Smoking Habits of Physicians and Preventive Care Practices

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SINCE the publication in 1964 of the Surgeon General's report, Smoking and Health, an increasing number of studies related to the behavior of the public have been reported (*1,2*). Some of these studies have been economic in orientation, describing fluctuations in the sale of cigarettes and other tobacco products; others have been reports of clinical trials describing the effects of nicotine, tars, and smoke on man and animals; still others have been concerned with the attitudes of the public toward smoking. More recently, physicians have become the target population in studies of smoking behavior (*3*) and attitudes (*4*) because of the strategic role they could play in influencing the health attitudes and practices of their patients (*5,6*). We felt that a further study of the smoking habits of physicians and their attitudes toward smoking in relation to the advice they give their patients would be of some interest and benefit.

A part of this benefit would be derived from knowledge of how much concern practicing physicians show for the effects of smoking and to what degree their own smoking habits influence the advice they give their patients. This influence has potential for more than just description; it may also serve to test some general hypotheses concerning the kinds of factors which influence a physician's style of practice with his patients. Specifically, we were interested in the relative importance of personal smoking behavior and professional training as guides to the physician's conduct in professional activities.

The data for this report were taken from our more comprehensive study which described various factors found to influence the kinds and amounts of routine preventive health care services which physicians provided for their patients (*7*). Some of the observations in this larger study are also of importance here. For example, some physicians clearly provided better or more comprehensive preventive care services than did others. The two most important factors were whether the physician had graduated before or after 1950 and whether the physician was a general practitioner or had become an internist by obtaining more extensive training.

From the data, we determined that younger physicians, especially those who were internists, were better practitioners in regard to preventive care services than were older general practitioners. The quality of practice was measured by the types and number of laboratory tests and examination procedures routinely performed for patients, the kind of advice given, and the degree to which the physician cooperated with local health agencies.

The importance of the physician's orientation to the concepts and practices of preventive medicine in relation to the quality of practice was also investigated in the study. For example, for the purposes of our study we defined orientation as follows:

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1. Cooperative orientation—physicians who defined preventive medicine as a cooperative effort between the physician and the patient in which both had specific responsibilities.

2. Physician orientation—physicians who defined preventive medicine only in terms of what the physician did to patients but without reference to what patients could do.

3. Traditional orientation—physicians who defined preventive medicine in terms of traditional public health activities and who made no mention of the role of the practicing physician.

In this paper we examined the smoking habits of physicians and their attitudes toward preventing smoking in terms of these three factors.

In the fall of 1967, data on smoking were collected in the context of a personal interview with a nationwide sample of 1,591 practicing physicians. The sample was stratified by location (metropolitan - nonmetropolitan), age of practitioner (as indicated by year of graduation from medical school), and type of practice (general practice or internal medicine). The questions on smoking were formulated by the National Clearinghouse for Smoking and Health and incorporated into the larger interview schedule.

Smoking Habits

Of major interest, of course, was whether the physicians themselves smoked cigarettes and the effect that publicity about the hazards of smoking had had on them as individual persons. Some initial data are shown in table 1. Statistically significant differences were found only between physicians graduating before 1950 and in 1950 or later, and even then, the percentage differences were slight. These data suggest only that about three of 10 physicians smoke cigarettes regularly, although a slightly greater proportion have stopped smoking. The selected indicators of age, specialty, or orientation toward preventive medicine did not seem to exert much influence on the smoking behavior of these physicians.

Data were also available on the number of cigarettes smoked and the length of time these physicians had smoked. Thus, among the present smokers, there was no difference between the older and younger men. Among the former smokers, however, 38.8 percent of the younger men had smoked more than 20 cigarettes per day compared with 20.9 percent of the older men ($P<0.001$). Among older men, the present smokers smoke more cigarettes than did the men who formerly smoked in this age group ($P<0.05$). For physicians in the younger age group, the situation was reversed; the former smokers had smoked more ($P<0.01$).

Similarly, among both the present and former smokers, general practitioners smoke or had smoked a greater number of cigarettes than internists ($P<0.05$). Within the group of general practitioners, however, differences between smokers and former smokers were not great enough to reach statistical significance, but among internists, the differences were significant; former smokers had smoked more than present smokers do now ($P<0.05$).

These data, however interesting they might be if compared with similar data for the general public, provide only a background for discussion. Our major interest was to understand how these factors influence a physician's response to his patients and his concern about the hazards of smoking. It may be relevant here to indicate that about six of every 10 of these present smokers have tried to quit smoking at one time or another but started again. These attempts, coupled with the fact that there are more former smokers than present smokers among these respondents, suggest that physicians are concerned about the potential hazards of smoking. Thus, 75.8 percent of all these physicians showed some degree of concern about the problem.

