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The Dentist's Role in Cessation of Cigarette Smoking

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Synopsis

Dentists in general practice were surveyed by mail questionnaire to determine the actions they were taking to promote cigarette smoking cessation among their patients. Findings are based on replies from 376 of the 466 dentists in western New York State to whom the questionnaire was sent in 1981.

The responses indicate that less than 18 percent of western New York State dentists smoke. The proportion is continuing its gradual decline, and dentists lead the general population in smoking abstention. Sixty-two percent of the dentists in the survey do not permit smoking in their waiting rooms, and 84 percent advise patients not to smoke. There is clear evidence of a relationship between the dentists' own smoking habits and their inclination to promote smoking cessation among patients. As fewer dentists smoke, more will be inclined to foster nonsmoking.

Dentists can use a variety of smoking cessation techniques. To carry out a minimal program of antismoking measures, dentists in general practice can serve as nonsmoking role models for their patients, provide information about the health hazards of smoking, give advice, refer patients to cessation programs, recommend cessation measures, and monitor patients' efforts to quit smoking. While smoking cessation measures taken by dentists are not likely to convert more than 1 or 2 percent of patients who smoke per year, in time the dentists' efforts to promote smoking cessation can have an appreciable impact.

THIS PAPER PRESENTS SOME FINDINGS about antismoking actions carried out by dentists in general practice in western New York State. Like other health professions, dentistry has taken a stand against cigarette smoking (*1*). Several authors have sought to define a particular role for dentistry in efforts to change the smoking habits of 53 million adult Americans (*2*). Most of what has been written, however, has taken the form of declarations,

exhortations, and anecdotal essays (*3*). Little has been reported about what dentists do to influence smoking in their own offices and the smoking habits of their own patients.

Before discussing data from our study, it is useful to review ideas on the role of dentistry in smoking cessation. The potential influence of dentists as agents of change is clear from even a brief consideration of the nature and conditions of the dentist-patient relationship. Each year one-half of all Americans visit a dentist and often make a series of visits, often as a part of a regular relationship with one practitioner that lasts for several years (*4*). The dentist has prestige, authority, and the respect and liking of his patients (*5*). Interaction is personal, friendly, and open to intense communication. Health being salient in a dentist's office, the dental patient can be expected to be receptive to preventive health messages. Dentists consider patient education one of their responsibilities. In particular, dental hygienists have formally incorporated patient education into their role (*6*). National attitude surveys indicate that patients accept the health professionals' authority in smoking cessation efforts (unpublished report of the National Cancer Institute and the Centers for Disease Control: "Adult Use of Tobacco–1975," June 1976). According to a 1975 national survey, the majority of dentists think it is their responsibility to (*a*) set a good example by not smoking cigarettes, (*b*) convince smokers to stop, and even (*c*) become more active in speaking to lay groups about cigarette smoking (*7*).

Smoking has morbid consequences for the teeth, gums, and oral mucosa: producing stains, patches, (smokers' patches), and odor (smokers' breath) (*8–10*). Such adverse effects are particularly important to younger smokers who may not be influenced by long-term threats and are more likely to be motivated by immediate, esthetic, and performance concerns.

All these considerations may paint an optimistic picture of the potential influence that dentists can have on smoking habits. However, we need to know what dentists actually do and have done.

In terms of their own smoking, the proportion of dentists who smoke has declined, according to survey data from the Public Health Service (*7*). Between 1967 and 1975, cigarette smoking dropped from 34 percent to 23 percent. (This reduction paralleled the decline in smoking among physicians whose rates dropped from 30 percent to 21 percent over the same 8 years. Both dentists and physicians are less likely to smoke than adult males in the general population. In 1980, an estimated 37 percent of American men and 29 percent of women were smokers (*11*). Finally, 61 percent of dentists who had smoked had quit by the time of the 1975 survey, and half of these former smokers had not smoked for 10 years or more. These figures show that dentists seem to be promoting cessation, at least as passive role models who do not smoke themselves or who have given up cigarettes.

'The dentists' cigarette smoking habits are relevant to their effectiveness as role models for patients. As we shall see, they are also relevant to what dentists are likely to do to influence smoking habits.'

We did not find many American studies that dealt with how active dentists are in persuading patients who smoke to stop, what characterizes such activists, or how effective their efforts are.

An Australian study is worth citing because it has few counterparts and deals with important variables. In a 1977 mail survey of 305 Victoria dentists, Dodds and coworkers found that 23 percent of dentists smoked cigarettes, with the youngest and oldest dentists least likely to smoke. Further, 43 percent said that, whenever possible, they encouraged all their smoking patients to quit; 29 percent said that they only encouraged quitting if the patient suffered ailments attributable to smoking; 21 percent gave advice only when asked; and 7 percent felt that the patient's smoking was none of the dentist's business (*12*). Unfortunately, the authors did not relate the dentists' own smoking habits to whether they offered advice to patients who smoked. We used a 1981 survey of dentists in general practice in western New York to explore these questions.

