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# Self-Reported Smoking Behavior and Attitudes in Aboriginal Treatment Centers Across Canada

**HEATHER COLEMAN AND DEANNA GREYEYES**

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## ABSTRACT

Nontraditional use of tobacco is a major spiritual, cultural, and health concern for Aboriginal people across Canada. Community studies of Aboriginal people have shown elevated rates of smoking. Smoking is not only associated with increased health risk, but also appears to play a role in the abuse of other chemicals. The purpose of this study was to look at tobacco use and related substance abuse for clients in Aboriginal addiction centers across Canada. Addiction Treatment Centers, alarmed at the rate of smoking among its clients, requested a profile of smoking behaviors as a starting point for developing nonsmoking policies within its facilities.

Two hundred and forty-six clients from fifteen Aboriginal addiction treatment centers across Canada were questioned about nicotine-related behavior. More than three-quarters of respondents described themselves as smokers, and close to 12 percent claimed to be ex-smokers. Individuals also admitted to polydrug use, many starting very young. Typically, cigarettes and alcohol were the first chemicals used. Smokers and non-smokers differed in age to initiation to alcohol; in addition, males and females differed in reasons for beginning to smoke and reasons for wanting to quit. Many clients reported that they were not aware of cultural teaching pertaining to tobacco. Implications for prevention, treatment, and policies are discussed.

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## INTRODUCTION

Addiction programs across Canada are struggling with how to treat nicotine dependency among Aboriginal clients and how to address the role that nicotine plays in the abuse of alcohol and other chemicals. Typically, treatment personnel are most familiar with drinking patterns but are less knowledgeable about the relationship between alcohol and smoking. To work most effectively with individuals addicted to nicotine, staff need to understand factors related to the onset of smoking and identify who is more likely to quit smoking and the reasons for wanting to do so.

Rather than viewing smokers as a homogeneous group, reasons for smoking and for quitting might be unique within subgroups. Therefore, a profile of smoking attitudes and behaviors among clients would guide decisions about which nonsmoking policies to implement in treatment centers. Identifying reasons for quitting smoking would also impact interventions that treatment centers could implement.

Smoking and drinking are related behaviors, a contention supported by correlational evidence linking the two.<sup>1, 2, 3</sup> While correlation is not causation, the link points to the coexistence of these two substances. A recent Health Canada study reported a strong relationship between cigarette and alcohol consumption among Aboriginal people. Cigarette use for daily drinkers is four to six times higher than for light drinkers.<sup>4</sup> Correlations are strongest among those reporting tobacco and hard liquor use rather than beer or wine. Nevertheless, all types of alcohol show a moderate correlation with cigarette use.<sup>5</sup> Studies of the connection between nicotine dependency and use of chemicals other than alcohol also suggest that dependency upon one substance often accompanies another.

Positive relationships between smoking and drinking are strongest for alcoholic populations. More than 90 percent of alcoholic inpatients are smokers, compared with the general population in which the relationship between alcohol and tobacco is positive but modest.<sup>6, 7</sup> The strength of this association becomes even more prominent given that only 25 percent of adults in the United States<sup>8</sup> and 32 percent in Canada<sup>9</sup> smoke. The relationship between alcohol and tobacco use is also important when gender is considered. One early study revealed that only one-third of females smoked compared with more than 90 percent of female alcoholic outpatients.<sup>10</sup> In addition, male alcoholics are more than twice as likely to smoke heavily and female alcoholics more than three times as likely to smoke heavily than non-alcoholic counterparts.<sup>11</sup>

An important question concerns how tobacco and alcohol are related. Alcohol appears to play a direct role in increased smoking, possibly because of diminished self-control.<sup>12, 13</sup> Conceivably, stopping drinking might play a role in the reduction of nicotine consumption. Studies of intervention for alcohol consumption report subsequent changes in smoking behavior. Yet no research is available to determine whether problem drinkers would benefit from quitting both substances simultaneously.

