Published in final edited form as:

Am J Health Behav. 2010 ; 34(1): 110–118.

Predicting Home Smoking Restrictions Among African American Light Smokers

Jennifer R. Warren, PhD [Post Doctoral Associate],

Department of Family Medicine and Community Health, University of Minnesota, Minneapolis, MN

Kolawole S. Okuyemi, MD, MPH [Associate Professor],

Department of Family Medicine and Community Health, University of Minnesota, Minneapolis, MN

Hongfei Guo, PhD [Assistant Professor],

Office of Clinical Research, University of Minnesota, Minneapolis, MN

Janet L. Thomas, PhD [Assistant Professor], and

Department of Medicine, University of Minnesota, Minneapolis, MN

Jasjit S. Ahluwalia, MD, MPH, MS [Associate Dean]

Clinical Research, Medical School, University of Minnesota, Minneapolis, MN

Abstract

Objective—To determine home smoking restrictions (HSR) predictors among African American light smokers (smoke 10 cigarettes per day).

Methods—Data were obtained from a clinical trial testing the efficacy of nicotine gum and counseling among 755 African American light smokers.

Results—Forty percent reported adopting HSR at week 26. Implementing HSR increased with higher baseline confidence to quit ($P<0.0001$) and female gender ($P=0.019$) and decreased with older age ($P=0.016$) and reduced confidence to quit between baseline and week 26 ($P<0.0001$).

Conclusions—Confidence to quit, gender, and age are important factors to incorporate into interventions enhancing the adoption of HSR.

Keywords

home smoking restrictions; African Americans; light smokers

The implementation of home smoking restrictions (HSR) is the practice of voluntarily adopting rules to limit or ban cigarette smoking in the home.¹ Among children exposed to secondhand smoke in the home, serious health risks have been identified including increased risk of ear infections, sudden infant death syndrome, and respiratory tract diseases.¹ Additionally, individuals exposed to secondhand smoke are at greater risk of adverse

reproductive health outcomes, cardiovascular disease, and lung cancer.¹ Successful policy efforts (eg, Clear Air Act, local smoke-free policy, workplace smoking restrictions) have been made to limit public exposure to secondhand smoke,^{1,2} whereas the practice of reducing secondhand smoke in private homes is reported by less than 50% of all smokers.¹ Previous studies have addressed the practice of HSR among moderate and heavy smokers;³ however, limited information is available about the implementation of HSR among African American light smokers (smoke 10 cpd).⁴

The proportion of light smokers among African Americans has always been higher than that in the general population.⁴ Approximately 50% of the 5.2 million African American smokers are light smokers.⁵ In a national population survey, 53% of male and 62% of female African American smokers reported smoking <10cpd.⁶ The higher proportion of light smoking among African Americans as compared to whites persists even after adjusting for employment status, blue/ white collar status, education, and income.⁷

Although African Americans generally smoke fewer cigarettes per day,⁴ they show a preference for mentholated cigarettes and cigarettes with higher tar and nicotine levels^{8,9} and inhale more deeply, allowing for higher indexes of smoke inhalation.^{10–12} African Americans also start smoking later in life¹³ and demonstrate higher levels of cotinine per cigarette smoked.^{11,14} Also, despite smoking fewer cigarettes per day, African Americans experience disproportionately higher rates of smoking-related health consequences.¹⁵ For example, African Americans have the highest incidence rates for all cancers combined and the highest overall cancer mortality rates compared to other racial/ethnic groups.¹⁶

Related to smoking restrictions, the California Tobacco Survey^{17–19} reported home restrictions against secondhand smoke increased significantly between 1992 and 1996, a trend that is still occurring.¹ The National Cancer Institute's tobacco use survey reported an increase prevalence of home smoking restrictions among women that was associated with the self-reporting of smoke-free work policies. Additionally, there is a greater likelihood of implementing HSR among light smokers.²⁰

Unfortunately, HSR continue to be less commonly practiced by individuals who are heavy smokers, have a lower socioeconomic status, and whose close friends smoke.¹ The limited research available indicates that compared to whites, Hispanics, and Asians, African Americans are less likely to implement HSR.^{1,21,22} In predicting the implementation of HSR among African American moderate to heavy smokers, Okah and colleagues³ described a number of factors. Using data from 600 African American participants in a smoking cessation intervention, factors associated with implementation of HSR included baseline stage of change, progression through stage of change from baseline to week 26, and the presence of children or a nonsmoking adult partner in the home. African American heavy smokers (>20 cpd) at a more advanced stage of readiness to quit smoking and those who had nonsmoking partners were more likely to implement home smoking restrictions.³