Materials and Methods

Our study relied on a target sample of 466 general practitioners randomly picked (stratified by county) from a recent list of all dentists in general practice in the eight counties of western New York State. Data were gathered by means of a mailed questionnaire in spring 1981. After 3 mailings and a telephone followup, usable responses were received from 376 dentists, or 81 percent of the original sample. Since the list from which our sample was drawn was a few years old, all our respondents had been out of dental school for at least 5 years.

The questionnaire focused principally on problems that dentists have with their patients (*13*). However, five of the questions asked respondents about their own smoking and what they did regarding the cigarette smoking of their patients.

Table 1. Cigarette smoking among western New York State dentists according to age groups

Age group (years)	Percent				Number of dentists
	Never smoked	Stopped smoking	Light smoker	Heavy smoker	
70 and older	36	55	9	0	22
60–69.....	33	59	9	0	70
50–59.....	40	39	17	4	109
40–49.....	34	48	15	4	80
30–39.....	58	23	17	3	66

NOTE: $\chi^2 = 23.92$; $P < .005$ (df = 8 with light and heavy smokers combined).

Table 2. Giving advice on smoking in relation to permitting smoking in waiting room

Waiting room rule	Advises		Doesn't advise	
	Number	Percent	Number	Percent
Forbids smoking.....	204	65	28	46
Permits smoking.....	108	35	33	54
Total	312	100	61	100

NOTE: $\chi^2 = 7.43$ (with Yates' correction); $P < .007$.

Findings

The dentists' cigarette smoking habits are relevant to their effectiveness as role models for their patients. As we shall see, they are also relevant to what dentists are likely to do to influence smoking habits.

The questionnaire asked: "How would you describe your own experience with cigarette smoking?" and offered a choice of four answers: "never smoked," "used to smoke but have stopped," "currently am a light smoker," "currently am a heavy smoker." Less than one-fifth, or 18 percent, described themselves as current smokers, and most of these classified themselves as "light" smokers. Thirty-nine percent said they had never smoked. Forty-three percent of respondents were ex-smokers. Of respondents who had ever smoked, 71 percent had stopped.

The percentage of smokers among dentists in western New York is probably somewhat lower than 18 percent. Our sample under-represented the youngest and oldest practitioners, and the dentist's age was related to his or her cigarette smoking behavior both past and present. As shown in table 1, only about one-third of the older dentists had never smoked, but more than one-half of the youngest (those 39 or younger), had never smoked. On the other hand, just a few of the very oldest dentists were still smoking, but one-fifth of the youngest were. In every age category the majority of those who had ever smoked had quit.

The questionnaire also asked what dentists did about patients' smoking. One question asked, "Are patients permitted to smoke in your waiting room?" Sixty-two percent responded "no," and 38 percent, "yes."

Dentists were also asked, "Do you ever talk to patients about quitting or cutting down on their cigarette smoking?" Eighty-four percent said they advised patients about smoking; 16 percent said they did not. Those who did were asked how many patients they had talked to about their cigarette smoking in the past year. The median answer was roughly 40 patients. When asked what success they thought they had had—"How many of these patients (whom you talked to) would you say cut down or quit smoking?"—the majority (55 percent) answered that they did not know. Those dentists who gave an estimate were likely to put the number around 5 (median).

Table 2 examines the two antismoking measures in combination. Over half the dentists both advise patients and forbid smoking in the waiting room; less than 10 percent do neither. Thus, the responses show that the two measures are related.

We examined two factors that seemed likely to affect what dentists do about their patients' smoking: the year they graduated from dental school and their smoking history. We found no connection between the year of graduation and whether the dentist made efforts to get patients to stop or cut down on smoking. However, the more recent graduates were more likely than the older graduates to forbid smoking in their waiting rooms.

The dentists' smoking habits had a marked influence on their actions. Nonsmokers were much more likely to forbid smoking in the office and also to talk to patients about cigarette smoking (tables 3 and 4). Thus, smoking was forbidden in waiting rooms by 71 percent of dentists who had never smoked, contrasted with only 29 percent of those who smoked (light and heavy smokers combined). Similarly, 86 percent of the dentists who had never smoked advised their patients to stop or cut down; 65 percent of the smoking dentists advised stopping. Nonsmoking dentists who had stopped smoking were just as likely to act against smoking as those who had never smoked.

Discussion

Because ours was an exploratory study of a small segment of dentists in general practice, our data and conclusions should be regarded as subject to validation by a second study employing a national sample.