Substance abuse in Aboriginal communities is a major social, economic, health, and spiritual problem.<sup>14, 15, 16, 17, 18, 19, 20</sup> Factors associated with tobacco use include ethnicity, poverty, marital status, and educational achievement.<sup>21</sup>

Yet there is little information concerning the connection between alcohol and nicotine dependency among Aboriginal people.

Factors related to smoking for Aboriginal peoples may be culturally unique because tobacco has traditional significance. Tobacco, a sacred medicine for Aboriginal peoples, is embedded in Aboriginal history and continues to play the cultural role of an offering during ceremonies as well as for healing physical ailments. Traditionally some North American tribes smoke tobacco in a pipe as a ritual related to community events and for protection from evil. Tobacco also serves as a communication link between the people and the Creator. Other traditional uses of tobacco include: to give thanks to the Creator; to honor the wisdom of the elders; to honor all creatures hunted; to show respect to Mother Earth; to seek protection; and to help thoughts and prayers reach the Creator.<sup>22</sup>

Recent research has identified rates of tobacco use among both young people and adults of Aboriginal origin. Aboriginal people have the highest rate of tobacco use when compared with other cultural groups. This is true in both Canada and the United States. In Canada, rates of smoking are higher for Aboriginal people than for other ethnic groups—between 57 percent and 60 percent.<sup>23, 24</sup>

Smoking rates also vary by geographical location. Native people in the north have high rates of tobacco use, including smokeless tobacco and cigarettes.<sup>25, 26, 27</sup> In Canada, Inuit people in the Northwest Territories have the highest rates of tobacco use in Canada, with 71 percent being current smokers.<sup>28</sup> This high rate is closely followed by 57 percent of Métis people and 56 percent of all Aboriginal people.<sup>29</sup>

Rates are especially high for Aboriginal women with Health Canada reporting that 57 percent of all Aboriginal females consider themselves current smokers and another 17 percent have smoked daily.<sup>30</sup> This compares with American studies also showing high rates of smoking for Native women.<sup>31, 32</sup>

Aboriginal people appear to use tobacco at earlier ages and concurrently with other harmful substances.<sup>33, 34</sup> Initiation to all drugs occurs early for Aboriginal people, and nicotine is not the only problem substance.<sup>35</sup> Alcohol, marijuana, inhalants, and stimulants are also used at a higher rate by Aboriginal people, who in addition begin using marijuana and other drugs earlier. The highest period of risk for initiation to tobacco is between the ages of ten and thirteen, and cigarette use may be a “gateway” to other drugs. Thus polydrug use, starting with tobacco use, is of enormous concern.

Clearly, Aboriginal communities face an increased risk of both smoking and alcohol abuse. Before developing policies concerning the treatment for dual substances such as alcohol and nicotine, obtaining a profile of Aboriginal inpatients within facilities treating substance abuse is necessary. Such a profile can guide smoking-cessation programs within treatment centers for substance abuse.

The purpose of this study was to develop a profile of smoking behaviors among clients in Aboriginal addiction treatment centers. It also set out to discern differences between males and females that could affect the creation of non-smoking policies and treatments in these centers. This study was congru-

ent with the Health Promotion Directorate of Health Canada, which identified a need for accurate information on the smoking habits of the Canadian Aboriginal people.<sup>36</sup>

## METHODS

An instrument, based on a literature review, was designed to develop a profile of residents in Aboriginal addiction treatment centers. The instrument was distributed to fifteen facilities centers across Canada. Centers were situated throughout the country and were selected based on their representativeness of urban/rural characteristics and for northern/southern locations.

The instrument contained four sections. The first three sections focused on quantitative questions: demographic information, reasons for smoking, and reasons for wanting to quit smoking. Questions about reported reasons for smoking and reported reasons for wanting to quit were anchored on a five-point scale (1 = not at all important and 5 = extremely important). The final section contained open-ended questions concerning cultural teachings about alcohol.

