Urban Indians' Smoking Patterns and Interest in Quitting

HARRY A. LANDO, PhD
KAREN M. JOHNSON, MPH
ROBIN P. GRAHAM-TOMASI, PhD, MPH
PAUL G. McGOVERN, PhD
LEIF SOLBERG, MD

Dr. Lando is an Associate Professor and Dr. McGovern is an Assistant Professor in the Division of Epidemiology, School of Public Health, University of Minnesota. Ms. Johnson is Principal Investigator, Project Director for the G.A.I.N.S. project at the American Indian Health Care Association, St. Paul, MN. Dr. Graham-Tomasi is an Assistant Professor in the Department of Communication, College of Communication Arts and Sciences, at Michigan State University. Dr. Solberg is the Medical Director for Quality Improvement at Blue Plus, St. Paul.

Tearsheet requests to Harry A. Lando, PhD, Division of Epidemiology, School of Public Health, University of Minnesota, 1300 South Second Street, Suite 300, Minneaplis, MN 55454-1015; tel. 612-624-1877.

Synopsis

Little is known about smoking patterns of urban American Indians and their interest in quitting. Most published research has focused upon American Indians who live on rural reservations. In this study, personal interviews were conducted with a convenience sample of patients at Urban Indian Health Clinics in four geographically diverse sites: Milwaukee, WI, Minneapolis, MN, and Seattle and Spokane, WA. A total of 419 current smokers and 173 ex-smokers completed interviews. Current smokers reported a median cigarette consumption of 11 per day.

Smokers indicated both a moderate desire to quit (mean 5.97, on a scale 0–10) and moderate confidence in their ability to do so (mean 5.56, on a scale 0–10). More than 70 percent of current smokers indicated having previously tried to quit. The most common reasons cited for relapse included craving, social situations, stress, and nervousness. The most common reasons for quitting given by ex-smokers included being "sick" of smoking, health concerns, respiratory problems, and pregnancy.

The estimated quit-ratio (former smokers ÷ current + former smokers) was 29.7 percent. This quit-ratio, although substantial, is lower than the 45 percent quit-ratio reported for the general U.S. population. Perhaps the most striking findings are the similarities between American Indians and the overall population in both interest in quitting and reasons for doing so. Smoking cessation previously has been viewed as a low priority for this population. The current results suggest the viability of systematic efforts to encourage urban American Indians to quit smoking.

LITTLE IS KNOWN ABOUT SMOKING patterns and interest in quitting among urban American Indians (*1*). Most published research has focused upon American Indians who live on rural reservations (*2–4*). Considerable variation has been reported in smoking rates among American Indians. A smoking incidence rate of 13 percent has been documented for Navajos, for example; 94 percent of these smokers consume less than one pack per day (*5*). In contrast, estimates of smoking rates among nonsouthwestern Indians have ranged from 50 to 70 percent; 26 percent are estimated to be heavy smokers (*1,6*). Such quantitative results, indicative of the tendency for smaller proportions of southwestern Indians to smoke and to smoke fewer cigarettes than their counterparts in other areas of the United States, are supported by clinical impressions of Indian Health Service providers (*6*). Furthermore, smoking-related morbidity is consistent with these variations in behavior. For example, Oklahoma Indians have rates of cigarette smoking and lung cancer that are nine times greater than those of southwestern tribes and are much closer to national non-Indian rates (*6*). Furthermore, Gillum and coworkers reported that the majority of urban Indian smokers inhaled their cigarette smoke, and smoked unfiltered, king-sized cigarettes (*1*). However, no data have been published on inhalation and brand preferences of rural American Indian populations.

Fifty-four percent of American Indians live in urban settings (*7,8*). Despite this fact, few surveys have assessed smoking behaviors and attitudes of urban Indian populations. Gillum and coworkers

(*1*) assessed smoking in a sample of urban American Indians living in Minneapolis. Seventy percent of this population smoked.

Our survey assessed smoking behaviors and attitudes of American Indians drawn from Urban Indian Health Clinics (UIHCs) in four cities. The first survey to assess smoking in urban American Indians drawn from several locations, it focused upon a number of smoking related issues including smoking prevalence. Smokers were asked not only about current consumption, but also about interest in quitting and plans for doing so. Ex-smokers were asked about their quitting experiences. Reasons were noted both for quitting and for relapse. Respondents were asked whether they had been advised by others to quit, most notably by physicians.