Because tobacco control research has, for the most part, focused on moderate and heavy smokers, there are limited data available about the practice of HSR among light smokers.²³ Due to the high prevalence of light smoking among African American and a lower

likelihood of their implementing HSR, we analyzed data from a smoking cessation clinical trial of 755 African American light smokers focusing on factors that have been found to be associated with the implementation of HSR among moderate and heavy smokers.³ We tested the hypothesis that, among households without HSR at enrollment, motivation and confidence levels at baseline, change in motivation and confidence during intervention, and the presence of children or a nonsmoking adult partner in the home would predict implementation of HSR at week 26.

METHODS

Study Design

The parent study (KIS II) was a placebo-controlled randomized trial of 755 African American light smokers (<10 cpd) enrolled at a community health center in Kansas City, Missouri, over a period of 16 months.²⁴ KIS II used a 2 x 2 factorial design in which participants were assigned randomly to placebo or active nicotine gum and health education (HE) or motivational interviewing (MI). Participants provided written informed consent during the first visit, and study procedures were approved and monitored by the human subjects committee of the institution where the study was conducted.

Participants, Screening and Randomization

To be eligible for the clinical trial, participants were required to be African American or black, be 18 years of age or older, smoke <10 cigarettes per day for at least 6 months, smoke cigarettes on >25 of the last 30 days, be interested in setting a quit date within 14 days from screening, and have a home address and functioning telephone number. Participants were randomized between March 2003 and June 2004. The last 6-month follow-up session was completed in January 2005. The randomization strategy is presented in detail elsewhere.²⁴

Treatment Period

Participants were assigned randomly to receive one of 4 treatments: 8-week treatment with placebo gum plus 6 health education (HE) sessions, 8-week treatment with placebo gum plus 6 motivational interviewing (MI) counseling sessions, 8-week treatment with 2 mg nicotine gum plus HE session, or 8-week treatment with 2 mg nicotine gum plus 6 MI counseling sessions. In addition to gum and counseling, participants in all 4 arms received a culturally tailored smoking cessation guide developed specifically for African American light smokers. The trial's primary outcome was cotinine-verified 7-day abstinence at 26 weeks after randomization. Participants were not encouraged to implement HSR; however, the dangers of secondhand smoke were addressed in the smoking cessation guide.

Smoking cessation guide—The KIS II smoking cessation guide was developed and tailored to the quitting needs and barriers of African American light smokers. The guide used existing smoking cessation materials, including Pathways to Freedom: Winning the Fight Against Tobacco,³⁰ How to Quit,³¹ and Freedom From Smoking.³² The guide addressed the health consequences of smoking 10 or fewer cigarettes, smoking menthol cigarettes, and being exposed to secondhand smoke with brief exercises and briefly outlined the effects of secondhand smoke in the following manner: "Friends and family members of

smokers often suffer the effects of being exposed to secondhand smoke even if they themselves do not smoke.” “Children of smokers are at a higher risk of bronchitis, pneumonia, asthma ... and at increased risk for sudden infant death syndrome.”

Motivational interviewing (MI)—MI is designed to enhance motivation for change and is based on the assumption that individuals with addictions are often not in an advanced stage of readiness to change their behavior.³³ In KIS II, MI was conducted by trained counselors following semi structured counseling scripts. These sessions explored the positive and negative aspects of quitting smoking, the pros and cons for change, participants’ ambivalence about quitting smoking, motivation and confidence for quitting smoking, and plans for change. Consistent with the spirit of MI, the topic of secondhand smoke would be addressed in a session only if the participant initiated this discussion.

Health education (HE)—HE is a standard counseling technique that focuses on providing information and advice and encourages the development of strategies to improve health knowledge, attitudes, skills and behavior.¹⁴ In the parent study, HE was conducted by trained counselors following semi structured counseling scripts and the tailored KIS II Quit Smoking Guide. The goals of the initial contact session were to provide information about the risks of continued smoking and the benefits of quitting, develop a quit plan, outline a concrete quit-day preparation plan, and discuss strategies for successful quitting. Follow-up sessions included an assessment of smoking status and barriers hindering smoking cessation.