Treatment centers focused on alcohol dependency. Centers used a range of treatment models, although most used a culturally based model. Supplementary models included the Minnesota model and different therapeutic interventions such as gestalt, reality therapy, and behavioral. Centers strongly endorsed culturally based programs that include traditional practices such as sweat lodge ceremonies, talking circles, family healing circles, pipe ceremonies, and sweet grass ceremonies as well as the teaching of history, heritage, culture, and spirituality.<sup>37</sup>

Cooperation was secured by telephone with the executive directors of the facilities. The instrument was pre-tested in an Aboriginal treatment facility and revised based on the feedback from the pilot test. Staff in the facilities administered instruments to clients based on a standardized set of instructions. Participation in the study was voluntary for both the centers and clients.

Data were analyzed using descriptive techniques. In addition, independent sample *t* tests were used to compare the means for two samples.<sup>38</sup> Groups were compared with regard to key variables such as gender, using the *t* test. Correlation examines the strength and direction of relationships between interval data such as level of difficulty smoking and the amount of coffee consumed per day. Finally, chi-square was used for nominal data to test the significance of the relationship between such variables as the gender's reasons for use of nicotine and other substances. Statistical significance was set at .05.

## RESULTS

### Characteristics

Two hundred and forty-six Aboriginal clients from fifteen addiction treatment centers across Canada responded to the questionnaire. Table 1 presents demographic and drug use information of the study participants. Age of clients ranged from eleven to sixty-three. Most clients were male (60.2 percent) and the mean educational level attained by respondents was 9.9 years,

ranging between grade three and university graduation. While growing up, the average family size of respondents was 7.27 and most people were exposed to smoking within the family, with approximately half of the members of the families smoking.

Table 1 also reveals that several demographic differences between the sexes were evident. For example, females had more children than males,  $t(240) = -3.19$ ,  $p = .002$ . In addition, physical fitness was more important for males who rated themselves as significantly more fit than females,  $t(237) = 5.07$ ,  $p = .0001$ . About the same number of clients lived on a reserve and in the city. The remainder lived in rural communities (non-reserve) or moved back and forth between the reserve and the city.

Occupational status of the clients varied but 20 percent were unemployed. Close to 80 percent of the clients admitted to criminal problems in the past, but it was not clear how many offenses were alcohol-related. On average, clients had spent sixteen months in jail before entering the treatment center, and males were significantly more likely than females to have been incarcerated,  $\chi^2(1, n = 242) = 42.32$ ,  $p = .000001$ . This is an important issue for smoking-cessation programs since smoking is very common among incarcerated individuals.

### **Smoking Behavior**

A total of 224 people in this study had smoked at some point in their life. Close to 80 percent were smokers at the time of the study and almost 12 percent were ex-smokers. This number was considerably greater than the 32 percent of all Canadians and 56 percent of all Canadian Aboriginal people who smoked. Only 8.9 percent stated that they had never smoked. Other nicotine products were used by more than half of the group, including chewing tobacco (30.9 percent), cigars (30.5 percent), pipes (13.0 percent), and nicotine gum (7.3 percent). Typically, males were more likely to use alternative tobacco products ( $\chi^2(1, n = 236) = 20.05$ ,  $p = .0001$  for cigars); ( $\chi^2(1, n = 236) = 18.36$ ,  $p = .00002$  for chewing tobacco); and ( $\chi^2(1, n = 236) = 16.31$ ,  $p = .00005$  for pipes).

Living situation was associated with the use of alternative tobacco products, with clients from rural communities and those who moved between reserves and urban areas more likely to use chewing tobacco than those living on reserves or in the city,  $\chi^2(1, n = 234) = 16.73$ ,  $p = .0008$ . Surprisingly, only one-quarter of all respondents reported that they had been advised by a doctor to stop smoking.