The survey was undertaken in preparation for smoking cessation intervention in the four UHICs. Results were expected to inform the planned interventions and to alert the investigators to possible pitfalls. A major concern before the survey was the finding in a key informant survey in UHICs that smoking cessation was perceived as a low priority for urban American Indians. Yet no published research has assessed smoking-related attitudes in American Indians. If respondents did express minimal interest in quitting, the potential effectiveness of smoking cessation intervention might be called into serious question. If, on the other hand, respondents expressed a desire to quit, confidence in the possible efficacy of treatment might increase substantially.

Method

Subjects. Personal interviews were conducted with a convenience sample of patients at UIHCs in four sites: Milwaukee, WI, Minneapolis, MN, and Seattle and Spokane, WA. The UIHCs, although established to serve urban American Indians, also provided services for non-Indians, primarily low-income inner-city dwellers. Patients were recruited specifically for the interviews, and the interviews were not part of any intervention or larger health study. No incentives were provided for participation. Eligibility for the interview was determined by a screening form that the interviewer completed. Subjects were required to (*a*) be at least 18 years of age, (*b*) have smoked at least 100 cigarettes in their lifetime, and (*c*) identify themselves as either American Indian or Alaska Native. A total of 419 current smokers and 173 ex-smokers completed interviews.

Characteristics of the study sample

Clinic site	Minneapolis (N = 157)	Seattle (N = 155)	Milwaukee (N = 129)	Spokane (N = 151)
Percent current smoker [1]	70.7	64.5	73.6	74.8
Percent female [2]	77.1	58.1	65.1	62.4
Median age (years) [3]	30.8	36.1	37.2	41.6

[1]Difference between clinic sites, X^2 (3) = 4.65, P = .20.
[2]Difference between clinic sites, X^2 (3) = 13.7, P = .003.
[3]Difference between clinic sites, F (3,585) = 11.4, P < .001.

Significant differences were observed among the four clinic sites in age and sex of subjects (see table). Minneapolis subjects were both younger and more likely to be female than were subjects from the other three clinics. The difference in median age between Minneapolis and Spokane subjects was almost 11 years. Tribal representation differed considerably across clinic sites. However, except for the Spokane sample, survey respondents were very similar to their respective clinic populations. The Assiniboine tribe was one of four from which the majority of the Spokane clinic's population was drawn (the others were Chippewa, Blackfeet, and Spokane), but only one respondent self-identified as Assiniboine in the survey.

In Milwaukee, the four major tribes accounting for more than 70 percent of both survey and clinic populations were Chippewa, Oneida, Menominee, and Winnebago. In Minneapolis, more than 90 percent of both survey and clinic populations were Chippewa or Sioux. Seattle had the most culturally diverse representation among respondents with nine tribes comprising 53 percent and 51 tribes represented in the remaining 47 percent of the respondent population. The most frequent tribal affiliations were Tlinget (19 percent), Chippewa (7 percent), Eskimo (5 percent), Blackfeet (4 percent), Cherokee (4 percent), Yakima (4 percent), Lummi (3 percent), Aleut (3 percent), and Sioux (3 percent).

Percent of clinic patients who were American Indian varied considerably in the four survey sites. The Minneapolis and Seattle clinics had a much higher proportion of American Indian patients at the time of the survey (85 and 73 percent respectively) than did either the Spokane (41 percent) or Milwaukee (30 percent) clinics. Because the survey population was composed entirely of American Indians, the percentage of American Indians among the clinics' patients at the time of the survey does not affect the results. However, the generalizability of the findings to the overall clinic populations does vary across sites.

