

BELIEFS AND ATTITUDES REGARDING SMOKING CESSATION AMONG AMERICAN INDIANS: A PILOT STUDY

Background: American Indians (AI) have some of the highest smoking rates in the United States. The Muscogee Nation of Oklahoma developed a culturally targeted program called "Second Wind" based on the American Cancer Society's FreshStart smoking cessation program, but it has not been formally tested.

Methods: We conducted six focus groups of AI adult smokers at the Haskell Health Center (Lawrence, Kansas). Focus groups assessed beliefs, attitudes, and behaviors related to smoking cessation, as well as participants' perceptions of the "Second Wind" curriculum's appropriateness and feasibility for this diverse group. Focus groups were audiotaped, transcribed, coded, and analyzed for content themes. Participants were 41 AI adults (63% female), 21–67 years of age. Participants smoked an average of 13 cigarettes per day, half had made a quit attempt in the past year, and 63% were daily smokers. For pharmacotherapy, most preferred the nicotine patch.

Results: Focus group responses were categorized into three major themes: traditional tobacco use, quitting and quit attempts, and the "Second Wind" program. Those who reported that traditional tobacco use is important were less inclined to use tobacco recreationally. Second Wind modifications suggested by participants included increasing use of AI imagery and addressing the meaning of tobacco to AI cultures.

Conclusions: American Indian smokers are unique because of their traditional use of tobacco. Our participants felt that smoking cessation can be accomplished without discouraging traditional use of tobacco. We suggest ways to improve the "Second Wind" curriculum so that it is targeted for a heterogeneous group of AI smokers. (*Ethn Dis.* 2006;16:35–40)

Key Words: American Indians, Smoking Cessation

From the University of Kansas Medical Center, Department of Preventive Medicine and Public Health, Kansas City (WSC, CMD, ASJ, JT, JSA); Haskell Health Center, Indian Health Service, Lawrence (RS, MS, RB); Kansas.

Address correspondence and reprint requests to Won S. Choi, PhD; University of Kansas Medical Center; 3901 Rainbow Blvd, Mail Stop 1008; Kansas City, KS 66160; 913-588-4742; wchoi@kumc.edu

Won S. Choi, PhD; Christine Makosky Daley, PhD;
Aimee James, PhD; Janet Thomas, PhD;
Ryan Schupbach, PharmD, BCPS; Marcia Segraves, BS, CADCI;
Randall Barnoskie, MPH; Jasjit S. Ahluwalia, MD

INTRODUCTION

American Indians (AI) have the highest smoking prevalence of all racial/ethnic minority groups in the country. The smoking rate among AI is 40.8% compared to 23.6% among White Americans. While the smoking prevalence among all racial/ethnic groups has been decreasing the past 20 years, the rate of decrease has been slowest for AI. Furthermore, the prevalence has increased in AI females, from 34.1% in 1980 to 40.9% in 2002 (NHIS 2002). The high prevalence of smoking has been paralleled by rising mortality from cardiovascular disease and lung cancer, conditions that are now leading causes of death among AI.¹

American Indian (AI) smokers have less success quitting smoking compared to other ethnic groups.² In 2000, 70% of AI smokers said they wanted to quit, and 41% made a quit attempt of at least one day, but only 5% succeeded in quitting for three months or more. Furthermore, AI smokers are among the least successful in maintaining long-term abstinence. Among all AI who had ever smoked, 41% reported that they had successfully quit, compared with 51% of Whites.³

Although sacred use is not practiced by all AI, tobacco has historically been used to provide a connection between the living world and the spirit world through smoke and prayer.⁴ Traditional and ceremonial use of tobacco continues to play a role in many AI communities, but recreational cigarette use has become one of the most pressing health issues among this ethnic group.^{4,5}

The smoking rate among AI is 40.8% compared to 23.6% among White Americans.