Cigarettes were among the first substances used in what was for many an ongoing pattern of drug abuse. Table 1 shows that tobacco, alcohol, and inhalants were the first substances used, followed by marijuana. The age of initiation to smoking correlated positively to the age of initiation to alcohol ( $r = .445$ ,  $p < .001$ ). Except for inhalants, males consistently used substances at younger ages than females. The average age for starting smoking was younger than that for alcohol. Remarkably, the youngest age reported for the first cigarette smoked was four years old and the oldest age at the time of the

first cigarette was thirty-three years old. By age fourteen, one-half of all respondents who had ever smoked started smoking regularly. Over 90 percent smoked *regularly* by the age of sixteen. Males became regular smokers significantly earlier than females. Average age for males to smoke *regularly* was 14.10 (sd = 3.6) compared with 15.26 (sd = 5.7) for females,  $t(217) = -1.82$ ,  $p = .02$ . Nonsmokers reported having their first alcoholic drink at a significantly older age than smokers ( $t(153) = -2.27$ ,  $p = .025$ ). Smokers started drinking, on average at 12.5 (sd = 3.76) years compared with 14.41 (sd = 4.24) for nonsmokers.

Two-thirds of respondents reported that they wished they could stop smoking. On a five-point scale (1 = not at all, 5 = very much). The mean level for wanting to quit smoking was 3.72 (sd = 1.39). For those who had attempted to stop smoking, the average number of attempts was 5.01 times (sd = 11.05).

More than 70 percent of all respondents related attempts to quit smoking and most believed that smoking cessation would be difficult. Yet when asked to rate the level of perceived difficulty they would anticipate if they decided to stop smoking (1 = not at all difficult, 5 = extremely difficult) while in their particular facility, the mean was 3.50 (sd = 1.52). Those who reported enjoying smoking with coffee anticipated that quitting smoking would be difficult for them ( $r = .30$ ,  $p < .001$ ). Those who reported that they have a gnawing hunger for a cigarette were more likely to believe that stopping smoking would be difficult ( $r = .46$ ,  $p < .001$ ). Similarly, respondents who found smoking pleasurable were also more likely to report a high anticipated level of difficulty in stopping smoking ( $r = .36$ ,  $p < .001$ ). "Anticipated difficulty in quitting" was positively correlated with the belief that smoking helped the person relax ( $r = .33$ ,  $p < .001$ ).

More than one-half of those who had attempted to quit smoking had been successful for less than six months. Females were more likely to use relaxation to stop smoking ( $\chi^2(1, n = 186) = 7.88$ ,  $p = .005$ ). They also had significantly longer period of smoking cessation than males,  $t(242) = -2.33$ ,  $p = .02$ , and were most likely to relapse because of depression ( $\chi^2(1, n = 186) = 5.93$ ,  $p = .01$ ) and stress ( $\chi^2(1, n = 184) = 6.92$ ,  $p = .01$ ). Smoking cessation was obviously a difficult task for all respondents, but more so for the males in the sample.

Reasons for returning to cigarettes after quitting varied. Commonly, interpersonal conflict, social pressure, and depression were all reasons that propelled them back to smoking.

### **Polydrug Use**

As shown in Table 1, many respondents reported multiple drug involvement and an escalating pattern of drug use as they grew older. Alcohol was the most commonly used substance, with one person reporting that the first drink was consumed at three years old and the oldest age being twenty-one years.

Other drug usage questions looked at whether substances have *ever* been tried. As shown in Table 2, marijuana was the most commonly used substance next to alcohol and tobacco. One hundred and sixty-six respondents reported that they had used marijuana. Males were significantly more likely than