Median age and sex composition of the patients

in the survey samples were similar to age and sex distribution of both the combined clientele of the four clinics and the 34 UIHCs whose membership comprise the American Indian Health Care Association. The median age of current smokers in the survey sample was 35 compared with a median age of 33 for patients in all four clinics and a median age of 33 in all 34 UIHCs. Of smokers interviewed, 64.7 percent were female as were 66.5 percent of the ex-smokers. These percentages are roughly comparable to the females' 63.9 percent share of annual visits in the four sampled clinics and the 64.5 percent female enrollment in the 34 UIHCs. Although median age for current and ex-smokers was fairly close (35.4 for current smokers and 37.4 for ex-smokers), age distribution was very different. Only 15.8 percent of ex-smokers were between ages 35 and 44, as opposed to 26.3 percent of current smokers. On the other hand, whereas 38.1 percent of the ex-smokers were older than age 45 and 21.7 percent were older than 55, the respective figures for current smokers were only 24.6 percent and 10.5 percent.

Procedure. Patients were approached in the waiting room of the UIHCs, under "usual care" circumstances, by either a member of the project staff or by a staff member of the clinic. In Milwaukee, however, interviews were conducted at a health fair and powwow after a prior clinic utilization requirement was added to the screening instrument. After screening, potential subjects were asked if they would be willing to answer a few questions about cigarette smoking. Perhaps surprisingly, although response rates were not officially documented, virtually no one refused at any site. A total of 419 current smokers and 173 ex-smokers completed interviews.

All persons who were identified as American Indian or Alaskan Native were asked their tribal affiliation. The interviewer noted the sex of the respondents. Age of respondents was recorded in these categories: 18–24,25–34,35–44,45–54, 55–64,65–74, and 75 or older. Average daily cigarette consumption was recorded for current smokers. Current smokers also were asked how soon they smoked after awakening. Additional questions asked of current smokers focused upon prior quit attempts (for example, number of attempts, time abstinent, and quit attempts within the previous year). For those who attempted cessation, open-ended items were included about reasons for quitting and for relapse. Current smokers were questioned about their desire to stop ("How much would you say you want to quit smoking?") and confidence in their ability to quit ("How much confidence do you have in yourself that you will be able to quit?"). The interviewer also inquired as to whether a physician had ever advised the respondent to stop smoking. Finally, current smokers were asked if they planned on quitting within the next year.

Ex-smokers reported their previous daily cigarette consumption. Recency of quitting was noted. Former smokers responded to an open-ended item about their reasons for quitting. Finally, they were asked if a physician had ever advised them to quit and whether such advice was helpful to them in doing so.

Results

Current smokers. Median cigarette consumption was 11 per day. Subjects reported smoking a median of 30 minutes after awakening. They indicated both a moderate desire to quit (mean 5.97, on a scale of 0–10) and moderate confidence in their ability to do so (mean 5.56, on a scale of 0–10).

The majority of current smokers (71.8 percent) indicated they had previously tried to quit. However, only 25 percent of current smokers (35 percent of those who had ever tried to quit) reported a quit attempt within the previous year. The most common reasons for attempting to quit (each reported by more than 10 percent of respondents) included respiratory problems, being "sick" of smoking, health reasons, becoming pregnant, and "just wanting to quit." Common reasons given for relapse included craving (20.2 percent), social situations (17.5 percent), stress (14.2 percent), nervousness (13.2 percent), habit (9.3 percent), and "no reason not to" (7.3 percent). Almost half (46.5 percent) of the current smokers indicated that a physician had advised them to quit smoking. Furthermore, 56.6 percent indicated that advice from a physician would be helpful to them in quitting. Approximately one-third of the subjects (35.6 percent) reported plans to quit smoking within the coming year, 32.5 percent indicated no plans to quit, and 32.0 percent were unsure.

Ex-smokers. Ex-smokers consumed a median of 10 cigarettes per day before quitting. Median length of abstinence for the ex-smokers was 4 years. Ex-smokers were less likely than current smokers to indicate that a physician had advised them to quit (32.9 percent of ex-smokers versus 46.5 percent of

current smokers, $X^2 = 9.25$ ($P = .002$). The number one reason for quitting, indicated by 17.9 percent of ex-smokers, was that they were "sick" of smoking. Health reasons accounted for another 17.2 percent of quitters. Respiratory problems (12.4 percent) and pregnancy (12.4 percent) were other common reasons for quitting.

Quit ratio. The estimated quit-ratio (former smokers ÷ current + former smokers) was 29.7 percent, and the estimated quit rate (percent quitters in the previous year) was 11.7 percent. This quit-ratio is lower than the 45 percent quit-ratio reported for the total U.S. population (*9*).