Measures

Baseline assessment of demographic information included age, gender, marital status, income, education, number of children in home, and smoking status of partner/spouse.²⁵ The smoking variables included number of cigarettes smoked per day, description of inhalation depth, and abstinence history.²⁵ Motivation (ie, readiness to quit smoking) and confidence (ie, belief in ability to quit smoking) to quit for smoking cessation were assessed using a 10-point Likert scale with a higher score indicating greater motivation or confidence.^{26,27} Change in confidence to quit was calculated by subtracting confidence to quit at week 26 from baseline confidence to quit.²⁶ The 10-item Center for Epidemiological Studies Depression (CES-D) Scale²⁸ was used to measure depressive symptoms with scores of 4 or higher suggesting clinical levels of depression. The 4-item Perceived Stress Scale (PSS)²⁹ measured global life stress on a 0–4 point scale with a total score ranging from 0 to 16; scores of 12 or higher indicate significant perceived stress. Serum cotinine was assessed at randomization; expired carbon monoxide (CO) was also assessed at randomization and at weeks 1, 8 and 26; and salivary cotinine was assessed at week 26. A salivary cotinine cut score of <20 ng/ml was used to verify abstinence at 26 weeks and a cut score of <10 parts per million (ppm) was used for CO.²⁴

The primary outcome of the implementation of HSR at week 26 was assessed by a question used in prior studies:^{3,30,31} “Which statements best describes the rules about smoking in your home?” Participants who reported partial restriction (“smoking is allowed in some places or at some times”) or complete restriction (“no one is allowed to smoke anywhere”) were considered to have HSR. Those who reported no restriction (“smoking is permitted

anywhere, there are no rules”) were considered to have no HSR. This way of categorizing HSR groups is consistent with prior research.^{3,32} At week 26 the presence of HSR was assessed among smokers who did not have HSR in place at baseline and who had complete information for smoking restriction at both baseline and week 26 (n=299). Fifty-six smokers without HSR at baseline did not have HSR information available at week 26, hence were excluded from the study.

Analysis

Descriptive statistics of baseline demographic, psychosocial, and smoking history variables were calculated for the total sample. Categorical variables were summarized by percentages, and continuous variables were summarized by means and standard deviations. A logistic regression model was created using a backward selection method for the outcome of adoption of smoking restriction at week 26 and included the following covariates: baseline age, gender, education status, presence of child in home, clinical depression indicator, perceived stress score, nonsmoking partner in the house, CPD, motivation to quit at baseline, confidence to quit at baseline, and change in motivation to quit between baseline and week 26, change in confidence to quit between baseline and week 26, and smoking status at week 26. The level of statistical significance for inclusion in the final logistic regression model was $P<0.10$ and for all other analyses was $P<0.05$.

RESULTS

Participants at Baseline

Table 1 presents baseline demographic characteristics of the study participants. In the parent study (KIS II), participants (n=755) were predominantly single females who had an annual family income of less than \$18,000 and had at least a high school education. Those without HSR (n=355) were older, less likely to have children in the home, reported lower baseline motivation to quit, and did not live with a nonsmoker, compared to those who had HSR (n=131) and partial HSR (n=269) in place at the baseline assessment.

Participants at Week 26

Table 2 presents univariate predictors of the adoption of HSR at week 26 for 299 smokers who were not practicing home smoking restrictions at baseline and had complete information for smoking restriction at week 26. As the parent study’s main outcome paper details,²⁴ results indicated that compared to the MI, those receiving HE had greater abstinence (16.7% vs 8.5%, $P<0.0001$) at 26 weeks post quit.²⁴ Among those with no HSR at baseline, approximately 44.1% reported implementing HSR at week 26. Compared to males (32%), a higher proportion of females (68%) reported no HSR at week 26. A lower proportion of males (22%) reported implementing HSR at week 26 compared to females (78%). Biochemically confirmed abstinence rates for smokers with and without HSR are presented in Table 2. Of those reporting no HSR at week 26, 12% were confirmed quitters at week 26 compared to 19% among those who reported implementing HSR at week 26.