Table 1  
**Characteristics and Smoking Status of Respondents**

	Smoker		Ex-Smoker		Never Smoked		Total	
	M	sd	M	sd	M	sd	M	sd
Age	30.4	9.8	29.8	10.2	31.0	12.1	30.4	10.0
Age first tried alcohol	12.2	3.8	13.3	2.6	14.4	4.2	12.5	3.7•
Age first tried inhalants (n=39)	11.9	3.7	11.6	2.1	16		12.0	3.5
Age first tried LSD (n=68)	16.2	3.1	16.4	6.3	17.5	3.4	16.3	3.6
Age first tried marijuana (n=159)	15.4	4.9	14.8	3.3	15.8	8.0	15.3	4.9
Age first tried speed (n=34)	19.8	5.5	21.5	6.6	18.0		20.0	5.5
Education	10.0	2.2	9.3	2.3	9.9	3.4	9.9	2.3
How physically fit	3.2	1.1	2.9	1.2	3.5	1.1	3.2	1.1
Time in jail	16.3	34.0	14.6	47.5	14.2	37.7	15.9	36.0
Age first tried prescription drugs (n=59)	19.2	4.9	3.2	22.0	11.3	19.5	4.9	
Number of children	2.1	1.8	1.9	1.5	2.3	2.8	2.1	1.9
Age first smoked	12.1	3.2	11.9	2.7			12.1	3.5

•p < .05



females ( $\chi^2 (1, n = 228) = 6.48, p = .01$ ) to use marijuana. More smokers than nonsmokers admitted to ever using marijuana and the mean age of marijuana use was slightly higher, but not significantly, for nonsmokers.

A surprising number of respondents also reported using cocaine. Ninety-seven people admitted to trying coke, and the age range for getting involved with cocaine was ten to fifty-six. Again, males were more likely than females to have ever tried cocaine ( $\chi^2 (1, n = 228) = 5.38, p = .02$ ). Sixty-four people reported using prescription drugs recreationally. The age range for starting to use prescription drugs was between ten and thirty-five. LSD had been tried by seventy respondents.

Consistent with the literature, many respondents reported multiple drug involvement and an escalating pattern of drug use as they grew older, often starting with tobacco and alcohol. Inhalants and tobacco were started at roughly the same age, followed by alcohol. Marijuana was also a common substance, used by two-thirds of the people.

Table 2

<b>Pattern of Drug Use and Smoking Status of Respondents</b>						
	<b>Smoker</b>		<b>Ex-Smoker</b>		<b>Never Smoked</b>	
	<b>N</b>	<b>Percent</b>	<b>N</b>	<b>Percent</b>	<b>N</b>	<b>Percent</b>
<b>Cocaine</b>						
Yes	82	43.9	9	34.6	6	7.6
No	105	56.1	17	65.4	12	10.4
<b>Inhalants</b>						
Yes	36	19.5	6	24.0	2	12.5
No	149	30.5	19	76.0	14	87.5
<b>Marijuana</b>						
Yes	134	70.5	22	75.9	10	47.6
No	56	29.5	7	24.1	11	52.4
<b>Prescription Drugs</b>						
Yes	54	28.9	7	26.9	3	17.6
No	133	71.1	19	73.1	14	82.4
<b>Amphetamines</b>						
Yes	30	16.0	3	12.0	1	5.9
No	157	84.0	22	88.0	16	94.1
<b>LSD</b>						
Yes	58	30.9	8	30.8	4	21.1
No	130	69.1	18	69.2	15	78.9

### Reasons for Smoking

Table 3 reveals that the strongest reason reported for smoking was that cigarettes went "well with alcohol," suggesting that the two addictions are mutually reinforcing. Others reported smoking when "upset" and "angry." Using cigarettes to "relax" was also one of the strongest reasons for smoking. The high rating of "gnawing hunger for a cigarette" speaks to the level of addiction that many smoking respondents felt. Finally, those who found themselves in social environments that involved smoking, such as "parties," rated these two settings as influential in reinforcing their smoking.

There was a significant difference between males and females in citing reasons to smoke. Women were more likely to smoke because of negative emotional states. For example, females were more likely to report smoking when "angry" than men ( $t(211) = -2.6$ ). Other strong reasons reported by females included to "relax" ( $t(214) = -2.42$ ), because of "stress" ( $t(212) = -1.99$ ), "when I feel upset" ( $t(210) = -3.66$ ). Females rated smoking to "relax," "when they felt upset," and when "stressed" as stronger reasons to smoke than males. Males were more likely to be influenced by smokers at their "place of employment" ( $t(205) = 1.99$ ). However, this reason for smoking remained weak for both sexes.

