

## CLINICAL INVESTIGATIONS

# The Behaviour and Attitude of Physicians in the Lakes Region Towards Smoking

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Received: September 13, 2002

**Abstract:** This study was carried out on 401 physicians who work in the Lakes region, Turkey, to assess their behaviour and attitude towards smoking. A questionnaire based on guidelines and standardised questions prepared by the World Health Organization was given to physicians. Of the physicians, 136 (33.9%) had never tried to smoke in their lives and 45 (11.2%) were former smokers. Of the 220 (54.9%) physicians who had smoked for at least 6 months in their lifetime, 46 (11.5%) were ex-smokers. Of the current smokers, 135 (77.6%) were daily smokers and 39 (22.4%) were occasional smokers. Fifty-two (43.7%) general practitioners, 34 (28.3%) research assistants, and 49 (30.2%) specialist physicians were current daily smokers. The daily smoking rate was 31.0% in the physicians of surgical medicine, 29.2% in the physicians of internal medicine and 25.0% in the physicians of basic medicine. Of the current smokers, 124 (71.3%) considered giving up smoking and 98 (56.3%) had tried to give up smoking. The mean age for trying the first cigarette was 19.4 years and the major reason was peer influence. Of the current smokers, 164 (94.3%) considered smoking harmful to health, 148 (85.1%) worried that smoking was harmful to their health, whereas 19 (10.9%) did not worry about it at all. Concerning the diseases related to smoking, the knowledge level of the physicians was similar among different groups of physicians. Of all the physicians, 218 (54.4%) thought that their current knowledge was enough to persuade patients to stop smoking and 190 (47.4%) would always or frequently asked questions about the smoking habits of their patients. One hundred and sixty-seven (41.6%) did not believe that an increase in tobacco prices would have an impact on the prevalence of smoking. In conclusion, it is possible to say that if physicians themselves were not smokers and models, they could have more influence on patients' smoking cessation.

**Key Words:** Physician, smoking, prevalence, behaviour, attitude

## Introduction

As long as the use of tobacco continues at present levels around the world, tobacco-related diseases and deaths will remain a big problem for all societies (1,2).

Physicians cannot only contribute to the improvement of health care but they can also play an important role in shaping their patients' behaviour. Physicians can achieve this goal by encouraging their patients to lead a healthy life by being excellent models for their community (3). In particular, those physicians who smoke frequently may not play an effective role in convincing their own patients to give up smoking (4,5).

This study was carried out to determine the prevalence of smoking in physicians from the Lakes region of Turkey and their behaviour and attitude towards smoking.

## Materials and Methods

In 2001, a questionnaire was distributed to 601 physicians in the Lakes region of Central Anatolia including 4 cities (Isparta, Burdur, Dinar and Beyşehir), and 401 physicians replied to the questionnaire. In this study, a questionnaire based on guidelines and standardised questions prepared by the World Health Organization (WHO) was given to respondents. The questionnaire asked respondents about their past, present and future smoking habits, the knowledge and attitudes of physicians to tobacco use, and the responsibilities of health sector workers in this matter.

Physicians were grouped into the following 4 categories according to their smoking habits: 1). Current smokers (those who reported smoking during the study period and who had smoked in the past 6 months or had

smoked 5 packets of cigarettes or more in their lifetime); 2). Former smokers (those who had smoked at least 1 whole cigarette in their lifetime but had not smoked in the past 6 months); 3). Ex-smokers (those who had smoked for at least 6 months in their lifetime but had now stopped); and 4). Non-smokers (those who had never tried a cigarette in their lifetime).

Statistical analyses were conducted by the SPSS statistical package (SPSS 9.1 for Windows, Chicago, IL). The prevalence of smoking and differences between the groups were analysed using the chi-squared test. One-way analysis of variance (ANOVA) was used to compare the mean scores. All statistical tests were 2-tailed and a P value less than 0.05 was considered significant.