Final Predictors of HSR

As detailed in the final model (Table 3), odds of implementing HSR increased with confidence to quit at baseline (OR=1.29; 95% CI=1.14–1.44, $P<0.0001$) and female gender (OR=1.96; 95% CI=1.12–3.43, $P=0.019$) and decreased with older age (OR=0.97; 95% CI=0.95–0.99, $P=0.016$) and reduced confidence to quit between baseline and week 26 (OR=0.87; 95% CI=0.81–0.94, $P<0.0001$).

DISCUSSION

To our knowledge this is the first study to examine variables predicting the adoption of home smoking restrictions among light smokers following a smoking cessation clinical intervention. This study found that, at baseline, 53% of the 755 smokers in the study had HSR in place. Also, younger smokers, those with children in the home, those with higher baseline motivation to quit, and those whose spouses/partners were nonsmokers were more likely to have HSR at the time of enrollment into the study. These baseline results are consistent with those found among moderate and heavy smokers in a study conducted at the same site a few years prior to the current study.³

The current study also found that a number of factors predict the implementation of HSR among African American light smokers. Specifically, females and those who had higher confidence to quit smoking at baseline were significantly more likely to implement HSR at the 26-week follow-up. Kegler et al.,³³ in a study of African American smoker's adoption of HSR, found that African American female smokers in general are the primary force in establishing smoking restrictions in the home. Our finding is also supported by research on a national sample that found women who smoke >10 cigarettes per day were more likely than men to have HSR.³⁴ However, an explanation offered by King and colleagues³⁴ for this gender difference is that in some cases (ie, where all adults in the home smoked), women may be perceived as being in charge of the household, hence, wielding decision making power about smoking inside the home.³⁴ The increase rate of HSR associated with baseline confidence to quit is supported by similar findings from the Okah et al study³ with moderate and heavy smokers. There is limited research regarding the association between the implementation of HSR and confidence to quit. However, studies have found that greater confidence to quit is a predictor of smoking cessation.^{35,36} Conversely, in the present study, light smokers whose confidence to quit was reduced during the course of the 26-week study were less likely to implement HSR.

Another factor predicting the implementation of HSR in the current study was age. In particular, light smokers who were older were less likely to implement HSR. Other studies have found that older African American smokers (ie, heavy, moderate, and light smokers) were less likely to implement HSR.^{20,34} This may be a generational effect in which social norms regarding the acceptability of smoking were less rigid in addition to a limitation in knowledge regarding the affects of SHS. A younger generation has grown up amid an abundance of information on the harms of exposure to SHS.²⁰ Additionally, younger smokers may be more likely to have children in the home.²⁰ Although we would have expected abstinence to be an independent predictor of HSR, it was not significant in the final

logistic regression model. This may be due to the low rates of abstinence among those who did not have HSR at baseline.

There are limitations to this study. First, the primary focus of the parent study was smoking cessation. Consequently, there is no information on the reasons for or the initiators of the adoption of HSR. Without this information, we can only speculate on the observed predictors of HSR. Second, caution should be taken in generalizing to other populations as our secondary data analysis used a self-selected sample motivated to quit that may not reflect the general population of smokers. Third, there may be bias and misclassification in reporting HSR in households due to providing socially desirable answers in response to declines in acceptability of cigarette smoking and if there is a child in the home.^{2,38} Finally, it is also possible that respondents might have misclassified the extent or type of HSR.

Evidence from this study suggests programs are needed to enhance the implementation of HSR among African Americans. In particular, health practitioners should work to enhance HSR among males³⁹ and older⁴⁰ smokers as well as include components to increase smokers' confidence.⁴¹ Generational-specific⁴² secondhand smoke information detailing shifting norms related to smoking and harms associated with SHS exposure should also be part of intervention efforts. HSR provide long- and short-term benefits that are important to the health of individuals.¹⁹ As a result, African American communities might enact policies to support these health benefits.

When HSR is implemented, secondhand smoke exposure may be eliminated, with the potential for significant impact on the disproportionate burden of tobacco-related illnesses experienced by African Americans.¹ As more efforts to promote implementation of HSR among African Americans are implemented, the overall exposure to tobacco toxins will likely decrease, and this in turn would help to reduce the tobacco-related health disparities for African Americans.