### Reported Reasons for Quitting Smoking

As mentioned previously, most clients expressed the wish to stop smoking. Table 4 presents the reasons why people wanted to quit smoking.

Three clusters of reasons for quitting smoking from Table 4 are noteworthy. The strongest reason motivating people to quit smoking was that they would be "proud" if they were to quit smoking. In particular, these are people who were most likely to report that stopping smoking would probably be difficult to accomplish ( $r = .28, p < .001$ ). Another motivator to stop smoking was the "effect that smoking had on other people." In particular, respondents were concerned about the impact of secondhand smoke on family members, especially children. The third cluster of reasons presented for stopping smoking revolves around health. Respondents were aware of the detrimental effect of smoking on health. However, the primary concern involved future health instead of the present state of health. The most concrete item related to the current state of health was that smoking interfered with sports activities. This item correlated positively with all the health-related items in the questionnaire (worried about my health now— $r = .33, p < .001$ ; worried about my health in the future— $r = .46, p < .001$ ).

Again, men and women differed in reasons for stopping smoking. Females scored higher on the question: "My smoking is hurting people I care about,"  $t(182) = -2.08, p = .04$ . Similarly, females were more likely to want to quit because of the "bad effect their smoking was having on others,"  $t(183) = -3.01, p = .003$ . Finally, females were more likely to want to stop smoking because of "poor health,"  $t(184) = -1.81, p = .05$ .

Table 3

Reason	Males		Females		Total	
	<u>M</u>	<u>sd</u>	<u>M</u>	<u>sd</u>	<u>M</u>	<u>sd</u>
	Advertisements	1.73	1.1	1.59	1.1	1.68
Smoking goes good with alcohol	3.82	1.5	3.57	1.6	3.73	1.56
Smoking when angry	2.91	1.5	3.45	1.5	3.13	1.50***
Smoking keeps me awake	1.98	1.3	1.79	1.1	1.91	1.20
Smoking when unaware	2.24	1.4	2.30	1.4	2.28	1.42
Smoking goes good with coffee	2.67	1.6	2.78	1.6	2.72	1.60
Cigarettes are cheap	2.08	1.2	2.18	1.4	2.21	1.28
Tobacco is important in the Aboriginal culture	2.88	1.7	2.65	1.7	2.79	1.70
Cigarettes are easy to get	2.52	1.5	2.46	1.6	2.51	1.54
Family members smoke	2.26	1.3	1.96	1.3	2.16	1.30
Helps me feel better emotionally	2.45	1.4	2.73	1.3	2.56	1.37
My friends all smoke	2.15	1.3	1.90	1.1	2.07	1.24
To do something with my hands	2.38	1.4	2.62	1.5	2.49	1.47
Gnawing hunger for cigarette	3.08	1.6	3.48	1.5	3.24	1.52*
People smoking at parties	3.08	1.6	3.01	1.7	3.07	1.66
Smoking helps me perk up`	2.16	1.2	2.30	1.3	2.22	1.26
Smoking is pleasurable	2.85	1.3	2.70	1.3	2.80	1.32
Smoking helps me relax	3.13	1.5	3.62	1.4	3.33	1.45***
I am sad and depressed a lot	2.25	1.3	2.73	1.4	2.44	1.36***
Life is stressful	2.99	1.4	3.37	1.4	3.15	1.37**
I smoke when I am upset	2.98	1.5	3.37	1.4	3.27	1.48****
Smoking helps control my weight	1.88	1.3	1.89	1.3	1.89	1.32
People smoke at my work	2.17	1.4	1.78	1.3	3.04	1.37**

\* p &lt; .10 , \*\* p &lt; .05, \*\*\* p &lt; .01, \*\*\*\* p &lt; .001

Table 4

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**Reported reasons for wanting to quit smoking**  
1 = Not very important; 5 = Very important

