

# Original Article

## Characteristics of smoking among physicians in the Federal District of Brazil\*

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### Abstract

**Objective:** To profile the characteristics of smoking among physicians working in the Federal District of Brazil. **Methods:** A questionnaire on smoking, adapted from that used by the World Health Organization, was mailed to all physicians registered with the Federal District Regional Council of Medicine. Of the 7023 questionnaires mailed, 830 (12%) were duly completed and returned. **Results:** Among the physicians participating in the study, the prevalence of smoking was 7.2% (5.9% being regular smokers and 1.3% being occasional smokers). The remainder of the sample consisted of nonsmokers (70.1%) and former smokers (22.7%). In terms of gender, approximately 8.5% of the male physicians were smokers, compared with 5.3% of the female physicians ( $p > 0.05$ ). Of the physicians who smoked, 80% had taken up the habit before the age of 20, 13% from 21 to 30, and 7% after the age of 31. The prevalence of smoking by specialty was as follows: Surgeons, 10.3%; Anesthesiologists, 10.3%; Clinicians, 9.1%; Gynecologists, 2.9%; and Pediatricians, 2.4%. Approximately 75% of the smoking physicians had been advised by their own doctors to stop smoking, although only 34.9% had tried to quit smoking with the preceding year. Of the physicians responding, 57.1% agreed that smoking is a health hazard, and yet 26.3% reported smoking in hospitals or in their offices. **Conclusion:** Efforts to control smoking in the Federal District should be intensified and, despite the fact that the prevalence of smoking is declining among physicians, smoking cessation programs should target this population.

**Keywords:** Smoking; Physicians; Smoking cessation.

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## Introduction

Smoking is considered a global epidemic, reaching significant proportions in many countries. It is, in fact, the leading single, avoidable cause of disease and death in the western world.<sup>(1)</sup>

Until very recently, smoking was regarded as a lifestyle and, for approximately three centuries, the physicians themselves promoted it, believing that tobacco was a therapeutic drug. Thus the use of tobacco, in different forms, progressively expanded.<sup>(2)</sup> Many years passed before physicians discovered its harmful effects and radically changed their views on tobacco consumption. Today, smoking is considered to be a disease caused by the dependence on a drug, nicotine,<sup>(4)</sup> leading to the direct or indirect death, by diseases related to its consumption, of approximately five million people each year.<sup>(1,5,6)</sup>

Evaluation research of the prevalence of smoking among physicians is encouraged and prioritized by the World Health Organization, which posits that health professionals should be the primary target of antismoking campaigns due to the fundamental advisory role they play in the prevention and cessation of smoking among their patients and in the population at large.<sup>(7)</sup>

The objective of this study was to investigate the characteristics of smoking among physicians in the Federal District of Brazil, with the purpose of furthering the implementation of antismoking strategies within this population.

## Methods

This was an analytical cross-sectional study, carried out as a survey in the first semester of 2005 and involving only physicians practicing in the Federal District. This study comprised Brazilian physicians living in this region and registered with the Federal District Regional Council of Medicine.

In order to calculate the size of the sample, the proportion of  $p$  for smoking physicians in the Federal District was estimated to be 15%. This datum was obtained from a study carried out in 1991.<sup>(8)</sup> In order to allow the calculation of 95% confidence intervals, we adopted an alpha error of 3% as the desired level of precision for determining prevalence. Based on these parameters, we identified 595 as the number of physicians that would compose an ideal sample for the development of the present study.

To obtain the necessary data on tobacco use in this population, we used a questionnaire designed by the World Health Organization, adapted for use in Brazil and validated by the Brazilian National Cancer Institute. The survey, containing questions related to the smoking habit, is divided into three domains and directed at regular smokers, occasional smokers, former smokers and nonsmokers. It was distributed via a one-time mailing to all physicians registered with the Federal District Regional Council of Medicine, translating to a total of 7023 physicians. These professionals were invited to participate in the study anonymously, presenting the justification of its purposes. The questionnaire was accompanied by a return postage-paid envelope. The mailing was conducted between January and April of 2005, and the responses were evaluated between May and June of the same year. The project was evaluated and approved by the Ethics in Human Research Committee of the University of Brasília School of Health Sciences.