Despite the need for smoking cessation programs in this population, few have been attempted, and only one has shown some degree of success. The "It's Your Life – It's Our Future" smoking cessation project in northern California used messages related to cultural identity, responsibility to family and tribe, and respect for tobacco products.⁶ The program had a 5.7% quit rate at 18-month followup for the intervention group versus a 3.1% quit rate for the control group. This program, however, was specific to the California AI population and was never attempted in other groups. The Giving American Indians No-smoking Strategies (GAINS) study was done in an urban AI population in four sites (Seattle, Milwaukee, Minneapolis, and Spokane) and attempted to culturally adapt the Doctors Helping Smokers (DHS) model, though it was not successful (6.7% seven-day point prevalence abstinence in intervention group vs 6.8% in control).^{5,7}

In early 2000, the Muscogee (Creek) Nation Tobacco Prevention Program in Oklahoma developed a smoking cessation program called "Second Wind" for AI, but they have not yet systematically evaluated it as an effective cessation tool. The Second Wind smoking cessation program is based on the FreshStart curriculum by the American Cancer

Society and consists of six in-person sessions with a talking circle format, one every other week for 12 weeks, as well as pharmacotherapy. Provision and choice of pharmacotherapy is left up to the facility offering the program.

We chose to examine the effectiveness of this program for two reasons. First, unlike the "It's Your Life – It's Our Future" program, it was developed for use in any AI population, not one particular group. Second, unlike the GAINS program, which was not shown to be effective, the effectiveness of Second Wind has not been established. This qualitative study used focus groups and a short survey to assess smoking and quitting history, cultural and traditional uses of tobacco, and attitudes/reactions toward the Second Wind smoking cessation curriculum.

METHODS

Study Setting

Focus groups were conducted at the Haskell Health Center located in Lawrence, Kansas. The Haskell Health Center is part of the Indian Health Service and provides health care to many AI in the region, as well as all the students at Haskell Indian Nations University.

Participants

American Indians (AI) were recruited through posters and referral from the medical clinic at the Haskell Health Center. Mental health and addictions therapists employed by the Haskell Health Center also recruited participants through word-of-mouth and in person at the Health Education division of the health center. Eligible participants were: 1) ≥ 18 years of age; 2) AI or Alaska Native; and 3) current smokers (defined as smoking on any of the past 30 days). Participants also provided written informed consent. Potential participants were screened by telephone or in person. Those individ-

uals who met eligibility criteria and were interested in participating were provided with additional information, including potential meeting dates for the focus groups. This study was approved by the respective institutional review boards of the University of Kansas Medical Center and the Indian Health Service for Haskell Health Center. Signed informed consent was obtained prior to the focus groups. A copy of the informed consent was given to all participants. We conducted six focus groups of 4 to 10 participants each, for a total of 41 adults, during the month of June 2004. We did not stratify our focus groups on any demographic variables because our program will not be stratified, and we wanted to learn how a heterogeneous group of AI smokers would interact when discussing these topics.

Facilitators and Observers

Each focus group was co-facilitated by an AI staff person (health counselor) from Haskell Health Center and a staff person from the University of Kansas Medical Center (KUMC). The moderator's guide was specific to this study of AI and smoking cessation and were co-written by a member of the research team and the lead investigator. Staff at Haskell Health Center also reviewed the moderator's guide before implementation.

Procedure

After providing informed consent, all participants were asked to fill out a short survey (20 questions) containing demographic information, tribal affiliation, smoking status, quitting history, and previous use of pharmacotherapy. The duration of each focus group was ≈ 90 minutes, and discussions were tape-recorded and transcribed verbatim. All subject identifiers were excluded from transcription to protect the anonymity of the participants. Participants were provided with a meal and a \$20 gift card for their time.

The facilitator used a semi-structured discussion guide to elicit responses and information pertinent to AI. Participants were encouraged, but not required, to respond to each question. The facilitator then expanded upon the responses to encourage group discussion.

All of the following three major topics were addressed: 1) traditional and cultural uses of tobacco, including ceremonial, spiritual, and other uses, how traditional use relates to recreational use of tobacco, and level of traditionality/cultural immersion; 2) context of smoking and quitting, including past attempts, supports, barriers, difficulties, community and social influences on smoking and quitting, and types of nicotine replacement therapy (NRT) used and any side effects; 3) the Second Wind smoking cessation curriculum, with particular emphasis on the perceived effectiveness and cultural appropriateness of the content and the appearance of the written guide.