Acknowledgments

This project was supported from the National Cancer Institute at the National Institutes of Health (R01 CA91912, Ahluwalia, PI). Glaxo-SmithKline provided study medication but played no role in the design, conduct of the study, or interpretation and analysis of the data. Research was conducted at the University of Kansas.

References

1. U.S. Department of Health and Human Services (USDHHS). The Health Consequences of Involuntary Exposure to Tobacco Smoke: A Report of the Surgeon General. 2006. USDHHS Publication No. 017-024-01685-3
2. Niaura R, Abrams DB. Smoking cessation: progress, priorities, and prospectus. *J Consult Clin Psychol.* 2002; 70(3):494–509. [PubMed: 12090365]
3. Okah FA, Okuyemi KS, McCarter KS, et al. Predicting adoption of home smoking restriction by inner-city black smokers. *Arch Pediatr Adolesc Med.* 2003; 157(12):1202–1205. [PubMed: 14662576]
4. Okuyemi KS, Pulvers KM, Cox LS, et al. Nicotine dependence among African American light smokers: a comparison of three scales. *Addictive Behaviors.* 2007; 32(10):1989–2002. [PubMed: 17307303]
5. USDHHS. Tobacco Use among U.S. Racial Ethnic Minority Groups African Americans, American Indians, and Alaskan Natives, Asian Americans, and Pacific Islanders and Hispanics: A Report of

- the Surgeon General. Atlanta Georgia: US Department of health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health; 1998. USDHHS Publication No. 017-001-00527-4
6. Giovino GA, Henningfield J, Tomar SL, et al. Epidemiology of tobacco use and dependence. *Epidemiol Rev.* 1995; 17(1):48–65. [PubMed: 8521946]
 7. Novotny TE, Warner KE, Kendrick JS, et al. Smoking by Blacks and Whites: socioeconomic and demographic differences. *Am J Public Health.* 1988; 78(9):1187–1189. [PubMed: 3407817]
 8. Fu, SS.; Okuyemi, KS.; Partin, MR., et al. Menthol cigarettes and smoking cessation during an aided quit attempt. Vol. 10. Informa Healthcare; 2008. p. 457-462.
 9. Kabat GC, Morabia A, Wynder EL. Comparison of smoking habits of blacks and whites in a case-control study. *Am J Public Health Nov.* 1991; 81(11):1483–1486.
 10. Romano PS, Bloom J, Syme SL. Smoking, social support, and hassles in an urban African-American community. *Am J Public Health.* 1991; 81(11):1415–1422. [PubMed: 1951797]
 11. Royce JM, Hymowitz N, Corbett K, et al. Smoking cessation factors among African Americans and whites. COMMIT Research Group. *Am J Public Health.* 1993; 83(2):220–226. [PubMed: 8427327]
 12. Jepsen C, Kessler LG, Portnoy B, et al. Black White differences in cancer prevention knowledge and behavior. *Am J Public Health.* 1991; 81(4):501–504. [PubMed: 2003635]
 13. Payne TJ, Diefenbach L. Characteristics of African American smokers: a brief review. *Am J Med Sci Oct.* 2003; 326(4):212–215.
 14. Ahluwalia JS, McNaghy SE, Clark WS. Smoking cessation among inner-city African Americans using the nicotine transdermal patch. *J Gen Intern Med Jan.* 1998; 13(1):1–8.
 15. An LC, Perry CL, Lein EB, et al. Strategies for increasing adherence to an online smoking cessation intervention for college students. *Nicotine Tob Res.* 2007; 8(Suppl 1):S7–S12. [PubMed: 17491165]
 16. American Cancer Society (ACS). *Cancer Facts & Figures for African Americans 2007–2008.* Atlanta: ACS; 2007. ACS Publication No. 861407
 17. Pierce, JP.; Farkas, A.; Evans, N., et al. *A Focus on Preventing Uptake by Adolescents.* Sacramento: Calif. California Department of Health Services, California Dept. of Health Services; 1993. Tobacco Use in California 1992. Publication No. CTC1992
 18. Pierce, JP.; Farkas, AJ.; Cavin, SW., et al. *An Evaluation of the Tobacco Control Program, 1989–1993.* La Jolla, Calif: University of California, San Diego; 1994. Tobacco Use in California.
 19. Messer K, Mills AL, White MM, Pierce JP. The effect of smoke-free homes on smoking behavior in the U.S. *Am J Prev Med.* 2008; 35(3):210–216. [PubMed: 18620837]
 20. Gilpin EA, White MM, Farkas AJ, et al. Home smoking restrictions: which smokers have them and how they are associated with smoking behavior. *Nicotine Tob Res.* 1999; 1(2):153–162. [PubMed: 11072396]
 21. Shopland DR, Anderson CM, Burns DM. Association between home smoking restrictions and changes in smoking behavior among employed women. *J Epidemiol Community Health.* 2006; 60:40–55.
 22. Pyle SA, Haddock CK, Hymowitz N, et al. Family rules about exposure to environmental tobacco smoke. *Fam Syst Health.* 2005; 23:3–16.
 23. Fagan P, Moolchan ET, Lawrence D, et al. Identifying health disparities across the tobacco continuum. *Addiction.* 2007; 102(Suppl 2):5–29. [PubMed: 17850611]
 24. Ahluwalia JS, Okuyemi K, Nollen N, et al. The effects of nicotine gum and counseling among African American light smokers: a 2 x 2 factorial design. *Addiction.* 2006; 101(6):883–891. [PubMed: 16696632]
 25. Okuyemi KS, Cox LS, Nollen NL, et al. Baseline characteristics and recruitment strategies in a randomized clinical trial of African-American light smokers. *Am J Health Promot.* 2007; 21(3): 183–191. [PubMed: 17233236]
 26. Broadman T, Catley D, Mayo MS, Ahluwalia JS. Self-efficacy and motivation to quit during participation in a smoking cessation program. *Inter J Beh Med.* 2005; 12(4):266–272.