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Reason	Males		Females		Total	
	<u>M</u>	<u>sd</u>	<u>M</u>	<u>sd</u>	<u>M</u>	<u>sd</u>
Smoking is hurting people I care about	3.27	1.6	3.77	1.6	3.46	1.58*
Smoking costs too much	3.04	1.5	3.15	1.8	3.09	1.62
Smoking has a bad effect on others	3.30	1.5	3.95	1.3	3.52	1.45**
I am concerned about my health in the future	4.31	1.1	4.35	1.1	4.33	1.08
I am concerned about my health	3.90	1.3	4.11	1.2	3.98	1.28
I have poor health now	3.34	1.5	3.78	1.4	3.49	1.48*
Quitting smoking will keep me away from other drugs	2.58	1.6	2.56	1.6	2.57	1.61
There is pressure to quit these days	2.98	1.6	2.89	1.3	2.96	1.50
I would be proud of myself for quitting	4.07	1.5	4.11	1.4	4.09	1.44
Smoking stops me from playing sports	3.60	1.5	3.31	1.6	3.51	1.53

\*p < .05, \*\* p < .005

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### Open-Ended Responses

As discussed earlier, tobacco plays a special role in Native American culture. However, not all clients were aware of cultural teachings about tobacco and many had received no cultural teachings at all. Those who had received cultural teachings recognized that tobacco was important for use in sacred ceremonies such as sweats, healing lodges, and sun dances. It was also used as gifts to elders, as a sacred medicine, and as an offering during prayers. Elders, mothers, fathers, and grandparents most frequently provided cultural teachings about tobacco. Less frequently, clients reported obtaining cultural teachings about tobacco for the first time while receiving treatment in their respective treatment centers.

Several important themes emerged when clients commented further on their smoking. Some mentioned concern about smoking in the same environment as children. For example, one person said, "In the home where babies and children are—they are the ones who breathe in the secondhand smoke. They don't have no choice when everyone's smoking." Others mentioned witnessing loved ones being severely affected by smoking. One person reported, "My father was a heavy smoker. He died of a heart attack." Another client saw the relationship between smoking and other diseases: "Since my father had TB . . . that I would catch TB and my mom had cancer from it so I might get cancer too. I'm afraid of getting one of those diseases but still I cannot stop smoking." Others mentioned the harmful or undesirable effects on them personally, including smelling bad, breathing problems. The most unfortunate of them reported having lung cancer and regretting ever smoking in the first place.

Overall it appeared that these people had an ambivalent relationship with cigarettes. While reporting that smoking helped them relax and feel less depressed, many also acknowledged that they wanted to quit smoking. However, they either did not know how to quit or believed that quitting smoking was beyond their ability. Interestingly, some reported that their smoking increased while receiving treatment for other chemical dependencies in the centers because of the social milieu and the exposure to other smokers.

### DISCUSSION

This study looked at nontraditional use of tobacco in Aboriginal treatment centers across Canada. The study is descriptive and there are several cautionary notes about the findings. It is intended to provide a profile of clients in treatment centers across Canada. Centers were selected purposively, based on characteristics representing treatment centers across Canada. However, some centers not included in the study might have possessed client and treatment characteristics dissimilar from those in this study. Thus, care must be taken in generalizing these findings to all treatment centers.

Additionally, smoking status for the clients was based on the categories of "smoker", "ex-smoker", and "never smoker". Given the high relapse rate of smoking cessation, the category of ex-smoker might be inconsistent from one time to another. Answers may also have been influenced by social desirability, with some respondents providing socially acceptable but not necessarily accu-

rate responses. Finally, there was a range of literacy levels among respondents, and some people may have found the questionnaire difficult to understand. While treatment staff assisted in reading the questionnaire, there is no guarantee that all respondents would have asked for help with difficult questions.

