Original Articles

Study of smoking habits in hospital and attitudes of medical staff towards smoking

STEVEN L. SENIOR, MD, CCFP

Most hospital policies place little or no restriction on patients' smoking in hospital. In this study patients were surveyed to determine if they smoked and if their doctors advised or ordered them to stop smoking in hospital. As well, the smoking habits and attitudes towards smoking of the medical staff and other hospital workers were explored. Of 741 patients 37% were smokers, and of those who responded fully to a questionnaire 86% continued to smoke in hospital. Patients who were advised or ordered not to smoke (59%) were no more likely to stop smoking than those who were not so advised or ordered.

Physicians were less likely to smoke than other hospital staff, and those who did smoke were much more likely not to smoke while in the hospital. Physicians appear to have a reasonable appreciation of the health hazards of smoking, and almost two thirds are in favour of stricter restrictions on patients' smoking in hospital. The ineffectiveness of their efforts is primarily due to hospital policies that are not in keeping with physicians' standards of practice and with established knowledge of the deleterious effects of smoking on health.

Dans la plupart des hôpitaux les règlements n'imposent que peu ou pas de restrictions sur la possibilité pour le patient de fûmer à l'hôpital. Dans cette étude les patients ont été questionnés pour déterminer s'ils fûmaient et si leurs médecins leur avaient conseillé ou ordonné d'arrêter de fûmer à l'hôpital. De même, on a étudié l'habitude de fûmer et l'attitude envers les fûmeurs du personnel médical et des autres travailleurs d'hôpitaux. Sur 741 patients 37% étaient des fûmeurs, et de ceux qui ont répondu au complet au questionnaire 86% ont continué de fûmer à l'hôpital. Les patients à qui on avait conseillé ou ordonné de cesser de fûmer (59%) n'étaient pas plus susceptibles d'arrêter que ceux à qui on n'avait pas prodigué un tel conseil ou interdiction.

Les médecins étaient moins portés à fûmer que les autres travailleurs d'hôpitaux, et ceux qui fûmaient étaient beaucoup plus susceptibles de s'en abstenir alors qu'ils étaient à l'hôpital. Les médecins semblent avoir une vue raisonnable des risques du tabac pour la santé, et près des deux-tiers sont en faveur de mesures plus strictes pour restreindre l'usage du tabac par les patients à l'hôpital. Le peu de résultat, suite à leurs efforts, est surtout dû au fait que les règlements hospitaliers ne tiennent pas compte des standards de pratique des médecins et des connaissances bien établies sur les effets nuisibles du tabac pour la santé.

That cigarette smoking causes disease and early death is well established.[1] Yet the Peterborough Civic Hospital, like many other hospitals, has taken little or no action to reduce smoking by patients in hospital.[2] Its policy focuses on the social aspects of smoking as an individual right and attempts to protect nonsmokers from the dangers of breathing other people's smoke. It states: "Smoking is prohibited in the hospital except in designated smoking areas. Patients may smoke only in their own room or in designated areas. When possible, smokers and non-smokers will be segregated. Staff will be allowed to smoke only in specially designated areas."

I undertook a survey to determine if the current hospital policy that tolerates smoking results from the attitudes and practices of the medical staff.

Subjects and methods

All the patients admitted to our hospital over a 1-month period were asked to complete a questionnaire on their smoking habits at the time of discharge from hospital or after at least 1 week's stay or through a follow-up telephone call. The charts were then reviewed to determine whether the patient had been admitted with a smoking-related disease — that is, emphysema, chronic bronchitis, ischemic heart disease, cerebrovascular insufficiency, peripheral vascular disease, peptic ulcer or carcinoma of the bladder, esophagus, lung or larynx.

All the hospital staff were asked about their smoking habits, and the medical staff were asked to complete a questionnaire on their attitudes towards smoking.

Chi-square tests were used to determine the statistical significance of the findings.

Results

Patients

During the study period 1018 patients were admitted

Reprint requests to: Dr. Steven L. Senior, Department of family medicine, Peterborough Civic Hospital, Weller Street, Peterborough, Ont. K9J 7C6

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to the active wing of our hospital. Of the 771 adult patients who qualified for the study 16 died and 14 did not complete the questionnaire. Therefore, 741 patients were included in the study.