In order to evaluate the degree of nicotine dependence, we used only the question concerning the time elapsed between waking and lighting the first cigarette. Smokers who smoked within the first hour after waking were considered highly dependent on nicotine.

Certain medical specialties were grouped according to similarity of function: clinicians, surgeons, gynecologists, pediatricians and anesthesiologists.

Data analysis was conducted using descriptive statistics, with mean and standard deviation, in addition to the chi-square test used to identify correlations among the variables analyzed. Values of  $p < 0.05$  were considered statistically significant.

## Results

Of the questionnaires mailed, 830 were duly completed and returned (corresponding to 12% of the target population). Of the physicians who replied, 70.1% characterized themselves as nonsmokers, 22.7% as former smokers and 7.2% as smokers, of which 5.9% were regular smokers, and 1.3% were occasional smokers.

There were no statistically significant gender-based differences ( $p > 0.05$ ). We observed that 8.5% of the male physicians and 5.3% of the female physicians were smokers.

With regard to the smoking habit according to age, we found that 22.5% of the physicians aged 31 to 60 years old were smokers, compared with only 7.5% of the physicians under 30 years of age and 5.1% of those over 61 years old, with statistically significant differences ( $p > 0.05$ ). According to the answers, 80% of the smokers started to smoke before the age of 20, 13% between the ages of 21 and 30, and 7% between the ages of 31 and 50 (Table 1).

Grouping the smokers according to their area of specialty, in order of greater prevalence of smoking, we found that surgeons and anesthesiologists led (10.3% each), followed by clinicians (9.1%), gynecologists (2.9%) and pediatricians (2.4%) (Table 1).

In inquiring about the type of tobacco most frequently used by the smokers, we observed that 94.7% used commercial cigarettes and 2.6% used cigars or hand-rolled cigarettes. We also observed the number of cigarettes this population smoked per day, and found that over half of the smokers (52.6%) smoked from one to ten cigarettes a day (Table 1). In addition, around 70% of the smokers reported the habit of smoking within the first hour after waking, indicating a high dependence on nicotine.

Concerning smoking habits and attitudes, we found that most smokers believed they could quit smoking (76.2%), suggesting, surprisingly, that most

of the evaluated physicians lacked information on nicotine dependence. Furthermore, approximately 75% reported they had been advised by their own physicians to stop smoking, and 68.3% intended to quit. However, only 34.9% of these smokers actually tried quitting in the preceding year. We highlight that 82.3% of the former smokers declared having quit smoking on their own.

Only 57.1% of the physicians agreed that smoking is a health hazard, and 26.3% stated that they smoked in hospitals or in their offices, which indicates negligence as to the damage caused by the use of tobacco, whether by active or passive smoking.

Even though the smokers had access to informative and preventive measures against smoking, regularly promoted by the public health services, such as the banning of smoking in public places, 77.4% reported being against such measures, and 77.8% were in favor of the creation of smoking areas in the workplace.

## Discussion

As it is well known, health professionals today, especially physicians, play a major role in the prevention, control and cessation of the use of tobacco.<sup>(9)</sup> For this reason, they should set an example, as nonsmokers, not only to the community, in general, but to patients wishing to quit smoking.<sup>(9-11)</sup>

Within this context, it is essential to evaluate the alarming conduct of physicians in relation to this habit, verified in national and international studies revealing the smoking habit among doctors.<sup>(10)</sup> This shows that, apparently, these professionals do not follow the advice and guidelines that they should be providing to their patients as to the harmful effects of smoking.

Unfortunately, there are few data available on the prevalence and smoking habit among the medical population in Brazil. We found that the prevalence of smoking among the physicians participating in this study was 7.2%, indicating that over the last 14 years, there was a major decline of this habit since 1991, when it was reported to be at 15%.<sup>(8)</sup> In that same year, another study,<sup>(12)</sup> involving only physicians working at the Brasilia General Hospital, reported a prevalence of 22.6%. Recently, some authors<sup>(13)</sup> investigated the prevalence of smoking among physicians of the ABC Paulista Region and

**Table 1** – Characteristics of smoking among physicians in relation to the prevalence according to areas of specialty, age at which smoking commenced and the number of cigarettes smoked per day.