Based on the results of this study, a large number of clients in addiction treatment centers across Canada are dependent on nicotine products. In fact, compared with Aboriginal Canadian statistics, those experiencing alcohol addiction are at an increased risk of also being addicted to cigarettes. In addition, multiple drug use seemed to indicate an ongoing pattern of chemical dependency among these clients, often starting with smoking. Tobacco, alcohol, and inhalants were the first substances used by clients, but for many they were also the first substances in a lifelong pattern of polysubstance abuse. As suggested by other authors, tobacco may be a gateway drug for other substances.<sup>39</sup> This study lends some support to this claim.

Many facilities are now considering instituting smoking-cessation programs as part of addiction treatment programs. Facilities could improve the quality of the work and living environment for clients by designing non-smoking programs as an adjunct to treatment. Treatment staff need to understand how alcohol abuse relates to the onset of nicotine addiction and its relationship to other substance abuse.

Institutions committed to smoke-free environments must find a way to address smoking-related concerns that deal with the health and morale of staff and clients. Kotz<sup>40</sup> suggests that nonsmoking policies within an institutional setting be phased in gradually because of patient attempts to sabotage a nonsmoking policy. Obviously, treatment effectiveness is limited without staff cohesion and support. There is a rise in motivation to quit smoking when there is institutional support.<sup>41</sup> To encourage smoke-free patients, facilities might also expect staff to be nonsmoking.

Many clients in this study did not receive cultural teachings about tobacco while growing up. For some, the first occasion to receive cultural teachings occurred in treatment programs. For others, elders, parents, and grandparents were influential in teaching clients about cultural traditions related to tobacco. Should facilities implement smoking-cessation programs, such people could play an important role in the programs. Medical doctors seem under-involved in getting people to quit smoking.

Based on the responses in this study, smoking-cessation programs should not assume a generic approach. Reasons for starting smoking and reasons for wanting to quit, when considered by gender, suggest that males and females differ in both areas. This finding suggests that cessation programs should address specific issues related to meeting the special needs of participants.

Smoking and alcohol abuse appear to be two addictions in a web of ongoing chemical abuse. Ages of initiation to smoking and drinking were correlated in this study. For many of the people in this survey, initiation to both started at young ages. Early intervention for Aboriginal children to prevent smoking, alcohol abuse, and the use of other chemicals should be a priority for community leaders. Many people in this study were unaware of traditional teachings about tobacco. Children must learn about traditional cultural uses of tobacco

within Aboriginal communities. Delaying the onset of nicotine use and alcohol may also affect the tendency to progress to other chemicals. Alcohol and nicotine appeared to play a gateway role for the respondents in this study.

Preventive efforts aimed at stopping Aboriginal children from starting smoking and alcohol are important and necessary. Most of the clients in treatment centers were smokers, and their testimonies reveal just how difficult it is to stop. However, clients appeared to be asking for guidance in quitting smoking, although many resisted the idea of just restricting smoking and developing facility policies. Rather, there might be support for setting up smoking-cessation programs that are supportive, not punitive. This approach offers the greatest promise of being accepted by both.

Clients in this study experienced many years of smoking addiction and expressed a strong desire to receive help to stop smoking. Yet they were not a homogeneous group. Gender differences concerning reasons for starting to smoke and reasons for wanting to stop smoking were apparent, suggesting that the approach to smoking prevention and cessation should be tailored to these differences. Females appeared most concerned with the effect that their smoking had on others, while males cited health and sports as strong reasons to quit smoking. Replacing smoking with physical activities for male clients in particular may motivate clients to stop. Besides physical activities, support and skills for female clients may help these people stop smoking both for their personal benefit and for that of people who are close to them.

While most of the smokers in the study wanted to quit smoking, many were troubled by the amount of anticipated stress that stopping smoking would entail. However, smoking and drinking were strongly related in reasons given for smoking, and, as suggested by the literature, one addiction seems to affect the other. More research is required into the role that smoking might play as a gateway substance. In addition, facilities that institute nonsmoking policies should consider tailoring the programs to meet the special needs of different groups of clients.

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