**Results**

The smoking status of the physicians shown in Table 1. One hundred and seventy-four (43.4%) physicians were current smokers, 45 (11.2%) were former smokers, 46 (11.5%) were ex-smokers and 136 (33.9%) were non-smokers. Of the 174 current smokers, 135 (77.6%) physicians were daily smokers and 39 (22.4%) physicians were occasional smokers. Fifty-two (43.7%) general practitioners, 34 (28.3%)

research assistants and 49 (30.2%) specialist physicians were current daily smokers. The daily smoking rate was 31.0% in the physicians of surgical medicine, 29.2% in the physicians of internal medicine and 25.0% in the physicians of basic medicine.

Male and female physicians showed different smoking habits: 128 (46.2%) male physicians and 46 (37.1%) female physicians were current smokers. Higher rates of smoking were found for males in each of the physician groups and the difference between the male and female physicians was statistically significant (P = 0.013). The largest difference in smoking rates between male and female physicians was found among research assistants.

Former smokers and ex-smokers were more prevalent among male physicians. The percentage of former smokers was higher among general practitioners and for ex-smokers it was higher among specialist physicians. All former smokers and ex-smokers reported stopping smoking “on their own” without any smoking cessation forms of professional assistance or support group.

Of 95 married physicians who smoked daily, 35 partners of the physicians were current daily smokers, 12 were occasional current smokers and 32 had never smoked.

Table 1. Smoking status of physicians.

	General practitioners n(%)	Research assistants n(%)	Specialist physicians n(%)	P value
Non-smokers				0.024
Male	18(25.4)	29(38.7)	37(28.2)	
Female	17(35.4)	24(53.3)	11(35.5)	
Total	35(29.4)	53(44.2)	48(29.6)	
Ex-smokers				0.132
Male	9(12.7)	8(10.7)	21(16.0)	
Female	0(0.0)	4(8.9)	4(12.9)	
Total	9(7.6)	12(10.0)	25(15.4)	
Former smokers				0.005
Male	4(5.6)	7(9.3)	16(12.2)	
Female	10(20.8)	5(11.1)	3(9.7)	
Total	14(17.8)	12(10.0)	19(11.7)	
Current smokers				0.118
Male	40(56.3)	31(41.3)	57(43.5)	
Female	21(43.8)	12(26.7)	13(41.9)	
Total	61(51.3)	43(35.8)	70(43.2)	
Total	119	120	162	

Of the 135 daily smokers, 22 (16.3%) reported that they smoked between 1 and 5 cigarettes per day, 26 (19.3%) smoked 5-10 cigarettes per day, 66 (48.9%) smoked 10-20 cigarettes per day and 21 (15.6%) smoked 20-40 cigarettes per day. The average cigarette consumption was  $15.4 \pm 8.2$  cigarettes (range 2-45) per day,  $16.1 \pm 8.6$  cigarettes per day among male physicians and  $13.3 \pm 6.4$  cigarettes per day among female physicians.

The mean age for trying the first cigarette among the current smokers was  $19.6 \pm 4.1$  years, among former smokers was  $15.4 \pm 5.8$  years and among ex-smokers was  $19.2 \pm 4.7$  years. The mean age of smoking initiation was statistically different between male physicians ( $18.9 \pm 4.3$  years) and females physicians ( $20.8 \pm 4.1$  years) ( $P = 0.007$ ). Two-thirds of the current smokers had started smoking while at medical school.

The major reasons for trying the first cigarette were peer influence (35.5%), stress (32.6%), affectation (19.3%), curiosity (9.0%) and the desire to belong to a group (1.5%).

Even though 63.2% of the current smokers consumed the same amount of tobacco as in the previous year, 124 (71.3%) reported that they had considered stopping smoking. Of the current smokers, 98 (56.3%) indicated that they had made a serious attempt to stop smoking in the past. The main reasons for trying to stop in the past were risk to future health (33.3%), measure of claim and self-control (25.3%), and ill-health or discomfort (16.1%).

When asked to predict their smoking behaviour within the next 5 years, 99 (56.9%) of the current smokers reported that they expected to stop smoking and 55 (31.6%) reported that they would probably still be smoking.