Of the 741 patients 271 (37%) were smokers, "smoker" being defined as anyone who habitually smoked cigarettes, regardless of amount; 14 patients did not answer the questionnaire completely and are therefore not considered in the following analysis. Of the 257 remaining smokers, 220 (86%) smoked while in hospital. Since the study was designed to determine whether the hospital policy restricted the habits of smokers only with regard to total abstinence, the number of cigarettes smoked was not considered. Whether the patients complied with advice or an order not to smoke was independent of the amount smoked; those who were advised or ordered not to smoke were no more likely to comply than those not so advised or ordered (Table I). In addition, there was no significant difference in smoking habits between patients who were advised and those who were ordered not to smoke.

Fifty-one patients were admitted to hospital with a smoking-related disease, and 34 (67%) of these smoked while in hospital. Patients with a smoking-related disease were no more likely to be advised or ordered not to smoke than other patients (Table II); however, they were significantly ($\chi^2 = 11.79$, $P < 0.001$) less likely to smoke in hospital (Table III).

Hospital staff

Table IV shows the smoking habits of the staff. Physicians were less likely to be smokers, and those who did smoke were less likely than other hospital workers to smoke in the hospital.

Of the 170 doctors on staff, only 88 (52%) completed the questionnaire. Table V shows the proportion of doctors who were convinced that certain diseases are strongly associated with smoking. In addition, 82%, 61% and 49% respectively of the respondents believed that maternal smoking was strongly associated with smallness and prematurity of offspring and with stillbirth.

Table VI shows the types of smoking policies preferred by the medical staff; 62% favoured a policy directed towards the health of the smoker, whereas 38% favoured a policy that reflected a concern only for the nonsmoker. Of the 34 doctors who preferred to allow patients to smoke in designated areas, 12 believed that patients have a right to smoke in hospital, 21 believed that it is impractical to propose a stricter policy and 8 believed that it is of no value to restrict patients from smoking while in hospital. However, 65 (74%) felt that

Table I—Influence on patients who smoked of doctors' advice or order not to smoke in hospital

Variable	No. of patients		
	Smoked in hospital	Did not smoke in hospital	Total
Advised not to smoke	105	15	120
Ordered not to smoke	26	6	32
Not so advised or ordered	82	23	105
Total*	213	44	257

*Of the 271 patients who were smokers 10 did not state whether they smoked in hospital and 4 others did not state whether they were advised or ordered to stop smoking.

Table II—Relation of type of disease to doctors' advice or order not to smoke in hospital

Variable	No. of patients; type of disease		
	Related to smoking	Not related to smoking	Total
Advised not to smoke	24	96	120
Ordered not to smoke	12	20	32
Not so advised or ordered	15	90	105
Total	51	206	257

Table III—Relation of type of disease to whether patients smoked in hospital

Variable	No. of patients		
	Smoked in hospital	Did not smoke in hospital	Total
Smoking-related disease	34	17	51
Disease not related to smoking	179	27	206
Total	213	44	257

Table IV—Smoking habits of hospital staff

Type of worker	No. (and %) of workers		
	Nonsmokers	Smokers	
		Total	Those who did not smoke in hospital
Doctor (n = 88*)	71 (80.7)	17 (19.3)	6 (35.3)
Nurse (n = 508)	343 (67.5)	165 (32.3)	7 (4.2)
Other professional			
With patient contact (n = 182)	124 (68.1)	58 (31.2)	2 (3.4)
Without patient contact (n = 52)	41 (78.9)	11 (21.2)	2 (18.1)
Nonprofessional (n = 230)	132 (57.4)	98 (42.6)	0

*Of the 170 doctors on staff, only 88 completed the questionnaire.

Table V—Proportions of doctors believing that certain diseases are strongly associated with smoking

Disease	No. (and %) of doctors*
Emphysema	87 (100)
Chronic bronchitis	87 (100)
Carcinoma of lung	87 (100)
Peripheral vascular disease	82 (94)
Ischemic heart disease	81 (93)
Peptic ulcer	73 (84)
Carcinoma of larynx	70 (80)
Cerebrovascular insufficiency	69 (79)
Carcinoma of bladder	43 (49)
Carcinoma of esophagus	42 (48)
Valvular heart disease	12 (14)
Carcinoma of bowel	9 (10)
Regional enteritis	8 (9)
Rheumatoid arthritis	5 (5)

*Of the 88 doctors who answered the questionnaire, only 87 answered the portion dealing with these beliefs.

a patient with a smoking-related disease should not be allowed to smoke in hospital.

