting in 480,000 premature deaths each year.<sup>1</sup> People of lower socioeconomic status make up a disproportionately higher percentage of smokers in the U.S., 26.3% of people living below poverty level compared to 15.2% of people living at or above poverty level.<sup>2</sup> Lower-income populations are more apt to suffer from smoking related diseases, have less access to healthcare, and are often diagnosed at later stages. People living in rural, deprived areas have 18-20% higher rates of lung cancer than people living in urban areas.<sup>3</sup> Rates of smoking cessation attempts are similar but rates of success are discrepant with lower-income smokers achieving a 34.5% success rate compared to 57.5% for higher-income smokers.<sup>2</sup> There is a higher density of tobacco retailers in lower-income neighborhoods. This leads to greater exposure to tobacco product marketing and more access and availability to tobacco products.

This study is designed to investigate the disparity in smoking amongst socioeconomic classes and identify the factors that promote smoking among people of lower socioeconomic status despite well-known health effects and high cost. Understanding these variables can lead to development of more effective tobacco cessation measures for this population.

## Methods

A total of 33 individual interviews were conducted with low-income smokers from April 2011 to October 2015. All participants were recruited during their routine visits at the University of Arizona Family Medicine Clinic. Individuals were selected based on their current smoking status and willingness to participate. All subjects were categorized as low-income based on their insurance plans.

## Questionnaire

An 18-question survey was developed consisting of questions regarding participants' demographic information, smoking history and dependence, readiness to quit, and motives for smoking.

Participants were asked to report the number of cigarettes smoked per day and when they smoked their first cigarette of the day to determine their level of dependence on nicotine. They were also asked to rate their readiness to quit on a scale of 0-10, 0 being not at all ready and 10 being ready to quit right now. The motives for smoking included: coping with stress, overcoming boredom, improving alertness, enhancing enjoyment, helping to control weight, part of socializing, and because of addiction. We also assessed, whether the participant felt uncomfortable when they were not smoking, if they were aware of associated health problems or were willing to live with smoking-related health problems.

## Acknowledgments

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## Results

### Demographic and Smoking Characteristics

The majority of participants were female, average 45 years of age, smoking on average 14 cigarettes per day. The majority of the participants were highly dependent on nicotine, smoking their first cigarette within 30 minutes of waking. See Table 1.

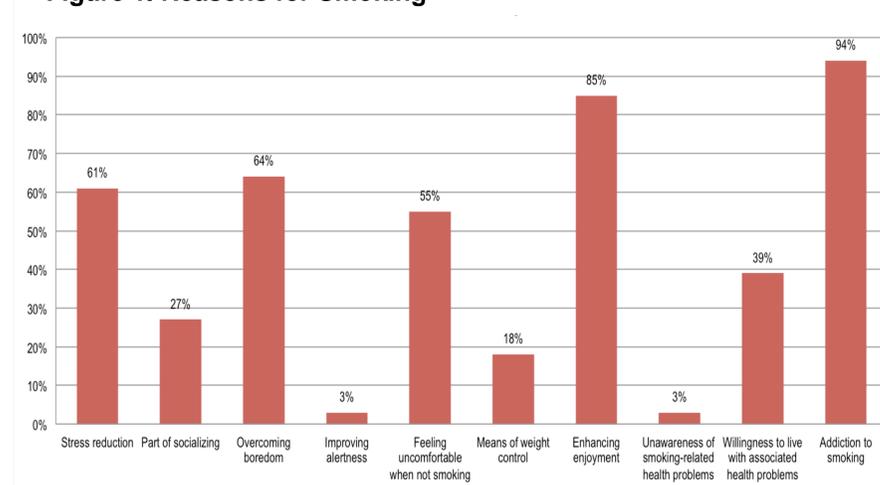
**Table 1. Demographic Data and Smoking Characteristics**

Gender	Female 52%, N=17; Male 48%, N=16
Age Range	21-77 years old
Average age	45 years old
Average cigarettes per day	14
Dependence (Time from waking to first cigarette)	30% within the first 5 minutes 24% within 5-30 minutes 21% within 30-60 minutes 24% after 60 minutes
Readiness to Quit Scale, 0-10, Modal response	5 "Think I should quit, but not quite ready"
Ready to set a quit date in the next 2 weeks	42%

### Reasons for Smoking

Addiction and enjoyment were the most frequently cited reasons for smoking with 31 (94%) of the 33 participants stating they were addicted to smoking and 28 (85%) of 33 participants stated they smoked for enjoyment. Stress, boredom, and feeling uncomfortable when not smoking were notable motivating factors with more than 50% of participants endorsing these were reasons why they smoke. Socializing, alertness, and weight control were less influential reasons for smoking. All but one (97%) of the participants stated they were aware of health issues related to smoking and yet 39% stated they were willing to live with them. See Figure 1.

**Figure 1. Reasons for Smoking**



## Discussion

The survey initiated conversation about the participants' motives for smoking and readiness to quit. Participants reported addiction and enjoyment as their top reasons for smoking. Acknowledging these motives may help clinicians to refocus smoking cessation strategies to better serve our lower-income community. When discussing addiction, many participants mentioned difficulty with overcoming the habit of smoking and a feeling of helplessness with the issue. In answering the survey questions, some were able to recognize the severity of their dependence and addiction. This presents an area that can be explored during smoking cessation counseling. Research suggests that nicotine may be as addictive as heroin, cocaine, or alcohol.<sup>4</sup> Our results suggest that clinicians may need to focus on treating this addiction as a chronic illness.

Enjoyment was also reported as a strong factor in smoking. Therefore, smoking cessation counseling should include: guidance on finding alternative activities, discussion about the incentives to quit, and provision of tools to quit, manage cravings, and deal with slips/relapses. Increased availability of tobacco often undermines attempts to quit, prompts impulse purchases, and cues cravings. Focusing on monetary savings may also be useful strategy for low-income smokers. A pack a day smoker can save more than \$2,200 per year if they quit.<sup>2</sup>

## Limitations

Limitations of the study include a small sample size (N=33), which limits the generalizability of the results. We did not follow up with patients after the initial interview to explore whether taking the survey encouraged participants to quit. Some participants had time constraints in taking the survey since the interviews were done during their clinic visits. It might be beneficial to conduct focus groups and discuss this topic among a panel of smokers.

## Conclusions

Smoking cessation strategies need to focus on why low-income people continue to smoke. Our participants reported that they continue to smoke because they are addicted and enjoy smoking. Smoking to socialize, lose weight, or maintain concentration were less important reasons for our participants. Therefore, cessation treatment with low-income smokers might be more effective if it focused on medications and behavioral strategies for dealing with physical and psychological aspects of addiction and enjoyment of smoking.

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