Analysis

All survey data were double-data entered into a database for statistical analysis, and descriptive statistics were computed. Three independent researchers, blinded to each other, coded the data. Coders grouped data into the three major areas assessed during the focus groups and inductively coded for themes. Coded transcripts were merged by one researcher by cross-checking $\approx 10\%$ of the codes for construct validity and intercoder reliability. Disputes among coders were resolved through consensus. Data were analyzed through standard content analysis at the item, pattern, and constituent levels to develop themes within each major topic area.⁸

RESULTS

Participants

The demographic and smoking/quitting behaviors of the focus group

Table 1. Demographic and smoking/quitting behaviors of participants (N=41)

Demographics	
Gender, % female	63%
Age in years (mean, SD)	41 years (12.3) Range (21–67)
Some college education	63%
Married	24%
Children <18 in the home	37%
Smoking behavior	
Daily	63%
Cigarettes per day, mean (SD)	12.6/day (12.0)
Smoked for at least 5 years	54%
Made a quit attempt in the past year	51%
Ready to quit within next 30 days	62%
Preferred form of smoking cessation assistance*	
Patch	22.0%
Bupropion	19.5%
Gum	17.1%
Counseling	12.2%
Cold turkey	17.1%
Inhaler	2.4%

* Percentages may not add up to 100% because participants could answer multiple options or leave the question blank. (Includes all participants, even those who have not made a quit attempt.)

participants are presented in Table 1. The mean age of the participants was 41 years, and 63% of the participants were women. Approximately three quarters of participants were unmarried. Sixty-three percent had at least some college education. Participants smoked 12.6 cigarettes per

day (mean), and 63% were daily smokers. Approximately half of all participants had made a quit attempt in the past year, and 61% were ready to quit within the next 30 days. Finally, 36% had tried NRT of some kind, and the nicotine patch was the most tried form.

Table 2. Qualitative data from focus groups on smoking cessation

Topic	Themes
Cultural and traditional use of tobacco	<ul style="list-style-type: none"> It is different from regular smoking, both in terms of use and the tobacco itself Tobacco is very important to some people and not important at all to others, showing the heterogeneity of the population For those who use it ceremonially or spiritually, it is very important Traditional use can be divided into ceremonial, spiritual, or other
Quitting/quit attempts	<ul style="list-style-type: none"> Everyone has tried to quit Difficult to quit, very individual Cost and accessibility of NRT and pharmacotherapy are barriers Friends are the largest facilitator to smoking in this group Family is both a facilitator and a barrier to quitting Social situations cause people to start smoking and continue There is a need for support to quit, but also a need for individual willpower
Second Wind Program	<ul style="list-style-type: none"> Needs to be more "Indian" Needs to be more attractive More pictures, less text Honor the spirituality of tobacco Counseling is very important, both individual and group Sessions should be closer together in the beginning

Participants represented 23 distinct nations or combination of nations (eg, Cherokee and Osage). The most common nations represented were Prairie Band Pottawatomie ($n=6$), Cherokee ($n=4$), Citizen Band Pottawatomie ($n=3$), Muscogee/Creek ($n=3$), and Kiowa ($n=3$). Only two participants did not give a tribal affiliation. These results represent the heterogeneity of the population that uses Haskell Health Center. Clients of Haskell represent >200 nations, the most common being different bands of the Pottawatomie.

Focus Group Themes

Each focus group discussed the same three major topics noted above, and results are summarized according to the major themes expressed across all participants. The three major topics (cultural/traditional use, quit attempts/quitting history, and the Second Wind program), with relevant themes are presented in Table 2 and are discussed in detail below.

Cultural and Traditional Use of Tobacco

Some participants reported traditional or ceremonial tobacco use, though more than half said that they did not use it in any traditional manner (some were unsure if their tribes used it at all). Those participants who did practice traditional use said that it was important to them spiritually to maintain an "Indian" identity. Among those who reported traditional tobacco use, participants' responses and perceptions varied greatly. A few common themes emerged among these participants, including the idea that "tobacco use for sacred or ceremonial purposes is very different from recreational use." Virtually all participants agreed that traditional use of tobacco is different (from recreational use) but they varied on whether the tobacco itself is different. Some participants used home-grown tobacco for traditional use, which is often combined with various herbs.

