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Provider Smoking Cessation Advice Among California Asian-American Smokers

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Abstract

Purpose—To determine proportions of provider advice to quit smoking for Asian-American smokers and to describe factors that may affect the provision of such advice.

Design—Secondary data analysis of population-based survey.

Setting—California.

Subjects—Current smokers from the California Tobacco Use Surveys for Chinese-Americans (n = 2117, participation rate = 52%), Korean-Americans (n = 2545, participation rate 5 48%), and Vietnamese-Americans (n = 2179, participation rate = 63.5%).

Measures—Sociodemographics including insurance status, smoking frequency, provider visit in past year, and provider advice to quit.

Analysis—Multivariate logistic regression models examined dependent outcomes of (1) provider visit in past year and (2) provider advice to quit.

Results—Less than a third (30.5%) of smokers in our study reported both seeing a provider (50.8%) and then receiving advice to quit (60.1%). Factors associated with provider visits included being female, being 45 years or older, having health insurance, and being Vietnamese. Among smokers who saw a provider, factors associated with provider advice to quit included having health insurance and being a daily smoker.

Conclusions—Asian-American smokers reported low proportions of provider advice to quit in the past year, largely because only half of smokers saw a provider. Providers who see such smokers may need greater awareness that several effective cessation treatments do not require health insurance, and that intermittent smokers need advice to quit.

Keywords

Tobacco; Cessation; Asian; Chinese; Korean; Vietnamese; Prevention Research

PURPOSE

Provider advice to quit smoking can double the likelihood that a smoker will quit smoking.[1] The limited information about Asian-American smokers from national survey analyses examining racial/ethnic disparities suggests they may be more likely to receive advice to quit. In the National Health Interview Survey, the “non-Hispanic other” group (which includes Asian-Americans) was twice more likely to report receiving advice to quit than Hispanics, the group with the lowest reported proportion.[2] In the Current Population Survey, English-fluent Asian-American smokers were 38% more likely to report receiving smoking cessation advice relative to non-Hispanic white smokers.[3] However, these surveys are not accurately representative of Asian-Americans because they were not conducted in Asian languages nor did they oversample different Asian subgroups.

With California having the largest number of Asian-Americans, the California Tobacco Control Program initiated three population-based surveys for Chinese-Americans, Korean-Americans, and Vietnamese-Americans. Our objective was to analyze these surveys to assess current smoker reports of having received a provider’s advice to quit. We also wanted to determine characteristics of these smokers that may affect the provision of such advice. Our hypothesis was that smokers with greater health care access, as measured by health insurance, or higher smoking frequency (i.e., daily vs. intermittent) would be more likely to report having been advised to quit. Compared to non-Latino whites, California Asian-Americans have been found to have lower health care access and utilization,[4] and to be more likely to be light and intermittent smokers.[5]

METHODS

Design

We combined data from the California Tobacco Use Surveys[6] for Chinese-Americans (CCATUS, conducted 2003), Korean-Americans (CKATUS, conducted 2003), and Vietnamese- Americans (CVATUS, conducted 2007–2008) to conduct a secondary data analysis. Details of the methodology have been published elsewhere.[6] Researchers at the Universities of California, Davis and San Francisco, collaborated with the California Tobacco Control Program for designing and analyzing these surveys, and their respective institutional review boards approved the survey projects. Professional survey research organizations (Strategic Research Group, Inc., and Public Research Institute at San Francisco State University) conducted the surveys using computer-assisted telephone interviewing.

The survey instruments were based primarily on the California Tobacco Survey and the California Adult Tobacco Survey.[6] Each survey was translated and back-translated by professional translators. Interviews were conducted in English, Chinese (Cantonese, Mandarin, Toisaan), Korean, or Vietnamese. Informed consent was obtained from the study participants at the beginning of the survey.

Sample

As described elsewhere,[6] the sample for the surveys was obtained from lists of telephone numbers registered to individuals with Chinese, Korean, or Vietnamese surnames residing in California. Survey inclusion criteria required respondents to be reached at a private residence, be aged ≥18 years, and self-identify with one of the three ethnic groups. In the CCATUS and CKATUS, only the first respondent in each household was eligible. In the CVATUS, household members were selected by whomever had the most recent birthday, or else, if birthdays were unknown, selected randomly by gender and birth order.

The number of participants in each survey was 2117 (CCATUS), 2545 (CKATUS), and 2179 (CVATUS). Participation rates of all households contacted in each survey was 52% (CCATUS), 48% (CKATUS), and 63.5% (CVATUS).