Of the current smokers, 164 (94.3%) considered smoking harmful to health and 148 (85.1%) worried that smoking was harmful to their health, whereas 19 (10.9%) did not worry about it.

One hundred and ninety (47.4%) physicians always or frequently asked questions about the smoking habits of their patients.

Although 93.7% of smoking physicians and 88.5% of non-smoking physicians encouraged their patients to give up smoking as they had smoking-related diseases, only 38.0% of smoking physicians and 42.7% of non-smoking physicians advised their patients to give up smoking even though they did not have any smoking-related diseases.

The mean knowledge scores obtained about common diseases related to smoking for each group of physicians are given in Table 2. The knowledge level of the physicians was similar among different groups of physicians. It was found that 27.2% of the physicians had no knowledge about neonatal death, 21.2% about soft tissue lesions, 18.5% about bladder cancer and 16.0% about leukoplakia, all related to smoking.

The major reasons for not smoking among physicians are given in Table 3. It is clear that protection of personal health is a major reason for not smoking.

Table 2. The mean knowledge scores obtained about common diseases related to smoking for each physician group.

	General practitioners (%)	Research assistants (%)	Specialist physicians (%)	P value
Bladder cancer	79.8	89.2	77.2	0.000
Coronary artery disease	98.3	91.7	92.6	0.133
Lung cancer	98.3	92.5	94.4	0.302
Chronic bronchitis	96.6	91.7	92.6	0.329
Oral cancer	92.4	91.7	92.0	0.081
Emphysema	87.4	83.3	89.5	0.388
Laryngeal cancer	96.6	90.8	92.0	0.420
Peripheral vascular disease	92.4	90.0	92.6	0.293
Leukoplakia	88.2	82.5	82.1	0.536
Soft tissue lesion	82.4	75.8	78.4	0.940
Neonatal mortality	76.5	70.0	72.2	0.920
Serebro-vascular disease	93.3	83.3	87.7	0.512
Mean knowledge score	$10.9 \pm 1.8$	$10.8 \pm 2.4$	$10.6 \pm 2.9$	0.975

Table 3. Reasons for not smoking among physicians.

Reason	Physicians' smoking status		P value
	Smokers (%)	Non-smokers (%)	
Health protection	83.9	86.3	0.622
Self discipline	47.7	52.4	0.080
Example for children	42.5	44.1	0.731
To not harm partners and children	37.4	40.1	0.729
Discomfort to others	43.1	33.0	0.929
Symptoms related to smoking	39.1	28.2	0.052
Example for patients	28.2	33.0	0.851
To save money	24.7	29.1	0.008
Example socially	14.4	20.7	0.632
Example to health workers	10.9	20.3	0.054
Pressure from my partner	11.5	1.8	0.000
Pressure from my children	10.3	2.2	0.000
Pressure from colleagues	2.9	1.8	0.074

The positive responses of physicians about their exemplary role in smoking cessation are presented in Table 4. Compared to non-smokers, smokers were less convinced as to why doctors should set a good example to their patients by their own behaviour (P = 0.001).

The attitudes of physicians towards legislation designed to control the prevalence of smoking are given in Table 5. Smokers were considerably less enthusiastic about the legal restriction of smoking in public places, the sharp rise in the selling price of tobacco products and on whether health professionals should get specific training on how to support patients who want to stop smoking than were non-smoking physicians.

### Discussion

Although it is believed that physicians have a tendency to smoke tobacco less than the general population, reports have suggested that the smoking habits of physicians remain relatively prevalent among them (4,6). In the survey, 46.2% of the male physicians and 37.1% of the female physicians were active smokers. In 1988, it was observed that smoking prevalence was 62.8% in men and 24.3% in women for the Turkish population (7). Studies carried out in Turkey up to now have shown that the prevalence of current smoking lies between 22.4% and 54.0% for physicians (7,8).

Table 4. Positive responses of physicians about their exemplary role in smoking cessation.