Others said that they use regular cigarettes for spiritual and traditional purposes. Traditional tobacco use was not a daily activity; participants said that at most it occurs a few times per month.

Many participants felt that using tobacco in a traditional way would not influence whether a person could quit smoking. Participants saw no problem in using tobacco traditionally and remaining abstinent from recreational use. One participant stated:

"I think the Native Americans have had tobacco as part of a way of life for a long time and I don't think it was an addiction before until they started putting additives in tobacco and selling them and now when you smoke them you get addicted to them... its been a part of our way of life for a long time."

Traditional use, as described by these individuals, can be divided into three categories, ceremonial, spiritual, and other, all three of which vary by tribe. A few participants stated directly that ceremonial use was not compatible with recreational use.

Context of Smoking and Quitting

The majority of participants had made previous quit attempts. Reasons for the quit attempts centered around family and health. Several participants noted that quit attempts were made at the direct request of family members. Several women mentioned temporarily quitting while pregnant. Others stopped smoking for spiritual reasons, with several mentioning giving it up for Lent, "finding God," and particularly in ceremonies that required a person to refrain from recreational tobacco use.

Most participants initially began smoking in social situations with friends or family members; many participants noted that they smoke either only in the presence of friends or more with their friends. Relapse after quit attempts due to social situations was also commonly mentioned. A few participants also

noted that they had changed friends in the past when trying to quit smoking. Smoking was perceived as a normative behavior in that "everyone smokes." Family members were important facilitators to both smoking (initiation and maintenance) and to quitting. Spouses were mentioned as a trigger/reason for starting or continuing smoking, however more often participants said that family members were a reason to stop smoking. Children, in particular, were a reason to try to quit because "you want to set a good example." Another major trigger to smoking for these participants was stressful situations, (eg, funerals, daily stress at work and school).

Other triggers to smoking were specific to each individual and included such things as going on vacation, watching TV, being bored, being hungry (particularly using smoking as an appetite suppressant), driving for long periods, or being in the military. One thing on which almost all participants felt strongly was that quitting takes personal motivation and a person will not be able to quit unless he or she has determination and self-control and really wants to quit.

Reasons for quitting. Support mechanisms for quitting smoking centered on family, poor health, and cost. Family and health were tied together for most participants. Health-related reasons for wanting to quit include watching and being affected by the poor health of a loved one who smoked or by one's own poor health. Many participants mentioned watching a family member die or be admitted to the hospital due to smoking-related illnesses, especially cardiovascular disease, lung cancer, and asthma. When participants discussed personal poor health, they were concerned both for themselves and for family members around them, particularly children. Many participants wanted to quit smoking for their children, both so they can watch their children grow up

and so that the second-hand smoke would not affect their children.

Cost of cigarettes was another reason to quit smoking, and was discussed by participants in every group. However, no participants said that the high cost of cigarettes had, in itself, caused them to quit, though a few said that they had picked a "top price" that they would be willing to pay, such as \$5.00 per pack. These participants said that once the cost got above that price, they would stop. More participants found ways around the higher cost.

Few participants discussed environmental or policy factors as important to quitting, but for those participants who spoke about it, it was salient. These smokers liked the idea of having a smoke-free workplace or smoke-free restaurants and said that legislation has been very helpful in their own attempts to quit or reduce smoking. Some participants also noted that they do not smoke at work because it is so inconvenient.

Pharmacotherapy. Most participants had tried NRT and other types of pharmacotherapy (ie bupropion) for help in quitting, while a few had quit "cold turkey." The most common method of NRT used was the patch, with mixed results. Those people who said that the patch worked (ie, they were able to not smoke while on it) said that they returned to smoking because they ran out of patches and could not afford more or that something had changed in their personal situation that triggered them to start smoking again. Others mentioned that the patch did not work and they still smoked while they were on it. Other forms of NRT mentioned included nicotine gum, lozenges, and the inhaler. Pharmacotherapy in the form of bupropion was mentioned by several participants. Participants were again split on whether they felt these pills worked or not and if they had side effects. Nightmares were attributed to bupropion as well as NRT.