Measures

Current smokers were defined as having smoked 100 cigarettes in their lifetime, with smoking frequencies categorized as daily or intermittent. Other sociodemographic variables were selected for possible moderating effects on receiving or utilizing health care[4]: gender, age, education, income, ethnicity (Chinese, Korean, Vietnamese), years in the United States, survey language used (English or native), and health insurance status (yes or no). The age variable was dichotomized as 18 to 44 years old vs. ≥45 years, because those closer to 50 years of age may have had higher utilization of health care, for instance, for cancer screening. The education variable was dichotomized as ≤high school graduate vs. any post–high school education, because the surveys differed in how this was measured. The variable for years in the United States was categorized as born in the United States, <10 years, and ≥10 years to distinguish recent and long-term residence, reflecting possible differences in access and familiarity with the U.S. health care system.

The primary outcome of interest was whether the smoker reported that a health provider advised the smoker to quit. This was measured, as in previous surveys,[2,3] by the combined response to two questions: (1) “Did you see a doctor, nurse, or other health professional in the past 12 months?” and (2) “In the past 12 months did the doctor, nurse, or other health professional advise you to stop smoking?”

Analysis

Smokers were compared by sociodemographics for the two outcomes of (1) provider visit in the past year and (2) provider advice to quit, using χ^2 or F tests for trends of statistical significance at $p < .05$. Multivariate logistic regression models were conducted to examine factors associated with the two outcomes. The independent variables in the models included those variables that were significant at $p < .10$ from χ^2 analyses. Missing data accounted for <5% (2.3%–4.1%) of the sample in both regression models.

Analyses were conducted using SAS statistical package version 9 with the SURVEYFREQ and SURVEYLOGISTIC procedures. Using population estimates from the 2000 U.S. Census, poststratification weights had been developed for each survey to adjust the sample

distribution to approximate California's Chinese-American, Korean- American, or Vietnamese-American population distribution on age and gender.

RESULTS

Current Smoker Characteristics

Less than a third (30.5%) of the smokers reported having been advised to quit in the past year (26.1% for Chinese-Americans, 24.4% for Korean-Americans, and 40.1% for Vietnamese-Americans). This proportion reflects the product of the smokers who reported seeing a provider in the past year (50.8%) and, of these smokers, the proportion who reported that a provider advised them to quit (60.1%).

Table 1 displays the sociodemographic characteristics of smokers who reported seeing a provider in the past year. Significant differences were found by years in the United States, health insurance status, and ethnicity. Smokers who were born in the United States were more likely than long-term immigrants to report seeing a provider, and this difference was even greater compared with more recent immigrants. More smokers with health insurance reported seeing a provider, compared with smokers without health insurance. Vietnamese-Americans were more likely to report seeing a provider, compared to those in the two other ethnic groups. There were no significant differences by gender, age, education level, income, survey language used, or smoking frequency in reporting having seen a provider in the past 12 months.

Of those smokers who reported seeing a provider in the past year, Table 1 also displays the sociodemographic characteristics of smokers who reported provider advice to quit. Significant differences were found by health insurance status and smoking frequency. More smokers with health insurance reported provider advice to quit, compared with smokers without health insurance. Similarly, more daily smokers reported provider advice to quit, compared with intermittent smokers. There were no significant differences by age, gender, education level, income, survey language used, ethnicity, or years in the United States in the receipt of provider advice to quit.

Multivariate Regression Analysis

Table 2 displays the variables significantly associated with smokers' report of having seen a provider in the past year. We included language used for the survey in our final model and did not include the years in the United States variable because of high collin-earity. Smokers who reported seeing a provider in the past year were more likely to be female, to be older than 45 years, to have health insurance, and to be Vietnamese-American.

Table 2 also displays the variables significantly associated with the receipt of provider advice to quit among smokers who had seen a provider in the past year. Smokers who reported receiving provider advice to quit were more likely to have health insurance and to be daily rather than intermittent smokers.

DISCUSSION

Summary

Our study found that less than a third (30.5%) of California's Chinese-, Korean-, and Vietnamese-American smokers reported receiving past-year medical quit smoking advice. In contrast, 45.8% of California's general population of smokers reported receiving advice to quit in the past year.[7] Most of this difference appears to be due to the fact that the proportion of Asian-American smokers in our study who reported having seen a provider in the past year (50.8%) was lower than the proportion of adults in California's general population of smokers (72.1% in 2005) who did so. Proportions of smoker-reported advice to quit among smokers seeing a provider in our study (60.1%) were more similar to those reported for California's general population (63.5%).[7] This past-year low advice proportion for California Asian-Americans is slightly lower than that reported nationally for Hispanics in 2000 (34%), the racial/ethnic group with the lowest reported proportion.[2]

Of the Asian-American smokers in our study who did see a provider in the past year, having health insurance was still a significant predictor of self-reported provider advice to quit. Providers serving these populations may need greater awareness that simply advising smokers to quit is highly effective, and that assistance (counseling and medication) through referral to a telephone quitline does not require health insurance and is free and effective.[1] The California quitline provides counseling by counselors fluent in the Chinese, Korean, and Vietnamese languages. Only a small fraction of Asian-speaking smokers calling Asian-language lines (4.1%) mentioned health care providers as sources of quitline information or referral.[8]