Discussion

These data reveal important information with respect to smoking-related beliefs, attitudes, and behaviors in a previously understudied urban American Indian population. More than 70 percent of current smokers reported previous quit attempts. Furthermore, more than a third of current smokers indicated plans to quit within the coming year. However, the estimated quit ratio among urban American Indian clinic patients, although quite substantial, was considerably lower than the 45 percent quit ratio reported for the overall U.S. population.

Smoking patterns among urban Indians appear quite different from those among the general population and more similar to those reported for black Americans. Median daily cigarette consumption was only 11 as opposed to more than 20 in the general population (and an average of approximately 14 cigarettes per day among blacks (*10*)). Virtually nothing is known about smoking inhalation patterns among American Indians. Although they consume fewer cigarettes, they may smoke in a more intensive fashion and consume cigarettes with higher tar-nicotine content. Specific brand information was not collected as part of this study. The median of 30 minutes after awakening prior to the first cigarette is suggestive of a fairly high level of nicotine dependency (*11*).

As in the population as a whole, both current and former smokers tended to emphasize health related reasons for quitting. The overall similarity of reasons cited for quitting by current and former smokers was striking. Although there were some differences in the frequency with which specific reasons were reported as most important (for example, negative health effects were cited as most important by 17.5 percent of ex-smokers and by 12.5 percent of current smokers; conversely 16.7 percent of smokers and 12.4 percent of ex-smokers reported respiratory symptoms as most important), these differences did not approach statistical significance.

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Perhaps the most striking findings are the similarities between American Indians and the overall population in both interest in and reasons for quitting. Despite the lower quit-ratio among American Indians, the fact that more than 70 percent of current smokers reported quit attempts was unexpected. Concerns about health, including respiratory problems, were listed as important motivators by both current and ex-smokers. However, unlike the overall smoking population, social pressure to quit was seldom listed as a factor that motivated attempted cessation. This relative lack of social pressure may relate to the very high prevalence of smoking in this population. Stated determinants of relapse also were similar to those for the general population of smokers (*12,13*). The most commonly reported antecedents of a return to smoking fell into the following categories: negative emotional states including stress, "nerves," boredom, and depression; social pressure, especially seeing others smoke; and cravings and urges.

Negative emotional states have been identified consistently as important predictors of relapse from smoking cessation in the general population (*14*). Interpersonal factors, including social conflict and social pressure, also have been common correlates of relapse episodes (*15*). Findings about cravings, urges, and withdrawal symptoms have differed, with estimates of the proportion of relapse episodes associated with such physiological factors ranging from 6 percent to 50 percent (*13,15,16*).

Somewhat surprising perhaps in the survey population is the difference between ex-smokers and current smokers in the proportion who report that a physician advised them to quit. Previous research has found that successful quitters have higher levels

of social, and specifically physician, support than do unsuccessful quitters (*17*). In this study, only 32.9 percent of ex-smokers (as opposed to 46.5 percent of current smokers) stated that a physician had advised them to quit. This difference may be a function of historical factors: a substantial proportion of ex-smokers quit a number of years previously. Undoubtedly physicians were less likely to dispense smoking cessation advice some years ago than they are to dispense such advice currently (*18*).

The virtually zero refusal rates in this survey and the demographic similarities between the survey respondents and the overall populations of the clinic add weight to the findings. Respondents were from four urban clinics which serve American Indian populations in diverse locations, and they represented a wide variety of tribal affiliations. The consistent finding was one of previous quit attempts among current smokers and of continued interest among these smokers in quitting.

These results have important implications. The findings underscore the importance of encouraging smoking cessation in urban American Indians. Yet the primary care providers serving this population have been reluctant to intervene in this behavior. Cessation has been viewed as a low priority in light of other "more pressing" issues. Unpublished surveys of key informants undertaken by the investigators before this survey indicate some doubt as to whether smoking cessation is an important goal for the target population. Yet smoking is a major health issue for American Indians, especially given the very high prevalence of smoking in northern urban populations. The findings provide important support for the work currently in progress to encourage and assist smoking cessation in patients who attend Urban Indian Health Clinics.

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