Reason	Physicians' smoking status		P value
	Smokers (%)	Non-smokers (%)	
It is the responsibility of doctors to convince people to stop smoking	98 (56.3)	121 (53.3)	0.374
Most smokers can stop smoking if they want to	145 (83.3)	198 (87.2)	0.153
Doctors should set a good example by not smoking	120 (69.0)	187 (82.4)	0.001
Most smokers are not able to stop smoking, despite a physician's advice	157 (90.2)	197 (86.8)	0.940
Doctors should go beyond the activity of diffusing knowledge about the hazards of smoking	113 (65.0)	148 (65.2)	0.854
Your present knowledge is sufficient to persuade patients to quit smoking	93 (53.4)	125 (55.1)	0.165
On every appropriate occasion you should persuade a patient to quit smoking	102 (58.6)	144 (63.4)	0.302

Table 5. Attitudes of physicians towards legislation designed to control the prevalence of smoking.

Reason	Physicians' smoking status		P value
	Smokers (%)	Non-smokers (%)	
Cigarette packages should contain health warnings	85.1	85.9	0.133
Smoking in public places should be prohibited	90.8	93.4	0.029
The price of tobacco products should increase sharply	43.1	62.6	0.000
Health professionals should get specific training on how to help patients who want to stop smoking	80.5	88.1	0.019
Cigarette sales should be prohibited to those under the age of 18	87.4	88.5	0.332
Smoking in hospitals should be restricted to special areas	86.2	86.8	0.676
Tobacco advertising should be totally banned	85.1	84.6	0.956

The highest percentage of smokers was found in the physicians of surgical medicine and the lowest percentage of smokers was found in the physicians of basic medicine. This finding is consistent with the findings of other studies (3).

The mean age for trying the first cigarette among the current smokers was 19.4 and two-thirds of them had started smoking while at medical school. Although the age of starting smoking in physicians is considerably higher than in many other countries (4,9), the habit of smoking is very common in the early stages of medical school.

Fifty-seven percent of respondents who participated in this survey stated that they had never thought of stopping smoking and 56.9% of those stated that they would try to stop smoking in the coming 5 years. These findings reflected the fact that more than half of the physicians had the necessary courage and motivation to quit smoking.

Patients expect physicians to behave in accordance with the requirements of their career. Physicians who are active smokers cannot make their patients give up smoking as efficiently as their non-smoking colleagues (4,10). It was seen that an increase was observed in patients' smoking levels; many got the courage to smoke when they saw the hospital staff smoke more than they did (3). In the survey, one-third of the smoking physicians did not agree with the belief that non-smoking physicians were good role models for their environments.

Many studies have shown that smoking physicians do not advise their patients efficiently enough to give up smoking as they are expected to do (5,11). In this study,

although 93.7% of smoking physicians and 88.5% of non-smoking physicians urged their patients to give up smoking if they had smoking-related diseases, only 38.0% of smoking physicians and 42.7% of non-smoking physicians advised their patients to give up smoking when they did not have any smoking-related diseases. These findings clearly reflect that physicians do not, unfortunately, carry out their tasks properly enough to prevent smoking-related diseases.

As health educators, physicians who smoke are unaware of the importance of their career and so it is very difficult for them to discourage their patients from smoking (12,13). In this survey, 56.3% of smoking respondents believe that it is the responsibility of physicians to persuade people to stop smoking.

Short but persistent advice given by physicians on whether to give up smoking or not is accepted as an important factor in this matter (14,15). There are several reasons explaining why physicians are incapable of persuading patients who want to stop smoking to give up, and one of them is a lack of undergraduate and postgraduate training (16,17). However, 218 (54.4%) of those surveyed think they have enough knowledge to persuade their patients to stop smoking, and 190 (47.4%) physicians claim that they always question their patients' smoking behaviour.

Physicians who smoke were against any increase in cigarette prices but almost all of the physicians were in favor of a total ban of cigarette advertising and on cigarette packet warnings such as "smoking damages your health". Physicians who smoke are more opposed to anti-smoking measures, whereas non-smoking physicians do not care about that as much as reported by Tessier et al.