When asked about the type of assistance they would prefer for a future quit attempt, participants gave very heterogeneous responses that included counseling, various types of NRT or bupropion, and combination treatments. The most commonly mentioned preferences included nicotine patch, bupropion, or a combination of the two. The largest perceived barriers to pharmacotherapy were cost and accessibility.

Second Wind Program

Participants were asked to look over the Second Wind curriculum and recommend ways to improve it and how to tailor the program to a more diverse group of AI smokers. Participants made suggestions to improve the program in several areas, including the design or "look" of the manual, the talking circle format and other counseling and types of pharmacotherapy. One participant summed up the general feeling about the look of the brochure, saying, "this is just another government issued pamphlet and we've been inundated with them. I mean they're given to us all the time." Overwhelmingly, participants wanted the brochure to look more attractive and "more Indian" by adding more AI images, more color in general, and more information about sacred tobacco use and traditions. One participant explained how the information could be presented differently so that it would be more consistent with AI cultures, "I don't think this way. I don't do graphs. I don't do charts. I'm a Native person. First of all we have oral history as the key and visual understanding is the second most important thing to get and attract the attention of different Native people."

Some participants said that they would be offended if things were used from other tribes rather than their own. Others said it really didn't matter from which tribe pictures or ideas were taken, as long as they were Native. One idea was to include ideas and images of many

tribes to try to increase overall generalizability of the curriculum.

Participants were generally accepting of the idea of using talking circles, though many participants were unfamiliar with them and said they were not used in their tribe. A talking circle is a familiar format to many AI and is used in many tribes in different parts of the country to discuss issues and to allow all people a chance to speak. Normally, a "talking stick" or some other object is passed from one speaker to the next denoting who has the "floor." Others in the talking circle are respectful of the speaker's time and will not speak out of turn. They felt that group sessions were a good idea, but most desired some individual counseling as well. Some participants also noted that sponsors (ie, someone who has already quit smoking and can help) would be useful. Regardless of whether the sessions are group or individual, participants agreed that counselors should be AI in order to maximize comfort, cultural understanding, and the effectiveness of the program. Participants wanted group sessions more often at the beginning of the program than at the end (eg, weekly at the beginning and then every other week or once a month toward the end) because of concerns with early relapse.

DISCUSSION

Our findings suggest that the best support mechanisms for the AI smokers to quit are family and health concerns; the largest barriers are friends, social situations, and stressors. The ubiquitous nature of smoking in the AI population presents a barrier to quitting. Programs should address the community, social, and ecologic factors that facilitate the problem of cigarette smoking among AI.⁶ Family- and community-based support systems need to be enhanced to create an environment that is more amenable to smoking cessation.

Our findings suggest that the best support mechanisms for the AI smokers to quit are family and health concerns; the largest barriers are friends, social situations, and stressors.

Our participants all said they wanted to quit smoking in the near future, which makes them a group of highly motivated smokers. Quit methods were diverse, and participants chose various methods of pharmacotherapy and counseling. The one common theme was that all previous quit attempts had failed and they were ready to try something new. The most positive responses we received were for a combination of counseling and pharmacotherapy.

Traditional use of tobacco is one area that warrants more research. Several participants mentioned the incompatibility of traditional use with recreational use. This incompatibility may be a key to the promotion of abstinence from recreational use among more traditional AI. However, among people who are less traditional, the promotion of abstinence for sacred use will not be useful. We recommend further research in this area, with particular attention to tribal differences in sacred tobacco use.

Participants provided valuable information about modifying the existing smoking cessation program. Specifically, participants emphasized: 1) visual presentation of information is key; 2) color and attractiveness are important; and 3) images need to be AI. The idea of AI images was somewhat problematic, as some participants felt they should be tribe-specific and others felt that tribal-specific imagery was not important. We suggest careful attention to the population for whom programs are targeted when designing materials, in-

cluding determining which nations are represented.