There were only minor variations between the attitudes of general practitioners and internists and among those with different

Table 1. Physicians' use of cigarettes, whether graduated before 1950 or later, specialty, and orientation to preventive medicine, in percentages

Physicians' characteristics	Number of physicians [1]	Smokes now	Former smoker	Never smoked
Year graduated ($X^2=8.09$, $df=2$, $P<0.02$):				
Before 1950	784	26.8	39.3	33.9
1950 or later	786	32.6	33.4	34.0
Practice ($X^2=4.31$, $df=2$, $P<0.20$):				
General practice	856	28.9	34.9	36.2
Internist	716	30.6	31.3	38.1
Orientation ($X^2=6.46$, $df=4$, $P<0.20$):				
Cooperative	558	29.4	34.8	35.8
Physician	739	29.6	35.9	34.5
Traditional	231	28.6	43.3	28.1

[1] Total sample size for each category is unequal because of missing information.

Table 2. Physicians who routinely queried patients on smoking habits and advised patients to give up smoking, by characteristics of the physicians, in percentages

Physicians' characteristics	Number of physicians	All patients	Some patients	No patients
	Routine inquiry of patients' smoking habits			
Year graduated ($X^2=12.15$, $df=2$, $P<0.01$):				
Before 1950	786	69.5	14.1	16.4
1950 or later	791	71.0	17.9	11.1
Practice ($X^2=119.88$, $df=2$, $P<0.001$):				
General practice	861	59.3	19.7	21.0
Internist	718	83.3	11.6	5.1
Orientation ($X^2=6.87$, $df=4$, $P<0.10$):				
Cooperative	560	74.3	13.9	11.8
Physician	742	68.5	17.8	13.7
Traditional	232	70.7	14.2	18.0
	Advised patients to give up smoking			
Year graduated ($X^2=8.43$, $df=2$, $P<0.02$):				
Before 1950	769	60.2	24.7	15.1
1950 or later	777	65.8	18.7	15.5
Practice ($X^2=17.11$, $df=2$, $P<0.001$):				
General practice	846	58.5	23.8	17.7
Internists	702	68.5	19.1	12.4
Orientation ($X^2=11.17$, $df=4$, $P<0.05$):				
Cooperative	551	64.1	21.4	14.4
Physician	729	63.8	21.3	14.8
Traditional	183	49.7	27.9	22.4

orientations toward preventive medicine. There was a strong difference, however, between older and younger men ($P<0.01$) in which 36.7 percent of the older men reported a fair to marked concern compared with 52.8 percent of the younger men who reported such concern.

Attitudes Toward Role

The aforementioned data seem to suggest that the smoking behavior of physicians is related to factors other than those of age, specialty, or orientation to preventive medicine. Except for age, the other variables seem to bear little relationship to the reported smoking behavior.

A similar pattern was found regarding the respondent's attitude toward his role with patients when discussing their smoking behavior. That is, only age of the physician significantly influenced attitudes. To obtain these data, attitudes toward the physician's responsibility were measured by responses to four items. The distribution of responses to these statements indicates that physicians more or less uniformly acknowledge their responsibility to help patients but are less agreed upon how it should be done.

Substantial differences were observed only on items one and two among these physicians. Typically, younger physicians, more often than older ones, agreed that the physician should set the example ($P<0.05$) and disagreed that a physician's time could be better spent than in trying to convince patients to stop smoking ($P<0.001$).

The four items showing the physicians' attitudes toward responsibility for their patients' smoking behavior follow.

1. It is the physician's responsibility to set a good example by not smoking cigarettes—1,568 physicians responded.

Attitude	*Percent*
Strongly agree	43.6
Agree	36.4
Disagree	16.1
Strongly disagree	3.8

2. The physician's time can be much better spent doing other things than trying to reduce smoking in patients—1,563 physicians responded.

Attitude	*Percent*
Strongly agree	6.2
Agree	31.1
Disagree	44.6
Strongly disagree	17.7

3. It is the physician's responsibility to help his patients who wish to stop smoking accomplish this—1,572 physicians responded.

Attitude	*Percent*
Strongly agree	39.0
Agree	53.2
Disagree	6.7
Strongly disagree	1.0

4. It is the physician's responsibility to attempt to convince his patients to stop smoking—1,562 physicians reponded.

Attitude	*Percent*
Strongly agree	35.1
Agree	48.0
Disagree	15.0
Strongly disagree	1.6

Preventive Practices

In the course of the interviews with the respondents, two questions were asked about the practices of these physicians when obtaining information on the smoking behavior of their patients. The first question was "do you routinely find out from adult patients whether or not they smoke cigarettes? What about adolescents?" About seven of every 10 respondents claimed to ask all patients routinely, adults and adolescents alike, if they smoked cigarettes. Another 14.3 percent asked only adults, while less than 2 per-

cent asked only adolescents. About 14 percent did not inquire about the smoking behavior of their patients. These responses are shown in table 2 by year graduated, specialty, and orientation to preventive medicine.

It is apparent that young physicians, and especially internists, are more likely to inquire about their patients' smoking habits. For orientation to preventive medicine, the differences are in the expected direction but not of sufficient magnitude to be statistically significant. These data are consistent with the results of our study in terms of the relationship of preventive practices to age and specialization of the physician (*7*).

The second question sought information on how often the physician advised patients who smoked to give up cigarettes even though the condition being treated was unrelated to smoking. Again, more often than not, these physicians gave that advice to all or nearly all their patients (63 percent). The data in table 2, however, indicate even more clearly that younger physicians, especially internists, give this advice to a greater number of their patients than do older men, particularly the general practitioners. In addition, orientation to preventive medicine also differentiates between the practices of these physicians on giving advice.