27. Resnicow K, Coleman-Wallace D, Jackson A, et al. Dietary change through Black churches: baseline results and program description of the Eat for Life trial. *J Cancer Educ.* 2000; 15:156–163. [PubMed: 11019764]
28. Irwin M, Artin KH, Oxymann MN. Screening for depression in the older adult: criterion validity of the 10 item center for epidemiological studies depression scale (CES-D). *Arch Intern Med.* 1999; 159:1701–1704. [PubMed: 10448771]
29. Cohen S, Kamarck T, Mermelstein R. A global measure of perceived stress. *J Health Soc Behav Dec.* 1983; 24(4):385–396.
30. Ahluwalia JS, Harris KJ, Catley D, et al. Sustained-release bupropion for smoking cessation in African Americans: a randomized controlled trial. *JAMA.* 2002; 288(4):468–474. [PubMed: 12132977]
31. Okuyemi KS, Richter KP, Ahluwalia JS, et al. Smoking reduction practices among African American smokers. *Nicotine Tob Res.* 2002; (4 Suppl 2):167–173.
32. Okah FA, Choi WS, Okuyemi KS, et al. Effect of children on home smoking restrictions by inner-city smokers. *Pediatrics.* 2002; 109:244–249. [PubMed: 11826202]
33. Kegler MC, Escoffery C, Groff A, et al. A qualitative study of how families decide to adopt household smoking restrictions. *Fam Community Health.* 2007; 30(4):328–341. [PubMed: 17873639]
34. King G, Mallett R, Kozlowski L, et al. Personal space smoking restrictions among African Americans. *Am J Prev Med.* 2005; 28(1):33–40. [PubMed: 15626553]
35. Okuyemi KS, James AS, Mayo MS, et al. Pathways to health: a cluster randomized trial of nicotine gum and motivational interviewing for smoking cessation in low-income housing. *Health Educ Behav.* 2007; 34(1):43–54. [PubMed: 16778147]
36. Lam TH, Abdullah AS, Chan SS, et al. Adherence to nicotine replacement therapy versus quitting smoking among Chinese smokers: a preliminary investigation. *Psychopharmacology (Berl).* 2004:1–18. electronic pre-print release.
37. Sohn M, Stotts NA, Benowitz N, et al. Beliefs about health, smoking, and future smoking cessation among South Korean men hospitalized for cardiovascular disease. *Heart Lung.* 2007; 36(5):339–347. [PubMed: 17845880]
38. Mumford EA, Levy DT, Romano EO. Home smoking restrictions: problems in classification. *Am J Prev Med.* 2004; 27(2):126–131. [PubMed: 15261899]
39. Shelley D, Fahs MC, Yerneni R, et al. Correlates of household smoking bans among Chinese Americans. *Nicotine Tob Res.* 2006; 8(1):103–112. [PubMed: 16497604]
40. Steinberg MB, Akincigil A, Delnevo CD. Gender and age disparities for smoking-cessation treatment. *Am J Prev Med.* 2006; 30(5):405–412. [PubMed: 16627128]
41. Acevedo-Garcia D, Pan J, Jun H-J, et al. The effect of immigrant generation on smoking. *Soc Sci Med.* 2005; 61(6):1223–1242. [PubMed: 15970233]