We suggest a combination of group and individual counseling, with more concentrated group counseling at the beginning of any smoking cessation program. Most participants mentioned that the in-person sessions needed to be supplemented with individual counseling telephone calls, since the two-week time period between in-person sessions was too long. In general, the support of family and community must be emphasized.

A strength of this study is the heterogeneity of the AI smokers who participated. Although the number of participants was small, given the lack of research on smoking cessation among AI, the results from this qualitative study add to the knowledge in this area as an initial step toward developing targeted interventions.

This study has a few potential limiting factors, including a biased sample and a predetermined number of focus groups. Our participants were biased toward a higher level of educational attainment than AI in general. Sixty-three percent of our participants had at least some college education as opposed to 52% of the AI population. This bias was probably due to the fact that this study took place at Haskell Health Center, which is on the grounds of Haskell Indian Nations University. A second limiting factor was the fact that we predetermined the number of focus groups rather than continuing to the

point of data saturation because of monetary constraints. The most problematic area for data saturation was the discussion of traditional use of tobacco.

In conclusion, AI have unique issues concerning tobacco use and smoking and may benefit from a culturally tailored smoking cessation program. The most difficult aspect of designing a smoking cessation program for the participants of an Indian Health Service provider (or other provider) catering to people with a variety of tribal affiliations is making the program culturally-appropriate for all groups represented. Our focus group participants began to inform us of possible ways to create such a program, but more research is needed in this area.

ACKNOWLEDGMENTS

Funding for this project was provided by the American Lung Association. We thank the health personnel at Haskell Health Center, Kathy Poole, Michael Kincaid, Mike Smith, and Vicki Smith for their assistance with the focus groups. We also thank Genevieve Casey from the University of Kansas Medical Center for her assistance with the initial development of the focus group moderator's guide.

REFERENCES

1. US Department of Health and Human Services, Indian Health Services. *Trends in Indian Health, 1998-1999 Edition*. Washington, DC: USDHHS; 1999.
2. Gohdes D, et al. Smoking cessation and prevention: an urgent public health priority for American Indians in the Northern Plains. *Public Health Rep*. 2002;117(3):281-290.

3. CDC. Cigarette smoking among adults - United States, 2002. *Morb Mortal Wkly Rep*. 2004;53(20):427-431.
4. Wissler C. *Indians of the United States*. New York, NY: Doubleday; 1966.
5. Johnson KM, et al. The GAINS project: outcome of smoking cessation strategies in four urban Native American clinics. Giving American Indians no-smoking strategies. *Addict Behav*. 1997;22(2):207-218.
6. Hodge F, Larri SF, Kipnis P. "It's Your Life - It's Our Future" stop smoking project. In: Glover CS, Schanche F, eds. *Native Outreach: A Report to American Indian, Alaska Native, and Native Hawaiian Communities*. Bethesda, Md: National Cancer Institute; 1999;67-74. NIH Publication 98-4341.
7. Kottke TE, Brekke ML, Solberg LI, Hughes JR. A randomized trial to increase smoking intervention by physicians (doctors helping smokers, round I). *JAMA*. 1989;261(14):2101-2106.
8. LeCompte MD, Schensul Jean J. Analyzing and interpreting ethnographic data. In: Schensul JJL, Margaret D, eds. *The Ethnographer's Toolkit*. Vol 5. Walnut Creek, Calif: AltaMira Press; 1999.

AUTHOR CONTRIBUTIONS

Design and concept of study: Choi, Barnoskie, Ahluwalia
Acquisition of data: Choi, James, Schupbach, Segraves, Barnoskie
Data analysis and interpretation: Choi, Makosky Daley, James, Thomas, Ahluwalia
Manuscript draft: Choi, Makosky Daley, James, Thomas, Schupbach, Segraves
Statistical expertise: James
Acquisition of funding: Choi
Administrative, technical, or material assistance: Choi, James, Schupbach, Segraves, Barnoskie, Ahluwalia
Supervision: Choi, Barnoskie, Ahluwalia