(18). Solving the smoking epidemic is vital for public health care and it requires legislative actions designed to control tobacco. It has been proved that anti-smoking measures have significantly decreased the smoking rate on a global scale (19,20).

In order to establish decreases in smoking among the general populace, it is important to publish data concerning smoking prevalence in physicians and to stress their exemplary roles. In addition, in this study physicians reported a need for greater knowledge and skill in order

to help people quit smoking. For this, more attention should be paid to smoking in studies of medical students and in the postgraduate studies of physicians.

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## References

1. Murray CJL, Lopez AD. Assessing the burden of disease that can be attributed to specific risk factors. *Lancet* 349: 1498-1504, 1996.
2. Picciotto MR. Common aspects of the action of nicotine and other drugs of abuse. *Drug Alcohol Depend* 51: 165-172, 1998.
3. Samuels N. Smoking among hospital doctors in Israel and their attitudes regarding anti-smoking legislation. *Public Health* 111: 285-288, 1997.
4. Dekker HM, Looman CWN, Adriaanse HP, et al. Prevalence of smoking in physicians and medical students, and the generation effect in the Netherlands. *Soc Sci Med* 36: 817-822, 1993.
5. Frisch AS, Kurtz M, Shamsuddin K. Knowledge, attitudes and preventive efforts of Malaysian medical students regarding exposure to environmental tobacco and cigarette smoking. *J Adolesc* 22: 627-634, 1999.
6. Richmond R. Teaching medical students about tobacco. *Thorax* 54: 70-78, 1999.
7. Kocabaş A. Türkiye'de sigara içme alışkanlığının yaygınlığı ve bazı özellikleri. *Solunum* 5: 133-147, 1994.
8. Esen A, Yorgancıoğlu A, Çelik P. Celal Bayar Üniversitesi Hastanesinde çalışan hekimlerin sigara içme davranışına karşı tutumları. *Tüberküloz ve Toraks* 46: 250-255, 1998.
9. Vlainac H, Adanja B, Jarebinski M. Cigarette smoking among medical students in Belgrade related to parental smoking habits. *Soc Sci Med* 29: 891-894, 1989.
10. Olive KE, Ballard JA. Attitudes of patients toward smoking by health professionals. *Public Health Rep* 107: 335-339, 1992.
11. Waalkens HJ, Schotanus JC, Adriaanse H, Knol K. Smoking habits in medical students and physicians in Groningen, The Netherlands. *Eur Respir J* 5: 49-52, 1992.
12. Nelson DE, Giovino GA, Emont SL, et al. Trends in cigarette smoking among US physicians and nurses. *JAMA* 271: 1273-1275, 1994.
13. Hussain SF, Tjeder-Burton S, Campbell IA, et al. Attitudes to smoking and smoking habits among hospital staff. *Thorax* 48: 174-175, 1993.
14. Xiang H, Wang Z, Stallones L, et al. Cigarette smoking among medical college students in Wuhan, People's Republic of China. *Prev Med* 29: 210-215, 1999.
15. Cummings SR, Coates TJ, Richard RJ, et al. Training physicians in counseling about smoking cessation. *Ann Int Med* 110: 640-647, 1989.
16. Richmond RL, Kehoe L. Smoking behaviour and attitudes among Australian medical students. *Med Educ* 31: 169-176, 1997.
17. Willcox ML. Tobacco control programmes for universities: a feasibility study. *J Public Health Med* 19: 37-44, 1997.
18. Tessier JF, Freour P, Belougue D, et al. Smoking habits and attitudes of medical students towards smoking and anti-smoking campaigns in nine Asian countries. *Int J Epidemiol* 21: 298-304, 1992.
19. Kumar A, Mohan U, Jain VC. Academicians' attitudes and beliefs towards anti-smoking measures. *Public Health* 110: 241-246, 1996.
20. Karanci NA, Rustemli A. Smoking typology in a Turkish sample. *Int J Addic* 22: 289-299, 1987.