	Variable	%
Prevalence according to the areas of specialty	Surgeons	10.3
	Anesthesiologists	10.3
	Clinicians	9.1
	Gynecologists	2.9
	Pediatricians	2.4
Age at initiation of the smoking habit	< 20 years	80
	21–30 years	13
	31–50 years	7
Number of cigarettes smoked per day	1–5	36.8
	6–10	15.8
	11–15	18.4
	16–20	21.1
	> 20	7.9

found that 8.5% of the physicians were smokers, similar to what was found in our study.

In evaluating the prevalence of smoking among physicians in Brazil, according to a survey conducted in 1996, obtained by spontaneous response, we observed that the prevalence of smoking among physicians evaluated in the present study is also similar to that the 6.4% found in that study.<sup>(14)</sup> However, we must consider the fact that these data might have been underestimated, since the smokers might represent exactly the portion that failed to respond.<sup>(15)</sup> We point out that the small number of questionnaires returned, although within the number calculated for the size of the sample, is the principal bias and limiting factor of this study.

The same tendency toward a reduction in the prevalence of smoking among physicians is seen worldwide. This is exemplified in the US, where, in 1945, it was observed that 60% of the physicians smoked, a rate that had dropped to 9% by 1986.<sup>(16,17)</sup> This smoking rate reduction profile is also perceived in England, where more than half of the physicians smoked prior to 1950, compared with the 1989 rate of 10%, probably due to the positive result of antismoking campaigns developed in that country.<sup>(18)</sup>

In some countries studied in 1987, the prevalence of smoking among physicians varied from 9% to 70%, and the highest rates were found in Poland (70%), the Netherlands (65%), Greece (50%), Spain (50%) and Hungary (50%).<sup>(19)</sup> According to a survey conducted in 1995 by the World Health Organization, the rates of smoking were also high among physicians in several Latin American countries. In that study, which encompassed Chile, Paraguay, Argentina and Uruguay, the mean prevalence of smoking was approximately 30%. In contrast, the prevalence of smoking in Cuba was 44%.<sup>(20)</sup>

Similar to what occurs in the population in general, we found that physicians who were smokers took up the habit during adolescence,<sup>(9)</sup> in the transition period between high school and higher education,<sup>(21,22)</sup> a fact that was also observed in the present study, which showed that smokers experimented and acquired the smoking habit before the age of 20. In addition, a little more than half (57.1%) of the physicians studied herein agreed that smoking is harmful to the health.

Therefore, even considering that many physicians became involved with tobacco prior to defining their

profession or started smoking during their university years,<sup>(10)</sup> all of them, while in medical school, were informed of the health hazards of smoking. However, recent studies<sup>(13,23)</sup> have shown that medical school courses might not be giving adequate attention to the topic of smoking in the university environment. In this sense, these professionals continue to smoke, possibly due to the difficulty in quitting caused by the strong nicotine dependence.<sup>(10)</sup> In this study, we were able to determine the effect of the chemical dependence, as evidenced by the fact that 70% of the smokers have their first cigarette within the first hour after waking. This study also confirmed that, although a large number of the professionals studied expressed an intention to quit smoking, some of whom had been advised to do so by their colleagues, only 35% had tried to stop within the preceding year.

In addition, it has been observed that some health professionals, mainly physicians, have neglected to advise their patients of the need to stop smoking and have failed to provide assistance to addicted patients. It has also been shown that over 70% of smokers wishing to stop smoking would like to receive medical support to that end. Therefore, the smoking habit among physicians limits their ability to assist individuals wishing to kick the smoking habit.<sup>(24)</sup>

In view of these facts, it is necessary that antismoking measures be directed toward physicians in general, aimed at aiding professionals intending to stop smoking and preventing medical students from taking up this habit. Smoking cessation by the population in general very much depends on the engagement of physicians in instructive measures on the hazards of this habit, and these professionals should therefore, above all, set a good example.<sup>(9,10,25)</sup>

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