Discussion

During the period of this study 86% of 257 smokers admitted to our hospital smoked in hospital, which indicates that the present hospital policy places little or no importance on the health of the smoker. In fact, 67% of the patients admitted with smoking-related diseases continued to smoke, which presumably worsened their condition, although 74% of the doctors said they would not allow such patients to smoke in hospital. These patients were more likely to alter their smoking habits than the patients with diseases unrelated to smoking.

Doctors' orders appeared to be of no value in restricting smokers; patients advised or ordered not to smoke were just as likely to smoke as those not so advised or ordered. Also, patients who were ordered not to smoke were no more likely to comply than patients who were advised not to smoke. Doctors were no more likely to advise patients with smoking-related diseases than they were to advise those without a smoking-related disease. Lack of compliance may be the reason why doctors did not advise 41% of the smokers not to smoke in hospital.

Along with the problem of patients smoking in hospital, 32% of the nurses and 31% of the other professional staff with patient contact who responded to our questionnaire smoked; 96% of them smoked while in hospital, which shows a lack of concern for an exemplar role, a role that has been shown to influence the public.[3] Fewer doctors (19%) smoked, and they were more likely to not smoke in hospital (35%); however, the doctors who responded to the questionnaire accounted for only 52% of the medical staff.

That all the doctors were convinced that smoking is strongly associated with certain diseases is consistent with scientific evidence. The lack of consensus in some areas, however, suggests that all the medical staff could benefit from further education on smoking and health.

Table VI—Types of smoking policies preferred by medical staff

Type of policy	No. of workers		Total no. (and %)
	Smokers	Nonsmokers	
Total ban for staff and patients	4	20	24 (27)
Total ban for patients	0	4	4 (5)
Patients allowed to smoke in designated areas if permitted by physician	8	18	26 (30)
Patients allowed to smoke in designated areas other than patients' rooms	5	29	34 (39)
No restrictions	0	0	0
Total	17	71	88 (100)

With regard to the question on the types of policy favoured, 62% of the medical staff preferred a policy directed towards the health of the smoker, and 27% favoured a total ban; none opted for having no restrictions. Clearly, then, most doctors are not pleased with the current policy, which allowed 86% of the smokers studied to smoke while in hospital.

Of the 34 doctors who preferred a more lenient approach to smoking, 21 believed it was "impractical" to propose a stricter policy. Presumably, then, if the practicalities could be worked out, many of these doctors would prefer a stricter policy. Only 9% of all the doctors felt it was of no value to restrict patients from smoking in hospital, and only 13% believed patients had a right to smoke in hospital.

Conclusion

Smoking is a neglected factor in the treatment of inpatients. Diet, level of activity and drugs are all carefully controlled, and the patient is not allowed to take unprescribed drugs. Yet smoking, which results in the intake of many chemicals,[4] is neglected. Cigarette smoke interferes with the efficacy of certain drugs and therefore the treatment of diseases; for example, theophylline for asthma,[5] imipramine for depression[6] and propranolol for angina.[7] Nicotine, when contained in the chewing gum Nicorette, is a prescription drug. Therefore, it would be logical that smoking in hospital be permitted only by prescription and that the quantity and effect on the patient be monitored. However, this is obviously not the case.

Our current hospital policy reflects a concern about the social aspects of smoking and the dangers of breathing second-hand smoke but ignores smoking as being harmful to the smoker, the current scientific knowledge and the attitudes of the medical staff towards smoking.

Doctors are sufficiently concerned about smoking in hospital, but to advise patients not to smoke is of little or no value. Doctors cannot be expected to work alone on this huge problem. Hospital administrators and all other staff should work together to reduce smoking.

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Smoking in hospital

It may seem a strange principle to enunciate as the very first requirement in a Hospital that it should do the sick no harm.

— Florence Nightingale (1820–1910)