Providers also need to advise all smokers to quit, regardless of smoking frequency. Intermittent smoking is increasingly prevalent, especially in California where it is practiced by one in three smokers,[7] and interestingly, California's Asian-Americans are more likely than non-Latino whites in California to be light and intermittent smokers.[5] Nationally, although having been advised to quit was associated with self-reported desire to quit among both intermittent and daily smokers, intermittent smokers were less likely than daily smokers to report that a physician had asked and advised about tobacco.[9]

Limitations

Limitations of our study include that the three surveys were not all conducted simultaneously and that a decline in smoking prevalence over time may have affected intergroup comparisons. Although our findings have implications for other Asian-American groups outside of California and potential disparities with the general population, this study was not designed to be generalizable or comparative with these respective groups. Another limitation is that our data are based on self-report so that social desirability bias or discrepancies between actual behaviors vs. memories of encounters with providers may influence the direction of the responses. Finally, the surveys did not ask specifically about other types of health providers like herbalists, acupuncturists, or healers.

Significance

This is the first and largest population- based study to report that Asian-American smokers in California, the state with the largest number of Asian-Americans in the United States, report low proportions of provider advice to quit in the past year. This study also identifies the smoker characteristics contributing to this low proportion among California's Asian-Americans.

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SO WHAT? Implications for Health Promotion Practitioners and Researchers

What is already known on this topic?

Racial and ethnic disparities have been reported in receiving provider advice to quit. However, few surveys appropriately represent Asian-American populations, particularly English- limited Asian Americans.

What does this article add?

This is the first and largest population-based study to report that Asian-American smokers in California, the state with the largest number of Asian Americans in the United States, report low proportions of provider advice to quit in the past year. This proportion is relatively lower than the general population, largely because only half of these smokers saw a provider. Having health insurance and being a daily smoker are factors associated with California Asian-American smokers receiving advice to quit.

What are the implications for health promotion practice or research?

Providers serving Asian-American smokers may need greater awareness that several effective cessation treatments do not require insurance, and that intermittent smokers need advice to quit.

Table 1

Sociodemographics of Current Smokers Who Reported a Provider Visit in the Past Year or Provider Advice to Quit in the California Chinese-American, Korean-American, and Vietnamese-American Surveys

	Reported Provider Visit in Last 12 Months, % (n = 898)	*p*	Reported Provider Advice to Quit, % (n = 567)	*p*
Gender				
Male	49.7	0.095	60.2	0.85
Female	62		58.5	
Age, y				
18–24	52	0.12	57.3	0.29
25–44	48		55.4	
45–64	52.1		63.8	
65+	70.1		72.4	
Education				
≤High school graduate	51.1	0.89	61.2	0.63
Any post–high school education	50.6		58.6	
Income				
<$35,000	50.2	0.12	64.9	0.35
$35,000–$75,000	46.4		58.1	
<$75,000	58.3		55.9	
Years in United States				
Born in United States	62.7	0.003	53.7	0.51
In United States 10+ years	53.1		61.8	
In United States <10 years	40.9		56.9	
Survey language				
English	58.8	0.07	49.6	0.07
Native	49		62.8	
Ethnicity				
Chinese	41.3	<0.001	63.1	0.2
Korean	44.9		54.4	
Vietnamese	63.7		64.4	
Health insurance				
Yes	62.3	<0.001	63.2	0.02
No	29.7		47.8	
Smoking frequency				
Daily	51.1	0.78	65.7	<0.001
Intermittent	49.7		41.8	

Table 2

Multivariate Logistic Regression of Factors Associated With Current Smokers Who Reported a Provider Visit in the Past Year or Provider Advice to Quit in the California Chinese-American, Korean-American, and Vietnamese-American Tobacco Use Surveys*

	Reported Physician Visit in Last 12 Months, OR (95% CI) (n = 861)	*p*	Reported Physician Advice to Quit, OR (95% CI) (n = 554)	*p*
Gender				
Male	Reference	0.005	Reference	0.34
Female	2.48 (1.32, 4.66)		1.53 (0.71, 3.32)	
Age group, y				
18–44	Reference	0.003	Reference	0.14
45+	1.75 (1.22, 2.52)		1.43 (0.89, 2.28)	
Ethnicity				
Chinese	0.32 (0.18, 0.55)	<0.001	0.85 (0.40, 1.78)	0.66
Korean	0.49 (0.32, 0.76)	0.001	0.73 (0.43, 1.24)	0.25
Vietnamese	Reference		Reference	
Health insurance				
Yes	4.04 (2.71, 6.02)	<0.001	1.95 (1.08, 3.55)	0.03
No	Reference		Reference	
Smoking frequency				
Daily	0.93 (0.59, 1.44)	0.73	2.68 (1.61, 4.47)	<0.001
Intermittent	Reference		Reference	

*Multivariate model independent variables also included survey language (English or non-English), but it did not achieve statistical significance.

OR indicates odds ratio; CI, confidence interval.