According to our data, dentists seem to be continuing long-term trends. They are quitting smoking or not start-

Table 3. Dentists' own smoking habits in relation to whether they permit smoking in waiting rooms

Waiting room rule	Never smoked		Stopped smoking		Currently smokes	
	Number	Percent	Number	Percent	Number	Percent
Forbids smoking	102	71	106	69	19	29
Permits smoking	42	29	48	31	46	71
Total	144	100	154	100	65	100

NOTE: $\chi^2 = 37.61$; $P < .0001$.

Table 4. Dentists' own smoking habits in relation to whether they give advice on smoking

Inclination to advise	Never smoked		Stopped smoking		Currently smokes	
	Number	Percent	Number	Percent	Number	Percent
Advises	124	86	142	91	42	65
Does not advise	20	14	14	9	23	35
Total	144	100	156	100	65	100

NOTE: $\chi^2 = 24.82$; $P < .0001$.

ing to smoke in the first place. Dentists continue to lead the general population in these respects and thus they serve as good role models. Further, the fewer dentists who smoke, the more dentists we can expect to try persuading others to stop.

Important questions remain. How many dentists try to influence patients who smoke? What are their motives? In what respects do dentists who try to influence patients differ from those who do not?

Our data suggest that a large majority of dentists try to influence some smoking patients, but they do not tell us what proportion of smokers they constitute, the nature of the dentists' influence, or how the patients are selected. Apparently, dentists succeed in their attempts only in a few cases—in our study, the median estimate of successes in the past year was about five patients.

Our results show that the smoking habits of dentists affect their inclination to offer advice or to prohibit smoking in their offices. Our finding parallels that drawn by Coe and Brehm from a study of a nationwide sample of physicians (*14*); they stated: " . . . physicians who do not smoke are much more likely to advise patients to stop smoking than are physicians who do smoke." At least one other study of physicians came up with a similar finding (*15*).

We think it is important to find out what techniques dentists use to influence smoking habits and how effective they are. Our study indicates that dentists seldom know whether or not their efforts work, probably because they have taken few opportunities to do systematic followup. The literature stresses the importance of long-term followup programs (*16*). It shows that, among those who attend smoking clinics, recidivism is high after they first stop. Knowing this, smoking clinics' staff are urged to consider their efforts to influence smoking habits successful only after a former smoker has refrained from smoking for 12 months or even for 2 years (*17*).

Research regarding the success physicians have had in influencing the smoking habits of their patients has produced some interesting findings. A recent review by Pederson shows that success varies with the nature and severity of a patient's ailment. Patients who are not suffering smoking-related diseases are only a little likely to follow their general practitioners' advice to stop smoking. Unfortunately, reluctance to quit is true also of pregnant women, who are not ill but who certainly have reasons to quit. On the other hand, as high as 76 percent of patients with pulmonary or heart disease quit smoking in response to their physicians' advice. Further, physicians evidently vary considerably in their ability to get patients to quit (*18*).

On the basis of our research and that of others, we propose a minimal program for dental practices which would require little of a dentist's time. To begin, the smokers are identified. They are then asked if they would like help in stopping. The dentist or hygienist briefly discusses the problem, urges the patient to stop for health reasons, and provides reading material. (Several pamphlets are available; some are aimed specifically at dental patients, and others meet various levels of patient interest and sophistication.) During subsequent visits, smokers are followed up and their efforts to quit are checked. In

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addition, "no smoking" signs are displayed in waiting rooms. No ash trays are left out and the dental staff let patients know that they are nonsmokers.

This minimal program does not take much time and can be carried out in the routines of dental practice. However, the results are not likely to be dramatic. Similar approaches used in general medical practices seem to produce results for only a small percentage of smokers (*19*). While results are unlikely to be more dramatic in most dental practices, even a success rate as low as 1 or 2 percent per year is likely to have an appreciable impact in time, given the large number of dental practices and patients.

The Surgeon General of the Public Health Service, Dr. C. Everett Koop, has called smoking—"the chief, single avoidable cause of death in our society and the most important public health issue of our time"(*20*). While many questions remain to be answered by further research on how to improve the effectiveness of antismoking techniques, several options are open to dentists who wish to help combat this health menace. Dentists can serve as nonsmoking role models, provide information about the health hazards of smoking, give advice, refer patients to cessation programs, recommend cessation measures, and monitor patients' efforts to quit smoking (*21*).

Literature from the American Dental Association and the National Cancer Institute offers dentists guidance on how to help patients stop smoking (*2*). While the extent to which dentists have used the literature is currently being evaluated, it is safe to conclude that the dental office is far from being fully utilized to promote smoking cessation.

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