In sum, a relationship was observed between the characteristics of the physician, including his orientation to preventive medicine, and preventive care of patients with respect to smoking behavior. This relationship closely parallels the observations of our previous study with regard to evaluating other preventive health care services (*7*). As noted before, these characteristics have little to do with the physicians' own smoking behavior. The data shown in table 3, however, indicate that this is only one part of the story. The smoking habits of the physician were observed independently to influence some aspects of his involvement with his patients' smoking behavior. Whether or not a physician smokes now is unrelated to the practice of inquiring routinely about his patients' smoking behavior. However, physicians who do not smoke are much more likely to advise patients to stop smoking than are physicians who do smoke.

Table 3. Physicians who routinely queried patients on smoking habits and advised patients to give up smoking, by smoking status of the physicians, in percentages

Smoking status of physician	Number of physicians	All patients	Some patients	No patients
	Routine inquiry of patients' smoking habits ($X^2=10.08$, $df=4$, $P<0.10$)			
Total respondents to question	1,495	70.1	16.1	13.8
Smokes now	466	65.9	16.7	17.4
Former smoker	525	73.3	15.8	10.9
Never smoked	504	71.2	15.7	13.1
	Advised patients to give up smoking ($X^2=87.73$, $df=4$, $P<0.001$)			
Total respondents to question	1,465	62.4	21.7	15.9
Smokes now	449	46.8	26.2	69.2
Former smoker	520	71.2	19.2	9.6
Never smoked	496	69.2	19.5	11.3

Discussion

The data provide some interesting descriptive information and permit some inferences regarding the attitudes and practices of the physicians in our study. For example, the percentage of respondents who are former smokers is greater than the percentage of respondents who now smoke. This decrease in smokers suggests that the publicity concerning the hazards to health of cigarette smoking may have had some effect on the smoking behavior of these physicians.

In general, the amount of concern the physicians had about the hazards of smoking is substantial, as shown by their perspective on their responsibilities toward patients. To be sure, they may feel as strongly about their responsibilities with regard to other specific problems of patients, such as weight reduction, but like their own smoking behavior, the attitudes of these physicians are not significantly influenced by their personal characteristics or by their orientation toward preventive medicine.

At the same time, we have seen that the specific practices engaged in by these physicians, that is, routine inquiry about smoking and advice not to smoke, are strongly influenced by the age and specialty of the physician and by his orientation toward preventive medicine. Younger physicians significantly more often routinely inquire about their patients' smoking behavior and advise their patients to stop smoking. The observations with respect to their own smoking behavior suggests that physicians who smoke were less able than

their nonsmoking colleagues to separate personal from professional behavior in one critical area, that is, advising against behavior in which the physician himself engages.

The information in table 3 also indicates that almost half of the physicians presently smoking do advise patients to give up cigarettes even when only conditions unrelated to smoking are detected. While this percentage is significantly less than the percentage of nonsmoking physicians who similarly advise their patients, it is still a sizable percentage. In every other respect, these physicians join their nonsmoking colleagues in effectively compartmentalizing their professional and personal lives.

We suggest, then, as authors of previous studies have done, that physicians' practices are subject to professional attitudes and values, but that personal behavior, while a much less significant factor, may still influence professional behavior to some extent. Thus, the smoking habits of physicians as persons would not be as meaningfully related to their behavior toward patients' smoking as are their professional orientations.

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The smoking habits of physicians and the influence of these habits on the type of preventive care given with respect to smoking habits of their patients were studied.

Data for this report were obtained from a larger, more comprehensive study of various factors influencing the kinds and amounts of routine preventive health care services which physicians provided for their patients. Information was obtained in personal interviews with a nationwide sample of 1,591 general practitioners and internists. The sample was stratified by location of practice, year of graduation from medical school, and type of practice.

Observations about smoking habits of this sample of physicians closely parallel data from other studies of smoking habits. About one-third of the respondents were smoking at the time of the study, a slightly larger percentage had stopped smoking, while the balance had never smoked.

For the most part, smoking behavior of these physicians was not strongly related to the characteristics of medical specialty, orientation to preventive medicine, or age of the physician. Younger physicians, however, more often than older ones believed it was their responsibility to set the example for patients by not smoking and that talking with patients about smoking was valuable.

Preventive practices linked with smoking were measured in terms of routine inquiry about a patient's smoking status and frequency of advising patients to quit smoking. About seven of 10 physicians claimed they routinely asked all patients if they smoked. About six of 10 physicians advised their patients who smoked to stop.

The degree to which patients were routinely queried about smoking or advised to stop it varied by age of practitioner, type of specialty, and orientation to preventive medicine. Younger men, especially internists, and those with a strong orientation to preventive medicine significantly more often inquired routinely about smoking or advised patients to stop smoking.

Finally, significantly, physicians who smoked advised their patients less often to stop smoking than did nonsmoking physicians. Smoking status of physicians was not related to whether they routinely inquired about the smoking habits of their patients.