Table 1

Baseline Characteristics of Sample (n=755) by Presence of Home Smoking Restriction (HSR)

Variables	No HSR	Partial HSR	HSR	P value ^a
Subjects, No	355	269	131	
Age, mean in years (SD)	46 (11.0)	44 (10.0)	44 (10.0)	0.03
Gender				<0.001
Female	70	70	53	
Male	30	30	47	
Education				0.15
HS	81	87	85	
Married or living with others	30	41	50	<0.001
Income \$1800	34	46	50	<0.001
Clinical depression	71	63	70	0.11
Perceived stress score	5.81 (3.5)	5.69 (3.4)	6.58 (3.6)	0.045
Nonsmoking partner in the house	25	40	53	<0.001
Other smokers in home	49	35	21	<0.001
Child in home	63	45	37	<0.001
Motivation to quit, mean (SD)	8.92 (1.8)	9.04 (1.6)	9.43 (1.4)	0.01
Confidence to quit, mean (SD)	7.01 (2.7)	7.24 (2.5)	7.27 (2.6)	0.43 0.43

Note.

Percentages reported unless otherwise noted.

^a ANOVA for continuous variables, and chi-square tests for categorical variables.

Table 2

Characteristics of Participants (n=299) Reporting Implementation of HSR vs Those Not Implementing HSR at Week 26

Variables	No HSR	HSR	P value ^a
Subjects	167	132	
Age, mean in years (SD)	48 (11.0)	45 (10.0)	0.006
Gender			0.047
Female	68	78	
Male	32	22	
Education			
HS	83	82	0.85
Married or living with others	31	31	0.89
Income \$1800	41	31	0.087
Possible clinical depression, No (%)	31	28	0.64
Perceived stress score, mean (SD)	5.68 (3.4)	5.69 (3.7)	0.99
Child in home at baseline	31	44	0.02
Motivation to quit at baseline, mean (SD)	8.96 (1.8)	8.94 (1.7)	0.91
Confidence to quit at baseline, mean (SD)	6.55 (2.8)	7.51 (2.5)	0.002
Nonsmoking partner in the house at baseline	28	23	0.34
Other smokers in house at baseline	53	47	0.37
Motivation to quit at week 26, mean (SD)	8.18 (2.7)	8.83 (2.1)	0.02
Confidence to quit at week 26, mean (SD)	6.36 (3.4)	7.88 (3.0)	<0.001
Nonsmoking partner in the house at week 26	21	23	0.60
Other smokers in house at week 26	40	60	0.23
Smoking status at week 26 verified by cotinine			0.095
Nonsmoking	12	19	
Change in motivation to quit between baseline and week 26, mean (SD)	0.78 (3.0)	0.11 (2.6)	0.04
Change in confidence to quit between baseline and week 26, mean (SD)	0.16 (3.9)	-0.37 (3.4)	0.21

Note.

Percentages reported unless otherwise noted.

^aT-tests for continuous variables, and chi-square tests for categorical variables.

Table 3

Final Model: Odds at Week 26 for HSR by 299 Smokers Without Baseline HSR

Variables in the Model	Odds Ratio	95% CI ^a	P value
Age	0.97	0.95–0.99	0.016
Gender			
Male	1.00	Reference	
Female	1.96	1.12–3.43	0.019
Confidence to quit at baseline	1.29	1.14–1.44	< 0.001
Change in confidence to quit between baseline and week 26	0.87	0.81–0.94	<0.001

Note.

CI=Confidence interval.

Change in confidence to quit between baseline and week 26= confidence to quit at baseline minus confidence to quit at week 26.